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PREFACE

"International Conference on New Horizons in Education (INTE)" is an international educational activity for academics, teachers and researchers. INTE promotes development and dissemination of theoretical knowledge, conceptual research, and educational practices through conference activities, journals (TOJET, TOJNED and TOJDEL). Its focus is on creating, sharing, and disseminating scientific knowledge among academicians, school administrators and teachers in educational field. This conference is now a well-known educational event worldwide and the number of paper submissions and attendees are increasing every year.

The 6th International Conference on New Horizons in Education is being held between June 10-12, 2015 in Barcelona, Spain. This year INTE has received more than 800 abstract submissions. After a review process, araound 600 papers in various fields of education have been accepted for presentation in INTE 2015 Barcelona, Spain.

We would like to thank all participants who will present their academic works in INTE 2015, Barcelona and especially to our distinguished guests and keynote speakers for their collaboration and contribution for the success of the INTE-2015.

We wish you a successful conference and good time in Barcelona, Spain.

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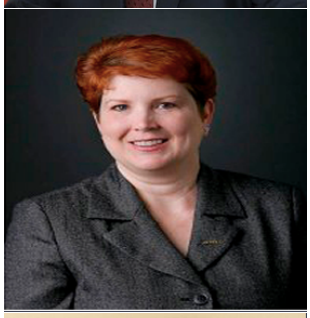

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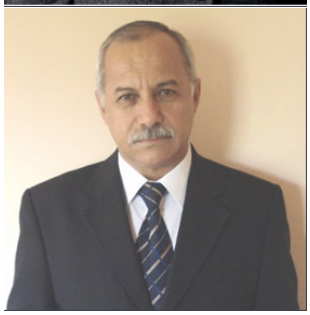

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"Using Statistics in Social Science "

DETERMINING THE COGNITIVE STRUCTURE OF STUDENTS IN FACULTY OF EDUCATION REGARDING THE CONCEPT "*ACADEMICIAN*"

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ABSTRACT
Universities are among educational institutions which raise human resources having the international qualifications needed by the country, are capable of carrying out research – development and regeneration in line with international standards and produce science and technology. From this aspect, universities play vital roles in both community development and the development of a country. The most important part of the universities, though, is comprised of academicians. Academicians have many duties such as responding to the needs of the constantly changing student profile, increased competitiveness, research and development studies, teaching through modern teaching methods, project design, community services and social responsibility. In this study, it is aimed to reveal the cognitive structures of students studying in the Faculties of Education regarding the concept of 'academician'. This study was carried out on a total of 60 candidate teachers studying at the Department of Primary Education in the Faculty of Education, Siirt University during 2014-2015 academic year. The qualitative research approach was used in this study. Data were collected by utilizing a 'Word Association Test'. The data obtained were organized and frequency values were calculated. As results of the research, it was determined that the cognitive structures of students studying in the Faculties of Education regarding the concept of 'academician' appear to be under three categories. These categories are academician's individual characteristics, academician's area of duties and academician's area of responsibility respectively.

Keywords: academician, education, university, higher education

INTRODUCTION

One of the most prominent institutions of today's information society is the universities. Universities are institutions that train elite staff by providing high level of education and training, do scientific and technological research, present research results for the benefit of society, and serve social and economic development (Erdem, 2013). In other words, universities are among educational institutions which raise human resources having the international qualifications needed by the country, are capable of carrying out research – development and regeneration in line with international standards and produce science and technology. From this aspect, universities play vital roles in both community development and the development of a country. The most important part of the universities, though, is comprised of academicians. The concepts *academician* and/or *academic* trace back to "*Akademeia*" founded by Plato. Akademia, however, traces back to *Akademos*, a sacred grove of olive trees in Athens, bought by Plato to teach students there (Erdem, 2008). When the literature related to the concept of 'academician' is examined, it is observed that the concept of 'academician' is often associated with academic activities. Accordingly, being an academician is described as teaching, discovery, integration, practices and clear objectives, adequate preparation, appropriate methods, significant results, effective presentations and characteristics which have been criticized in a detailed way (CCPH, 2005). Wikipedia defines "academic as a person who works as a teacher or researcher at a university or other higher education institution, does research studies and contributes to the literature by means of his/her original research". (www.wikipedia.org).

Ozturk (2008) purports that 'being an academician' means a creative and explorer person to carry out scientific research and produce new information. Boyner (1990) enumerates four different activities of the academics, namely the discovery of information, integration of the information, application of the information and teaching. Hattie and Marsh (2002), however, consider teaching, research, management and social service as the main activities of the academicians. Even though discussions about the concept of 'academician' and the fundamental dynamics that feed this concept go back a long way, the dilemma whether academicians should be teaching-oriented and/or research-oriented remains to be actual today (Odabasi, Fırat, İzmir, Çankaya and Mısırlı, 2010). Student profiles constantly changing in 21st century, meeting their needs, research and development studies, project design, teaching through modern teaching methods and techniques, community service practices and their social responsibility also result in constant change in the duties of the academicians. According to this, the academicians have to make young generations acquire academic capabilities required by the age, provide intellectual guidance and explore students' skills and offer development opportunities accordingly.

Together with a developing and changing world, the level of education is rising day by day. University graduates do not find undergraduate level sufficient only, and they are willing to have a master's degree in education. However, most undergraduate and graduate students would like to be an academician. Considering the last 35 years, it is reported that the number of universities increased to 176 in 2014, while it was 27 in 1982. The number of students which was roughly 282000 once reached to approximately 5,5 million, and the number of the academicians, once 22000, increased to 140000 in 2014 (Cetinsaya, 2014). Accordingly, it can be said that the number of academicians have increased each passing day and will also increase in the future. This context brings the question of the quality and quantity of academics front.

Academician is not only a person who teaches but also a person who shows learners how to obtain and develop knowledge and where to use it theoretically and practically, and a person who provides guidance to enable learners acquire the ability of this process. Ozturk (2008) states that the academicians are also research assistants and have responsibilities to carry out research. Meanwhile, there also exists a dimension of social service of the academicians. Academicians inform the public by organizing various seminars on the subjects they are experts. They inform the society by means of various media such as columns they wrote in newspapers, radio and television programs they broadcast, and article they wrote on the internet (Odabasi & Odabasi, 2007). Therefore, it will not be correct to consider academician as a distinct profession or a title itself.

According to this, revealing the cognitive structures of the students who thinks being an academician as their career in the future regarding the concept of 'academician' may be important to comprehend and know the concepts correctly. Concepts and propositions related to the relationships between concepts in individuals' minds constitute an information network or an information structure. Concepts are the basic elements of this information network. According to the constructivist learning theory, information is constructed in mind by the individual who actively uses his/her prior knowledge and previous experiences to make connections (Anderson 1992; Ausubel et al. 1978; Bodnar, 1986).

According to this theory, the cognitive structures present in mind affect new cognitive structures to be created and individuals' perceptions of new events because of the associations made with previous experiences. In this case, if students themselves are provided their cognitive structures, then it will provide them with an opportunity to think about alternative concepts they have already had and compare prior knowledge organization to a new one. Gilbert, Boulter and Rutherford (1998) state that it is very difficult to describe cognitive structures of the individuals, but it is highly crucial to reveal cognitive structures by means of key concepts. There are many methods and techniques to reveal the cognitive structures. One of them is the word association test.

Word association test is a technique developed to reveal associations people have between concepts. According to Ausubel, meaningful learning occurs when new information is associated with pre-existing concepts in the cognitive structure of the learner (Ausubel 1968). Understanding, however, is determined by the nature and number of the associations a person construct between information elements. In other words, because understanding is in proportion to the type and number of the associations a person establishes utilizing a single word, the number and variety of words the students associate with a word they are given as a stimulus provide information about their cognitive structures. Word association test is one of the alternative assessment techniques which enables us to reveal students' cognitive structures and the associations between the concepts, i.e. information network, and determine whether associations between concepts in long-term memory is sufficient or significant (Bahar, Johnston and Sutcliffe, 1999).

When the literature is examined, it is observed that there exist many studies utilizing word association tests. Bahar and Özatli (2003) studied the cognitive structures of high school students regading the basic components of living beings by utilizing word association method. Ercan and Taşdere (2010) studied the cognitive structures and conceptual change through word association test. Isik, Taşdere and Goz (2011) examined the cognitive structures of prospective teachers regarding Ataturk's principles by means of word association test. Köseoğlu and Bayir (2011) analyzed the cognitive structures of candidate chemistry teachers concerning the gravimetric analysis by using word association test method. Kurt, Ekici and Aksu (2013) studied and revealed the mental models of teacher candidates regarding the concept of '*salt*'. Word association tests are used for many different purposes, such as to reveal the cognitive structure, to identify misconceptions, to investigate conceptual change and to mental modeling.

Purpose of the Study

This research aims to reveal the cognitive structures of students studying in the Faculty of Education regarding the concept of 'academician' by making use of a word association test.

METHODOLGY

This is a qualitative study and according to Yıldırım and Şimşek (2005), qualitative studies are research methods that use observations, interviews and document reviews as data collection instruments, and supplies realistic and complete analyses of situations and events.

Study Group

The study group consists of 60 student teachers that enrolled Siirt University Education Faculty in 2014-2015 education year.

Data Collection

Independence word association test related to "*academician*" concept is used for the study. The data related to student teachers' cognitive structures are collected by this test.

Word Association Test: is one of the mostly appropriate techniques that used to identify individuals cognitive structures related to concepts, and the connections between concepts, that is, analyze knowledge network, whether the relations between concepts are sufficient or not in their long term memories (as cited in Kurt and Ekici, 2013). Participants, elementary department student teachers, completed independent word association test for "academician" concept. This technique is based on the assumption that answering with related stimulating word by not limiting the ideas bringing to mind that is independently (Atasoy, 2004; Bahar, and Özatlı, 2003; as cited in Kurt, Ekici, and Aksu, 2013).

Stimulating Word: Academician

Academician-1 : ……

Academician-2 : ……

Academician-3 : ……

Academician-4 : ……

Academician-5 : ……

Sentence: ……

As demonstrated above, word association test consists of two parts.

First Part; In a given limited time, participants write the terms related to academician concepts coming from their minds. 20 seconds is given to participants to complete 5 terms for "academician" during the test.

Second Part; In a given limited time, participants write a sentence related to key words. Again, 20 seconds is given to participants to write a sentence by using key terms in first part. During the analysis, each sentence is read and examined.

Data Analysis

Content analysis technique is used for data analysis. First of all, participants' were labeled from S1 to S60. The basic purpose of content analysis is to reach concepts and relations that explain the data (Yıldırım and Şimşek, 2005). The answers of the student teachers of word association test are analyzed by using number of words, number of answers and semantic relations technique. The words with the same meanings classified in mostly repeated words. Irrelevant with subject and other words or totally irrelevant words and used only one time are removed from the study (as cited in Kurt, Ekici and Aksu, 2013).

To increase the validity of the study, a literature search related to word association tests were done and expert opinions were taken into account. Additionally, coding procedure of the data and the data analysis process are explained in detail. Teacher students' participated the study voluntarily here it is aimed to them to reflect their opinions totally. To increase the reliability of the study, direct quotations are taken for the categories. Additionally, two researchers' categories and codes are compared with each other to see whether each word represent the same category or not. Two biology experts coded and categorized the data independently and then researchers give the final shape to the codes and categories by using their own opinions.

FINDINGS

At the end of the data analysis procedure of the word association test of student teachers from elementary department about their cognitive structures related to academician concept, 3 categories are determined by using the words. These categories and the words in each category are presented in table-1.

Table-1. The Distribution of Cognitive Structures of Student Teachers Related to "Academician" Concept

Category	Concepts in the Category	Frequency	Total Frequency

Individual Properties of Academician	Knowledgeable	26	**83**
	Guide	10	
	Teaching	8	
	Successful	6	
	Experienced	5	
	Equipped	5	
	Hard worker	3	
	Suggestive	2	
	Discipline	2	
	Freedom	2	
	Creative	2	
	Researcher	2	
	Oppressive	2	
	Unlearned	2	
	Incomprehensible	2	
	Authoritarian	2	
	Backing	2	
Profession Area of Academician	Lecturer/Instructor	13	**60**
	Teacher	10	
	Research Assistant	7	
	Master	6	
	Dean	4	
	Educationist	4	
	Expert	4	
	Professor	3	
	Rector	3	
	Associate Professor	2	
	Assistant Professor	2	
	Administered	2	
Responsibility Area of Academician	University	18	**54**
	Career	8	
	Student	8	
	Education	4	
	Training	4	
	Research	2	
	Lesson	2	
	Professional title	2	
	High Level Knowledge	2	
	Higher Education	2	
	Time	2	

Student teachers derived 241 words for the "*academician*" concept during the study. However, some of them are removed from the study as described in Kurt (2013), because of irrelevance with subject and other words or totally irrelevant words and used only one time. So three categories are designed for academician concept as represented in table-1 at the end of the data analysis process. These categories are "*individual properties of academician*", "*profession area of academician*", and "*responsibility area of academician*". Totally 199 words are used to describe these categories.

The first category, "*individual properties of academician*", is a category that has a biggest frequency (f=83). In this category, while most of the participant focused on positive properties of academicians like "*knowledgeable*", "*guide*", "*teaching*", "*successful*", "*experienced*", "*equipped*", "*hard worker*", "*suggestive*", "*discipline*", "*freedom*", "*creative*", and "*researcher*", some of them are focused on negative properties like "*oppressive*", "*unlearned*", "*incomprehensible*", "*authoritarian*", and "*backing*". The removed words, so that used only one time, are "*tolerance*", "*well disciplined*", "*elite*", "*model*", and "*responsible*". In this category, some sentences constructed by student teachers are listed as following:

> "*Academician is a person that performs scientific researchers and give answers with experienced and self-confidence*" S2.
>
> "*Person which gives knowledge and direction to individuals' development in a university*" S3.

"*Academician is a researcher that guides students and improves him/her selves at the same time*" S5

"*In general, unlearned people that settling down to work with backing and devoicing democratizations in higher education institution*" S7.

"*At the end of the long years, a person gains experience and knowledge, and reaches freedom*" S8.

"*Profession area of academician*" is determined as the second category of this study (f=60). This category, includes the words; "*lecturer/instructor*", "*teacher*", "*research assistant*", "*master*", "*dean*", "*educationist*", "*expert*", "*professor*", "*rector*", "*associate professor*", "*assistant professor*", and "*administered*". Student teachers are focused on professional title and work of academicians. The removed words, so that used only one time, are "*assistant*", "*presentation*", "*PhD*", "*thesis*" and "*article*". In this category, some sentences constructed by student teachers are listed as following:

"*A teacher that is helping us to have high level knowledge and that improve himself*" S1.

"*Communities that creates techniques to teach knowledge and skills to students as a source*" S23.

"*Students graduated from universities, can work as an academician in universities after passing some exams like ALES*" S24.

"*An authoritarian and disciplined instructor forces students in lesson*" S27.

"*A university teacher that have special education*" S29.

"*In universities and high education institutions, a person that researches and making academic studies having some titles like assistant professor, associate professor*" S42.

"*Responsibility area of academician*" is categorized as the third category of this research (f=54). This category, includes the words; "*university*", "*career*", "*student*", "*education*", "*training*", "*research*", "*lesson*", "*professional title*", "*high level knowledge*", "*higher education*" and "*time*". The removed words, so that used only one time, are "*institution*", "*source*" and "*community*". In this category, some sentences constructed by student teachers are listed as following:

"*Academician prepares presentations and thesis in academic level in universities*" S4.

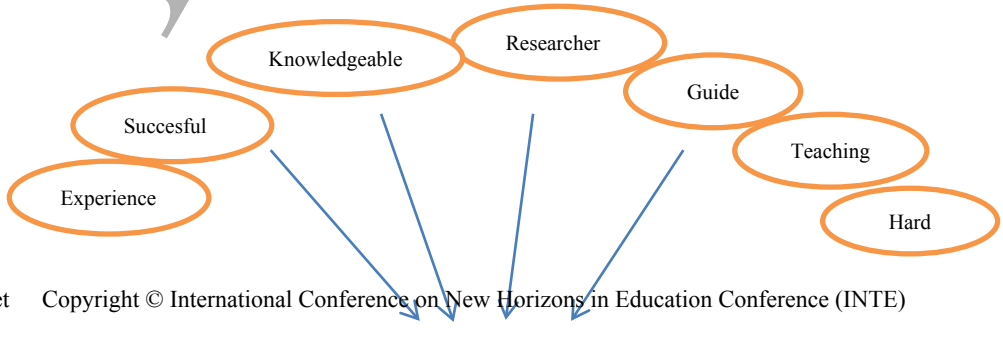
"*Academicians should be more knowledgeable and have higher positions*" S17.

"*Visionary people that aims success and working in this way in life*" S54.

DISCUSSION, RESULTS AND SUGGESTIONS

This study is conducted for the aim of the determination of cognitive structure by using the concepts related to "academician" concept of student teachers in education faculty. At the end of the study, it is found that there are three categories of cognitive structures related to academician concept. These are; "*individual properties of academician*", "*profession area of academician*", and "*responsibility area of academician*". Totally 40 different words and totally 199 answers were obtained from word association test used for the study. The "individual properties of academician" category is found as the category that has biggest frequency value and the most concentrated cognitive structure of teacher students. In this category, while most of the participant focused on positive properties of academicians like "*knowledgeable*", "*guide*", "*teaching*", "*successful*", "*experienced*", "*equipped*", "*hard worker*", "*suggestive*", "*discipline*", "*freedom*", "*creative*" and "*researcher*", some of them are focused on negative properties like "*oppressive*", "*unlearned*", "*incomprehensible*", "*authoritarian*", and "*backing*". So it is found that student teachers have positive and negative associations about academician concept.

This means, student teachers not only think positive dimensions of academicians' individual properties but also they think the negative properties of academicians in their minds and cognitive structures. Academicians are working in the highest positions of the universities. They have some positive properties that like successful, equipped, hard worker and guide. These properties are considered as to be a model by teacher students. Academicians should be careful in their attitudes and behaviors to construct correct definition in the students' minds. Polat, Apak and Akdağ (2013) states that students, in elementary teachers departments are developing positive and negative imageries for academician concept. In another study, Demirtaş and Çoban (2014) states that students are creating negative metaphors for teaching staffs in the universities especially for authority theme.



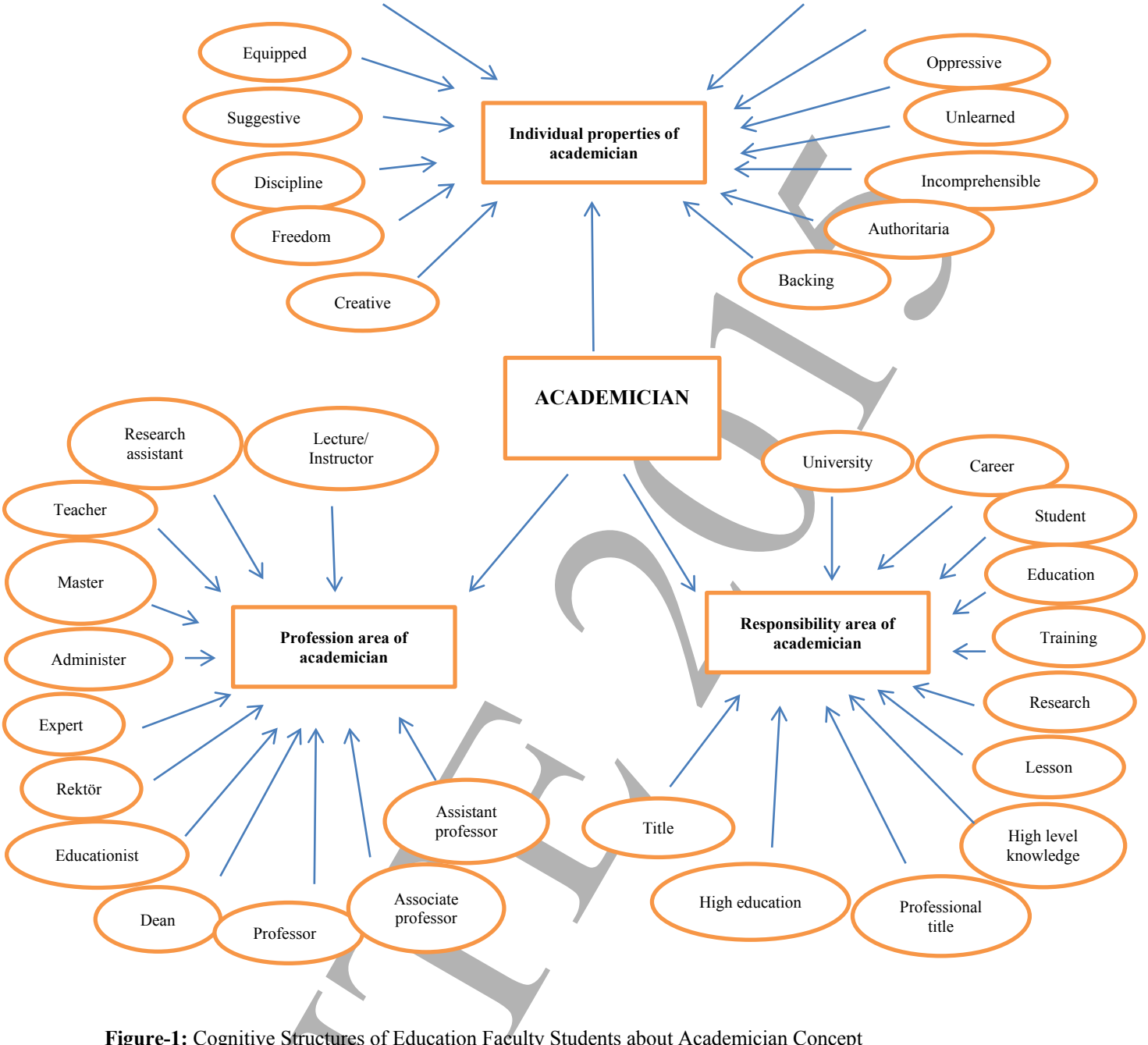


Figure-1: Cognitive Structures of Education Faculty Students about Academician Concept

Student teachers determined academician in "*profession area*" by using the words; "*lecturer/instructor*", "*teacher*", "*research assistant*", "*master*", "*dean*", "*professor*", "*rector*", "*associate professor*", and "*administered*". According to this category, It can be said that student teachers constructs academician concept in mind by using the words including academic titles or their professional area. Due to rule with numbered 2914 and 3. item of it in higher education institution (YÖK) law, teaching staff is categorized in three in universities. These are instructors, lecturers and co-lecturers. Professors, associate professors and assistant professors are the parts of instructors. Lecturers are the second classified part. Research assistants and experts are the third category of this classification (Higher Education Personal Law, YÖK, 1983). In the study, student teachers are mostly associate academician with lecturer/instructor. Additionally, Öztürk (2008) states that the term of instructor, that has the right to vote in rector selections and PhD degree, is missing for the academician concept. Academicians have a responsible and valuable profession in society. Akademisyenlik meslek itibariyle toplumda saygın ve değerli bir yere sahiptir. It requires continuous productivity. This situation requires observation, research, investigations and discovery. And also academicians must improve their knowledge each day to reach current information. So association with only title and professional area may not be sufficient and correct. In this category, student teachers secondly associate academician concept with "teacher". Odabaşı, Fırat, İzmirli, Çankaya ve Mısırlı (2010) states that the basic professions of academicians are being teachers and improve students' knowledge, mind, character and skills.

Student teachers associate academician concept in "*responsibility area of academicians*" by using the words; *university, career, student, education, training, and professional title.* This shows that student teachers have some alternative conceptions related to academician concept. It can be said that they associate this term with their responsibilities. Polat, Apak and Akdağ (2013) states that while students are explaining academician term, they are imaging the most powerful dimensions of academicians and students reflect the most powerful dimensions. According to Büken (2006) describe academicians as a people that have extensive knowledge, cultured, broad horizon, create communities developing dynamics, and brain team of the society. Additionally, Büken defines three basic role of academicians as education and training, scientific research and provide community awareness on geography. While student teachers associate academician term with education, training and students, they are not associated it with scientist and serving society dimensions. Öztürk (2008) describe the priority of academicians as performing scientific researches. Odabaşı, Fırat, İzmirli, Çankaya and Mısırlı (2010) states that academicians benefit society with community service missions. Academicians are valuable people that inform and enlighten the community with their roles in society (Büken, 2006). Academician concept is a multi-dimensional term that includes education and training dimension, research and knowledge dimension, inform society and solve problems dimensions. So, associating academician concept as a job is not right and appropriate.

As a result of this study, student teachers' academician concept should be constructed and examined in a correct way in cognitive structures. Insufficiency of academician concept in cognitive structure may cause negative behaviors towards academicians during university life and negatively respecting them after university. So the number of the studies related to academician concept should be increased. The researchers should design new studies with extensive and different samples and by using alternative techniques different from word association test like structured grid, analogy, concept maps, survey and interviews.

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EĞITIM KURUMLARININ YÖNETIMINDE STRATEJIK PLANLAMANIN YERI VE ÖNEMI

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Sağlık ve güvenlik başta olmak üzere tüm sosyal uygunluk şartlarının karşılanmasında olduğu gibi, insanların tercihleri doğrultusunda eğitim alma hakkını da sağlamanın, gelişmiş bir toplumun temel özellikleri arasında olması gerekliliği evrensel bir olgudur. Bu çerçevede uluslar yasal uygulamalarla desteklenen temel eğitim politikalarını belirlemektedirler. Politikalar doğrultusunda tasarlanan eğitim sistemlerinin başarı faktörlerinin çıktıları uzun vadede elde edilebilmekte ve sonuçlar o ulusun geleceğini şekillendirmektedir. Bu durum, eğitim sistemlerinde hem ulusal hem de kurumsal düzeyde stratejik düşünme, planlama ve yönetme gerekliliğini beraberinde getirmektedir. Stratejik planlar eğitim kurumunun mevcut durumunun analizi çalışması ile başlayıp kurumun var olan misyonu ve gelecek vizyonuna uygun olarak sonraki yıllarını şekillendirecek amaçların, hedeflerin, faaliyetlerin, performans göstergelerinin ve kaynakların belirlenmesi çalışmaları ile devam etmektedir. Bu çalışmada, eğitim kurumlarında stratejik plan hazırlama süreci, bu sürecin eğitim kurumlarına sağladığı katkılar değerlendirilmektedir. Stratejik planların sürdürülebilirliği ve stratejik planlarda yer alan uygulamaların performansının izlenmesine yönelik bir yükseköğretim kurumu için tasarlanan yönetim bilgi sistemi modeli sunulmaktadır.

Keywords: Eğitim Kurumlarında Yönetim, Stratejik Planlama, Performans Değerlendirme

EĞİTİMDE YARATICI DÜŞÜNMEYİ ORTAYA ÇIKARMADA ŞARTLI ÇIKARIMLARIN KULLANIMI

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Eğitim-öğretimde verimli sonuçlar alınabilmesi için çeşitli program ve yöntemler denenmektedir. Yaratıcı düşünme ve bunun neticesinde orjinal fikir ya da eser üretme günümüzde üzerinde çokça düşünülen meselelerdendir. Öncelikle yaratıcı düşünme denilince teknik alanlarda ortaya konulan ve insan hayatını kolaylaştıran cihazların bulunuşu akla gelmektedir. Modern dönemin insanı, adeta teknolojinin esiri olarak yaşamaktadır. Bu yüzden "yaratıcı düşünme", teknik alanlara dair icadları çağrıştırmaktadır. Oysaki sanattan başlamak üzere felsefe, etik, siyaset vb. pek çok disiplinde yaratıcı düşünmenin öneminden ve gerekliliğinden söz edilebilir. İşte bu sunumda, eğitim-öğretim açısından yaratıcı düşünmenin önemi ve gerekliliği araştırılırken bir akıl yürütme metodu olarak şartlı çıkarımların kullanımı ele alınacaktır. Aslında Sokrat'tan bu yana diyalektik yöntemde kullanılan şartlı çıkarımların yeni bir fikir üretmediği ve verili olan bilgiyi muhataba onaylatmak veya reddettirmek dışında bir işe yaramadığı iddia edilmiştir. Bu akıl yürütme türünde, muhatap esas alınarak çıkarımlar gerçekleştirilmekte gibi gözükmektedir. Ne var ki şartlı çıkarımlarda –ister bitişik şartlı isterse de ayrık şartlı olsun- öne sürülen düşüncenin belli bir yapı içerisinde oluşturulmuş olması yaratıcı bir düşünme etkinliğini gerektirmektedir. Yine karşıt veya birbirini gerektiren durumların kurgulanabilmesi yaratıcı bir eylemin neticesindedir. Ayrıca şartlı çıkarımlarla yapılan düşünme belli bir akışı da ortaya çıkarmaktadır. Böyle düşünme şekline sahip olanlar daha hızlı sonuca ulaşırken aynı zamanda yeni fikirler de üretebilmektedirler. Buna göre sunumumuzda şartlı çıkarımların eğitim-öğretim açısından önemi ve gerekliliği araştırılırken yaratıcı düşünmeye katkısı sorgulanacaktır.

Keywords: eğitim, şartlı çıkarımlar, yaratıcı düşünme

ELEMENTS OF HUMAN CAPITAL DEVELOPMENT ACCORDING TO HASAN AL-BANNA

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ABSTRACT
The process of human capital development is very much emphasized in Islam. It is clearly seen in the purpose of the Prophet's (pbuh) apostleship in this world, which is to enhance human morality. The history of Prophet's (pbuh) success in implementing the process of human capital development is a lesson for the Muslim that human capital development is the main agenda in human existence. Al-Banna as a renowned preacher had expressed his own views on deeds which develop human capital. One of al-Banna's views being applied concerns the ten elements of human capital development, which this article attempts to discuss.

Keywords: Human capital development; Hasan al-Banna.

INTRODUCTION

The word "development" means "regarding developing, the act or process of developing, (achieve progress, growth)." The second meaning of the word "development" is "effort or activity of developing (to advance, grow)" (Hajah Noresah, B., 2005). Thus human capital development means effort or activity of developing (advancing and growing) man's own self. According to al-Ghazali (2005), human capital development begins from human formation in two main aspects, the physical and the spiritual. In the process of human development, both aspects require good and proper management so that the end result is a human with high morals. However, the spiritual aspect plays the main role in forming an individual with a consistently moral high ground through his body. Miskawayh (1961) explained that human capital development is a development effort focused on three elements of strength found in each man, the elements of strength of mind, strength of desire and strength of anger. Strength of mind or mental strength is the capacity of a person to do a rationalisation process through his mind, which requires to be filled with knowledge from time to time. The strength of desire is the strength which demands fulfilment of various desires such as desire to eat, drink, delights, beauty and so on. And the strength of anger has the inclination to dishonourable traits such as anger, envy, greed, vengefulness, miserliness and so on. Thus, strength of mind needs to guide and educate the other two strengths, to subdue the strengths of desire and anger in order for the person to develop into a good and proper human being. Sayyid Sabiq (1963) has the view that human capital development is a process of developing a human being involving six elements of strength in each individual. It requires strength of belief (*aqidah*), moral character, knowledge, economy, social unity and striving (*jihad*) to defend peace. All these strengths are basic elements in the process of human capital

development, such that if these elements in a person are weak, it will cause weakness in him so that he will not develop. Hence these elements need to be comprehensively dealt with until he surely and steadily possesses these elements. Al-Qardawi (2004) has the opinion that human capital development begins with the basis of faith to Allah SWT, and plays the role of the main motivator or key driver of all of a person's actions. With this basis of belief, he proposes that the primary focus of human capital development be on four dimensions of the human self in equilibrium, namely human mind or mental, spiritual, physical and behaviour. The human mind needs to be filled with knowledge, the spirit with devotion to Allah or proper worship, the physical with recreation and human behaviour with goodness or moral fibre. From the above description, it can be inferred that man is the implementer of development effort and at the same time the object or material to be developed. In addition, the effort of human capital development must be comprehensive and balanced between physical and spiritual aspects of human nature. Hence, human capital development may be defined as a holistic development effort by man towards his own self to change to a much better condition while maintaining a certain good condition. Thus developed, man may become capital to function properly as administrator of nature.

DISCUSSION: AL-BANNA'S ELEMENTS OF HUMAN CAPITAL DEVELOPMENT

Al-Banna (1992) had submitted his view on the elements of human capital development by outlining ten domains of the elements. These are good health, good morals or honourable character, highly knowledgeable, self-reliance, possess authentic faith (*aqidah*), performing proper worship (*ibadah*), self-control, smart time management, discipline in conduct of affairs and contribution to society. Therefore, each individual who undergoes the process of development is required to have all these ten elements of human capital development.

First element is good health, The Prophet Muhammad (pbuh) once said: Meaning: "Mukmin who are strong are better and more loved by Allah then those who are weak" (Muslim, 2006). The hadith teaches that each mukmin is required to be strong and far from weaknesses, and to be strong one must first be healthy. One must not only have a healthy body, but must maintain and improve good health from time to time. The starting point in the effort for human capital development is sound health, after which other matters may be implemented. To ensure good health, one must be physically fit, by doing activities which build up and maintain the organ systems of the anatomy such as the digestive system, circulation system, lymphatic system, respiratory system, body heat regulation system and so on. The activities one does will make one more robust, able to resist diseases and maintain good health. Not doing these activities will make one weaker by the day (Vasudevan, T. A., 1989). Miskawayh (1961) suggested that one who wishes to maintain good health needs to obtain basic energy from daily foods selected for the nutrition required for the body and not purely for good taste. Ruaain Mustari (1994) added that good diet includes permissible (*halal*), clean, easily digestible, sufficiently nutritious, fresh, proper and suitable for the individual concerned. Other than food, in order to maintain physical health, one also has to abandon activities which physically harm the body. This refers to a strict regimen of keeping away from substances which harm the body such as by not smoking, drinking alcohol or taking drugs, avoiding instant food or excessive sugar and so on (Hatta, S. *et al*., 2003). It can be inferred from the above explanation, that the element of good health is the first step towards shaping and developing an individual. With good health, it becomes possible to properly perform responsibilities and trust obligations which an unhealthy person would find difficulty to do. Thus, physical health is the first prerequisite for human capital development activity.

Good morals is second element, as explained by Miqdad Yaljin (1973), good moral is a model constructed from revelation to organize human life to be the most proper in form. It functions as a guide for man to implement in his behaviour in every aspect of life. In the effort to have good morals, 'Afif 'Abd al-Fattah Tabbarah (n.d.) stated that a person must have the character and behave in the manner as outlined by al-Quran and illustrated by the example of the Prophet (pbuh), consistently and unwaveringly without being mixed with bad behaviour. This is embodied in the Words of Allah SWT: Meaning: "And surely, you have a sublime character" (al-Quran, al-Qalam: 4). Good morals includes two aspects, the external physical self and inner or internal human self. The internal human self is the main focus in the process to achieve good morals. The external physical human requires the individual to act with good morals in every aspect of his life such as speaking the truth, keeping promises, combing the hair and so on (Miqdad Yaljin, 1973). And the internal human self is behaviour which is not acted out by the physical body and is intangible to the senses, such as being patient, not being arrogant, good intention (*ujub*), pride (*riyak*), consistently sincere in every act and so on (Abdul Jalil, B., 2008). 'Abd al-Karim Zaydan (1993) holds the opinion that reform is possible if a three-pronged or integrated training is carried out. First, strive as best as possible to reduce bad traits which need to be changed as well as matters related to the bad traits. Second, cleanse and eliminate dishonourable traits while at the same time direct the self to good morals. And third, replace bad traits and behaviour with good traits such as telling lies with saying truth, cruelty with justice, betrayal with trustworthiness and so on. It can be inferred that good morals are a much needed element by every individual to develop himself. The moral values as shown through the examples of al-Quran and Sunnah of the Prophet (pbuh) constitute a superior model towards developing excellent human capital. With

such a model, a good and harmonious relationship will always exist between man and his Creator, Allah S.W.T, between man and man and between man and the whole world.

Third element is highly knowledgeable, being knowledgeable and constantly improving one's knowledge is the foundation to man's maturation, with knowledge, man becomes developed and successful. In contrast, the absence of knowledge is a factor which makes a man weak, lowly and dishonourable (Wan Mohd Nor, W. D., 1989). The level of one's knowledge distinguishes him from others, the higher the knowledge the higher his rank. In fact, a highly knowledgeable person gains more benefits in the process of developing himself and his society (Mohd Yusof, O., 1998). The position of a knowledgeable person is higher than one without knowledge in the eyes of Allah S.W.T. as He says: Meaning: "Allah will raise to high ranks those who have faith and those who have been granted knowledge among you. And Allah is well-acquainted with all that you do" (al-Quran, al-Mujadalah: 11). Mohd. Kamal Hassan (1988) explained that the prime purpose of acquiring high knowledge is to be a pious, righteous and devout slave who obeys all Allah's commands and does not contravene divine laws, not for the sake of merely enriching one with knowledge and information. This is explained by Allah S.W.T.: Meaning: "Verily from among His servants, it is the learned who fear (to go against the command) of Allah. Allah is the Almighty and Most Forgiving" (al-Quran, Fatir: 28). The effect of acquiring high knowledge with appreciation for the main objective of acquiring knowledge to be a righteous slave of Allah is to produce a man rich in knowledge and capable of using the knowledge to govern the world in a proper, fair and completely civilized manner (Syed Muhammad Naquib al-Attas 2007). The method of acquiring high knowledge may be done through the process of observing, using the human senses to obtain information whether through hearing, sight, or touch in addition to thinking, to generate knowledge. The efforts required to improve knowledge are reading, attending knowledge sessions, teaching and learning (Mohd Yusof, O., 1998). From the above explanation it can be inferred that a high mastery of knowledge is the trigger to human capital development towards producing a man capable of properly governing his own self and the world in the manner acceptable to Allah SWT. Without the element of knowledge, it is difficult to improve one's personal status to a higher level and this will adversely affect man's function as the administrator of nature.

Self-reliance is the fourth element of human capital development. Za'ba (1982) explained that the person who has the element of independence or self-reliance is one with the characteristic of depending on his own self in every task and responsibility entrusted to him, and who will plan and determine on his own how he does things, and is ready to bear the consequences, good or bad, of his actions. The lesson in al-Quran on self-reliance may be taken from the explanation in the following verse: Meaning: "It is He Who created death as well as life, so that He may test you to bring out which of you is best in conduct (*amal*). And He is the All-Mighty (in rewarding your deeds), the Most Forgiving for those who repent" (al-Quran, al-Mulk: 2). 'Abdullah Yusuf 'Ali (2001) explained the above verse that life in this world is for us to strive persistently and earnestly to do all the good works or deeds for the purpose of achieving an honourable station in the sight of Allah SWT. Za'ba (1982) adds that the word (*amal*) in the above verse clearly shows that deeds which should be properly implemented are deeds which ought to be done by one's own self, not by others or by hoping that others would do. The prerequisite characteristics of an independent person are that he has a Muslim identity without imitating anyone, he has the knowledge so that he does not have to always depend on others in matters he does not know of, the skill to ensure the task is properly executed, the capacity to do and he makes the effort persistently without giving up in carrying out the task and responsibility (Unit Kajian dan Penyelidikan Pusat Da'wah Islamiah 2005). Fadzli Adam (2010) explained that the impact of an independent or self-reliance is a person with a high fighting spirit, is competitive and does not easily give in, will carry on against all odds until the task is properly completed. Further, Jawiah Dakir (2008) added that he is also not easily satisfied and will only stop on completion of a task. Further, he will continue being diligent and hardworking doing other necessary tasks. Za'ba (1982) explained that efforts made independently are not only focused on works for success in this world, but also include works or worship (*ibadah*) for success in the hereafter. Success in this world and the hereafter will be achieved with excellence by independent or self-reliance persons. It can be inferred here that efforts to develop the self, require the element of self-reliance in the implementation of all affairs. One cannot hope for others to develop themselves, they themselves must independently develop their own selves. Likewise in every aspect of life, one has to rely on oneself to properly implement a matter until its completion. With the element of independence or self-reliance, one is able to develop not only oneself, but even the society and the environment as well.

Next element is authentic *aqidah* (faith or belief). The word *aqidah* originates from the Arabic language which means "knot in a rope" or "pledge of loyalty or allegiance". Thus it connotes a matter beyond doubt and suspicion, strong, stable and will not change (al-Razi, M. A. B., n.d.). In practice, *aqidah* is belief and confidence of a person, in other words, faith in a matter one adheres to (Sayyid Sabiq, 2000). The desire to believe in a religion is a natural disposition (*fitrah*) of humans. However, man is responsible to ensure that the faith he has is

really genuine or truly from man's own Creator. This responsibility is explained by Allah SWT Himself: Meaning: "(When their infidelity was made obvious) (O Muhammad and your followers) set your face in devotion to the true faith. (Be Steadfast) in the "religion of Allah", that is the religion which Allah created for mankind (who was prepared from the beginning) to accept it. There is no change in (the laws of) the creation of Allah. That is the true religion, although most men do not know it" (al-Quran, al-Rum: 30). In explaining the authenticity of *aqidah*, Al-Qaradawi (1973) states that there is genuine *aqidah* in a person if it has the four essences: first, *aqidah* is based on the truth of revelation from Allah SWT; second, *aqidah* must be really strong, confident and firmly established, without any doubt or suspicion whatsoever, and it will not change under any circumstances and will remain strong; third, confidence towards *aqidah* must be followed up by obedience, acceptance and implementaion of all the commands and avoidance of all that are prohibited by Allah SWT without any objection; and fourth, *aqidah* must be capable of becoming the prime motivator of its owner to implement all actions or behaviour, earnestly and whole-heartedly and be willing to sacrifice body and soul and property to implement everything contained in his *aqidah*. Muhammad al-Khatib (1996) explained that authentic *aqidah* consists of three basic matters which every Muslim must believe in. The first is related to faith in the Divine Unity of Allah SWT through His Divine Attributes, Names and all that is associated with the Essence (*Zat*) of Allah SWT; secondly, belief in all the prophets and apostles of Allah, angels and scriptures of Allah SWT; and third, belief in the celestial (*sam'iyyat*) and unseen (*ghaybiyyat*) such as heaven, hell, sin, reward, day of resurrection, Divine Will and Decree (*qada'* and *qadar*) and so on. It may be inferred from the above explanation that having an authentic *aqidah* is the key condition and trigger in human development, the mould in which effort in human capital development is shaped based on authentic *aqidah*. Without it, one is unable to develop oneself. Only with authentic *aqidah* can a person be properly and truly developed, and guaranteed of security and well-being in this world and the hereafter.

The sixth element of human capital development is proper performance of worship (*Ibadah*). Worship (*ibadah*) is the main responsibility which is required of mankind, because Allah created man to worship Him. This is asserted by Allah SWT: Meaning: "And (remember) I created the jinn and mankind that they might worship and pay their devotions to Me" (al-Quran, al-Dhariyat: 56). 'Ali 'Abd al-Latif Mansur (1991) explained what is meant by proper worship, it consists of three basic elements: first, the element of submission and obedience of the worshipper must be tied to the whole of Allah's *shariah* and the teachings of the Prophet (pbuh) in terms of commands and prohibitions as well as the permissible (halal) and forbidden (haram); the second element is that the obedience of the worshipper must be from his heart, full of love for Allah SWT; and third, the element of fear of committing sins and bad and fear of neglecting what is enjoined by Allah SWT. Al-Qaradawi (1971) divides worship into two parts: first, obligatory worship which is prescribed in Islam as to time, rate and method of implementation, which cannot be changed or amended, namely prayers (*solah*), payment of tithe (*zakah*), fasting (*sawm*) and pilgrimage (haj); second, worship which is not specified as to time, rate and method of implementation, this worship covers all charitable deeds which accord with Islamic teachings. Thus, Ibn Taymiyyah (1969) explained that the scope of worship (*ibadah*) in Islam covers any matter which is consistent with acceptance and love of Allah SWT, whether in the form of words and deeds or in some other form whether noticeable by the human senses or otherwise. Further, Al-Qaradawi (1971) states that worship (*ibadah*) includes all human charitable acts or deeds throughout his life including the category of worship proper so long as the act or deed has the five following characteristics: first, it must be consistent with and not contradict to Islamic *shariah*; second, it must be with righteous or pious (*salih*) intention; third, it must be properly and thoroughly done; fourth, it must not transgress the limits set by Allah such as causing injustice and taking of others' rights; and the fifth, worldly charitable acts or deeds must not cause others to neglect and forget Allah and their religious obligations. From the above explanation, it can be inferred that every slave of Allah SWT who wishes to develop himself has to constantly ensure that all his acts and deeds in his daily life are included in the category of worship (*ibadah*) to Allah, thus directly including the process of human capital development within the framework of worship (*ibadah*) proper blessed by Allah SWT, otherwise the act or deed will be in vain in His sight.

Next element is self-control element. Man was created with intelligence and desire, thus he needs to control himself in order to be always obedient to Allah. This is in contrast to angels who are by nature created without desire and thus are by natural disposition obedient to Allah, while vegetation and animals are not given responsibility because they are created without intellect (al-Qaradawi, 2009). Allah SWT has given reminders for man to control himself in daily life, as mentioned: Meaning: "But as for those who feared to stand before their Lord (to be judged), and curbed the lower desires of their soul, - Truly, Paradise will be their abode". (al-Quran, al-Naziat: 40-41). Ibn Qayyim al-Jawziyyah (1961) had classified the human self into three levels: the first level is known as the lowest level, *al-nafs al-ammarah*, the level where man has the tendency to commit evil; the second level is the middle level, *al-nafs al-lawwamah*, the level where man regrets his past actions, this regret is the result of a reflection process (*muhasabah*) in oneself; the highest process is *al-nafs al-mutma'innah*,

the level where man is always tranquil with faith and confidence towards Allah SWT, always acting in piety and keeping from sin. In order to control and improve the self to reach the level of *al-nafs al-mutma'innah*, Ibn Qayyim (1999) suggested four methods of self-control, to be implemented in an integrated manner. First, one has to endeavour to learn and understand religious knowledge; second, one has to seriously practise all that is learnt in a conscientious, good and proper way; third, one has to earnestly and wisely spread the knowledge learnt to others; and fourthly, one has to exercise patience and perseverance when faced with trials and tribulations in implementing the above three methods. From the above explanation, it may be inferred that the element of self-control is very much required by every human who wishes to develop himself, because each man has the tendency to do bad and mistakes since he is created with inherent desires by Allah. However, man is also endowed with intelligence which functions to evaluate between good and bad, hence one need to consistently control and guide oneself. Successful self-control and self-guidance will transform one into a developed state accepted by Allah.

Smart Time Management is one of the elements of human capital development. Allah said: Meaning: "By time! Indeed! Man is in loss, except those who believe and do good deeds, and exhort one another to the truth, and exhort one another to patience." (al-Quran, al-Asr: 1-3). In order to know what is really meant by time for living man to utilise, al-Qaradawi (1991) gives three characteristics of time: first, time passes too quickly and cannot be stopped by man; second, past time cannot be replaced or turned back; and third, because time is irreplaceable, it is the most valuable resource of man. As time is most precious to man, Reha Mustafa (1999) in his master's research suggested three ways of interacting with time: first, always take benefit by using time available to do good and be obedient to Allah; second, to take care of opportunities and advantages available; and third, take heed of past examples and models. Lester R. Bittel (1991) suggested some guidelines for doing something according to good time management. Matters more important are to be identified and given priority over less important matters. The first priority is to do the more important matters which must be implemented immediately or according to prescribed time. The second priority is to implement the matters which should be done. The third priority is to implement matters which are good to be implemented and completed. And the fourth priority is to do the less important matters. After ensuring the four priorities above, Marion E. Haynes (1987) explained that the third and fourth priorities may change according to the time period prescribed to complete the work, such as the second may change to become third priority if the time prescribed to complete the work is earlier than the second priority which takes longer and vice versa. In order to ensure full implementation of the planned time management, Ab. Fatah Hasan suggested keeping a daily written or printed record of the whole plan of action according to the categories determined, including records of all activities whether professionally related or not. These records will serve as a guide in implementing an affair according to its proper time (Ab. Fattah, H., 1991). It can be inferred from the above explanation that the process of human capital development needs to involve smart time management, because time is the most precious resource of man which he would lose if not properly utilised. Thus, each man needs to constantly look after his time from being wasted in vain and must never once waste any time. Therefore, each man who wishes to develop himself must be wise or smart in managing time, utilise the time available in doing good and plan all activities which should always be done as scheduled.

Ninth element is discipline in conduct of affairs. Mustafa Haji Daud (1994) defines discipline as striving with determination, dedication, conscientiousness and diligence in fulfilling tasks and responsibilities. Such discipline will give a good effect on schedule compliance, rules, time and so on. Discipline also is a process which controls one's behaviour, through an order given in the form of rules of behaviour and certain specified regulations to achieve a certain level or objective. Only through compliance with the order and its implementation as planned, will a person be known as disciplined (Grant, C. A., 1982). The characteristics of a disciplined person are stated in a 1979 Report of the Cabinet Committee to Study the Implementation of Education Policy as follows: a) Respects and complies with stipulated laws; b) Works or implements an affair with sufficient orderliness; c) Respects the rights of other individuals; d) Practices good behaviour and does not disturb others' interests; e) Mutually respect one another with a helping spirit; f) Constantly improves existing condition and willing to serve society (Laporan Jawatankuasa Kabinet Mengkaji Pelaksanaan Dasar Pelajaran 1979). The discipline element is very closely associated with planning. A disciplined person will act in accordance and exactly as prescribed in the planning of an affair, while at the same time, all affairs will be done within the time frame prescribed and in a good and proper manner until the objective is achieved as planned (Azinal Abidin, M. S., 1991). Abdul Razak Sulaiman (1991) explained that before planning action steps for an affair, the objective has to be first determined followed by planning and prescribing the action steps necessary to be implemented with full discipline to achieve the objective of the affair. Wan Azmi Ramli (1981) added that at the time of implementing an affair, a disciplined person needs to go through the process of control and assessment for the implementation of the planned task. This process is conducted so that the task does not deviate from the prescribed guidelines and rules and the desired objective or level is achieved. It can be inferred that the element of discipline is very necessary to

ensure that each affair is implemented as planned and the objective is properly achieved. The path of an affair implemented without discipline may easily become chaotic and the planned objective may be difficult to achieve. Thus, one who wishes to develop himself needs to possess the element of discipline.

And the tenth element of human capital development is contributing to society. Helping each other is the basis to contributing to society. A society where people mutually help each other illustrates that consensus and harmony exist in the community. Allah SWT gives guidance that mankind needs to practice a culture of helping each other in society. However, helping each other must only be in the framework of goodness, as Allah says in al-Quran: Meaning: "Help one another in furthering virtue and God-consciousness, and not in what is wicked and sinful" (al-Quran, al-Maidah: 2). Contributing to society, as explained by Abdul Rahman Abdul Aziz, is a process of helping humans to overcome difficulties in life, whether at the level of individual, group, community or organization, with the objective of effectively overcoming all problems (Abdul Rahman, A. A., 2002). Al-Qaradawi (1971) explained that the advantage of reward for charitable deeds will cease when one dies, but however this is not the case when one contributes to society. The reward for contribution to society will endure even after one dies, so long as one's contribution continues to benefit others. Al-Qaradawi (1971) also explained that works of contribution to society may be implemented in various ways from small to big scale affairs, such as being good to others, helping others, giving advice, fulfilling someone's wishes, service to the destitute and indigent or orphans, and so on. Before one contributes to others, one must first ascertain the target level so that the contribution may be effectively and well planned. The target is classified by Sabitha Marican (2008) into four levels: first, the contribution to the individual, second to the family, third to a small group of individuals, and fourth to the community. In addition, Iran Herman (2002) asserted that before one gives contribution to a member of society, it is necessary to know and to properly examine the background of the target so that the objective of one's contribution is really achieved, only then may the contribution be given to them in the manner appropriate with their needs and current priority of the target. Hepworth (1990) divided the forms of contribution to society into several types: first, in the form of direct service to individuals or a social group whether in physical or financial form and so on; second, as a link between members of society and a certain organization which gives service to members of society; third, as a builder, maintainer and reinforce of a system of organizations which give service to members of society and fourth, in the form of research done for the welfare of society. Sabitha Marican (2008) states that contribution to society may be done by two ways: individually and through a particular organized system. Individual contribution is direct contribution of certain persons to members of society such as charity to the indigent and orphans, teaching knowledge to others and so on, whereas through an organization is contribution by a group with an orderly plan and system such as welfare and voluntary bodies, mosques, schools, Islamic movement, *baitulmal* (treasury) and so on. It may be inferred from the above explanation, that the element of contribution to society is an important requirement in the development of human capital. The result of this element will secure the continuity and ongoing sustainability of the effort for human capital development. In addition, the resulting development will not be limited for the enjoyment of only certain individuals but will be felt by the whole society every time, thus this element will make the effort to develop human capital balanced and comprehensive.

CONCLUSION

From the above discussion, it can be concluded that the ten elements of human capital development as submitted by Hasan al-Banna are holistic, encompassing physical, emotional, spiritual and intellectual aspects. The elements coincide with the personal traits required of a good Muslim by Islam, and are built from the framework of Islamic tenets based on al-Quran and as-Sunnah. Therefore, the elements of human capital development by al-Banna should be the main objective to be targeted by each Muslim in order to achieve self-development.

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ELICITING PROSPECTIVE MIDDLE SCHOOL MATHEMATICS TEACHERS' CONCEPTIONS OF QUADRILATERALS THROUGH THEIR DEFINITIONS

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The purpose of this study was to elicit prospective middle school mathematics teachers' conceptions of quadrilaterals through their definition processes. The study was conducted by using a phenomenological research tradition as one form of qualitative research methodology. The participants of the study were 133 freshman, sophomore, junior and senior prospective middle school mathematics teachers enrolled in a Turkish public university. The data were collected by an open ended test asking students to define the following six geometric concepts: trapezoid, parallelogram, rectangle, rhombus, deltoid, and square. The written data were analyzed by using content analysis technique. The results revealed that prospective middle school mathematics teachers' definitions manifested some logical difficulties about the aforementioned quadrilaterals. More specifically, their definitions of quadrilaterals consisted of some conditions that were either necessary but not sufficient or sufficient but not necessary. This hinted at the idea that participants' difficulties might be related to the lack of understanding quadrilaterals and to their critical attributes. The results also showed that prospective middle school mathematics teachers mostly used exclusive definitions of quadrilaterals. However, in mathematics education it is important for students to use inclusive definitions in order for them to build new knowledge on previously learned concepts and make connections among novel and prior concepts. Hence, we recommend that it is crucial to enhance prospective middle school mathematics teachers' knowledge and awareness of geometric definitions to help students achieve sound mathematical understandings about various types of quadrilaterals.

Keywords: prospective middle school mathematics teachers, quadrilaterals, definitions

EMBEDDING THE PERCEPTION OF ORGANIZATIONAL CULTURE IN THE STUDIES OF SPORT MANAGEMENT

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ABSTRACT
The aim of this paper is to provide an overview of the modes which are currently used to increase the students' perception of the theory and practice regarding the organizational culture in the studies of sport management. The increased interest in the phenomenon of organizational culture in the sports industry and sport as such has led to an attempt to define the meaning of what this concept means in terms of organizations' performance and human resources management in sport and its sectors, namely public, non-profit and professional. On the basis of this, the paper offers a conceptual framework of how to embed the topic of organizational culture in sport management studies. The teaching methods which could be appropriate for the development and enhancement of the perception of this in the nature of an intangible topic in a sports context are discussed. The case study from Czech Republic is presented based on the qualitative analysis of the students' assignments.

INTRODUCTION
The concept of organizational culture has been heavily researched since the 1980s, alongside its growing popularity in management texts. Based on Schein's work (1985) many other authors have developed this challenging issue, especially in relation to organizational leadership, human resources management and organizational performance. Sports organizations are no exception when it comes to the basic principles of organizational culture. In spite of this fact there has been little research and scholarly writing regarding this topic in sport management. Weese (1995a, 1995b, 1996) offers a look at leadership and organizational culture, Westerbeek (1999) offers the modelling of organizational culture in sport organizations and Kent and Weese (2000) studied organizational effectiveness and culture. Frontiera (2010) examined the phenomena of change in the organizational culture in professional sport and his qualitative study offers an initial model called Culture Change Cycle. MacIntosh and Doherty (2010) examined the influence of organizational culture on job satisfaction and intention to leave through a survey of fitness staff. But the topic of organizational culture and its significance for sport organizations has not been reflected properly in the design of sport management studies. The most popular and respected academic standards with regard to the curricula of sport management have been set by North American Society of Sport Management (NASSM). In the USA the curricula standards have been set by the continental association NASSM and later on in September 2007, NASSM and the National Association for Sport & Physical Education (NASPE) officially launched the Commission on Sport Management Accreditation (COSMA) organization in July 2008. COSMA was created as a specialized accrediting body whose purpose is to promote and recognize excellence in sport management education in colleges and universities at baccalaureate and graduate levels through specialized accreditation. According to the COSMA Accreditation Principles and Self-Study Preparation (June 2010, p.17), excellence in sport management education at undergraduate level requires coverage of the key content areas of the sport management field. Thus the Common Professional Component (CPC) topical areas, as outlined below, should be adequately covered within the content of undergraduate sport management degree programmes.

A) Social, psychological and international foundations of sport
B) Management
1) Sport management principles
2) Sport leadership
3) Sport operations management/event & venue management
4) Sport Governance
1) Principles of sport finance
C) Ethics in sport management
D) Sport Marketing & Communication
E) Finance/Accounting/Economics
2) Accounting
3) Economics of sport
F) Legal aspects of sport
G) Integrative Experience, such as:
1) Strategic Management/Policy
2) Internship

3) Capstone experience (an experience that enables a student to demonstrate the capacity to synthesize and apply knowledge, such as a thesis, project, comprehensive examination or course, etc.).

In the United Kingdom the academic standards are set by UK documents in terms of the learning outcomes´ description following the implementation of the European Qualification Framework and can be found as a result of the development of the Frameworks for higher education qualifications in England, Wales and Northern Ireland and also for Scotland. These documents contain the descriptors for each cycle of study (BA, MA and Ph.D.), known as the 'Dublin descriptors' which illustrate the typical abilities and achievements associated with qualifications that signify the completion of each cycle. In addition the Subject benchmark statements introduced by the Quality Assurance Agency for Higher Education (QAA UK) provide a means for the academic community to describe the nature and characteristics of programmes in a specific subject or subject area. They also represent general expectations about standards for the award of qualifications at a given level in terms of the attributes and capabilities that those possessing qualifications should have demonstrated. The relationship between the standards set out in the Subject Benchmark and those produced by professional, statutory or regulatory bodies for individual disciplines is a matter for individual higher education institutions to consider in detail. For sport management study programmes the standards are set by the Subject Benchmark, Hospitality, leisure, sport and tourism (QAA, 2008).

Sport degree programmes will often involve the study of one or more of the following:

- human responses and adaptations to sport and exercise
- the performance of sport and exercise and its enhancement, monitoring and analysis
- health-related and disease management aspects of exercise and physical activity
- historical, social, political, economic and cultural diffusion, distribution and impact of sport
- policy, planning, management and delivery of sporting opportunities

Curriculum content may include human anatomy and physiology, kinesiology, human growth and development, exercise physiology, exercise science, exercise psychology, sport biomechanics, sport nutrition, physical education (non-qualified teacher status), motor learning, training theory, skill acquisition, coaching process, sports notation, sport injuries, sport psychology, sport strategy, sport technology, sport sociology, Olympic studies, sport economics, sport politics, sport history, sport philosophy, social and cultural issues, sport for special needs, sport law, sport ethics, sport development, sport management, sport psychology, sport development, and sport marketing. In all cases a relevance to, and focus on, vocation will normally be emphasized. Following these standards a lot of specialized disciplines and subjects in sport management have been developed and, considering the most provoking issues in sport, special attention has been paid to the development of the new subject ethics in sport or sport ethics. This subject has been included in the sport management curricula especially in the case when the sport management study programme is provided by business schools (Nová, 2014). Not much consideration has been paid to the fact that also the topic of organizational culture can play a crucial role when it also comes to the transversal issues to which the ethics in sport belong.

Future sport managers should understand (as this is accepted by managers in any other businesses) that organizational culture can contribute to a great extent to the success and fulfillment of social, economic and sport goals of the sport organizations. They can also be able to recognize properly the type of culture and when needed (for the sake of the success or even organizational existence) be ready to create a new one or maintain and change the current sport organization's culture.

Therefore this paper offers a perspective/ conceptual framework of how to emphasize the importance of, and how to embed, the perception of organizational culture in the studies of sport management. Following the personal experience of the author, who teaches sport management and personal management in sport, the modes which are currently used to increase students' perception of the theory and practice regarding the organizational culture in the studies of sport management are described.

Silinmiş: ¶

THE STUDY

When examining the modes of teaching and learning strategies of organizational culture in sport management, the body of knowledge and learning outcomes should be clarified at the beginning. What should be taught and how? We have to address the different issues of organizational culture education such as goals and learning outcomes, core content, good practices relating to pedagogy and availability of resources to support this education.

Examination of the concept of organizational culture and its manifestation in sport organizations can help to define the content of what should be taught and within which subjects, which are traditionally part of the sport management curricula. Culture manifests itself in sport organizations via different means. Activities of sport organization reflect its culture, i.e. types of values, beliefs and basic assumptions that the members of the sport organizations respect and pursue. Culture is a set of tangible and intangible characteristics which represents a particular sport organization and creates the behaviour of its members. When comparing with other business organizations in sport there are plenty of stories, myths, symbols and rituals on which the unique tradition and

current state of sport organizations are based. In addition, the particular sport and respective sport organization (usually sports club) is very often perceived through its language, slogans, physical settings and artifacts. To understand the organizational culture, a different subculture of sport can be difficult for pure observers, as indeed the students are. Therefore studying the principle manifestation of organizational culture in detail using a qualitative approach can be of great help. Even more challenging, this process could be in non-profit and public sport organizations as far as they have different purpose (Nová, 2013c). But in some instances they play a crucial role when it comes to conveying the meaning, perception and adoption of sport values to, and within, the respective community (small non-profit clubs oriented towards participatory sport products). In other words it means that when we are searching for what creates the body of knowledge of organizational culture in sport organizations attention should be paid not only to well-known sport business companies or professional clubs, but the variety of public and non-profit organizations which exist in the sport industry deserves special attention. As far as they are not so skilled in their public presentation they tend to be overlooked and so too their cultural aspects. The dimensions of organizational culture in sport are set by the sector of the sport (Hoye et al., 2012) as is shown in Figure 1.

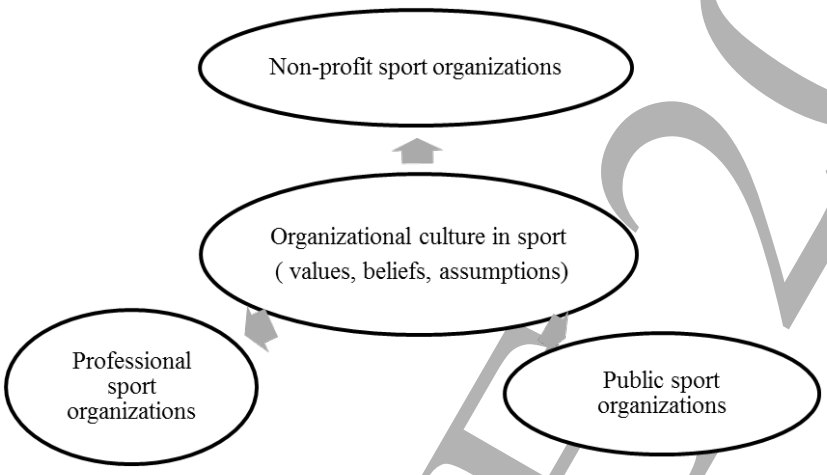

Figure1 Organizational culture in a sport context

On the basis of the previous discussion the respective learning outcomes can be defined as follows:

- to be able to analyze, develop and manage the appropriate and sustainable organizational culture in different kinds of sport organizations
- to demonstrate the knowledge of the tangible and intangible characteristics of OC in different kinds of sport organizations
- to analyze and manage critical incidents and organizational crises
- to demonstrate the ability to set the appropriate forms of organizational justice, namely distributive, procedural and interactional (Taylor et el., 2008)
- be able to diagnose, measure, control and reinforce the important aspects of organizational culture

Demonstration of learning achievements can be made via course embedded measurement or stand-alone testing or performance. To make sure that students are equipped both to understand the topic and to manage OC, sufficient time should be allotted for assessing students' learning.

The achievement of these learning outcomes is highly dependent on the teacher's and students' personality and values they hold and praise. But appropriate teaching and learning strategies can reinforce the adoption and perception of the values, beliefs and assumptions which are of the utmost importance in sport organizations. These can be summed up by the concept of good governance, as defined by Beech and Chadwick (2004) and which encompasses values such as transparency, accountability, democracy, responsibility, equality, performance and efficiency. Everyone who participates in sport should play their role – individuals as spectators, fans, governments, teachers and coaches, athletes and others who help them, referees, commercial agents, media, sports federations and the managing authorities. The principles of good governance in sport should be applied primarily by the new generation of sports managers (Nová, 2013a).

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FINDINGS

The organizational culture of sport organization is taught at the Faculty of Sport Studies, Masaryk University in Brno, Czech Republic within the study programme called Sport Management. The programme is delivered in the cooperation of two faculties (Sport Studies and Faculty of Administration). Knowledge of organizational culture is taught in different subjects and a year's study and from different perspective, see [Table 1]. The approach towards teaching organizational culture is interdisciplinary and based on what students already know about the field. It requires flexibility in how to deliver the issue of OC and adjust the courses content accordingly.

Table 1: Delivery of the knowledge of organizational culture in Sport Management at FSPS MU

Subject /Course taught in Sport Management Studies	**Content related to the organizational culture (OC)**
Basic of Management	Definition and basic characteristics of OC
Management in Sport	OC in sport context
Human Resources Management in Sport	Dimensions of OC vs HRM strategies and policies
Case Studies in Sport Management	Reflection and Application of OC theory in practice

Teaching and Learning methods

The difficulties in teaching organizational culture are related to the fact that students are embedded with taken – for–granted values and stereotypes that they are exposed to by media coverage and traditional managerial practices in sport organizations. These assumptions and prejudices should be permanently challenged and questioned by using various teaching and learning methods**.**

Sport Management students are influenced by popular understanding of organizational culture in sport as such. In the first year of their study they are offered basic information with regard to the concept of OC. This basic understanding is further developed in the course, Management in Sport, where students are supplied by the outcomes of the studies of how OC manifests itself in different sport contexts. At this point the critical thinking about the concept of organizational culture in various sport organizations is supported. Group discussion, videos, articles and newspapers are used. In this way the awareness of values and beliefs that underlie the desired organizational culture is built among the students. Special attention is paid to the utilization of visual media (videos, life news..). This is very much in tune with the Champoux (1999) film studies theory, which stresses the teaching functions of film as case, experimental exercise, metaphor, satire, symbolism, meaning, experience and time. The assignments are required to be elaborated in order to reflect the reality, i.e. how organizational culture is manifested in non-profit organizations. The educational purpose of this kind of student work is to examine their confidence with this challenging topic.

Students' works analysis

The assignments of 29 undergraduate students who passed the Basics of Management and Sport Management courses were examined. The examination was guided by the following questions:

- To what extent can the students apply critical thinking with regard to organizational culture in the chosen sport organization? and
- What taken–for-granted assumption with regard to organizational culture in the sport organization might influence their ability to assess the dimensions of organizational culture?

Looking at the data quantitatively, a few characteristics of organizational culture in non-profit sport organizations dominated in the students' works [Table 2, 3].

Table 2: Mapping the kind and number of tangible manifestations (TM) of organizational culture in non-profit sport organizations (students' assignments in the course Sport Management)

Kind of TM	**Number**	**Kind of TM**	**Number**
Logo (colours)	22	Language	6
Sport jerseys	8	Rituals	13
Documents	7	Merchandize	5
History	4	Tales	6
Mascots	1	Anthem	1
Environment /premises	17	Website	2
Artefacts	3	Special Rules	2
Fun Club	2	Legends	15

In Table 2 it is visible that, when analyzing the tangible characteristics of organizational culture, students were heavily influenced by taken–for-granted assumptions with regard to organizational culture. Logos, rituals and legends have been identified most frequently and this corresponds with the traditional perception of

organizational culture as such. The positive feature is that among these tangible characteristics students mentioned also the environment and premises within which non–profit sport organizations operate. In a sport context sport facilities really represent a significant manifestation of organizational culture. Surprisingly students did not pay much attention to the websites, fun clubs and special rules although they manifest in complexity a lot of characteristics of a particular culture in sport organizations. For the teacher this indicates that the teaching and learning materials in each of the study courses in sport management have to be enriched by new materials which would emphasize these taken-for-granted features of sport organizations in the context of what they manifest in term of organizational culture.

The content analysis of students' assignments using a coding method (Strauss and Corbin, 1998) and Atlas.ti software was conducted so to provide an overview of students' perception of all tangible manifestation of OC. Although the frequency of some manifestations (logos, environment, rituals and legends) was quite high in students' assignments, the coding hierarchy perspective as presented in Figure 2 (Network in open coding using the Atlas.ti software) offers a different perspective with regard to the grouping of tangible manifestations. Thus it also offers a valuable contribution to teachers in terms of the proper logic for grouping the teaching materials for the education of organizational culture. **Figure 2** Graphics of open coding of students' assignments (output from Atlas.ti)

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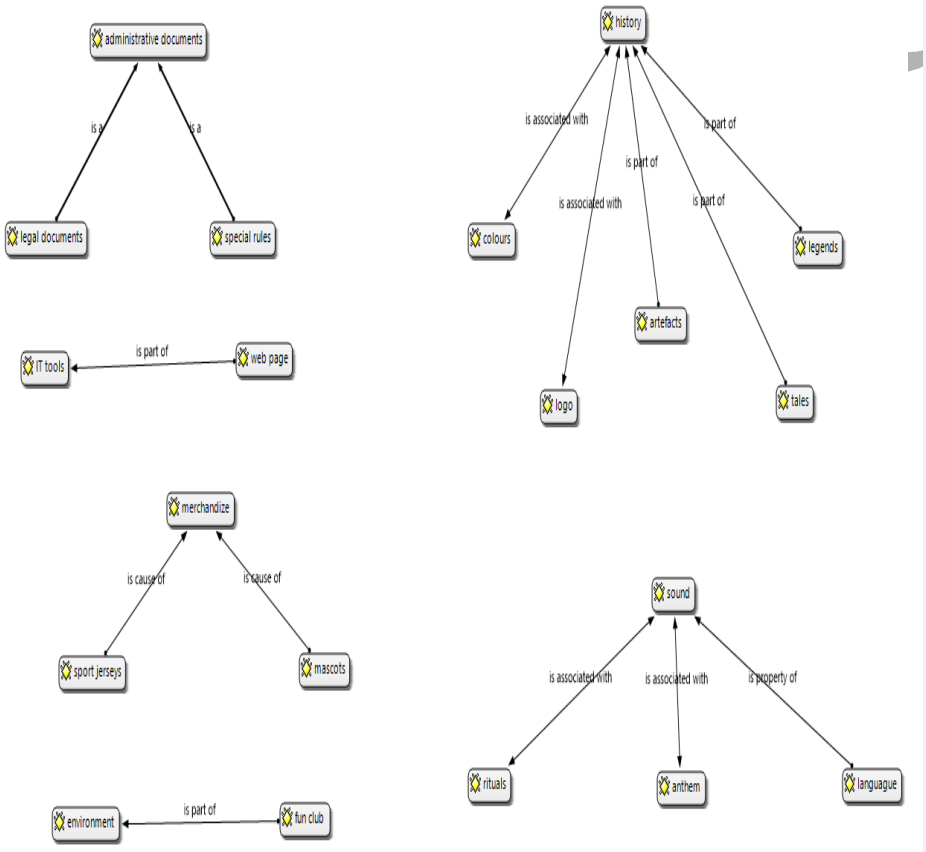

Table 3: Types of culture according to Handy (1985) as identified by students in the assignments in the course Sport Management

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Type of culture	Number of sport orgs. where this culture was identified
Power culture	2

Role culture	3
Task culture	7+3 mixed with person, power and role culture
Person culture	12

From Table 3 it is obvious that 27 out of 29 students were able to include the organization to specified types of organizational cultures and they were also able to apply critical thinking with regard to the organizational culture in the chosen sport organization. In their assignments they used sound arguments for justifying their decisions. But in some instances they also stated that the specified classification of cultures as suggested by Hoye et al. (2012) and defined by Handy (1985) does not reflect the realities in non–profit sport organizations. For the teacher this indicates that a new classification should be used when teaching organizational culture in a sport context. The classification suggested by Coyler (2000, In: Scott, 2014) which uses the approach of four–dimensional competing values for analyzing organizational culture, namely clan, adhocracy, market and hierarchy culture could be used. In addition the 26 individual and group assignments of the postgraduate students who passed the course, Case Studies in Sport Management were examined. These students could choose any problematic area in any sport management organization. The Atlas.ti software open coding [Table 4] and the Word Cruncher analytical tool were used to analyze qualitatively their assignments. For the analysis we used the same portfolio of open codes that we used in previous analysis. The topics of the assignments varied from organizational, financial and marketing issues to more sensitive topics such as the occurrence of domestic violence in elite sportspersons' households. But we noticed that although the issue of organizational culture is perceived by 95 % of them as a problematic area, only 5 % of them have been able to identify the nature of the characteristics of organizational culture which cause and influence the solution of the problem. The word culture and its derivate were explicitly stated in just 11 assignments (see Figure 3).

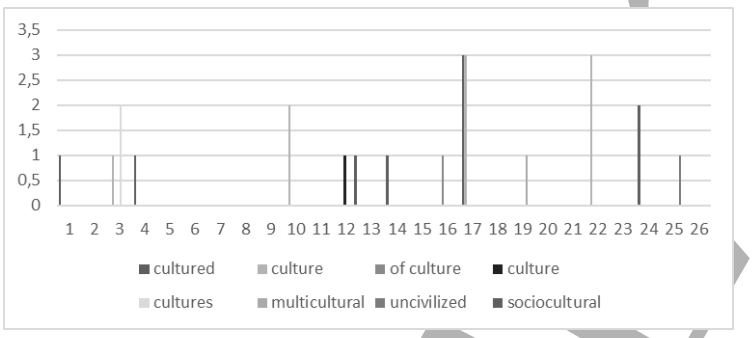

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Figure 3 The occurrence of the word culture and its derivate in students'' case studies (output from Atlas.ti Word Cruncher)

Table 4: Mapping the kind of tangible manifestations (TM) of organizational culture and the number of related quotations students' assignments in the course Case Studies in Sport Management

Kind of TM (code)	Number of quotations	Kind of TM (code)	Number of quotations
Logo (colours)	4	Language	4
Sport jerseys	3	Rituals	5
Documents	7	Merchandize	8
History	21	Tales	4
Mascots	0	Anthem/sound	3
Environment /premises	28	Website	15
Artefacts	0	Special Rules	9
Fun Club	5	Legends	15

In addition to the above-mentioned characteristics of organizational culture in the case studies new characteristics were mentioned such as values (66 quotations), reputation (23 quotations) and IT tools (17 quotations).

Although the occurrence of the open codes related to organizational culture is quite high see [Table 4], the students were not able to attribute exactly the problematic managerial incidents to the particular area and characteristics of organizational culture. Although at the semester students had an opportunity to discuss and

solve a few case studies which were directly related to the topic of organizational culture, it seems that they were not able to apply and demonstrate understanding of the theoretical background regarding this topic in their assignments. For the teachers it means that particular attention should be paid to the development of the appropriate design of the case studies (Nová, 2013b) and that the learning process via teaching case studies could be reinforced by the personal traits of the current student population – Y generation (Millenials).

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CONCLUSIONS

Although research in sport organizational culture has been conducted over the last two decades across several organizational types, there are no studies available that shed light on how sport management students understand or are taught this challenging topic. This qualitative case study offers an initial exploration of how organizational culture is learned and taught in sport management studies. Teaching and Learning Strategies which can be most successful in this sense are described, so to successfully achieve the intended learning outcomes. After careful analysis of the transcripts from the undergraduate students' seminar work, their perception of organizational culture in a real sport context was examined. This will allow designing a new, more strategic approach to the teaching of organizational culture in sport management studies. But prior to this, further research is needed to explore how other sport management programmes approach the teaching of organizational culture. Educators, students and researchers should be aware of the fact that the majority of the research in sport management with regard to organizational culture is linked to professional sport, academic leagues and fitness organizations, whereas non-profit sport organizations have been overlooked. This dominance can be minimized in the teaching process by discussing the wide range of perspectives of organizational cultures and subcultures that exist in non-profit and public sport organizations. Students should be exposed to the changing nature of organizational values and beliefs in the context of sport in relation to critical incidents (i.e. FIFA corruption scandal) or to political power changes at national, local and club level (influence of short–termism of politicians and board members' intentions with regard to sport). Students should be given the opportunity to capture the complexities of the internal and external environment so to understand the importance, content and context of today's and future organizational culture in sport organizations. After completing the sport management studies, students must be able to assess the benefits and limitations of the different types of organizational culture in various sport contexts and therefore this exploratory study should be followed by research on how educators, practitioners and students view the teaching of organizational culture. Further discussion should take place among the academic community in sport management so to justify the need for a stand–alone course in organizational culture or integration across the curriculum. The problematic areas with this regard could be lack of a body of knowledge as well as lack of trained faculty/ staff so as to establish the independent course which will be taught professionally. Even more challenging, as we showed in our paper, remains the issue of establishing assessment/ measurement metrics with regard to the teaching of organizational culture.

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EMERGING NEED FOR ISLAMIC BANKING AND FINANCE EDUCATION AND ITS IMPORTANCE

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Over the past few decades, Islamic banking and finance industry has seen a rise in demand for Islamic banking services, causing the sector to experience international expansion with assets of trillions of dollars under its management. Currently, more than 500 Islamic banks and financial institutions are operating in and outside the Muslim World.

As the number of financial institutions offering Islamic products is growing, there is increasing demand for trained and skilled workforce in Islamic banking and finance sector at local and regional levels. According to a study by A.T. Kearney, one of the world's largest management consulting firms, "up to 30,000 new Islamic banking jobs will be required in the Gulf States within the next decade."

Many of the financial institutions offering Islamic products supply their workforce through the conventional banking sector where contracts and investments are based on transactions including interest which is accepted as unlawful by Sharia. Therefore, knowledge and information about Islamic banking and finance and qualified personnel with expertise and skills in Islamic banking products and operations who can meet the requirements of this fast growing industry is crucial.

Islamic Banking education should provide quality Islamic banking education in a learning environment that promotes academic and personal excellence of the students as well as appreciate intellectual and ethical values that accentuate Islamic *Shari'ah* laws. Such education programmes should also provide a thorough theoretical and practical knowledge of Islamic finance principles and operations and aims to equip the graduates with ability to run Islamic banking operations, develop innovative products and provide solutions for the challenges faced by financial institutions.

Keywords: Islamic banking, finance, islamic banking and finance education, Sharia, financial institutions.

ENABLING INTER-CULTURAL COMPETENCE WITHIN DOUBLE DEGREE PROGRAM

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ABSTRACT
In our increasingly globalized world, joint double degree programs have become increasingly popular towards internationalization of higher education around the world. The main reason for their rise is the growing awareness that higher education needs to prepare students to live and work in today's global networked world. Within this context, the development of students' intercultural competence plays an important role and is often taken for granted that stay abroad would automatically contribute towards developing inter-cultural sensitivity. Research on intercultural competence development shows, however, that it is not as simple as that. Development of inter-cultural competence needs "ad hoc" systematic support.

In this paper, we use MAIB - Master in International Business Development as a case in point to understand and demonstrate the holistic approach towards building intercultural sensitivity among the students. MAIB is a joint double credential Master Program between University of Milano-Bicocca, Italy, Alliance University, India and Centennial College, Canada, where students study and live across 3 different campuses in 3 global dynamic cities in the world – Milan, Bangalore, and Toronto over a 14 months period. Since the MAIB Master 1st edition has been launched in 2014, this paper attempts to share first learning outcomes based on semi-structured interviews with students and faculty. The focus of the paper is more on qualitative aspects to gain insight into the development of intercultural sensitivity among the students. The authors apply Milton Bennett's Model of intercultural competence sensitivity as a theoretical framework.

Keywords: Intercultural competence; master dual degree Program; internationalization; study abroad

1. INTRODUCTION

Globalization of the world's economic, political, technological, and environmental systems has resulted in the need for academic institutions to prepare graduates with the knowledge, skills, and abilities to work effectively in the global arena. Faced with very rapid increases in students' international mobility[1] Since 2008 (Santiago, Tremblay, Basri and Arnal, 2008 and Altbach, Reisberg, Rumbley, 2009), OECD has stressed the need for national tertiary education systems to approach internationalization as one of the key priorities; furthermore, it has identified "growing globalization" as one of the main trends which will affect financing to higher education. Within a few years, students international mobility will interest 5 million individuals across the globe: a trend which brings universities to agree that the development of intercultural competence or the "ability to communicate effectively and appropriately in intercultural situations", is a key priority in preparing graduates for the global workforce. Higher education institutions around the world have been stimulated to establish international partnerships, aiming at preparing their students to work in a diverse society (e.g. Knight 2004, de Wit 2011). The economic crisis and the budget restrictions are forcing international companies to be more efficient in their professional and personnel

[1] According to OECD (Education at a Glance, 2013), the number of international students at world level has increased from 0.8 million (1975) to 3 million (2005), to 4.3 million (2011). Such figure should exceed 5 million students within a few years.

selection to work around the world (Bhawuk & Brislin, 2008). Companies are looking for qualified employees with international experience, at least, bilinguals, and inter-culturally competent.

This changing landscape has called for the attention of the universities to invest in study abroad programs to prepare students for their life in a globalized world. At the EU level, various programs have been recently "merged" into the "Erasmus+ Project" (www.erasmusplus.it and ec.europa.eu/programs/Erasmus-plus), which is going to finance 14.7 billion € for the 2014-2020 period (+40% respect to previous budget), offering to 4 million Europeans (students, teachers, youngsters) the opportunity to study and gain professional and voluntary experience abroad (Blanco, Frascaroli, Pasolini, 2015). All around the world, a variety of student mobility programs have developed, which range from academic stay to language courses, internships and study trips to foreign higher education institutions, excursions, summer courses, research exchange, etc. (Hopkins 1999, Gray / Murdock/ Stebbins 2002, Isserstedt / Schnitzer 2005). Beyond transferring study credits and acquiring language skills, study abroad programs provide the participants with opportunities to immerse in-depth into getting an international exposure.

Looking at study abroad programs, generally speaking "every program, no matter at what level, format, or focus continues to claim that educational cross-cultural contact contributes to intercultural competence and thus to global citizenship"(Bennett 2009). The most numerically relevant international training activities are generated from "cross-border" activities, including student mobility in foreign countries, through specific study periods (Erasmus, summer schools); offering of double or triple degrees, through agreements between institutions of different Countries, as well as through opening of new branch campuses abroad (Trivellato, 2015).

Although the development of intercultural competences is continuously emphasized and claimed, it is, however, questionable how these study abroad programs actually contribute to students' intercultural sensitivity development and how the development of intercultural sensitivity can be fostered. One of the longitudinal research studies, conducted by Vande Berg, Connor-Linton, and Paige (2009) has provided significant evidence on the positive effects of teachers' / trainers' pro-active interventions on intercultural learning. Taking these findings into account, it is consequently desirable to identify and apply specifically designed intervention techniques and strategies which facilitate the development of intercultural sensitivity (Anderson et al. 2006).This paper contributes to this aim by presenting MAIB - Master in International Business Development as a case in point to understand and demonstrate the holistic approach towards building intercultural sensitivity among the students. MAIB is a joint double credential Master Program between University of Milano-Bicocca, Italy, Alliance University, India and Centennial College, Canada, where students study and live across 3 different campuses in 3 global dynamic cities in the world – Milan, Bangalore, and Toronto, which can well be included in the "idea capital" definition[2].

Since the MAIB Master 1st edition has been launched in 2014, this paper attempts to share first learning outcomes based on semi-structured interviews and group discussion with students. The focus of the paper is on qualitative aspects, in order to gain insight into the development of intercultural sensitivity among the students. The authors apply Milton Bennett's Developmental Model of intercultural sensitivity (DMIS) as a theoretical framework.

[2] Blanco, Frascaroli, Pasolini (2015) use the term "idea capitals" in order to identify those towns spread all over the world which are characterized by a concentration of universities and world-class research institutions, with high rates of students coming from all over the world: knowledge-based cities with high multi-culturality rates,

2. DEFINITIONS

The importance of effective intercultural relations in both global and domestic contexts is well recognized (Brislin, Cushner, Cherie, & Yong, 1986; Hammer, 1989, 1999a; Kealey, 1989). As Bhawuk andBrislin (1992) suggested, ‘‘To be effective in another culture, people must be interested in other cultures, be sensitive enough to notice cultural differences, and then also be willing to modify their behavior as an indication of respect for the people of other cultures”.

In this paper we use the term ‘‘intercultural sensitivity’’ to refer to the ability to discriminate and experience relevant cultural differences, and we use the term ‘‘intercultural competence’’ to mean the ability to think and act in inter-culturally appropriate ways. We argue that greater intercultural sensitivity is associated with greater potential for exercising intercultural competence.

3. THEORETICAL FRAMEWORK

Research studies in such diverse areas as overseas effectiveness (e.g., Brislin, 1981; Cleveland, Mangone, & Adams, 1960; Kealey & Ruben, 1983; Landis & Brislin, 1983a-c; Landis & Bhaget, 1996), international management (e.g., Adler, 1991; Black, 1990; Black, Gregersen, & Mendenhall, 1992; Black & Mendenhall, 1990), international study abroad (e.g., Klineberg & Hull, 1979), and international transfer of technology and information (e.g., Hawes & Kealey, 1979, 1981; Kealey, 1996) have identified intercultural competence as central in increasing understanding and improving relations across cultures (Bennett, 1993a, b; Hammer, 1999b). Additional research on domestic intercultural relations (contact across forms of ethnicity, gender, age, sexual orientation, etc.) has found a similar key role for intercultural competence (e.g., Gardenswartz
& Rowe, 1993).

While cross-cultural research has posited the importance of intercultural competence in both global and domestic contexts, work by Bennett (1986, 1993b) has additionally suggested the Developmental Model of Intercultural Sensitivity (DMIS), an underlying theoretical framework, useful for conceptualizing intercultural sensitivity and competence.

The DMIS model (Bennett 1986, 1993) of inter-cultural sensitivity proposes that individuals can be positioned along a continuum, characterized by different stages or orientations, ranging from ethnocentric perspectives towards more ethnorelative perspectives.

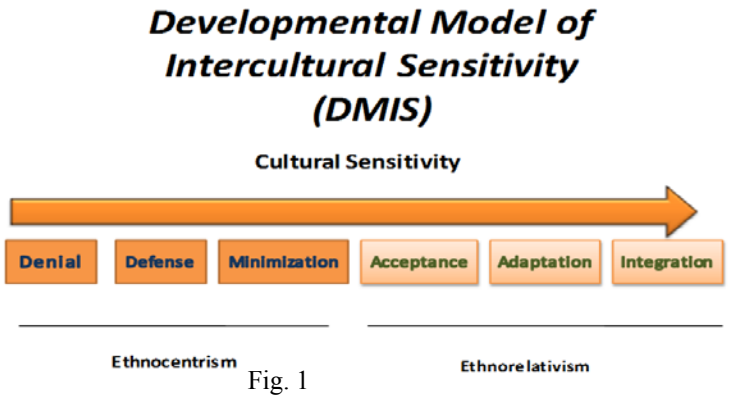

Fig. 1

As figure 1 indicates, the DMIS includes six stages, ranging from an ethnocentric orientation - that views the world through one's own cultural experience – towards an ethnorelative orientation, which takes into account multiple perspectives, adding to one's own views of the world also others' cultural perspectives. Three stages are identified for both orientations: for Ethnocentrism: Denial, Defense, and Minimization. Individuals in the Denial stage are unable to discriminate between various cultural differences and often miss cultural cues that suggest an underlying cultural relevance to different behaviors and communication patterns. The three stages within Ethnorelativism are Acceptance, Adaptation, and Integration of difference.

We chose DMIS as theoretical framework for several reasons. First, it is a theoretically based measure sought to assess the impact of the study abroad experience on the intercultural sensitivity of students. Second, it has undergone extensive psychometric testing and is a reliable and valid measure (Hammer, Bennett, and Wiseman, 2003). Third, an established research literature base has developed over time, illustrating its use (Paige, 2003). On the basis of its grounding in theory, its empirical reliability and validity, and the fit with our program goals, DMIS deemed a good choice for measuring students' intercultural sensitivity.

This theoretical framework has provided us the conceptual guidance in program planning for the **MAIB Master Course** in order to explore the cultural journey of our students living and studying in Milan (Italy, Europe), Bangalore (India, Asia), and Toronto (Canada, North America). **Our objective** is to assess the development of our students along the intercultural sensitivity continuum.

4. MAIB – MASTER IN INTERNATIONAL BUSINESS DEVELOPMENT

4.1 MAIB program – A brief Introduction

Internationalization has recently become one of the key focus areas at the University of Milano-Bicocca, a 15 years old public university, which has rapidly gained (21st in the "THE 100 under 50" international ranking published recently by Times Higher Education). Over the last few years, the University has decided to invest in developing an International profile by enhancing teaching and research cooperation with foreign universities all over the world. The vision is to sensitize and equip students for living and working in the globalized world.

One such endeavor has been the launch of the MAIB Program in 2014. Designed by University of Milano- Bicocca, **MAIB - Master in International Business Development** is a Triple Credential Joint Master program in International Business Development, in partnership with Centennial College (Toronto, Canada) and Alliance University (Bangalore, India), two private institutions which have gained in their respective countries a good reputation for innovation, internationalization, and excellence in higher education. Launched in 2014, it is a full time Program that takes students through the journey of living and studying across 3 different campuses in Milan, Bangalore, and Toronto.

MAIB's goal is to prepare future business leaders to tackle today's complex business environment. It is designed to provide companies with graduates who have both international business and management skills, with "hands-on" approach and cross-cultural competencies. The program provides a truly international and multicultural learning environment which makes its graduates very attractive to potential employers worldwide.

4.2 The Structure & Design of the MAIB Program

The Program lays the foundation for learning broad management skills and building inter-cultural competencies to live and work in today's highly Global World. The program is structured on an Integrated Approach. The Triple Credential Joint Program is the result of a thoughtful work, aimed at integrating different relevant aspects: from a unified application and selection procedure to balanced academic course work and student life across the campuses of University of Milano-Bicocca, Centennial College and Alliance University.

The program offers:

- Master Degree in International Business Development - MAIB (Master I Livello from University of Milano-Bicocca)
- Canadian Ontario College IBM (Graduate Certificate in International Business Management)
- Indian MBA (Master in Business Administration) – MBA (additional study quarter - optional)
- The opportunity to pursue internship in Canada in order to be eligible for 1 year Canadian work visa.

The basic program of 14 months duration is a double credential, rigorous, full-time program (including Internship), with a total of 90 credits.

The students spend the first three quarters in the above-mentioned locations, thus gaining a broad international perspective. Furthermore, they can select the country in which they will spend the fourth and last quarter, which is dedicated to a corporate internship.

The program integrates rigorous academic theory and real-world practice through broad engagement with the business community. In doing so, it endeavors to foster in students an entrepreneurial mindset for recognizing and capturing opportunities — critical attributes for global business leaders.

After completion of 14 months, the students have some optional choices: if they have completed their Internship in Canada, they have become eligible for getting the 1 year work permit for Canada; furthermore, within three years from graduation, they can get an MBA Degree from Alliance Business School, Bangalore, India with an additional study period of 4 months.

4.3 Developing intercultural sensitivity in the MAIB program: An innovative pedagogical approach

Although some researchers (e.g. Hammer / Martin 1992, Pruegger /Rogers 1994) have highlighted that short-term intercultural trainings are effective in building up cultural awareness and in changing individual attitudes towards other cultures, intercultural education, intercultural competence and intercultural sensitivity development has to be conceived as a long-lasting and continuous learning process that should ideally be designed over a prolonged period (Graf 2004).

Therefore, as part of the MAIB program we have designed a comprehensive program to support the development of intercultural sensitivity among the students, including: an intensive orientation program at the start of the course in Italy, ; a 40 hour course on Cross-cultural communication during the first term, in Italy, followed by a 10 hour pre-departure preparation before leaving for India term; 3

intensive coaching sessions with a personal coach during the first 3 months of the program, followed by two on-line coaching sessions in each of the two remaining terms.

Elaborating on the 40 hour Course on Cross –cultural Competencies – the course covers an introduction to a constructivist approach to intercultural communication in business contexts – management of multicultural workforces, mergers and acquisitions, and global operations. Communication as the "mutual creation of meaning" is explored as both a tactical issue of improving understanding and as a strategic issue of creating value from cultural diversity. The Developmental Model of Intercultural Sensitivity is presented as a guide to resolving issues of ethnocentrism and developing the ethnorelative capabilities of recognizing cultural complexity in others and using an expanded repertoire of behavior for cross-cultural adaptation. Some attention is also given to how intercultural communication competence can be sustained at an organizational level in global organizations.

The pre-departure program aims at sensitizing students to Indian and Asian culture and specific characteristics (e.g. as regards history, social, politics or economics). Lectures and seminars are organized held by experts on India. The faculty of the course on Cross-cultural skills once again focused on the need for cultural learning with the objective to raise among the students a general awareness and understanding of cultural diversity in typical intercultural interactions.

During the 2nd Term of the MAIB program, the students study and live at the campus of Alliance University, Bangalore, India, and experiencing *real-life* in the host country

At the start of such term, MAIB students go through a seminar on *Socio-cultural environment in India – Understanding & appreciating differences.* They are put in touch with their Indian buddies to explore campus life and connect with the Indian students. Visits are organized to Non-government/NGOs to understand the social reality. Bangalore site seeing trips and other useful historic and cultural events are also planned, in order to foster students' awareness and understanding of Indian social and cultural traditions.

As part of the courses the students take in India, direct interface with industry is planned, in order to help them understand the work environment and get an opportunity to participate in small projects, putting theory to practice. The students are encouraged to write personal reflections on the blog.

Faculty has been selected based on its competence, as well as on its sensitivity, and ability to encourage and support students in their academic and social life at the campus.

As already mentioned, the students continue their interaction with their Coach through skype meetings. The Course Director, Coordinator and the Cross-Cultural Skills Course faculty also maintain a constant interaction with the students.

The India term closes with exams, results and feedback from the students and faculty. The students thereafter move to Canada for their 3rd Term at Centennial College in Toronto.

In Canada, the students study at the Centennial College campus in Toronto and follow courses offered within the IBM program. Here too an initial detailed Orientation Program is organized by the International Department of the Centennial College and seminars are organized to give an insight into the socio-economic, cultural and political environment in Canada, particularly focused on the Ontario State. Being immersed into the IBM class, the students get to interact with Centennial students (coming from a very international background) and the International department staff helps them to settle in.

All along the 14 months period the students are constantly supported by the MAIB Course Director and the Coordinator.

Thus, we see that the development of intercultural competence and thereby inter-cultural sensitivity is a challenging aim that calls for innovative approaches of teaching and learning. Therefore, as shared above an innovative, learner-centered pedagogical design based on Bennett's DMIS model that combines individual and co-operative learning and applies experiential and reflective learning methods has been developed and implemented in the MAIB program. These methods have been chosen based on an intensive engagement with relevant literature, among them for example Graf (2004), whose research findings suggest that an experiential orientation supports the development of intercultural competence. At the same time DMIS model of inter-cultural sensitivity (Bennet 1993) helps us in analyzing and measuring the development of intercultural sensitivity along the continuum.

5. ASSUMPTION

MAIB program is based on the assumption that immersing students in a culturally diverse experience will not suffice in enhancing their intercultural skills. Intercultural competence can be taught and learnt only if interventions are appropriately designed based on the developmental mindset of the students.

6. AREA OF FOCUS & FIRST DATA COLLECTION

Since the MAIB Program was launched in Oct 2014 and is very recent, for this paper our focus is on sharing the first findings of inter-cultural sensitivity as revealed through our interaction with MAIB 1st batch students (total no. 9) , having completed their India term at Alliance University, Bangalore.

Nationality of the students: Italian, Brazilian, Mexican, Chinese, Indian, half American-Italian The

period of India term: 10th Jan – 15th April 2015.

Semi-structured interviews and group discussions were conducted with MAIB students prior to the departure from Italy, during their period of stay in India and after their completion of the first two terms in order to get a broad picture of the development process.

The semi structured interviews and group discussions were focused on investigating intercultural competence and sensitivity development across 4 different levels: the administrative level (the curriculum, campus services), the didactic level (seminars, lectures, projects), the social level (connecting with peers, adjusting to food, participating in cultural events) and at an individual level. All Interviews and group discussions were conducted in English.

7. ANALYZING & INTERPRETING DATA

The semi-structured interviews as well as the group discussions were analyzed keeping in mind the DMIS model of inter-cultural sensitivity. The analysis showed certain similarities of most of the students that were interviewed.

While conducting semi-structured interviews as well group discussions, we tried to gather qualitative data from students specifically focused on the ways in which they were engaging cultural differences and commonalities during their study abroad experience. We asked them to provide accounts of specific situations or critical incidents that they encountered in India and to explain what the cultural differences were that ''made a difference'' in each situation; what strategies they used to navigate these identified differences; and, finally, what they perceive the outcomes to have been.

For the semi-structured interviews we tried to use open-ended questions, giving the students the opportunity to visualize and narrate the circumstances, which were often filled with strong emotions. Whalen (2009) identifies this important characteristic of study abroad as a distinct experience that is emotionally more explicit. Upon arrival in India, most students expressed traffic disorder, chaos, smell, vivid colors and sights, and combination of sounds. These feelings were vivid, real and quite impactful.

As the interviews and group discussion analysis reveals, we observed most student began their experience in India with a sense of naïve optimism at the start, but found it difficult to cope with the level of basic services like cleanliness of rooms, quality of canteen food, internet not working and the need to repeatedly request for fixing the problems. At the beginning of the India term, most students were in the Denial and Defense mindset indicating their being mono-cultural in their orientation and reflecting the view that ''one's own culture is central to reality'' (Bennett, 1993). While these students seemed overwhelmed at their arrival in India, they were found more optimistic before departing from Italy. We gathered that these students with Denial orientation had limited experience with other cultural groups and therefore tended to operate with broad stereotypes and generalizations about the cultural ''other.'' They were also maintaining a distance from other cultural groups and expressed little desire to interact with their peers in India. In the first interview they reflected misunderstandings, confusion and increasing frustration.

After the intervention of the Coach, Program Director, Coordinator and the buddy assigned to them they slowly began to perceive and understand cultural differences in more observable areas of human behavior (e.g., clothing, food, music, art, dance), and then to move to more subtle arenas (e.g., nonverbal behavior, customs, dos and taboos).

By the 2nd month of their stay in India, they were slowing seen to be more at the Minimization stage, reflecting transitional in their orientation from denial and defense. Minimization is not monocultural in its capability, yet it is also not fully intercultural in its recognition of deeper patterns of cultural difference and the ability to appropriately respond to these differences (Bennett, 2004; Hammer, 2009; Hammer 2011).

Mexican and Brazilian students started from the point of Minimization and experienced a certain degree of success in trying to relate with peers in India and navigating their way through unfamiliar cultural practices. These students were able to identify commonalities, which helped to align better with the host country. At the same time they were very conscious of cultural differences. With support and inputs from the Coach, Program Director and the Coordinator they were better able to appreciate diversity and were drawn upon to bridge different cultural practices.

Towards the end of the 3rd month, most students reflected a more Acceptance mindset; they made local friends and reflected a strong sense of curiosity about the different culture. However, they were still not clear about how to appropriately adapt to cultural differences and faced challenges in relating to their peers and their life in general.

It is pertinent to highlight that female students not used to living outside of their family had been most hit by the intercultural problems they faced in India.

To sum up, the changes, albeit small, indicate that all the students in the group reduced their ethnocentric tendencies. It is not unusual that student perspectives progress within or moving past-the stage in which they began. This is due, in part, to the developmental nature of intercultural competence, where significant experience with cultural difference, often over an extended period of time, is typically needed before a substantial shift in worldview can occur.

8. DISCUSSION & IMPLICATIONS FOR RESEARCH

Given the global environment of the twenty-first century, there is a heightened need for Universities to foster opportunities to students that promote intercultural competence, irrespective of whether these students travel outside their home city, region, or country (Levin, 2002; Otten, 2003; Raby, 1996). Of particular note are increasing demographic changes in the world that make international and intercultural competence essential for our students.

One of the desired outcomes of MAIB, as an international Master program, is to foster an intercultural mind-set amongst the students. Intercultural competence is a key goal of internationalization because it indicates awareness and understanding of culturally diverse others and situations, as well as the presence of behaviors that promote productive and effective communication among and across cultures.

This paper has explored how the MAIB – joint Master program has enhanced the efforts towards internationalization of education, focusing on development of intercultural competence amongst the MAIB students.

Through our experience with the MAIB program, working with students and faculty, we would like to expand the scope of our research by administering the Intercultural Development Inventory (IDI), which has its theoretical basis in DMIS. It is a fifty-item instrument that measures an individual's worldview toward cultural difference. The same shall render the measurement of intercultural competence more scientific and accurate. Since the research is focused on the intercultural learnings' across the India term, we shall be sharing the final findings at the end of the Master program after the students have experienced also the Canada term.

Nonetheless, current research has shown that MAIB Master program has positively affected student learning and development of students' intercultural competence.

The paper provides a scope for understanding and envisioning the need and scope for the study abroad programs. First, the assessment of student learning that result from the MAIB program provides useful insights for the Universities. Second, the same could enhance awareness of the educational value of study abroad with the aim of showing how it promotes acquisition of intercultural competence in students.

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ENGAGING IN SOCIAL CHANGES: ENRICHING MULTIDISCIPLINARY PARTICIPATORY DESIGN

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Design faculty and students reach to other disciplines such as business, engineering and education for innovative solutions to design problems in changing contemporary society. Multidisciplinary participatory design has been applied into design practices, collaboration in design and design pedagogy. Participatory design is an idea that was conceived in the 1970's in Scandinavia. The goal is to include all stakeholders in each step of the design process. Such stakeholders include designers, clients, users, the community, and others.
Therefore, participatory design can be a collaborative process of multiple disciplines. Participatory design has certain methods that strengthen the bonds between the participants, such as workshops, ethnography, cooperative prototyping, mock-ups, card sorting, user design and more. The results of these methods produce designs that can be used to the full benefit of every stakeholder. To respond the quickly advancing society we live in today, participatory design needs to be redefined to better support the current lifestyle of the public. This study investigated how participatory design is changing and evolving to support contemporary design with multidisciplinary perspectives. The objectives were to identify issues and misconceptions that are limiting the design process and to examine effective participatory design approaches and multidisciplinary collaboration to solve contemporary complex design problems. It was found that advancements in technology, the disregard of values and cultural narrow-mindedness are prohibiting multidisciplinary participatory design from its full impact. Therefore, new approaches are focuses on informed participation, values, and cultural interactions and identities.

Keywords: Multidiscipline, participatory design, contemporary design

ENGLISH LANGUAGE NEEDS OF THE LIBRARY STAFF: A STUDY ON UNIVERSITY LIBRARIES IN TURKEY

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ABSTRACT
As a part of information society, libraries have to keep up with the recent developments and changes in the field. In this regard, library staff have to obtain various skills for their profession. One of the most important skills is to know a foreign language. This needs assessment study focused on English language needs of people working in university libraries in Turkey. Within the scope of this study, we tried to find out why it was necessary for the library staff to know English. To ensure if library staff need to acquire English language knowledge, we conducted a needs assessment survey consisting of three parts. To begin with, respondents were expected to answer the questions in the first two sections entitled institution and demographic knowledge. They went on to answer the questions related to English language needs in the last part. This part included opinion questions asking about foreign language needs of the library staff. Through these questions we attempted to discover the relationship between the positions of the library staff and their language needs. Moreover, we aimed at identifying the current situation in terms of English language needs in university libraries in Turkey. As a result, all the participants agreed that library staff had to know at least one foreign language, especially English in order to supply quality service in university libraries. The ultimate goal of this study is to make the library staff and universities aware of to what extent English is needed for professional development.

Keywords: Language knowledge, English language, library staff, university.

INTRODUCTION

Because of the latest developments in information and communication technologies, our world is not necessarily a big one or out of reach. Day by day, information supply is increasing as well as the speed of information processing. Not to fall outside the process, we need to keep in touch with everything around us. The best way to connect with the globalized world is ability to understand it. The question of how we can understand the world gets answerable with speaking the same language, even if we do not have similar backgrounds. As a starting point, if it is necessary to describe the concept of 'language', we can share a general definition as it is in the free dictionary. Language is "communication of thoughts and feelings through a system of arbitrary signals, such as voice sounds, gestures, or written symbols". ("Language", n.d., para. 1) Here it is intended to mention a linguistic communication, based upon words or groups of words turning into sentences. To manage such a communication, humans need to have a common language, especially when we think the world as if it were a house with a roof. In today's world, the *lingua franca* is English Because of its importance, English language, rather than other foreign languages is the focus in this study.

With reference to the aforementioned requirements, libraries going beyond traditional understanding now serve as information and document centre. Therefore, they have to keep up-to-date to function properly in a constantly changing and developing world. To be an up-to-date library means to have essential properties such as modern facilities, recent collections and library staff with appropriate skills.

As Çelik (1999) suggests in his study entitled "Personnel Management in Turkish University Libraries", for an institution, staff is the most important resource. That institution can achieve its goals through its staff. In other words, productivity is in direct proportion to human factor. Accordingly, university libraries need skilful staff in order to provide quality service. A study entitled "University Libraries in Turkey: Current Status and the Future" (Çukadar et al., 2011) suggests that there are some problems related to qualities and quantities in university libraries in Turkey. Accordingly, basic criteria for library staff should include in (a) graduating from the department of information and

document management, (b) knowing at least one foreign language (preferably English) and (c) having a Master's degree. Knowing a language as one of the basic criteria highlights the significance of English language in terms of the qualities of library staff when language communication and comprehension is taken into consideration.

Correspondingly, in the report by the Turkish Council of Higher Education (YÖK, 2014) called "2023'e Doğru Türkiye'de Üniversite Kütüphaneleri" [University Libraries in Turkey towards 2023], identifying the current situation in the libraries in Turkey, committee members listed the required qualifications of library staff. Among these qualifications having a foreign language skill (preferably English) was given priority. Moreover, it was expressed that higher education administrators had to provide needed support for foreign language education, in-service training and vocational training. It was emphasized that library staff had to know at least one foreign language for their professional and career development.

THE STUDY

A similar but limited study was conducted by Demirok in 2007. In her study with regard to English language needs assessment of Library Staff, Demirok surveyed 15 library staff at Yakın Doğu University which constituted the target group of the study. 93.3% of the participants thought knowing English was necessary. Moreover, 60% of the respondents stated that they needed speaking skill most. The current study differs from Demirok's study in terms of its scope.

The study titled "Foreign Languages in Academic Librarianship: A Survey of Skills, Use, and Perceptions" (Vetruba & Bischof, 2010) was used to get a general idea about the situation in university libraries in Turkey and the situation in those in other countries. In Vetruba and Bischof's study, non-English language needs of library staff at universities are the focus. Since it is a study conducted in the US and Canada, the library staff most probably know English and need to know some other languages. According to the study, it was stated that as a required language skill, English language was thought to be helpful enough for library staff when compared to the past. In the studies based upon job ads, it was suggested that librarians who knew foreign languages used to be preferred in the past. Decrease in demand for library staff with foreign language skills stemmed from "the increased use of English as a worldwide language of scholarship and commerce". This situation caused the administrators to look for library staff who have "knowledge and experience with information technologies, rather than foreign language skills. (Vetruba and Bischof, 2010, p. 2) Deciding to broaden the scope of their study, Vetruba and Bischof (2010) questioned whether any non-English languages were necessary for library staff. At this point, the current study differed in terms of its objective. Our study was built on English language needs of the same target group in a different country. Although we were aware of the fact that knowledge and experience with information technologies were crucial for library staff, this study just focused on English language needs of library staff. There are a lot of reasons why English language was chosen as a focus. In Turkey in parallel with increase in the number of universities, there are an increasing number of English-medium universities. As a result of globalization, universities have a tendency to recruit international students and hire international academic and administrative staff. To carry out the process successfully, it is vital for people working at universities to be able to speak English at least for communicating properly.

In the case of library, it is possible to mention a world where most of the scientific books and databases are in English. Articles are generally published in English. Contact persons in the companies where Electronic books are purchased use English language to communicate. In such a world depicted in English language, if library staff do not have the needed language skills, it will be really difficult to deal with such requirements.

When all the reasons explained above were considered, it became a necessity to conduct a study based on English language needs. For this study, the survey research method was adopted. First of all, an online survey was designed via Google Docs consisting of twenty questions. The questions were collected under three headings including 'institution information', 'demographic information' and 'foreign language needs' of library staff. Questions were created as multiple-choice question by using five-point Likert scale when needed. At the end of the survey, respondents were given limitless space to write comments and suggestions about the topic. In this survey target population was 178 university libraries in active service in Turkey. The survey was sent to a list entitled KUTUP-L, which is a membership system with a moderator of which library administrators and staff at 178 universities are members. We got responses from 72 universities out of 178. 115 library staff working at 72 universities responded the survey that ran for two weeks.

FINDINGS

In Turkey, the number of English-medium universities is 9 out of 178. When we considered 72 universities which responded the survey, the English-medium universities and the universities teaching in Turkish & English are totally about 28 per cent when compared to the other universities teaching in Turkish or in other languages. .

Table 1: Language of education of universities where the participants work.

Language of Education	Response count	Response percent
Turkish	77	69.4%
English	4	3.6%
Turkish & English	27	24.3%
Other	3	2.7%

The survey results were first exported to Microsoft Excel and then from Excel to SPSS.

An appropriate sample size was determined by measuring confidence interval of the survey. Moreover, the confidence interval was found to be suitable for precise measurement. Accordingly, the result of the conducted analysis suggested that the 95% confidence interval for lower bound and upper bound was between 80.19 and 100.30. This result indicated that precise measurement was possible through the survey.

Table 2: Descriptive statistical values

Descriptives			Statistic	Std. Error
University where the respondents work	Mean		90.24	5.076
	95% Confidence Interval for Mean	**Lower Bound**	**80.19**	
		Upper Bound	**100.30**	
	5% Trimmed Mean		90.56	
	Median		96.00	
	Variance		2.964E3	
	Std. Deviation		54.438	
	Minimum		1	
	Maximum		178	
	Range		177	
	Interquartile Range		106	
	Skewness		-.102	.226
	Kurtosis		-1.360	.447

Cronbach's alpha reliability co-efficient of the scale in Likert scale questions was found 0.861 as a result of the analysis carried out by SPSS program. Since the value of Cronbach's alpha that is greater than 0.7 is acceptable for reliability, it is understood that this survey is highly reliable.

Table 3: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.861	.864	12

78.3% of the respondents expressed that they had learned English during and after their university education while 31.3% of the respondents stated that they had learned through language courses.

Table 4: Where/how the respondents learned English.

Where/how did you learn English?	Response count	Response percent
Before university education	44	38.3%
During university education	46	40%
Abroad	10	8.7%
Through language courses	36	31.3%
By myself	17	14.8%
Other	9	7.8%

Participants were asked to evaluate their English language levels in terms of the four skills: Reading, Writing, Speaking and Listening. Accordingly, the following results were obtained:

Table 5: Self-assessment of English level

Level	Reading	Writing	Speaking	Listening	Mean
Beginner	7.8%	10.4%	13%	10.4%	11.3%
Elementary	11.3%	13.9%	24.3%	18.3%	18.8%
Intermediate	30.4%	35.7%	33.9%	32.2%	33.9%
Upper-Intermediate	37.4%	31.3%	20.9%	28.7%	27.0%
Advanced	13%	8.7%	7.8%	10.4%	6.8%

Table 5 shows that 33.9% of the participants evaluated their English level as intermediate while on average 33.8% thought their level of English as upper-intermediate and advanced.

When the respondents were asked how often they needed English language skills in the library, the following responses were obtained on the basis of Reading, Writing, Speaking and Listening.

Table 6: How often English is needed in the libraries.

Frequency	Reading	Writing	Speaking	Listening	Mean
Never	0%	1.7%	4.3%	4.3%	2.6%
Rarely	16.5%	44.3%	39.1%	38.3%	34.6%
Occasionally	40.9%	30.4%	28.7%	33%	33.3%
Often	27.8%	16.5%	19.1%	14.8%	19.6%
Always	14.8%	7%	8.7%	9.6%	10.0%

As suggested in the table above, averagely 62.8% of the participants expressed that they occasionally, often and always needed English language skills. It is necessary to emphasize that especially for reading skill none of the respondents said ‘never’. All the participants suggested that reading was a needed skill in the library.

For the question of in what departments the staff with English language skills are most needed, the following responses were received. The participants agreed that the staff with English language skills were highly needed in various library departments. The percentages of this need varied depending on the departments. 58.3% of respondents agreed that the staff with English language skills were needed in the department of public relations and publicity; 48.7% in the circulation desk; 35.7% in purchasing and collection development; 39.1% in periodicals; 41.7% in cataloguing; 73.9% in management of electronic resources; 68.7% in information technologies. It is important to raise concern about the fact that 73.9 % of the participants expressed that there was a need for the staff with English language skills especially in the management of electronic resources provided by international companies and their international employees. Table 7 suggests that the staff with English language skills are needed in all the departments at an average rate of 39.8%. In Turkey, 27% of library staff at universities stated that their English knowledge was upper-intermediate whereas 6.8% of the respondents evaluated their English knowledge as advanced level. On the other hand, the participants expressed that they needed English knowledge at the rate of 62.8% in the library departments.

Table 7: In what departments English is needed most.

Department of the Library	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
Public Relations and Publicity	0.90%	0.90%	0.90%	39.10%	**58.30**%
Circulation Desk	1.7%	5.2%	10.4%	33.9%	**48.7**%
Rare collection	2.6%	21.7%	21.7%	39.1%	14.8%
Audio-visual Publications	0.9%	9.6%	17.4%	48.7%	23.5%
Department of the visually handicapped	1.7%	13.0%	37.4%	33.9%	13.9%
Purchasing and Collection Development	1.7%	6.1%	3.5%	53.0%	**35.7**%
Periodicals	0.0%	5.2%	5.2%	50.4%	**39.1**%
Cataloguing	0.0%	4.3%	12.2%	41.7%	**41.7**%
Administrative and Support Services	4.3%	17.4%	22.6%	36.5%	19.1%
Management of Electronic Resources	0.0%	0.0%	0.9%	25.2%	**73.9**%
Information Technologies	0.0%	1.7%	1.7%	27.8%	**68.7**%
Mean	1.3%	7.7%	12.2%	39.0%	**39.8**%

Chi-Square Analysis

In the Chi-Square analysis conducted, since p-value (Asymp. Sig.) in Chi-Square tables is greater than 0.05, it is possible to say that library staff at universities held similar views about the necessity of English knowledge. Moreover, Chi-Square tables indicated that there was no difference between the point of views of the staff working at the foundation universities and state universities.

Table 8: English knowledge is necessary for the management of electronic resources.

University Charter	Not Sure	Agree	Strongly Agree	Total
State Universities	.0%	20.3%	79.7%	100.0%
Foundation Universities	2.8%	36.1%	61.1%	100.0%

Table 9: Chi-Square Tests for "English knowledge is necessary for the management of electronic resources"

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.823[a]	2	.054
Likelihood Ratio	5.847	2	.054
Linear-by-Linear Association	5.246	1	.022
N of Valid Cases	115		
a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .31.			

Another Chi-square table showed that the respondents shared the same views about the significance of language of education of the university studied and importance of English in their career.

Table 10: English language is important in professional life.

Language of education of the university studied	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Total
Turkish	2.0%	.0%	4.0%	22.0%	72.0%	100.0%
Turkish & English	.0%	2.7%	2.7%	29.7%	64.9%	100.0%
English	.0%	.0%	.0%	30.8%	69.2%	100.0%
Other	.0%	.0%	.0%	50.0%	50.0%	100.0%

Table 11: Chi-Square Tests for "English language is important in professional life."

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.868[a]	12	.923
Likelihood Ratio	7.023	12	.856
Linear-by-Linear Association	.050	1	.823
N of Valid Cases	115		

a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is .02.

CONCLUSIONS

When compared to the previously conducted studies, to the best of our knowledge, this was the first study to survey English language skills of the library staff at all the universities in Turkey. Although the survey was sent to 178 universities in Turkey, responses were received only from 72 universities. However, the statistical results showed that confidence interval was suitable for precise measurement and reliability of the survey was high. In other words, the number of the universities surveyed was satisfactory to get a reliable idea about the current situation in libraries at Turkish universities.

As suggested in the results of this study, English language proficiency to supply quality service in the libraries at universities in Turkey has become more of a significant issue. There is a consensus about English language need between the respondents. None of the library staff at universities saw having a language skill as unnecessary qualification. Rather, they regarded English as a much-needed skill.

Responses received as open comments in the last part of the survey also demonstrated that library staff felt the need to acquire at least one language. Furthermore, they thought that English language skills already had to be acquired for their career. If possible, the library staff should learn another foreign language besides English. Most of the participants expressed that they should be offered English courses by their institutions.

To sum up, English as a *lingua franca* was chosen as a goal for this study in order to display the most essential characteristic of an up-to-date library. Even though this may be considered as something of a sensitive issue the study aimed to draw attention to the increasing need of English language skills in university libraries. As a result, it was found that the respondents held the same opinion about that library staff had to acquire English language skills that were a must in the various departments of the libraries. However, this study leaves room for further research into whether library staff at universities need another foreign language in addition to English. A further limitation to this study is that it attempted specify the levels of English knowledge of participants based on their own self-assessment. Future research may consider the use of language proficiency evaluation based on harder data.

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ENHANCING STUDENTS' READING COMPREHENSION PERFORMANCE THROUGH THINK AND SEARCH QUESTIONS. A STUDY OF SELECTED SECONDARY SCHOOLS IN KADUNA, NIGERIA

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ABSTRACT
This study focused on using "think and search" questions to enhance student's performance in reading comprehension. A sample of sixty (60) senior secondary schools from Kaduna metropolis was used for the study. Quasi experimental research design was used for the study. Government Secondary School, Kigo Road was used as the experimental school, while Government Secondary School Ungwan Muazu was used as the control school. Senior secondary two (i.e SS2) students were used for the study. Thirty (30) students (intact class) from each of the schools were used for the study. Both groups were exposed to six (6) weeks of teaching. Prior to teaching, both groups were exposed to pretest to establish the homogeneity of the two groups of students. Both groups were assessed after six (6) weeks of teaching using reading comprehension test. T-test was used to test the hypothesis raised in the study. The findings revealed significant differences in the performance of students taught reading comprehension using "think and search" questions. Teachers are encouraged to enhance students' performance in reading comprehension by engaging students in "think and search" questions during reading comprehension lessons. Curriculum planners and text book writers are equally encouraged to provide think and search questions for students before during and after every reading comprehension passage as a means of evaluating each reading task.

Keywords: enhance student's

BACKGROUND/INTRODUCTION TO THE STUDY

There is no one single best method of teaching reading, but whatever method a teacher chooses to use must take into consideration the particular circumstances and levels of students to be taught (Oyetunde, 2009, Yusuf, 2013, 2014). Definitions of reading comprehension in the past according to Zimmermann (2003) has focused on reader's ability to pronounce all the words, re-tell what happened and answer questions posed by a teacher or test. Questions such as "what is the passage about?" were thought to be enough instruction for meaning to magically appear in the reader's mind. As a result, many students over the years have played the game of "school reading". They could pronounce the words in a reading passage and respond to single factual questions but they had gained little real understanding or insight into the passage. After the test or examination was taken or the paper turned in, the reading task was largely forgotten. This researcher is of the opinion that reading comprehension should go beyond this. Real comprehension should involve thinking, learning and expanding a reader's knowledge and horizons. It should also involve building on past knowledge, mastering new information, and connecting with the minds of authors through their texts.

It is against this background information that this study aims at investigating the effectiveness of using "think and search" questions to enhance students' performance in reading comprehension.

REVIEW OF RELATED LITERATURE

"Think and Search" questions require several pieces of information from the text to complete a correct answer. They require students to "think" about how the information or ideas in the text relate to one another and to "search" through the entire passage to find the information that applies. "Think and Search" questions have answers that are found in different places in several different sentences within the reading text. Students usually, cannot use one finger to point to one specific part of one sentence to find the entire answer, instead, the entire answer requires one to find information in several different places in the text. (Zimmermann, 2003). The competence of using "think and search questions in reading comprehension cannot be over emphasized. As a matter of fact, they are indispensible for creating and strengthening the reader's ongoing dialogue with the text. According to Zimmermann (2003) they help to clarify ideas and deepen understanding. "Think and Search questions" lead students deeper into the reading task, setting up a dialogue with the author, sparking in readers minds what they care about. Think and search questions help readers to think and to constantly be alert or awake as they interact with the reading text. It

encourages students to be active, strategic readers. Students often follow an extremely literal or "in their head" approach when answering questions about what they have read. Using think and search questions help students learn the kind of thinking that different types of questions require, as well as where to go and search for answers in the text. It encourages students to be more efficient and strategic readers.
However, the effectiveness of think and search questions have not been established in secondary schools in Nigeria. This research is therefore aimed at ascertaining the effect of using think and search questions in teaching reading comprehension in senior secondary schools in Kaduna, Nigeria.

OBJECTIVE OF THE STUDY
To determine the effect of using 'think' and 'search' questions on the performance of students in reading comprehension.

RESEARCH QUESTION
What is the effect of using 'think' and 'search' questions on the performance of students in reading comprehension?
HYPOTHESIS
There is no significant difference in the performance of students taught reading comprehension using 'think' and 'search' questions.

METHODOLOGY
A sample of sixty (60) Senior Secondary School students from Kaduna metropolis were used for the study. A quasi experimental research design was used for the study. Government Secondary School, Kigo road was used as the experimental school while Government Secondary School Ungwar Muazu was used as the control school. Senior Secondary two (i.e SS2) students were used for the study. Thirty (30) students (intact class) from each of the schools were used for the study.
Both groups were exposed to six (6) weeks of teaching. Prior to teaching, both groups were exposed to pre test to establish the homogeneity of the two groups of students. Both groups were assessed after six (6) weeks of teaching using reading comprehension test. T-test was used to test the hypothesis raised in the study.

RESEARCH DESIGN
A pre-test, post-test quasi experimental design was used for the study. The pre-test was administered six (6) weeks before students were taught. The pre-test was conducted in order to establish the homogeneity of the two groups. The post test was administered after six (6) weeks of teaching to determine the effect of the treatment on the experimental group.

INSTRUMENTATION
The instruments used for the study were reading comprehension passages from which test items were drawn to encourage and stimulate students to use think and search questions to enhance their reading performance. Three (3) passages selected from Senior English project for secondary schools, students' book 3 were used for the study. The passages were selected because they were educative and interesting to both gender (i.e, male and female students).

ADMINISTRATION OF INSTRUMENTS
A pre-test was administered to both control and experimental groups to establish the homogeneity of the students. The experimental group was taught reading comprehension using think and search questions' for six (6) weeks, while the control group had their normal reading comprehension lessons taught by their teacher. A post-test was administered on the two groups after six (6) weeks of teaching to determine the effectiveness of using "think and search questions" on the performance of students.

TREATMENT
Step 1. Teacher begins the lesson with short, narrative reading texts. Teacher ensures that students are able to identify and write questions. Teacher introduces the think and search questions.
Step2. Teacher explains where students can find the answers to questions. (They are usually found in several parts of the text.)
Step 3. Teacher Models an example to each think and search question, thinking out loud so students can "see" his/her thought process as he/she determines the answers.
Teacher then, generates and provides the answer to the questions. Have students think and search for answers, explain their thought processes. This part of the process can be easier for students if they begin by

working in cooperative groups and then make transition to working independently after they show a thorough understanding of this strategy.

Step 4. Teacher introduces cooperative groups so students can read the comprehension passage.

Step 5. Teacher encourages each group to answer the questions and categorize their answers, explaining their thought processes. Teacher provides each group with immediate feedback.

Step 6. After students have been introduced to the think and search questions, teacher should provide them with several reading passages and questions that require thinking and searching for answers for each passage. Have students, individually or in cooperative groups read each passage, identify questions that require thinking and searching for answers. Let them ask, "why do the questions require thinking and searching for answers? Continue to give students immediate feedback. As students become proficient in the use of think and search questions, teacher can use more expository and functional texts.

Step 7. Teacher should provide longer reading passages for students. Tell them the answers to questions are usually found in several parts of the reading text. The think and search questions have different wordings. Answers are usually short answers but may be lengthy a times. Some examples of phrases used for Think and Search questions include:
For what reason…? How did…? Why was…? What caused…?

DATA PRESENTATION AND ANALYSIS

TABLE 1: PRE-TEST MEAN SCORES AND STANDARD DEVIATION FOR TEST NO1

GROUP	TEST	N	MEAN	SD
Experimental	Pre-test	60	43.20	1.32
Control	Pre-test	60	42.50	1.34

Table 1 shows the pre-test mean scores of students and standard deviation for test No1. The experimental group had a mean score of 43.20 and standard deviation of 1. 32 while the control group had a mean score of 42.50 and a standard deviation of 1.34. The data on this table shows the homogeneity of the students from the two groups (i.e. experimental and control).

TABLE 2: PRE-TEST MEAN SCORES AND STANDARD DEVIATION FOR TEST NO2

GROUP	TEST	N	MEAN	SD
Experimental	Pre-test	60	42.20	1.10
Control	Pre-test	60	43.10	1.12

Table 2 shows the pre-test mean scores of students and standard deviation for test No2. The experimental group had a mean score of 42.20 with a standard deviation 1.10 while the control group had a mean score of 43.10 with a standard deviation of 1.12. The data on this table shows that both groups are at par.

TABLE 3: COMPARISON OF THE POST TEST MEAN SCORES OF STUDENTS OF THE TWO GROUPS IN TEST NO1.

GROUP	N	MEAN	SD	DF	T-CAL	T-CRIT
Experimental	60	78.32	2.77			
Control	60	72.50	2.23	118	5.205	0.600

Table 3 shows that there is a significant mean difference between the result of the two groups. The mean performance of the experimental group is 78.32 while that of the control group is 72.50. the t-calculated value is 5.205. The t-critical value is 0.600. The t-calculated is less than t-crit value. Therefore, the null hypothesis which states that there is no significant difference in the performance of students taught reading comprehension using think and search questions is rejected. This means there is a significant difference in the performance of students taught reading comprehension using think and search questions.

TABLE 4: COMPARISON OF THE POST TEST SCORES OF STUDENTS OF THE TWO GROUPS IN TEST NO. 2.

GROUP	N	MEAN	SD	DF	T-CAL	T-CRIT
Experimental	60	79.00	2.72			
Control	60	71.80	2.10	118	3.523	0.600

Table 4: shows that there is a significant mean difference between the results of the post-test of the two groups. The mean performance of the experimental group is 79.00, while the mean score of the control group is 71.80. The t-

calculated is 3.523. The t-critical is 0.602. The t-calculated is less than t-critical. Which shows a statically significant mean difference between performance of students taught reading comprehension using think and search questions and those taught without. This means students taught reading comprehension using think and search questions performed better than those in the control group.

Table 1, 2, 3, and 4 indicate that students in the experimental group performed better than those in the control group. One could therefore conclude that the use of think and search questions positively enhanced the performance of students in reading comprehension. It is therefore, a useful tool in providing a basis for students to understand that information from both text and their experiences are important in answering questions. This finding is in line with (Pearson et al 1992, Rumelhart, 1976, Zimmermann & Hutchins, 2003) who asserted that the use of think and search questions leads readers deeper into a text, setting up a dialogue with the author, sparking in readers minds a deeper understanding of the text.

CONCLUSION

Reading comprehension can be enhanced by providing students with opportunities to use think and search questions before, during and after reading comprehension passages. Think and search questions help students search for key words and phrases to locate appropriate information for answering questions. Teachers should therefore be encouraged to use think and search questions with their students before, during and after reading comprehension passages. This will help students to think about how the information or ideas in the text relate to one another and to search through the entire passages to find the information that applies. It also helps students recognize whether or not information is present in the text or they have to read between or beyond the lines to answer the questions. The use of think and search questions should be encouraged by teachers to aid comprehension of students in secondary schools.

RECOMMENDATIONS

1. Teachers should as much as possible encourage students to create their own think and search questions during reading comprehension lessons. Teaching students using think and search questions can help them to ask effective questions as they read and respond to the text.
2. Curriculum planners should include think and search questions as part of student's activities (before, during and after reading exercises) in the curriculum for basic education.
3. Text book writers should include think and search questions for every comprehension passage in the English Language text book.
4. Teachers should use think and search questions to guide and monitor students learning and to promote higher-level thinking in their students. Teaching students the use of think and search questions encourages teachers to be aware of students and their level of thinking and, it also improves the type of thinking they are requiring of their students.
5. Understanding how the think and search questions work is an important component of comprehending texts. Teachers teaching reading comprehension using think and search questions should use such questions before, during and after reading each and every passage. Teachers should make this a "must do" routine activity in every reading lesson.
6. Students often follow an extremely literal or "in their head" approach when answering questions about what they have read. Therefore, introducing think and search questions with relationships help students learn the kind of thinking that different types of questions require, as well as where to go for answers in the text. Teachers should therefore guide and encourage students to be more efficient, active and strategic readers.

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ENTREPRENEURSHIP EDUCATION IN THE UNIVERSITIES AND ITS EFFECT ON UNIVERSITIES STUDENTS

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ENTREPRENEURSHIP EDUCATION IN THE UNIVERSITIES AND ITS EFFECT ON UNIVERSITIES STUDENTS

The importance of the concept of entrepreneurship has been increasing since 1980s with globalization. The reason for this situation is that entrepreneurship has a significant impact on socio-economic development, and on the increase of the level of economic welfare, growth of the economies. Therefore, it has been increasingly important for countries in the globalization process to have modern creative, visionary, open-minded and innovative entrepreneurs. Education of entrepreneurship is crucial in fostering entrepreneurship potential.Recent functions of higher education institutions are observing the inclinations of university students , encouraging them to improve their entrepreneurship skills and involving them in business world .In this context, it will be analyzed how the entrepreneurship skills of the university students may been affected by the so-called " entrepreneur universities", which can be regarded as the institutions where the intellectual capital is accumulated and developed.

ÜNİVERSİTELERDE GİRİŞİMCİLİK EĞİTİMİ VE ÜNİVERSİTE ÖĞRENCİLERİ ÜZERİNE ETKİSİ

1980 sonrası küreselleşme hareketlerinin etkisiyle üretim faktörlerinden biri haline gelen "Girişimcilik" kavramının önemi ve etkinliği her geçen gün artmaktadır. Bunun nedeni; girişimciliğin sosyo-ekonomik gelişimde, ülke ekonomilerinin büyümesinde ve iktisadi refah düzeyinin artışında önemli etki gücünün olmasıdır. Dolayısıyla küreselleşme sürecinde; modern, yaratıcı, vizyon sahibi, öğrenmeye açık ve yenilikçi girişimcilere sahip olmak ülkeler açısından bir avantaj unsuru olarak karşımıza çıkmaktadır. Girişimcilik eğiliminin oluşması ve başarılı girişimcilerin ortaya çıkmasında girişimcilik eğitimi de önemli bir yere sahiptir. Özellikle üniversitelerde okuyan gençlerin girişimcilik eğilimlerinin gözlemlenerek potansiyel girişimci özelliği gösterenlerin doğru yönlendirilmesi ve iş hayatına kazandırılmaları üniversite eğitiminin önemli işlevlerinden biri haline gelmiştir. Bu bağlamda çalışmamızda entelektüel sermayenin biriktiği ve geliştirildiği birimler olarak karşımıza çıkan" girişimci üniversite" kavramı temel nitelikleri ile ele alınacak ve girişimci üniversitelerin, üniversite öğrencilerinin girişimcilik özellikleri üzerindeki etkisi analiz edilecektir.

Keywords: Entrepreneurship,Students's Entrepreneurship,Entrepreneur University,Entrepreneurship Education

ESKİ UYGUR TÜRKÇESİ'NE AİT İKİLEMELERİN YAPISAL, BİÇİMSEL VE SÖZ DİZİMSEL ÖZELLİKLERİ

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Bir kavramı öğretmek, anlatmak veya pekiştirmek, anlatımda akıcılığı, kalıcılığı, ahengi sağlamak için birbirine eş, yakın ya da zıt anlamlı en az iki kelimenin bir araya gelmesiyle oluşan kelime grubuna ikileme denir. Bir kelime grubunun ikileme olabilmesi için kavram belirtmesinin yanında kendine ait bir takım yapısal, biçimsel ve söz dizimsel özelliklere sahip olması gerekir. Bu özellikler ikilemeyi kalıplaştıran veya kalıplaşmasını kuvvetlendiren unsurlardır. Bu çalışmada ikilemelerin yapısal, biçimsel ve söz dizimsel özellikleri incelenecek bu bağlamda Eski Uygur Türkçesi dönemine ait ikilemeler değerlendirilecektir.

Keywords: İkilemeler, İkilemelerin özellikleri, Eski Uygur Türkçesi.

ESTABLISHING 3D VIRTUAL CAMPUS: THE ISTANBUL UNIVERSITY CASE

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The continuous development in technologies like wireless connection, voice and video recording, and the capability to use various media types that are independent of time and place has made the virtual worlds more applicable and accessible. The recent developments in computer and Internet technologies and in three dimensional modelling necessitates the new approaches and methods in the education field and brings new opportunities to the higher education. The investment in the infrastructure of the Internet in Turkey has made the outreach to such technologies faster and easier than ever before. The Internet and virtual learning environments have changed the learning opportunities by diversifying the learning options not only in general education but also in the field of foreign language for teachers, curriculum designers and students. The use of different learning materials and applications other than classroom and coursebooks requires the reconsideration of education concept, methods, applications, teachers' roles, interaction types and the education environment itself. One answer to these concerns could be using the three dimensional virtual learning environments in the higher education. Many higher education institutions are employing one of the most widely used virtual worlds the Second Life Platform and are conducting classes on their virtual campuses, and organize meetings, seminars and conferences. In this study, it has been aimed to design and implement the virtual campus of Istanbul University and conduct some of the lessons through this campus.

Keywords: 3d virtual campus, higher education

ETHNOBOTANY IN SCIENCE EDUCATION: A MEANS TO STRENGTHEN FILIPINO IDENTITY IN THE ERA OF GLOBALIZATION

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Globalization affects the mindset of people which somehow causes alteration in every facet of human life; even worldviews are reshaped or reformed.A worldview is “highly correlated with a person’s cultural upbringing and life experience.”

Culture should not be detached from education. For education to become meaningful for the learner, the teacher must teach not only to develop the cognitive abilities of each learner, but should become culturally-responsive.

This paper presents the challengesof how science teachers inculcate cultural awareness and strengthen students’ Filipino identity through science and proposes the integration of culture in Philippine education, specifically in the field of science through Ethnobotany.

As part of the requirements in Ethnobotanya field work was conducted in Lubuagan, Kalinga to have a grasp of the principles and develop skills in doing an inquiry in ethnobotany.
As a result of this field experience, being facilitators of learning and as potential agents of cultural preservation, the class was inspired to introduce an innovation. A prototype learning plan in Integrative Biology to illustrate how ethnobotanical information can be integrated in science. It was evaluated by science teachers and found to be very much acceptable and reflects the cultural domain.

Integrating culture in sciences can help learners to further strengthen their Filipino identity and recognize their contribution to the world despite the global movement toward cultural uniformity. The Philippines will produce globally competitive graduates who can immerse into any kind of culture and find success without forgetting their own roots.

Keywords: culture integration, identity and global competitiveness

EVALUATING AND MONITORING THE LEARNING PROGRESS: LEARNING ANALYTICS

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ABSTRACT
Within educational society, metrics and grades (e.g., standardized-tests) are commonly being employed to assess the knowledge, skills and educational achievement that can be measured according to specific criteria or standards. This traditional practice of assessment is currently being replaced with an emerging and promising measurement technique for learning processes, that is, Learning Analytics. With the help of innovative ICT-enhanced applications, learning analytics has already been utilized to apply a process of gathering and analyzing large amounts of data about learning progress for purposes of understanding and optimizing learning experiences and environments. In this paper, we discuss the notion of learning analytics that presents a paradigmatic change in the measurement, collection, analysis and reporting of data about making decisions to improve the learning process.

INTRODUCTION

We have been witnessing the emergent of innovative techniques and applications within the learning and teaching processes in parallel to the rapid developments in information and communication technologies. The new methods or techniques in the measurement of learner success are one of those, which have been affected in the sense of practice and idea by new technologies. The traditional practice of assessment is currently being replaced with an emerging and promising measurement technique particularly for ICT-supported learning processes. Actually, a need for assessing the knowledge, skills, behaviors and educational achievement of "the net generation" learners has been conspicuously recognized by the educators and researchers. It is due to the fact that the net generation learners live in a world of high technological sophistication, which is their medium and métier (Hughes, 2009) that is "integral to the world they know and that world is the only one they have known." (Hughes, 2009, p 39).

"The new technologies emerging with this generation have particular characteristics that afford certain types of social engagement" (Jones, 2011, p.42) and consequently, a new learning experience. This includes a "strong sense of group identity; and a disposition to share and to participate[;]...a preference for instant answers; a downgrading of text in favour of image; and a casual approach to evaluating information and attributing it" (Hughes, 2009, p 39). The new usage of and accessibility to technology anytime anywhere even during mobility has changed school practices, learner expectations and experiences. Learners have increasingly developed as being equipped with the ability of self-controlled learning and the attitude of life-long independent learning. This has also lead to new trends in education such as mobile learning, open educational resources, virtual learning, cloud computing, and learning analytics. "Learning analytics has emerged as one of the most common terms for the community seeking to understand the implications of these developments for how we analyse learning data, and improve learning systems through evidence-based adaptation" (Buckingham Shum, 2012, p.2).

LEARNING ANALYTICS DEFINITIONS & CONCEPTS

Learning analytics (LA) is a fast growing field of ICT-supported learning and teaching. Learning analytics is defined on the website of the first international Conference on Learning Analytics and Knowledge (LAK 2011) (https://tekri.athabascau.ca/analytics/) and adopted by the Society for Learning Analytics Research (SoLAR) as "The measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environment in which it occurs." Siemens (2010) defines learning analytics as "the use of intelligent data, learner-produced data, and analysis models to discover information and social connections, and to predict and advise on learning."

According to Johnson et al. (2011), Learning Analytics "refers to the interpretation of a wide range of data produced by and gathered on behalf of students in order to assess academic progress, predict future performance, and spot potential issues" (p.28). Based on this definition, learning analytics has a potential in helping us "evaluate past actions and to estimate the potential of future actions, so to make better decisions and adopt more effective strategies as organisations or individuals. Analytics allows us to increase the degree to which our

choices are based on evidence rather than myth, prejudice or anecdote." (Cooper, 2012, p. 3). According to Phil Long and George Siemens (2011), "[t]he idea is simple yet potentially transformative: analytics provides a new model for college and university leaders to improve teaching, learning, organizational efficiency, and decision making and, as a consequence, serve as a foundation for systemic change" (p. 32).

Based upon the definitions above, it could be summed up that learning analytics could be positioned and conducted in terms of 3 different time scales: past, present, and future which provides information as well as insights and understanding for each time frame (Davenport et al., 2010) (see Table 1). LA could produce reports and descriptions about what happened in the learning stage and try to understand the reasons how and why actions in the past of learning process took place by building models and explanations. Moreover, LA provides near-real time information about what is happening in the current learning process and correspondingly, various recommendations are provided to take the best next action. Furthermore, LA analyzes the past data and produce new information about patterns of learning process leading to a point. LA makes predictions about the effect of actions and identifies the optimal interventions in the learning process.

Table 1. Analytics Position (adapted from Davenport et al., 2010)

	ANALYTICS POSITION		
	PAST	**PRESENT**	**FUTURE**
INFORMATION & FACT	Analytics produces ***Reports & Description*** of data: What happened?	Analytics ***Alerts***: What is happening now?	Analytics ***Extrapolates past data***: Where are trends leading?
INSIGHTS & UNDERSTANDING	Analytics builds ***Models & Explanation***: How and why did something happen?	Analytics provides ***Recommendations***: What is the best next action?	Analytics provides ***prediction***, simulates the effect of alternative courses of action, or identifies an optimal course of action: What is likely to happen?

Data-driven approach or data-driven decision-making processes for the purpose of understanding and improving learning currently stimulate interest in making more use of learning analytics. However, since the term "learning analytics" is kind of a newborn term for actors in education, it is interchangeably used with other terms such as "educational data mining" or "academic analytics" which have roots from data mining, business intelligence and statistics fields.

Educational Data Mining has emerged from the field of data mining as a database research field specifically in education for the last 10-15 years (Buckingham Shum & Ferguson, 2011). Ferguson (2012) views educational data mining as it focuses on mainly the technical challenge of education, that is, the possible ways of extracting a value from big sets of learning-related data. On the other hand, Learning Analytics focuses on the educational challenge where educators try to optimize opportunities for learning (Ferguson, 2012). Educational Data Mining, in other words, focuses more on research – data retrieval and analysis through the processes of, for instance, clustering, classification, sequence mining, social network analysis. One of the key application areas of *Educational Data Mining* is to look for "empirical evidence to refine and extend educational theories and well-known educational phenomena, towards gaining deeper understanding of the key factors impacting learning, often with a view to design better learning systems." (Baker & Yacef, 2009, p.7).

In terms of *Academic Analytics*, Ferguson (2012) emphasizes its focus on the political or economic challenge, which seeks for considerable improvements in learning opportunities and educational results at national or international levels. *Academic Analytics* provides solutions based generally on data analysis at an institutional level whereas *Learning Analytics* look for relationships within learning process (e.g. teacher, learner, content, and learning context). The most common users of analytics in higher education today are administrative units in education employing it as an engine to make decisions or guide actions (Campbell & Oblinger, 2007).

LEARNING ANALYTICS PROCESS

Chatti, et al. (2012) proposes a LA process as an iterative cycle in three major steps: i) data collection and pre-processing, ii) analytics and action, and iii) post-processing (see figure 1). The first step in this model is

collecting data and according to the type and size of the data, pre-processing data techniques such as data cleaning, data integration, data transformation, data reduction, data modeling take in place. The second stage – analytics and action - is to discover the data and explore the hidden patterns to imrove the learning experience by means of actions including "monitoring, analysis, prediction, intervention, assessment, adaptation, personalization, recommendation, and reflection" (Chatti, et al. 2012, p.6). The third stage – post-processing – is critical for continuous improvement. This stage involves "compiling new data from additional data sources, refining the data set, determining new attributes required for the new iteration, identifying new indicators/metrics, modifying the variables of analysis, or choosing a new analytics method." (Chatti, et al. 2012, p.6).

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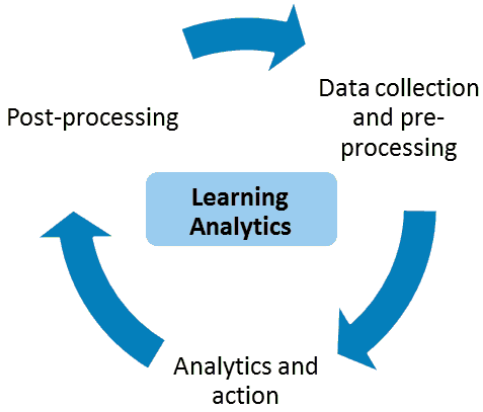

Figure 1. Learning Analytics Process (Chatti, et al. 2012)

George Siemens (2010) suggests another LA process, which is not an iterative process but more like a structured equation modeling (see figure 2). In a technology-enhanced learning environment, learners constantly create and input data via different tools such as learning management systems, blogs, or other social media. The data supported with learner's profile and becomes increasingly an interlinked or intelligent. Then, analysis takes in action to make predictions for personalization, adaptation of the learning process, and to do interventions for effective learning outcomes. Within this mind, "adaptation and personalization needs to be holistic and multi-faceted, incorporating technology, socialization, and pedagogy" (Siemens, 2010).

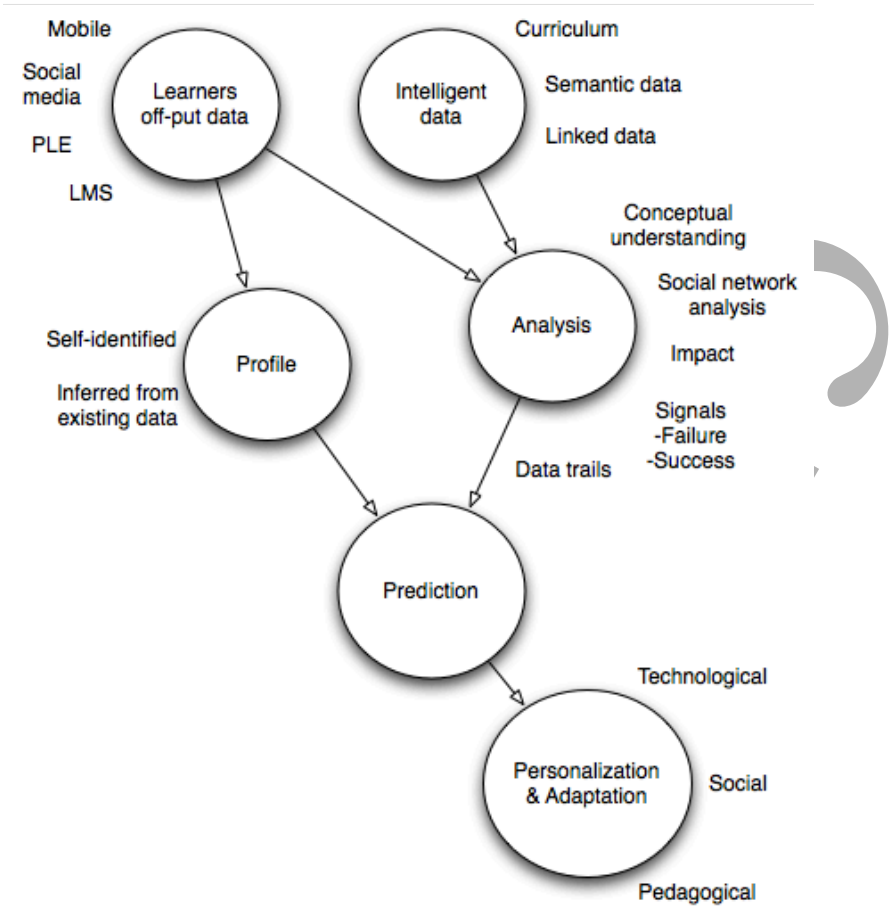

Figure 2. The Process of Learning Analytics (Siemens, 2010)

THE IMPLICATIONS OF LEARNING ANALYTICS

Learning Analytics is relatively a new technique for analyzing huge data sets to both redirect learners to more successful learning experiences and provide help and guide to redesign curricula for more successful learning opportunities. Huge data set is recurrently named as "big data" that is collected by different ICT tools, for instance, Learning Management Systems. So what is big data called? "Big data is a buzzword, or catch-phrase, used to describe a massive volume of both structured and unstructured data that is so large it is difficult to process using traditional database and software techniques" (www.webopedia.com/TERM/B/big_data.html).

Structured data is generally stored in databases in a standardized storage format and ontology (e.g., load, enrollments, usage data). Unstructured data including text, audio, lecture videos, chat rooms, emails often requires pre- processing before facilitating structured data analysis. These sorts of data provide valuable real time information by analyzing usage-tracking data for different stakeholders in the field of education in terms of student behaviors, student interactions and course content design. Educators and learners are two critical stakeholders among others (e.g., computer agents, institutions, instructional designers, LA researchers) that they can have many educational benefits of LA. According to Sharples et al. (2013), LA provides an innovative way of assessing and exploring the milestones of the learning progress for educators and learners (see table 2).

Table 2. Educational Use of Learning Analytics (Sharples et al., 2013, p.14)

Educators can use LA to:	**Learners can use LA to:**
• Monitor the learning process • Explore student data • Identify problems • Discover patterns • Find early indicators for success, poor marks or drop-out • Assess usefulness of learning materials • Increase awareness, reflect and self-reflect • Increase understanding of learning environments • Intervene, supervise, advise and assist, and • Improve teaching, resources and the environment.	• Monitor their own activities, interactions and learning process • Compare their activity with that of others • Increase awareness, reflect and self-reflect • Improve discussion participation, learning behaviour and performance • Become better learners, and • Learn.

Of the above, monitoring the learning process, in particular, monitoring individual learner performance and participation in a course is among the most prevalent type of learning analytics applications. Disaggregating learner performance by selected characteristics (e.g., major, year of study, ethnicity, etc.) and identifying outliers for early intervention are the next frequent use of LA applications. However, predicting potentials within a course so that all learners have optimal achievements; identifying and developing effective and efficient instructional techniques; and testing and evaluation of curricula are the least types of LA applications that educators prefer to utilize.

CHALLENGES and DEBATES

Theoretically, Learning Analytics provides interventions for the existing models and shortcomings of education and produces new insights what works successfully and what needs to be improved or developed in teaching and learning (Siemens, 2012). However, there are considerable challenges and uncertainties that educators face with especially having the potential impact of LA on education and learning. Ferguson (2012) identifies four significant challenges: i) integrating experience from the learning sciences, ii) working with a wider range of datasets, iii) engaging with learner perspectives and iv) developing a set of ethical guidelines. According to Ferguson (2012), the first challenge is that educators and/or researchers need to build strong connections with learning sciences as LA has emerged from many other fields (e.g., data mining, academic analytics). Another challenge is that researchers need to develop methods to investigate problems faced by learners in different learning contexts and to work with a wide range of datasets. Moreover, researchers need to develop analytics focusing on the personalized learning, that is, perspectives of learners rather than to the needs of institutions.

Furthermore, researchers need to develop and apply a clear set of ethical guidelines for learners in relations to their data.

Buckingham Shum (2012, p.9) also put very much emphasis on the following challenges for applying LA in the field:

1. Learning Analytics are never neutral: they unavoidably embody and thus perpetuate particular pedagogy and assessment regimes in the educational ecosystem (primary/secondary/tertiary/workplace).
2. There is a pressing need to plug the widening analytics talent gap. Institutions should train staff and researchers in the design and evaluation of learning analytics.
3. Compared to many other sectors, educational institutions are currently 'driving blind'. They should invest in analytics infrastructures for two reasons: (1) to optimise student success, and (2) to enable their own researchers to ask foundational questions about learning and teaching in the 21st century.
4. The field is moving fast, with companies innovating to meet perceived markets. To keep up, the normally slower pace of educational research and professional development must be accelerated, or institutions are at risk of making purchasing decisions based on what's available, rather than what's needed.

In addition, although Learning Analytics provides performance indicators for learning and teaching, it does not essentially promote meaningful learning. Moreover, analytics making learners increasingly reliant on institutions, which are dependent on computational platforms to be able to provide learners with continuous feedback, rather than developing learners' own meta-cognitive skills and dispositions (Buckingham Shum, & Ferguson, 2011).

Along with challenges, there are critiques and debates on the utilization of LA around the following issues:

- Automating Research Changes the Definition of Knowledge
- Claims to Objectivity and Accuracy are Misleading
- Bigger Data are Not Always Better Data
- Not All Data Are Equivalent
- Just Because it is Accessible Doesn't Make it Ethical
- Limited Access to Big Data Creates New Digital Divides (Buckingham Shum, 2012, p.8)

CONCLUSION

In an ICT-enhanced learning environments, learners produce data trails which could be valuable for making interpretations about what is actually happening in the learning process and creating suggestions and possible ways in which educators can make improvements with learning and teaching. LA also provides learners with insights into their own learning behaviors and performances. Learning institutions make little use of data learners left behind in the process of their interaction with ICT-enhanced learning contexts. Within this kind learning contexts, huge amount of data is constantly being generated and storage and processing power of data are exponentially available in courses. LA promises to be an important lens through which to view patterns of relationships hidden in that data and plan for effective change in learning.

Learning analytics have undeniably a crucial role to play in the future of education. Especially, understanding the scope and uses of learning analytics in existing courses will open new areas in relation to innovative learning designs and new teaching methods and curricula. Not only does LA provide about past actions in the learning but also supports future learning outcomes. On the other hand, the relationship of LA with theories of learning, teaching, cognition and knowledge should carefully be made.

Empirical research studies should be conducted and then findings need to be applied into practice in real learning contexts to evaluate the potential of LA. There is also a need to address challenges that learners, educators, institutions are facing with. "These challenges currently involve the development of new tools, techniques, and people; resolving data concerns such openness, ethics, and the scope of data being captured; enlarging and transitioning the target of analytics activity; and improving connections to related fields." (Siemens, 2012, p.4).

However, LA as a new discipline has already captured a tremendous interest and gained a vast attention among stakeholders in education with its offers and potential in improving the learning process and providing

interventions for current educational problems at individual learner, teacher, and institutional level. "Learning analytics can penetrate the fog of uncertainty around how to allocate resources, develop competitive advantages, and most important, improve the quality and value of the learning experience." (Long & Siemens, 2011, p.40).

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TEACHERS' EVALUATION OF SUPERVISION PRACTICES IN TERMS OF THEIR PROFESSIONAL DEVELOPMENT

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ABSTRACT
The purpose of educational supervision is to address teachers' professional deficiencies for achievement and to provide the necessary support teachers by knowledge and skill acquisition and professional development. It is thought to be worth studying to define what extent this aim is achieved. The aim of this study is to discover newly graduated teachers' opinions about whether supervisions contribute to their professional development and to unearth their recommendations about what could be done to support teacher professional development. The study is based on a qualitative research and data was collected through face to face interviews with 15 branch teachers. Descriptive analysis was used to analyse data. Findings reveal that a) teachers need supervision but not current practices of supervision deviated from the principles and understanding of contemporary supervision, b) teachers are complaining about not finding instructional leadership behaviours which is very important for their profession. The teachers suggest that supervision contributing to professional development should provide feedback, should be based on good human relations and should be school centred practice conducted collaboratively.

INTRODUCTION
Teachers are the crucial part of successful education and supervision helps teacher to gain the necessary knowledge in order to be successful, to develop their skills and to enhance their professional development (Glickman, Gordon, Ross-Gordon, 1998). Teachers who are recent graduates feel excited to start their professional lives, take on various tasks, dedicate themselves to their students and make a change in students' lives but their expectations and aspirations are rarely met. These newly graduated teachers resign in their first or second year of career and those who continue to work face negative experiences in general and they cannot perform the role of educator (Gordon and Maxey, 2000). The difficulties teachers face in their early career years are often related to the competencies of teachers or the teacher education programs whereas the role of supervision is rarely cited as a reason.

One of the most important problems newly graduated teachers face is how their professional development can be supported. Teachers see their first years of experience as a trial and error process due to their lack of experience (Glatthorn, 1984). Beginning a teaching profession is perceived as a challenging struggle (Huling-Austin, 1990) and teachers feel alone when they have to fulfil their duties due to the lack of planning, supervision and interaction with their colleagues (Odell & Ferraro, 1992). Robinson (1998) emphasizes that the enthusiasm of teachers, their hard work and the support they receive from experienced teachers and managers can help teachers overcome the difficulties they experience in the early years of their profession. One of the most reliable ways of supporting teachers' professional development is to monitor teachers, to assess them and to provide professional guidance on the necessary topics and issues. Monitoring teachers' classroom performance and providing feedback and assessment to teachers are argued to make a difference in teachers' professional development (Marshall, 2009).

Previous research has emphasized the importance of supervision for developing in-class learning (Aydın, 2005; Glickman, Gordon & Ross-Gordon, 2005; Oliva & Pawlas, 2001; Pajak, 1993; Sergiovanni & Starratt, 1998; Sullivan & Glanz, 2000; 2005; Waite, 1995; Wiles & Bondi, 1996; Zepeda, 2006a; 2006b). A well conducted supervision enhances teachers' teaching practices, strengthens teachers and improves teachers' learning. One way to achieve this is to provide feedback to the observed teacher. Teachers' progress is to a great extent related to the quality of feedback. Research shows that while teachers want to get feedback regarding their practices they can rarely have access to such feedback or information that could help them develop their skills and strengthen their performance (Sergiovanni and Starratt, 1998; Sullivan & Glanz, 2005).

The process of supervision should be a collaborative endeavour through which teachers can reveal their professional concerns and anxieties. Researchers (Beach & Reinhartz, 2000; Glatthorn, 1990; Glickman,

Gordon, & Ross-Gordon, 1998; Sergiovanni & Starratt, 1998) stress that teachers could conduct a collaborative effort with the participation of all partners in the process of supervision and emphasize the importance of such a project. Long term supervisions are usually carried out in order to see whether the curriculum is being implemented or to find out whether a number of basic skills are acquired by the teachers. Therefore, many teachers are reluctant to ask help from the supervisors as they think that asking help would be considered as a sign of weakness and would lead to a poor grade in their assessment (Ebmeier and Nicklaus, 1999). When, however, contemporary organisations changed within the course of time the conventional approaches to management and supervision perceptions started to lose their functionality and appeal. Therefore, there are many different alternatives for teacher supervision..

While Ebmeier and Nicklauds (1999) see supervision as an educational tool, existing practices decrease the collaboration between colleagues and the solidarity between teachers and supervisors. Sergiovanni and Starratt (1998) redefine supervision as a more democratic and professional process and as an exercise in which both teachers and supervisors can employ and develop their skills. Teachers' preferences and choices regarding supervision vary. Some teachers prefer to work independently whereas some like getting feedback about their work (Augustyn, 2001). In order educational supervision to be advanced, the relationship between professional development and supervision should be developed (Dollansky, 1997). Professional development is meaningful as long as it is congruent with the needs of teachers (Jonasson, 1993).
In recent years, various methods are being used by principals for teachers' professional development (Marshall, 2009):

- ✓ A more dynamic supervision and assessment
- ✓ The use of exams' results to assess teachers
- ✓ Paying more the teachers who have a better performance
- ✓ Revising teacher' evaluation forms and making the necessary changes
- ✓ Providing feedback to staff by visiting schools
- ✓ Ensuring that teachers can benefit from the example of teachers and schools with high performance
- ✓ Ensuring that teachers examine and analyse studies of students
- ✓ Ensuring that teachers use a curriculum set in detail.
- ✓ Providing all students with laptops
- ✓ Encouraging teachers to use the internet so as to have access to different materials and interesting ideas on teaching
- ✓ Forming discussion groups for teachers to read relevant books and journal articles
- ✓ Ensuring that teachers join courses and workshop in and outside the school

Every single method tried for teachers' professional development can improve the education quality under the right circumstances. However, Greene (1992) argues that a more effective and strong process ofsupervisionis necessary in order to enhance the education and teaching facilities and to decrease attainment parity (Greene,1992).

Marshall (2009) lists the properties of a strong supervision as follows:

- ✓ Having a shared perspective with principals and teachers on the education and teaching functions.
- ✓ School principal's observation of classroom teaching
- ✓ Principals' taking notes down a number of important points for consideration after classroom visits
- ✓ Principals' providing feedback to teachers on the necessary points to be developed by teachers
- ✓ Teachers' use of this feedback to improve their classroom performance
- ✓ Increasing students' achievements (Marshall, 2009).

When all these steps are completed successfully, supervision and evaluation will be an important force for development. However, personal weaknesses, bureaucracy, personal dynamics and rigid policies are usually a barrier to conduct supervision and evaluation in line with the above criteria.
Marshall (2009) lists a number of reasons for which supervision and evaluation are not being conducted:

- ✓ Principals can only observe a small part of instruction and teaching.
- ✓ Teachers perform their duties only to impress others.
- ✓ The visit of principals to the classroom affects the classroom dynamics.
- ✓ A number of skills and a certain level of education are required in order to make a syllabus or a course plan.
- ✓ A syllabus of high quality can overshadow the big picture.
- ✓ Many supervision tools are not flexible and they are strictly attached to regulations and therefore they cannot provide useful feedback.
- ✓ The use of check lists and rating based on quantitative criteria prevents teachers from understanding the essence of supervision and does not support teachers' development.

- ✓ Critical assessments can discourage teachers from further educating themselves or they can make adults feel ignorant about education and training.
- ✓ The process of supervision can lead to segregation and jealousy among teachers.
- ✓ Some principals feel that they cannot avoid bad or mediocre teaching
- ✓ School principals are often disturbed by assessment processes.
- ✓ Supervision focuses more on pleasing management than on focusing on teaching and educational practices.

School managers can only observe a teacher's class once a year. A teacher has in total 900 hours of teaching during one academic year (180 working days-5 hours per day). Therefore, supervisors observe only the 0.1% of the total class hours. In the remaining 99.9% of time, the teacher is alone with students. It is not effective to observe only one class of a teacher who teaches 900 hours during an academic year and the assessment which is based on one class observation cannot present a holistic picture about a teacher's performance. In other words, teachers should have a more intensive supervision. There are, for example, principals who provide feedback to teachers, make plans for their professional development, take a close interest in their teachers and students and communicate with their teachers. Yet, such managements are rare.

THE STUDY

Purpose of this research is to discover newly graduated teachers' ideas about whether supervisions contribute to their professional development and to unearth their suggestions about what could be done to enhance professional development. To serve these aims, following research question are sought to be answered:

1. What do teachers think about supervision?
2. How should supervision contribute to teachers' professional development?
3. How a better supervision could be carried out to contribute to professional development?

METHOD

This study adopts a qualitative research approach which enables the researcher to describe and analyse an individual's ideas and experiences in verbal terms rather than in numerical terms. Qualitative research is an approach that prioritizes researching and understanding a social phenomenon in its related environment (Fraenkel ve Wallen, 2009; Hancock, 1998; Yıldırım ve Şimşek, 2008). In the research, a "phenomenology" design was used to unearth individuals' perceptions and reactions about a phenomenon. Phenomenology is used to explain the world we live in, including cases, experiences and concepts. Phenomenology studies may not always provide explanatory definitions yet they create awareness about an issue and help us understand phenome. (Fraenkel ve Wallen, 2009; Hancock, 1998). In this respect, a qualitative approach was preferred in order to explore teachers' evaluation, expectations, experiences and opinions about the supervision.

The participants of this research are 15 branch teachers (4 men and 11 women) who were working in Ankara-Altındağ in secondary schools during the spring term of the 2012-2013 academic year. For the selection of participants, the study used the criterion sampling method which is categorized under purposive sampling. Experience has been used as a criterion for purposive selection in order to find what teachers, who are recent graduates and teachers who are in their first 5 years of experience, think. Therefore, participants with 1 to 5 years of teaching experience were chosen.

Table 1. Profile of Participants

Code of participants	Field of teaching	Gender
T1	Turkish	F
T2	Science	F
T3	Turkish	F
T4	Turkish	M
T5	English	F
T6	English	F
T7	Turkish	M
T8	Science	M
T9	Turkish	F
T10	English	F
T11	Special Education	F
T12	English	F
T13	Science	F
T14	Technology and Design	M
T15	Early Childhood Education	F

Data was collected through semi-structured interviews which allow a researcher to obtain more systematic and comparable data from different individuals (Fraenkel ve Wallen, 2009; Hancock, 1998; Yıldırım ve Şimşek, 2008, 121-122). In the process of forming data collection tools, a question pool regarding supervision was formed drawing largely from the literature. To ensure the content validity of the data collection tools, the opinion of experts was asked about the questions so as that the study could produce valid and reliable results. In particular, to ensure content validity 3 lecturers were asked to look at the questions and then a final interview protocol was produced in the light of the provided feedback. In order to understand whether the semi-structured interview protocol was clear enough for the participants, it was tested on two teachers who did not participate in the focus group interviews. The interviews with these two teachers showed that the questions were clear and comprehensible.

Data was collected between April and May 2013 in Altındağ district of Ankara through face to face interviews with teachers. Interviews were conducted when teachers were at school and took place in teachers' rooms. They lasted between 25 and 30 minutes. It was paid attention that during the interview no other person was in the room except from the participant and the researcher. All interviewees gave their consent about being recorded and therefore all interviews were audio-recorded. Later on, the interviews were transcribed.

Descriptive analysis was employed for data analysis. Initially, the transcripts which contained the data were read several times. Subsequently, the statements that were not related to the topic of research were removed. Then, the statements that were relevant for the research questions were gathered in order to address the sub-questions of this research. The statements' frequencies are provided followed by a detailed analysis of the data which also included quotations from teachers' answers.

FINDINGS

This section presents the results of the analysis of the ideas of teachers who are in their early career years (1-5 years of experience) about the relationship between supervision and professional development. Findings did not aspire to give all the data obtained from teachers but rather aimed to present data that could answer the main research question.

Teachers' views about current supervision practices

Teachers had in general the same view about supervision practices. When asked if they need supervision, 11 teachers replied with 'yes' or 'conditionally yes'. This means that supervisions were seen necessary but they held a common belief that the supervision were not properly done. When principles of supervision are considered (Beycioğlu ve Dönmez, 2009; Aydın, 1993; Başar, 1993), supervision should be purposeful, objective, clear, constructive, collaborative, and democratic and should take the existing conditions into consideration. Yet teachers' statements indicate that supervisions were not conducted in accordance with the aforementioned principles. As teachers expressed, ambiguity during the supervision create fear and anxiety:

> *"*Supervision *should not create fear and anxiety. When you say* supervision*, I cannot help thinking of if I did something wrong" (T11)*
> *"I do not think that people who inspect me are objective or do their jobs properly." (T3)*
> *"There is an understanding among teachers that supervisors come from ministry, they will inspect us, find our weaknesses and leave the school." (S14)*

Environment of trust form a basis for teacher participation, division of responsibility, contributing efforts and motivation needed for the targeted changes and development in supervision. The above mentioned quotations highlight teachers' concerns that supervisors may not be impartial with people (principle of objectivity) and may not explain clearly what is expected from teachers (principle of specification).

Another issue teachers mostly emphasized about supervision practices is that they believe supervisors do not inspect teachers long enough to have an idea about themselves or to evaluate their performance. Teachers expressed their concerns as follows:

> *"I do not think two-hour-* supervision *would contribute much to me" (T10)*
> *"It is difficult to understand the quality and performance of a teacher in 40 minutes." (T12)*
> *"That person (inspector) cannot have an idea about my personal development in 2 hours" (T3)*
> *"Inspector only comes for 15 minutes…" (T8)*
> *"A person who inspects me for only one hour cannot really know who I am. I may pretend to be someone else in that hour" (T14)*

Hoy and Miskel (1978) stressed that in professional supervision the decisions taken by supervisors and the provided guidance should be knowledge based. Moreover, in order to obtain reliable and valid information about

the supervised and the teachers to be able to make informed judgements about themselves, there should be sufficient time allocated for observation.

The question of "what is supervised" is also a commonly mentioned issue by teachers. Teachers expressed their ideas on this issue as follows:

> *"I don't find supervisions are useful because they are old fashioned and it is only of paperwork. Supervision is all about checking and inspecting documents and paper. They ask if you have board of branch teachers' documents or that document or this document." (T1).*
> *"When you say* supervision*, people check the documents. They don't inspect what I do or my work". (T2)*
> *"It is all about documents. If there is a missing document, they ask where it is." (T3).*
> *"*Supervision *has become a routine process in which files are checked and classes are observed only passingly" (T6).*

Teachers' statements showed that supervision is based on a very narrow examination of teachers rather than taking teachers' overall performance into consideration. Although some documents can work as an evidence of teachers' performance, contemporary education supervision should aim to provide support for professional development. Teachers statements pointed out that although necessary information were collected about teachers' performance, they were not shared with them and therefore teachers perceived the examination made under the name of supervision as 'document supervision'.

Teachers' views about the contribution of supervision **to professional development**

Majority of teachers (11 teachers) believed that there was not a connection between supervisions and professional development. Only four teachers stated that there could be a relationship between supervision and professional development yet almost all emphasized that this relationship was not supported by current practices. It is surprising to see that teachers made similar and limited statements about the sort of benefits supervision provide for professional development. Teachers shared the idea that they did not benefit from the supervision in terms of professional development; on the contrary they were negatively affected by it.

Teachers' ideas focused on three issues. First of all, supervisors only explained teachers how to fill required documents and the learning as limited to this. As T15 express:

> *"I learned how to fill the documents but* supervision *did not contribute to my classroom practices."(T15)*

This implies that the inspector gave an impression that the most important aim of supervision is to "examine documents" or "to arrange documents". The above statement showed us that teacher expected a contribution regarding classroom practices and prioritized such contributions.

Secondly, contribution to professional development was very much related to the time allocated to a teacher. One teacher of the teachers expressed her concerns as follows:

> *"He observes my lesson for only one hour and what kind of contribution he can make to my development."* (T3)

In other words, allocating sufficient amount of time to teachers for their professional development, providing opportunities and space for teachers to share their experiences, having a common assessment of teachers' practices, and emphasizing teachers' strengths are quite important steps for teachers' support and encouragement.

Thirdly, teachers expressed their ideas about revision and development of supervision aspect (Başar,1993). Teachers' expressions below showed that their common emphasis about supervision was that they did not get feedback about themselves:

> *"I did not feel like I had any professional development because he just listened to my course and left." (T5).*
> *"They do supervision only but nothing happens after that." (T13).*

The most important contribution supervision can make to profession is to create enthusiasm in teachers for personal development and to participate in the process in order to understand and develop it (Aydın, 1993). It should also serve to expand teachers' views and perspectives about their profession.

Teachers' views and opinions about a contributing supervision

Teachers offered different ideas about how a supervision could be carried in a way that it could contribute to their professional development. Teachers mostly drew from their experiences about supervision and stressed on what should not be done in a supervision. For instance, teachers' statements below indicated that they found supervision practices **conventional and useless** and put forth that the change in supervision mentality should be in this direction.

> *"Supervisors should leave old-fashioned thinking behind." (T1).*
> *"Supervision should focus on teaching practices, not on documents." (T4).*
> *"If* supervision *is carried out with tools that emerged twenty years ago healthy results will not come out. Today's requirements are different. We are now in the age of computers. Any* supervision *ignoring this is not a proper* supervision*." (T7).*

After teachers had defined supervision practices as *conventional and useless*, they also stressed that supervision should be **guiding, goal oriented** and **problem solving** with following quotations:

> *"I don't want a grade or a point in supervision rather I prefer to be observed in a relevant way that could guide me" (T10)*
> *"There should be a supervision; it should be constructive and problem solving. They should supervise to solve problems. (T13).*

Another frequently mentioned point about supervision by teachers is the **contingency** principle. Contingency principle argues that observed behaviours can produce different results in different times and places (Başar, 1993). A teacher's following expression emphasized that assessment should be conducted taking the environment of supervision into consideration:

> "*In the assessment the teaching conditions should be taken into consideration. But this does not happen. They should even congratulate us for working under these difficult and tough conditions." (T2)*

Teachers also suggested a paperwork that would not create workload for them during supervision process. One teacher's statement below can be given as an example for this:

> "I don't want supervisors to come to school frequently. They should not come just for the sake of visiting or just in order to create problems. A tradition from old times still continues: the "official report". You have to present all the things you do in class within an official report but education is not like that. You cannot record every single thing or moment in education because education and teaching is a process that is constantly being experienced rather than having tangible results. This mentality is wrong. They should come but they should come to help and support us. Supervision should not focus on looking for a mistake or for checking whether the required documentation is correct. These are very wrong. *(T3)"*

One teacher expressed need for **feedback** after supervision by saying "*It should be a* supervision *that will address the deficiencies*" (T15) whereas two teachers emphasized a **motivating** supervision mentality:

> *"It should be motivating" (T2)*
> *"There should be constructive criticisms not hurting or destructive criticism." (T6).*

Good human relations and ***communication*** also appeared as a suggestion that could create a contributing supervision mentality. Teachers expressed their opinions on this as follows:

> *"Supervision should be carried out in a long span of time. In a sincere and warm environment, they could tell us how they will assess and evaluate us and they could express their ideas regarding the positive or negative aspects of our work. There could be a different approach." (T9).*

> *"Talking requires foremost communication skills. An effective supervision could be realized through the appropriate communication. (T1)."*

> *"It would be better if we could establish a process of dialogue among supervisors and teachers." (T9).*

Interaction is important but does not mean anything on its own. Interactions should also include professional issues.

Another mentioned issue is the necessity of collaborative study. One of the teachers said: *"If* supervision*s were a collaborative study, it could be even better* (T1)" whereas another teacher expressed as follows:

"*Supervision should be a collaborative work. There could a collaborative work in any case or situation." (T3)*

As Bilir (1999) expressed supervision is a cooperation rather than a process of searching for a weakness or mistake. Teachers' statements approve this judgement.

Holistic approach is another topic teachers used to define contributing supervision mentality.

"Teacher should take place in supervision process. I think teachers should be in the process from beginning to the end. Teachers should be in entire process of supervision*." (T4)*
"In the end, education is holistic because teacher, principal, inspector, director of national education, provincial director or national educations are all in education and all have different contributions. There can be cooperation between supervision *and teachers." (T7)*

Thus teachers' ideas assume that supervision can be effective if carried out in a collaborative approach inclusive of all stakeholders.

Regarding supervision practices, **colleague supervision** is an additional issue that teachers emphasized

"The interaction among teachers are more effective" (T2).

A final point teachers emphasized is **school centred** supervision**.**

"*School supervision should come into prominence. Not supervisors of provincial national education but schools should help teachers." (T1)*
"Supervision should only be carried out with the help of the principals and supervisors should respect principals." (T4)
"The role of principals' supervision should be increased." (T7)
"School principals are always at schools and they have the opportunity of tracking what teachers do or how they work. The supervisors may not have the chance to know the teachers, given the limited amount of time but when supervisors are together with school principals, a better judgment can be formed about a teacher. I think it is better in that way."(T8)

Above statements present that central supervision is not enough and supervision by school principal could be more effective.

CONCLUSIONS

School is an organisation in which social, cultural, political and economic functions of educational institutions are performed. This means that the schools have a responsibility of helping the various social groups of society to achieve their goals and of determining, assessing and developing the social contribution of each group. Otherwise, schools will deviate from their aims and the performance of employees and the mission of raising up the next generation of citizens will be negatively affected. Therefore teachers' ideas about *how teachers are supervised, whether this supervision can contribute to professional development* and *how a better supervision can be provided* are important. In this study, teachers' ideas on these three issues were obtained through face to face interviews and analysed.

In this study, teachers expressed their need for supervision; however, they pointed out that **current supervisions** do not align with contemporary supervision principles and understanding. Teachers stated that current practices arouse fear and anxiety in them and that supervisors do not carry out long enough supervision process that could give an idea about the performance of teacher. Lastly, they expressed that supervisions were not objective and the aim of supervision was not clear. These negative ideas can be argued to be closely related to each other.

The fact that supervisors do not allocate enough time for the supervision of teachers and the assessment of their performance (Özbek, 1997; Sarpkaya, 2004; Thobega and Miller, 2003) cause supervisors' not being able to decide on the topics of guidance for teachers. Even if they decide on the issues requiring attention, it causes the level of guidance not to be at the desired level (Sarı, 2006; Yıldırım, 2007; Can and Gündüz, 2012). For instance, research of Demir (2009) supported this finding and showed that teachers expected a seminar or a conference from supervisors and wanted to be informed on student motivation, assessment and evaluation and reducing future anxiety of students. However, the study revealed that teachers were not provided sufficient **guidance** on such issues.

Brief supervision process does not provide a reliable and valid judgement about teacher and therefore, it shadows the objectivity of the decision about teacher. Likewise, many research findings (Bozkurt, 1995; Kartal, 1997; Yılmaz, 1998; Dağlı ve Akyıldız, 2009) pointed out that teachers did not find supervision practices **objective.** Teachers think that supervisions forms had several shortfalls, the content of the form was not at an adequate level for evaluation (S. Şahin, 2005) and these forms did not give a sufficient evaluation (Yılmaz, 1998).

The finding that teachers were not sure what was expected of them in supervision is congruent with the research findings of Şahin, Çek ve Zeytin'in (2011). It could be argued that arbitrariness and personality dominate supervision. Based on these views, it is obvious that "goal-oriented supervision" principle of contemporary supervision was not complied with. Taking teachers' concerns into consideration, it can be seen that another supervision principle was not followed either; this is principle that "effective supervision should be conducted in a healthy environment free from oppression and stress". This finding showed consistency with the study results of Kazak (2013) and Akşit (2006). The finding of "supervision was limited with paperwork and limited duration of supervision" in research of Kazak (2013) confirms the opinions of teachers in this study.

Supervision should provide **professional development**, make concrete suggestions about improving classroom activities and should help teachers realize their weaknesses or mistakes (Obiweluozors, 2013) but teachers in this study complained that they cannot get any of these support. A good supervision should give teachers an opportunity to show their skills and thus should diagnose what sort of support they need and provide necessary contribution and reinforcement for professional development. In contemporary education supervision, the aim is to contribute learning-teaching process by developing teachers' teaching behaviours (Kartal, 2013). Inspector, in this sense, is seen as someone as the leader who improves education (Burnham, 1976) and therefore, supervisors' instructional leadership is significant. However, the results of this research showed that teachers thought that current supervision practices were not effective for professional development. Teachers expressed that supervisors focused on filling the required forms, made short supervisions and did not provide feedback about teacher actions.

Regarding the question of how a supervision should be organised in a way that could contribute to professional development, teachers expressed that supervision should first be free of conventional structure and process, and rather it should be guiding, goal-oriented problem solving. They also noted that paperwork should be decreased and provided feedback should be increased. They emphasized that good human relations, cooperation and healthy communication was also necessary for a contributing supervision. Another significant finding is that teachers considered colleagues' supervision or school centred supervision as a more acceptable supervision.

All these findings argue that supervision practices are not goal-oriented or problem solving and they also do not contribute to teachers' professional development. In this respect, it could be suggested that people who will inspect or supervise (supervisors or principals) should have pre-service training and should be trained fully equipped. Additionally, school managers and colleagues should provide a fair and constant supervision process which meets the needs of teachers.

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EVALUATİNG THE RENEWED 1ST GRADE CURRİCULUM ACCORDİNG TO THE TEACHERS' VİEWS

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Key Words: The renewed 1st grade curriculum, descriptive analysis, views of the teacher.

INTRODUCTION

Education has been restructured by the Ministry of Education and 8-year compulsory education was become 12 years and education system began in the new period which was known 4+4+4 with law in the public. According to the changes in the education system, primary school age changed 6-13 years and it was possible for children who completed the age of five and turned age of six start primary school at the 2012-2013 academic years by the end of September (MNE, 2012). It is possible that teachers who are the practitioners of the programs can live many problems at first because of every change in the programs. From this point, the renewed 1st grade curriculum implemented for the first-time and it was important to know what the teachers' problems were during the teaching process, learned what they could do for these difficulties, provided feedback to the program developers and provided effective teaching-learning process.

In this study, we generally searched the answer of this question "How is evaluated the renewed 1st Grade Curriculum by the teachers". When presenting the opinions of the teachers, achievement in the process of the program development, content, process, and evaluation stages were analyzed separately. Though the research seemed to limited to 13 teachers, they could easily declare their ideas and they deeply emphasized their wishes and feelings on which part they wanted.

METHOD

In this study, case study technique, one of the techniques of the qualitative research methods is used. Case study is an important method in educational studies. In case studies, it is possible to examine a special case closely by gathering data without concerning generalization or proving (Yıldırım and Şimşek, 2008).Data collection tool in the study consists of semi-structured interview form done with the teachers. In this study, interviews were conducted with thirteen teachers who teach at the 1st grade in Kahramanmaraş and Gaziantep province in Turkey. The interviews were recorded, records were put down on a paper and data was evaluated with the descriptive analysis method.

Evaluated data was analyzed and 11 different topics were identified under the headings of readiness, success, application difficulties, the applicability of the program, informing about the program, suitability of the achievements, the effectiveness of the content, guidance of the evaluation, reflecting the success, the program's pros and cons.

FINDINGS AND RESULTS

We asked these questions “Are the students ready for the implementation of the program? Are they successful, willing in practice?” and was described in the topic “readiness”, the majority of teachers thought that children’ readiness under 66 months were insufficient levels but children’ readiness in 66 months and over were determined enough.

The questions as "Do you have difficulty in practice? What difficulties you encountered?" and was described in the topic “application difficulties”, the majority of teachers had difficulties in practice as a result of the analysis of teachers’ responses.

The questions as "What do you think about the applicability of the program?" and was described in the topic “the applicability of the program”, as a result of the data analysis was determined that teachers had different views about the applicability of the program.

The question “Are you adequately informed about the program?" was described as a topic "informing about the program". As a result of the data analysis, it was identified that the majority of teachers in this topic weren’t informed about the program.

The question "Do you think the achievements in the program appropriate?” was described as a topic “suitability of the achievements”. As a result of the analysis, the majority of teachers said that the achievements were appropriate.

The question "Do you think the content is effective in the acquisition of the achievements?" was examined as a topic “the effectiveness of the content”. The expressions of this topic become different; Content is not effective, According to the child content is heavy, Content and the achievements are compatible and Content and the achievements are incompatible.

The question “During the evaluation process to what extent the program guide you?” was discussed as a topic “guidance of the evaluation”. The opinions expressed in the analysis of this topic, some of the teachers said that the program guided us but the other parts of the teachers said the program did not guide us.

According to the teachers’ opinions, the question “Do you think the foreseeable evaluation of the program reflects the students’ real success?" was examined as a topic “reflecting the success”. The opinions expressed in this topic, some of the teachers said that it reflected the success but the other parts of the teachers said it did not reflect the success.

According to the teachers’ opinions, the question “What are the good or bad parts when you compare this program with the old program?” was examined with two different topics “pros of the program" and "cons of the program". Time sufficiency is the most important thing among the pros of the program. Content is not suitable for the students’ level and regional differences aren’t taken into consideration are the cons of the program. As a result, in general teachers who teach at the 1st grade evaluate the new curriculum negatively.

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EVALUATION of LIFE SCIENCES CURRICULA in TURKISH ELEMENTARY EDUCATION REGARDING OUTDOOR EDUCATION

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ABSTRACT
Outdoor education, supports students interpret their society, nature and the world via experiences, learning by doing. The purpose of this study is to evaluate the Life Sciences Curricula in Turkey from 1st to 3rd grade in elementary school education in terms of objectives, contents, teaching-learning processes and evaluation. Adding that, it is aimed at developing recommendations in covering afore mentioned aspects. The study was based on qualitative research which is consisting of teachers' perceptions and document analysis for life sciences curricula. Thus, data were collected by document analysis and semi-structured interviews made with 8 teachers working in the city center and towns of Kirsehir,Turkey. Critical case sampling was used for choosing participants. The content analysis which is from qualitative research method was used in this study. Data source of the study is all the gains in life sciences curricula of Turkey (grades 1-3). These courses are more relevant with life and experiences so that they were discussed in details in terms of outdoor education. Outdoor education activities in curricula are quite important for children's discovering, exploring, establishing cause-effect relation, observing and problem solving. Therefore, applying different approaches and techniques and improving education environment with different materials during outdoor educational activities play a significant role in reaching aimed targets in children. In this manner, the importance of outdoor education in early years, the basic features of outdoor education activities, process and concepts, the role of teacher has been included in this research.

Keywords: outdoor education, curricula, elementary education, teachers' opinions, Turkey

INTRODUCTION

The most important characteristic of modern education is building a bridge between theory and practice. Practice in education can be supported with outdoor education as it is based on experience and learning by doing. The founding father of active education is John Dewey with his *Learning by Doing* concept, which underpins the basic theoretical assumptions of outdoor education as well (Bortoletti& Crudeli& Ritscher, 2014). All activities are done outside the classroom in order to enrich the curriculum (Lappin, 1997). Education outside the classroom is a term used to describe curriculum-based learning that extends beyond the four walls of the classroom (Stewart, 2005). It is based on the discovery approach to learning and it appeals to the use of the senses – audio, visual, taste, touch and smell for observation and perception (Lewis, 1975, p. 9). The relationship between the natural environment and human requires experiential learning, use of all senses, and focusing on interdisciplinary subjects (Priest, 1986).

Learning experiences which are conducted in class, have even the same content and same technic as outdoor learnings experiences. It is clear that they are different from each other owing to changing the atmosphere (Demirel, 2005, p.115). When it comes to types of outdoor activities, these are presented as follows: Field trips, performance tasks, going to cinema or theater, interviews with professionals or related people for specific area, archaeological excavations, museum education, using compass, mapping, creating projects for environment and society (Demirel, 2005).

Outdoor education aims to consider learning as an action-oriented process, emphasizing both development and knowledge of an active subject; anyway, a clear understanding of the term outdoor education is more than an exercise in semantic: a proper definition "it can help uncover some of the deepest and most longstanding problems with education itself" (Quay, Seaman, 2013, p. 1).
Ouay and Selman (2013) states that outdoor education is based on two main approaches:

1. Learning methods that take place as the interface between experience and reflection, based on actual experiences in real-life situations;

2. An interdisciplinary conceptualization which implies, among other things:

a. learning spaces extended beyond the classroom and including natural environment and cultural heritage;
b. emphasis on the relationship between sensory experience and knowledge, giving great importance to where they take place.

The topic of outdoor education, however, is not limited to a scientific study of the natural environment. Studying about the out-of-doors also involves examining many cultural, aesthetic, and recreational aspects of the natural environment. Studying about the out-of-doors also includes an investigation into the interrelationship of the human being and the natural resources upon which societies depend, with the goal of stewardship in mind (Wilson, 1994). Outdoor learning programs may contain subjects such as knowing and protecting historical, cultural, and natural heritage, and ecological systems, using natural resources in a right and balanced way (Altın & Oruç, 2008).

Human; biological, psychological, social and cultural in all parts and as the change of both subject and object was discussed in 2009 life sciences curricula. From this point of view; "individual", "society" and "nature" were determined as learning domains, "the change" accepted to include all learning domains as a general dimension. The contents of these learning domains and the change are one within the other in the real life and they only dissociate on the purpose of education and instruction. Three themes which contain all these learning domains were identified, especially as a purpose of mass instruction approach for life sciences courses. The names of these themes were agreed on "My School Excitement", "My Unique Home", "Yesterday, Today, Tomorrow" in the life sciences curricula (MONE, 2009). As specified, it can be said that life sciences course is related to experiences, society, community and as a matter of course human considerably. It has to be planned for society-based education by teachers, instructors. Society-based education creates the need of "out of class" experience. As it is, outdoor education is a must for life sciences course in elementary education. Thus, the purpose of this study is to evaluate the life sciences curricula from 1st to 3rd grade elementary school education in terms of objectives, contents, teaching-learning processes and evaluation and to identify views of elementary school teachers about outdoor practices in life sciences curricula.

METHOD

Research Model

This study is aiming to define the inclusion levels of outdoor education in Turkey life sciences elementary education curricula (grades 1-3) and to gather views of elementary school teachers about outdoor practices in life sciences curricula. It is a qualitative study which is conducted as a document analysis and semi-structured interviews. Document analysis includes the analysis of written materials containing the targeted facts. Elementary school teachers' views on learning outside the classroom were explored by semi-structured interviews in this study.

Participants

The study group included 8 elementary school teachers from primary schools in the city center of Kirşehir. Sampling critical case was used to select teachers who would be willing to participate in the study. Critical cases are those that can make a point quite dramatically or are, for some reason, particularly important in the scheme of things (Yıldırım & Şimşek, 2006).

Data Collection

For the purposes of this study, the latest editions of elementary (1-3) life studies curricula were analyzed. In this study, Turkish life sciences curriculum that was approved with Head Council of Education and Instruction decision numbered 116 and dated 28.12.2010 and revised and updated by Department of Publications, Ministry of National Education in 2014 (MONE, 2009).

The other research data were collected via semi-structured interviews. An interview form was prepared by the researcher. One the interview form was examined by field experts, their corrections and additions were also considered. After the review of the form, a pilot interview was conducted with an elementary school teacher. Questions were redesigned after the pilot interview. Participants were required to exemplify their views to get data in detail. Interviews were conducted in the spring term of 2014-2015 academic years.

Data Analysis

We used document analysis and content analysis for the data analysis of this study. Main activity in the content analysis is to gather similar data around certain concepts and themes, and to organize and interpret them in a style the

readers can understand. Briefly, it is to reveal the concepts and relations to explain the gathered data. It is essential in a study to define the analysis unit to be used (Baş & Akturan, 2008).

Reliability and Validity

Reliability in qualitative studies means whether the same results will be obtained in similar environments and whether other researchers are able to get the same results with the same set of data. Researchers compared the two sets of separate analysis results and controlled consistency. Yıldırım and Şimşek (2006) state that at least a 70% agreement between coders is required for reliability in qualitative studies. In this reliability study, a 90% agreement between the researchers/coders is achieved. Validity in qualitative studies means observing the researched phenomenon as it is and through an impartial lens. In order to provide the validity of this research, we studied all gains in elementary life sciences curricula.

FINDINGS

Analysis of Turkish Life Sciences Curricula

Turkish life sciences curricula consist of three themes in 1st, 2nd and 3rd grades .The elementary life science learning themes include: "my school excitement", "my unique home", "yesterday, today and tomorrow"(MONE, 2009). Curricula were based on spiral construction when they were examined their rules and principles.

Table 1. Gains of Outdoor Education in Life Sciences Curricula

Life Science Curricula		Gains of Outdoor Activities	
		f	%
Early Grades	**Grade 1**	15	17,44
	Grade 2	17	17,89
	Grade 3	19	17,11
	Early Grade Total (1-2-3)	51	17,4

There are 86 gains in the first grade of life sciences curricula. 15 of 86 gains are related to outdoor education. There are 95 gains in the second grade of life sciences curricula. 17 of 95 gains are related to outdoor education. In the third grade of life sciences curricula there are 111 gains. 19 of 111 gains are related to outdoor education. Related gains have outdoor activity symbol in the curricula. Proportionally, the lowest level of outdoor education is in 3rd grade. However, in Turkish life sciences curricula, gains of outdoor have the highest inclusion level in 3rd grade (%17.11, n=19) among the grades learning social studies classes. This is followed by 2nd, (% 17.89, n=17), 1st (%17.44, n=15). The below gains statements quoted from Turkish social studies curricula can be given as examples for *the outdoor activities*.

- *Students observe freezing, boiling, vaporization while adults are cooking* (Early Grades, 1st grade).
- *Students r*ecognize individuals in their family and introduce them. (Early Grades, 1st grade).
- *Students observe transportation vehicles and categorize them. Their needs with available resources* (Early Grades, 2nd grade).
- *Students benefit from museums as an educational environment, they compare the old and new version of objects and they realize the change* (Early Grades, 3rd grade).

Table 2. Types of outdoor activities in Life Sciences Curricula

Types of outdoor activities	Grade 1 f	Grade 2 f	Grade 3 f	Total f
Trip	2	5	1	8
Observation	2	5	4	11
Diary	--	--	--	--
Questionnaire Study	--	--	1	1

Interview	2	1	2	5
Project	1	1	5	7
Performance Task	2	2	1	5
Research	4	2	3	9
Teamwork	--	1	3	4
Misconceptions-In door activity	2	1	1	4
Total	15	17	21	54

Table 2 explains types of outdoor activities for each grade level. Research has the highest inclusion level in 1st grade (n=4) and this is followed by trip, observation, interview, performance task (n=2). Trip and observation have the highest inclusion level in 2nd grade (n=5) equally and these are followed by research, performance task (n=2). Project has the highest inclusion level in 3rd grade (n=5) and this is followed by trip, observation (n=4), interview (n=3), performance task (n=3).

Totally, in life sciences curricula, observation has the highest inclusion level (n=11) among the grades life sciences classes. This is followed by research (n=9), trip (n=8), and project (n=7). Gains which are stated misconceptions have outdoor activity symbols in the curricula. Gains can be available in order to conduct outdoor activity. Nevertheless, when we examined these gains, they were indoor activity or there is not enough clearance of meaning about instruction whether outdoor or not.

The below activity statements quoted form life sciences curricula can be given as examples for *the* misconceptions sub-category.

Our Values: This activity is based on observation but students just explain the importance of values in their family by giving examples from their own experiences (Early Grades, 1st grade).

Watch out! Fragile Objects: Students only bring some fragile objects from their homes and they classify objects according to what it is made of (Early Grades, 3rd grade).

Table 3. Classification of Outdoor activities In Life Science Curricula

Classification of Outdoor activities	**Individual Outdoor Activities**	**Group Outdoor Activities**		**Misconception**	**Total**
		Small Group	**Whole Class**		
Grade 1	10	--	3	2	15
Grade 2	11	1	5	1	18
Grade 3	12	6	1	---	19

Some gains have two or more classification. For instance a gain which is related “outdoor” is stated “individual” or a “group study”. Individual outdoor activities have the highest level inclusion of curricula in all grades.

Table 4. Definitions and Descriptions of Teachers about Outdoor Education

Definitions and Descriptions of Teachers about Outdoor Education	**f**
Learning by doing, exploring	8
Learning with having fun	5
Permanent learning	3
All activities which are done out of school.	3
Implicit learning	1
Total	20

Teachers were asked about "How do you describe outdoor education?" A majority of teachers defined outdoor education as *learning by doing, exploring and learning with having fun*. Few teachers expressed that *permanent learning, all activities which are done out of school, implicit learning* could be defined as an outdoor education. Some teacher quotations are as below:

"Outdoor education provides unconscious learning in other words implicit learning."

"I can tell all activities out of school... Projects, research, interview etc."

"Learning for life is a life-long process. All things out of class are related life. As the name implies, outdoor activity is a must for life science courses ..."

Table 5. Teachers' activities and practices about outdoor learning in life sciences curricula

Teachers' activities and practices about outdoor learning in life sciences curricula	**f**
Field trips (factory, governor hall, park, museums, professional orientation etc.)	3
Homework, performance task	2
Project (group study)	2
Oral history, Interview	1
Outdoor activity for entertainments (funfair, party, zoo, circus etc.)	2
No outdoor activity for life sciences course	2
Total	12

Teachers were asked "What kind of activities and practices do you conduct for the life sciences courses?" A majority of teachers pointed out that field trips, homework, performance tasks, projects (group study) were conducted by teachers. Two teachers stated that they planned outdoor activities for amusement which were not related to life sciences curricula whereas other two teachers expressed that they did not conduct activities regarding life science courses. Some teacher quotations are as below:

"I do not prefer outdoor activities in life sciences course even individual activities like interview, research, home-task etc… They take so much time."

"I usually prefer to organize outdoor activities for whole class to have fun."

Table 6. Teachers' views how to plan outdoor activities in life science curricula

Teachers' views how to plan outdoor activities in life sciences curricula	**f**
Searching outdoor activity for the life course gain	7
Identifying physical conditions	7
Attaching importance to individual difference among students	4
Considering socio-economic factors	3
Official permissions	3
Having back up plan for outdoor activity	2
Asking for support from parents and school management	2
Total	28

Teachers were asked "How do you plan and organize the outdoor activity for the life science courses? Can you tell about the process?". When it comes to teachers' planning and organizing outdoor activities, firstly a vast majority of teachers stated that *searching outdoor activity for the life sciences course gain, identifying physical conditions* were most important factors and principles in life sciences course. Secondly, they pointed out that they attached extra importance to individual differences among students, considered socioeconomic factors and paid attention to official processes for outdoor activities.

Table 7. Teachers' Views about Gains of Outdoor Education for Students

Gains of Outdoor Education for Students	**f**
Permanent learning	9
Supporting learning by doing and having fun	8
Improvig problem solving skills	4
Strengthing self-control, motivation	1
Gaining responsibility,self-confidece	1
Having tangible information	1
Support peer learnig	1
Total	25

Table 8. Teachers' Views about Gains of Outdoor Education for Teachers

Gains of Outdoor Education for Teachers	f
Enriching teaching-learning process	5
Making easy learning process	5
Enhancing teaching skills	4
Saving time	3
Total	17

Teachers were asked "What kind of gains do your students/ you have when you conduct outdoor activity in life sciences course?". Clear majority of teachers stated that *permanent learning, supporting learning by doing and having fun, improving problem solving skills were gains for students* in tables 7 and 8. In terms of teachers; e*nriching teaching-learning process, making easy learning process, enhancing teaching skills were most stressed statements by teachers.* Some teacher quotations are as below:

"Students accept outdoor activity as an joyful activity. If the activity is well organized, they will not see it as a class."

"Fields trips, projects, research motivate students. They have permanent learning."

"If I organize an outdoor activity, I will make an extra effort, spend time. But no doubt that I strengthen my teaching skills and teaching-leaning process."

Table 9. Problems of Teachers tackled with for outdoor education in life sciences course

Problems of Teachers tackled with for outdoor education	**f**
Official permission, bureaucratic obstacles	11
Requirement of long preparation and practices period	9
Lack of teacher knowledge about outdoor education	5
Lack of parent support (economic)	4
Lack of school management support	4
Total	28

Table 9 shows that official permission, bureaucratic obstacles, requirement of long preparation and practices period are some important problems of encountered by teachers. Following problems were expressed by teachers' *lack of teacher knowledge about outdoor education, lack of parent support (economic), lack of school management support.* Some teacher quotations are as below:

"Planning an outdoor activity for whole class is very exhausting process. We receive no support from school managers in terms of planning."

"Organizing a trip or a group study like a project is not an easy thing due to economic reasons. Parents' economic support is not possible especially in disadvantaged groups."

"I don't know how to plan and organize an outdoor activity."

"Life sciences curricula are not a viable guide for these kinds of activities. Besides, it is not enough to apply an outdoor activity."

Table 10. Suggestions of Teachers for outdoor education in life sciences course

Suggestions of Teachers for outdoor education in life sciences	f
Outdoor education modules for teachers	5
Revising and enriching curriculum	4
In-service training for teachers	3
Special school budget for outdoor activities	1
Companies, non-profit organizations, non-governmental organizations must perform social responsibility projects about organizing well-qualified outdoor activities for schools	1
Total	14

Teacher made some suggestions about how to improve and strengthen outdoor learning for students. The greater part of teachers suggestions were *outdoor education modules for teachers, revising and enriching curriculum, in service training.* Few teachers suggested the need for a s*pecial school budget for outdoor activities, social responsibility projects.* Some teacher quotations are as below:

"Life sciences curricula are not enough to apply outdoor activities. Authorities on instruction and education enrich content of curricula."

"Teachers should participate teacher training program about this issue. Planning this kind of activities worries me. I do not have enough knowledge and background about it."

"Some companies, institutions can organize field trips, projects for children's outdoor learning. It is also community service for companies."

RESULTS and DISCUSSION

To sum up, gains of outdoor education have the lowest (n=51, 17.4%) level inclusion of life science curricula. Related gains have outdoor activity symbol in the curricula. Proportionally, the lowest level of outdoor education is in 3rd grade. However, in Turkish life sciences curricula, gains of outdoor have the highest inclusion level in 3rd grade (17.11%, n=19) among the grades learning social studies classes.

When analyzed types of outdoor education; observation and research were generally used in the life sciences curricula. It is showed that field trips, education in the nature (forest schools) which are defined the best active learning had the lowest level in the curricula. Yet; direct experiences in nature, a socio-critical understanding of human to nature relationships and teaching students how to manage risk, together with personal and social development work, remains a cornerstone of Outdoor Education (Gray&Martin, 2012). Similarly, main problems about field trips in the social studies course are defined as economic problems and bureaucratic obstacles in some studies. Outdoor activities were determined according to level of grade, seniority of teachers, type of school and size of class. Encouraging teachers and enhancement of the trip has been proposed to eliminate various obstacles (Demir, 2007). It is a well-known fact that permission process for students and procedures for trips are always time-consuming and tiresome. Nevertheless, teachers have to believe the importance of outdoor trips (Özür, 2010).

Results of the research also revealed that individual outdoor activities have the highest level inclusion of curricula in all grades. Individual activities are preferred more and widespread compared with small group activities. Because, ease of using, common-used, not requiring extra organization and effort. Best-known and commonly used one is homework (Gözütok, 2006). Additionally, small group study or whole class activity need to be planned comprehensively and conducted as an extra-curricular activity by teachers.

Teachers defined that learning by doing, exploring, and learning while having fun. Few teachers expressed that permanent learning, all activities which are done out of school, implicit learning could be defined as an outdoor education. It can be said that their expressions contain components of active learning theory. According to Malkoç (2014)'s research, teachers stated that outdoor education supported permanent learning, learning by doing, socializing for students, presenting visual elements. The other research; teachers from low socio-economic status schools defined learning outside classroom as learning in the family and social environment. It can be said that this is a result of lack of outside activity opportunities in these schools (Çengelci, 2013). When it considered from this point these researches have shown similarities with this research findings.

It can be said that field trips, homework, performance task, project (group study) were conducted by a majority of teachers in planning practice. Few of the teachers stated that they planned outdoor activities for amusement which were not related to life sciences curricula whereas the other two of the teachers expressed that they did not conduct activities regarding life sciences course.

Results of the study also revealed that teachers understand learning outside the classroom as learning through field trips and observations. Life sciences studies curricula needs to have multi-dimensional analysis and construct in comprehensively. That is to say; outdoor education which fails to account adequately for the development of particular programs, ignores important social, cultural, geographical and historical differences and as a basis on which to build outdoor education theory. Outdoor education must be understood not only in broad national contexts, but also in local and regional contexts, and that outdoor education programs must be understood as particular contributions to existing relationships between particular communities and particular regions. This requires a critical reappraisal of how experience is comprehended and geographical location accounted for in curriculum studies (Brookes, 2002).

When it comes to teachers' planning and organizing of outdoor activities, a vast majority of teachers first stated that searching outdoor activity for the life sciences course gain, identifying physical conditions were most important factors and principles in life sciences course. Secondly, they pointed out that they paid attention to individual difference among students, considering socioeconomic factors, official permissions for an outdoor activity. According to Polat (2006) and Malkoç (2014), physical conditions and equipment of schools are not sufficient level, in addition to class size is much more than usual and period of course is not enough to conduct outdoor activity. This finding is consistent with the research findings about problems which teacher tackled with relatively in outdoor practices.

From this point, teachers change took place at three levels: philosophy, values and understandings, programming and resource use, and finally, teaching and learning strategies. It is at the nexus of these three levels where the most effective shifts in pedagogy were achieved. As the social, economic, and environmental issues that now loom so large in our collective consciousness become increasingly prevalent in the 21st century, teachers will need to re-consider the purposes of their educational endeavors. Specific examples of sustainability initiatives that teachers can implement in their outdoor education programs and practice may also be useful for educators (Hill, 2012).

It is understood that a clear majority of teachers stated that permanent learning, supporting learning by doing and having fun, improving problem solving skills were gains for students in terms of teachers' views about gains of outdoor education for teachers and student. From teacher's part; enriching teaching-learning process, making easy learning process, enhancing teaching skills were most stressed statements by teachers. Learning outside the classroom can be defined as learning about the world by seeing places and processes to acquire knowledge, skills, and attitudes (Çengelci, 2013). According to Thorburn and Allison (2010), outdoor education also helps and supports students in order to express their values and needs. From the teacher's part; the new overarching "Curriculum for Excellence" (CfE) guidelines encourage teachers to make full use of their increased professional autonomy and decision-making responsibilities to review the curriculum planning and pedagogical possibilities of implementing high quality teaching interventions which can inspire learners. Specific CfE through Outdoor Learning (CfEtOL) guidelines provide a rationale and support advice for increasing schools (Tholburn & Allison, 2010).

Teachers faced with problems regarding official permission, bureaucratic obstacles, needing so much time are some important problems encountered by teachers. This finding resonates with Çengelci's (2013) research. Teachers experienced problems about time and students' behaviors as well as economic problems, and bureaucratic obstacles regarding outdoor learning.

In the study, it is also understood that the great part of teachers offered outdoor education modules for teachers, revising and enriching curriculum, in service training. Few teachers suggested special school budget for outdoor activities, social responsibility projects. Seminars regarding the purpose, scope, planning, practice, and assessment of learning outside the classroom can be organized for teachers. As outdoor practices result in positive and effective, that is suggested to be generalized. The most effective way to educate teachers about this topic is to train them in regular basis (Gözütok, 2006). Families also have an active role in conducting outdoor activities. Hence, families should support such endeavors financially and emotionally. They may need to be gained education of awareness about outdoor teaching and learning process (Özür, 2010). To sum up, life science studies have to have the highest level of inclusion as the course is life itself and it is suitable for learning outside the classroom in order to make children active members of a democratic society.

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EVALUATION OF MAGAZINES ISSUED ON SECONDARY EDUCATION IN THE CONTEXT OF JOURNALISM (INSTANCE OF ERZURUM)

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The historical development of magazine publishing, is categorized in traditional media and considered to fill the gap between book and newspaper, has not seen interest as journalism despite starting with journalistic activities.

However, due to a variety of differences between published magazines, periodicals are classified in five categories in the literature. The publish purposes, functions and audiences of that magazines are different. The magazines issued on secondary education entreated this paper are among the institution magazine. When considered in terms of content, magazine publishing is considered in the context of journalism due to using of journalese. Because magazine publishing, even if not in terms of journalistic career, is seen as a field of activity by the school administration on the purpose of increasing the personal development and self-reliance. In this sense, that work accepted magazine publishing as a journalistic activity aims to evaluate the publications by secondary school students in the context of the interests of journalism.

The conceptual frameworks of the study are subjects such as journalism, magazine publishing, secondary education and training. The sample is the magazines published by secondary school students in Erzurum, and the selected journals will be analyzed using content analysis method.

Keywords: Education, Magazine, Newspaper, Journalism

EVALUATION OF SELECTION CRITERIA OF SCHOOLS PRINCIPAL IN TURKEY: A QUALITATIVE STUDY IN ORDER TO DEFINE APPROPRIATENESS OF SELECTION CRITERIA OF SCHOOL PRINCIPAL FROM THE POINT OF VIEW OF PARTICIPANTS.

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ABSTRACT
The purpose of this study is to evaluate the criteria utilized to select school principals from the point of view of participants who participated in principal selection process in Turkey. In this study, the criteria utilized in the selection process of school principal were evaluated by participants who appointed or not appointed at the end of the process as a school principals. A semi-structured interview form was used for data collection and the descriptive analysis was used for analysis of data. The interviews were conducted with 24 participants in the province of Istanbul and Canakkale. They were found that General and Specific Features were found appropriate and sufficient from most participants. Even though, there were slight disagreements among participants regarding appropriateness of criteria of personal features being evaluated, most of the participants thought they were sufficient. The most controversial criteria were award types owned by participants and the points assigned to the awards. Almost all of the participants do not agree upon both the type of the awards and the points assigned to the awards. Another topic of discussion is influence of the interview on result and its content. More than half of the participants emphasized that both impact of the interview on overall result and its content neither fair nor objective.

Key words: criteria evaluation, evaluation of criteria, principal selection criteria in Turkey.

INTRODUCTION

In Turkey, as in many other countries, one of the important factors that influence the success of an educational institution is the qualifications of principals of the institution. In general, the success of an educational institution has positive correlation with the qualifications of the principals of educational institutions, and even the success of educational institutions cannot exceed the success of the administrator department is a fact that widely accepted. Nevertheless, selection of competent principals who deserve position is hotly debated for many years in Turkey. Every government that has ruled has different criteria for selecting principals who are capable of those positions. Main issue while selecting talented principals who deserve the position is which set of criteria is more suitable in order make right decision. It is necessary that before evaluating qualifications of prospective principals, criteria that judgments are based on for evaluation must be determined.

Evaluation is to determine worth and merit of whatever evaluated (programs, products, quality, etc.) by comparing identified and clarified criteria (Scriven, 1991, p.139; Fitzpatrick, Sanders and Worthen, 2004, p.5; Stufflebeam and Coryn, 2014, p.9). As seen from the definition, selection of criteria is main determinant for relevant evaluation. In other words, without identified and clarified criteria, it is not possible to conduct rewarding evaluations that serve its objectives. It could be concluded that defining appropriate criteria for evaluation are starting point for evaluation and have vital importance in evaluation process. It is a well-known fact that while defining criteria for evaluation, getting opinions of participants who are affected from evaluation process more humanistic and democratic. As Posavac (2011) stated that criteria for a specific evaluation are selected in close cooperation with stakeholder would yield more fruitful results. For this reason, evaluation criteria could be evaluated in terms of appropriateness and suitability by participants whose qualifications are subject to evaluation in order to succeed aim of evaluation. If criteria developed or selected neither appropriate nor suitable for the purpose of the evaluation, failure of the evaluation is inevitable.

Turkish Ministry of National Education (MoNE) published a regulation regarding Appointment of Managerial Staff (principal, vice-principal) on 14th June 2014 in Official Journal and changed most of the criteria which were in practice until that date. New principals were selected in November-2014 according to criteria published in Official Journal and this selection process called “November 2014”. Main problem for the study is that criteria utilized for selection process of school principals have not been evaluated yet from the point of view of participants. Therefore, aim of the study is to evaluate criteria utilized selection process of school principals for

helping to select more competent principals deserved. Evaluation of criteria is a process for determining the validity of the criteria utilized in the evaluation and appropriateness for purpose.

THE STUDY

In this study, general survey model was used since it aims to describe current situation, what participants thought about selection criteria, as it is. Because the survey aims to describe without affecting the effort of participants or result, validity and appropriateness of selection criteria have been tried to be determined from the perspective of the participants. Moreover, some of the criteria are compared with other countries' criteria at the the end of the study.

A semi-structured interview form was used in order to collect research data. A Semi-structured interview was planned carefully before the interview was carried out. Researcher could change the order of questions, omit questions, or vary the wording of the questions depending on what happened in the interview. The researcher might also add other questions during the interview to probe unexpected issues that emerge (Lodico, Spaulding&Voegtle, 2010, p.124). Semi-structured interview form was created based on official documents that include rules and principles of selection process published by Ministry of National Education on 14th June 2014. Summarizing all of the official documents regarding selection process of the principals, there are three groups of criteria as it is shown table1.

Table 1: Groups of criteria, main criteria, sub-criteria, point of each criteria/performance and decision rule.

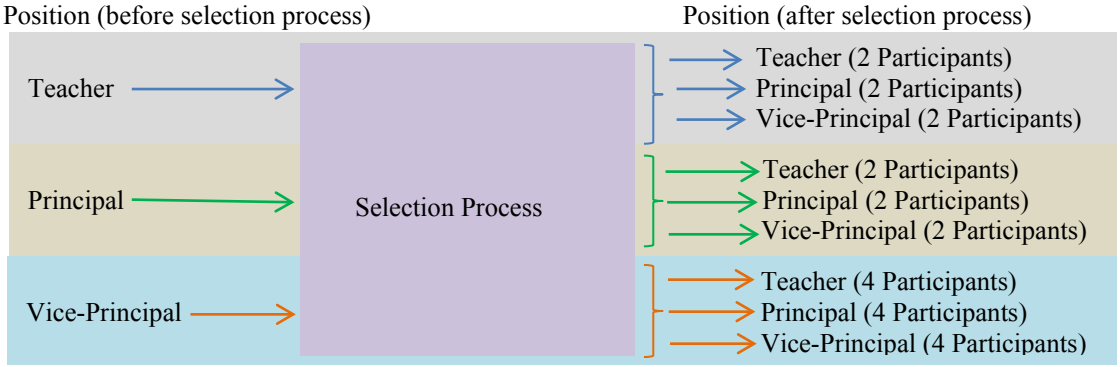
Group	Main Criteria	Sub-Criteria	Status of criteria
Group A-Pre-requisite Criteria	General Features	-Having higher education degree -At least to be a teacher -There should be branch -No judicial or administrative investigation in last 4 years	These criteria are **compulsory** to be able to apply. Without complying any of those criteria, it is not possible to apply for being principal.
	Specific Features	Having served as a; *principal at any time any duration or *vice-principal (head) 2 years or *founding principal, vice-principal and teacher with principal authority 3 years or *branch manager at a local educational authority or higher duties at any time any duration or *teacher 8 years	
Group B	Education and Training	*Associate &Bachelor (up to 4 years): 1 point/each year *Graduate degree } 5 point in management field / 3 point in other field *PhD Degree } 10 point in management field / 8 point in other field	If an applicant obtains/provides some of these qualifications s/he would get points assigned to the qualifications. More education and training, more experiences etc. mean more points. Group B criteria show performance of an applicant.
	Experiences Serving as a;	*Teacher :0,36 point/each year *Founding principal, vice-principal and teacher with principal authority :0,38 point/each year *vice-principal (head) :0,60 point/each year *Principal, branch manager at MoNE or/LEO* :0,72 point/each year LEO: Local Educational Authority	
	Awards	*Certificate of success : 1 point each one (only one is acceptable) *Certificate of high success : 2 point each one (only one is acceptable) *Award with salary : 3 point each one (only one is acceptable) *Award for international success : 5 point each one (only one is acceptable)	
	Punishments	*Condemnation (Except those pardoned) : -1/each time *Stopping Salary (Except those pardoned) : -3/ each time *Stopping degree improvement (Except those pardoned) : -5/ each time	
Group-C	Interview	Subjects for interview; knowledge on general and educational laws (657, 1739 etc.), analytical thinking and analyzing ability, represents ability and level of merit, reasoning and comprehension level, communication skills, confidence and the ability to persuade, general culture. Interview committee consists of five members. Total point is calculated based on mean of each member's point.	This is final criteria and it is **compulsory** to get 70/100 points from interview for being candidate in order to be appointed as a principal. Under 70 point, it is not eligible.

Decision: An applicant must provide Group A Features and get minimum 70 point from interview. 50% of interview point and 50% of Group B total point provide applicant an application point. E.g if an applicant gets 80 point from interview (50% of 80 equals to 40) and total 40 point (50% of 40 equals to 20) from Group B, his/her total point would be 60 (40+20) for application. After getting application point, absolute evaluation is applied for appointment.

In the semi-structured interview form, all of the criteria and sub-criteria are included for determining their appropriateness and validity for the aim of the selection process. For content validity, six field experts' opinions were taken into consideration and form was revised based on feedback of experts. After piloting done, final version was ready to be used. There are 14 open-ended questions in the final version of semi-structured interview form.

The interviews were conducted with 24 participants in the province of Istanbul and Canakkale. Purposeful sampling was used to select participants. The goal of purposeful sampling is to select persons, places, or things that can provide the richest and most detailed information to help us answer our research questions (Lodico, Spaulding&Voegtle, 2010, p.134). In order to apply purposeful sampling, participants were selected according to (1) whether they go through selection process, (2) their status of before and end of the selection process. Figure 1 shows, participants' positions before and after selection process and number of participants from each position. For vice-principal position, there were 4 participants at each category since this category consists of both vice-principal and chief vice-principal (müdür başyardımcısı) level.

Figure 1: Positions of participants before and after selection process and number of participants from each position



Each interview takes 25-35 minutes. After getting permission of participants, interview was recorded by audio recording. First, demographic features of participants were recorded, then, interview was initiated.
For analyzing collected data;
1. All of the audio records were transcribed without any changes made.
2. Codes were assigned based on the themes created in semi-structured interview form.
3. In accordance with thematic framework created in the form, frequencies of each theme were defined.
4. Findings were supported by direct quotations and interpreted.
According to Yıldırım and Şimşek (2005) direct quotations made descriptive analysis more clear and dramatic. (p.224). P letter is assigned for each participant and numbers are given from 1 to 24.

FINDINGS

After analyzing data, findings presented criterion by criterion evaluated by participants. First criterion is pre-requisite and about General Features. Content (sub-criteria) of first criteria are shown above Table 1. Table to 2 summarizes appropriateness of first criteria from point of view participants.

Table 2: participants' opinions regarding appropriateness of first criterion, General Features.

Is the first criterion is appropriate as a prerequisite General Feature?	f	Is there any article to these Features that you want to add or remove?	f
Appropriate and Sufficient	15	No	10

Inappropriate	7	Yes	11
No opinion/answer	2	No opinion/answer	3
Total	24	Total	24

As seen from table 2, more than half of the applicants (15 participants) agree that General Features required before application are appropriate and sufficient. But some of applicants think it could be different. Comment(s) were excerpted regarding first criterion as examples;

> *For me, general Features are appropriate and sufficient. There is no need for more details. There was no need for any article(s) to be added or removed (P8). Good enough (P15). General Features are short and enough as it should be. There should not be tight restriction (P19). There should be 4 years BA degree instead of higher education degree since there are some principal in the educational system who hold 2 years*

As seen from Table 1, second criterion is prerequisite and about Specific Features. Participants' opinions regarding appropriateness of second criterion are summarized in Table 3.

Table 3: Opinions of participants regarding appropriateness of second criterion, Specific Features

Is second criterion appropriate as a prerequisite Specific Feature?	f	Is there any article that you want to add or remove to these Specific Features?	f
Appropriate and Sufficient	13	No	13
Inappropriate	8	Yes	8
No opinion/answer	3	No opinion/answer	3
Total	24	Total	24

Table 3 shows that a bit more than half of the applicants (13 Participants) agree that Specific Features are enough to select competent principals who were worth and merit to execute their duties. Some comments regarding Specific Features are as exemplified in the following excerpts.

> *There should be some experience at vice-principal level. It is not true to be principal from teacher position (P3). ….. It would be good having an expertise in a field like graduate degree in administration either education or general (P13). …… Principals should have leader potential and real leader. Should behave objective, clear, and explicit. Should not exclude anyone because of his/her political and religious choice (P20).*

Table 4 shown below summarized the opinions of participants regarding appropriateness of third criterion about Education. Details of education are in above Table 1.

Table 4: Opinions of participants regarding appropriateness of third criterion, Education.

Is third criterion appropriate for choosing worthy of principal?	f	Is there any article that you want to add or remove to this criterion?	f
Appropriate and Sufficient	17	No	9
Inappropriate	5	Yes	13
No opinion/answer	2	No opinion/answer	2
Total	24	Total	24

As seen from above table 4, more than half of the applicants (17 participants) think that criteria regarding Education appropriate and sufficient. Comments are as exemplified in the following excerpts on third criterion;

> *This criterion about Education and points assigned them are appropriate and right. (P16, P18). …In-service training should be included (P23). To graduate and doctorate degrees at educational*

administration could be given more point. It could be encouragement for teacher to get these degree and there should be clear difference (P12, P14) …there should be exception for candidates who have PhD degree in educational administration level. They could be able to be principal without any selection process (P2)…there should be difference between graduate degree with or without thesis (P24).

Fourth criterion related to Experiences is summarized in below Table 5. It could be seen appropriateness of the criteria from the point of view of participants.

Table 5: Opinions of participants regarding appropriateness of fourth criterion, Experiences.

Is fourth criterion appropriate for choosing a good principal who has merit?	f	Is there any article that you want to add or remove to this criterion?	f
Appropriate and Sufficient	9	No	14
Inappropriate	7	Yes	9
No opinion/answer	8	No opinion/answer	1
Total	24	Total	24

As seen from above table 5, less than half of the applicants (9 participants) agree that Experiences and points given to them appropriate and sufficient. However, most of the applicants who don't agree concerning appropriateness think only points aren't suitable to type of experiences. The following excerpts are examples on fourth criterion concerning Experiences.

Types of experiences (as a teacher, vice-principal, principal) and points are assigned to these experiences normal and reasonable (P21) …teachers' point could be increased… (P8, P9) ….more points could be given to duration of administration positions (principal, vice-principal) (P4, P5, P11) …different points for different region(s) more appropriate (P12).

For selection of principals, fifth criterion is related to Awards given to educational staffs for of high performance. The extent to which Awards and points assigned to them appropriate are shown in below Table 6 from viewpoint of participants.

Table 6: Opinions of participants regarding appropriateness of fifth criterion, Awards.

Is fifth criterion appropriate for choosing a talented principal who has merit?	f	Is there any article that you want to add or remove to this criterion?	f
Appropriate and Sufficient	13	No	1
Inappropriate	8	Yes	20
No opinion/answer	3	No opinion/answer	3
Total	24	Total	24

As seen from above table 6, more than half of the applicants (13 participants) presented their opinions that criteria concerning to Awards appropriate and sufficient. Participants expressed their opinions as follows;

Points given to each category of awards are suitable but reasons why those awards given to those person is unclear (15 participants), ….there is no fair standard when awards are given to person (10 participants), …it is better to omit award section from criteria (P2, P3, P8), ……..before giving award to someone, everyone's opinions at school should be considered in a school (P15), ……awards should be given based on objective criteria (P19).

Sixth criteria are concerned to Punishments that are given to inappropriate behaviors of educational staff. Opinions of the participants regarding appropriateness of Punishments criteria and points assigned to them are summarized below Table 7.

Table 7: Opinions of participants regarding appropriateness of sixth criterion, Punishments.

Is sixth criterion appropriate for choosing a competent principal who has worth and merit?	f	Is there any article that you want to add or remove to this criterion	f
Appropriate and Sufficient	16	No	13
Inappropriate	4	Yes	3
No opinion/answer	4	No opinion/answer	8
Total	24	Total	24

As seen from Table 7, more than half of the applicants (16 participants) stated their opinions that Punishment criteria and points assigned them are appropriate but main concerns are how Punishments were given to those staff. Some of excerpts as an example as follow;

> *Types and cutting points for punishment are normal but it is crucial how they were punished, reason. There should be clear evidence for punishment (P24), if a candidate has a punishment of stopping degree improvement, s/he cannot become a principal. This should be prerequisite (P2). … For me, it should be omitted from selection criteria as most of the Punishments are given unfair way (P12).*

Last and most important criterion is Interview since an applicant get less than 70/100 point, s/he is unable to be evaluated. For this, interview is final criterion that has direct influence on the result.

Table 8: Opinions of participants regarding appropriateness of seventh criterion, Interview.

Do you think interview is appropriate for choosing a good principal who has worth and of merit?	f	What do you think about content of the Interview and 70/100 point barrage in the interview? Are they fair?	f
Appropriate and Sufficient	18	No	18
Inappropriate	4	Yes	3
No opinion/answer	2	No opinion/answer	3
Total	24	Total	24

As seen from Table 8, most of the applicants (18 participants) agree that Interview is reasonable and appropriate in order to select better principals. However, most of the participants, who agree that this criterion is normal, think there should be barrage (quota) in order to select better ones but content and barrage of the Interview are not relevant to purpose. Some of participants' opinions are as exemplified in the following excerpts.

> *There should be a barrage (P3) in order to select better one. Otherwise, it is not possible to appoint every candidate as a principal (P19) ….barrage is normal (P8, P11), and ideal (P9)……barrage is just for formality (P10) … I think 70/100 barrage from interview is well-planned strategy in order to prevent candidates who are member of different trade union from authorized one (P20).*

CONCLUSIONS AND SUGGESTIONS

Results of the study revealed that most of the criteria utilized for principals' selection process are appropriate and valid. However, some of the criteria are considered reasonable but hotly debated like 70/100 barrage in Interview, Awards and Punishments. It could be better to examine criterion by criterion.

Findings show us that participants in the selection process of school principal agree that; General and Specific Features are accepted appropriate as prerequisite criteria by participants. Nonetheless, most of the participants emphasized that there should be an item as a prerequisite under specific condition: before become principal, there should be, at least, vice-principal position but it is in common practice, e.g in Finland (Halasz & Pont, 2007, p.21;Alava, 2007, p.29) case, in the world to be principal from teacher position (Tipale, 2012, p.19; Lohmar & Eckhardt, 2013, P.213). Hence, this General and Specific Features can continue as a prerequisite criteria as it is.

Concerning third criteria, Education, in Turkey it is advantageous to have graduate degree or doctorate degree either educational administration department or teacher's subject matter. If you have one of these degrees it provides to you more points that means more chance to be appointed. However, having a graduate degree is essential in order to be school principals in some countries (Recepoğlu&Kılınç, 2014, p.1829). In addition, many of the countries prefer (not prerequisite) candidates who hold graduate degree to be appointed as a principal or having a certificate in educational administration (not graduate degree) gives more chance to be appointed (Tipale, 2012, p.20). As a result based on research finding and world perspective, Education criterion could remain the same in Turkey. Graduate and doctorate degrees should provide more chance but should not be prerequisite criterion. Nevertheless, as Şimşek (2004, p.6) stated graduate programs in educational administration in Turkey are more theoretical and it is better to change content to case study, problem-based, clinical applications in schools approaches (Anderson, 1991, p.13).

Regarding Experiences, most of the participants satisfied criteria and points assigned them but some of the participants from different positions (teacher, vice-principal, principal) have distinct recommendation for points assigned to positions Hence, it seems enough and it is better to remain the same.

Most discussed criteria are Awards and Punishments. Different from Punishments, Awards are more subjective and if a principal request from authorized offices it is more or less given to educational staff. This situation makes it queried. Based on finding, like other criteria, they are sufficient but it is hotly debated how they are given. It could be more objective if they are given based on more clear and objective measures. Otherwise, Awards section could be omitted from criteria list.

Interview is the most widely used and most influential selection technique among the others. Sometimes, it is used complementary tools with written exam in some countries (Taipale, 2012). If it is used correctly, it could help decision maker to select talented principals but if used incorrectly, it is neither valid nor reliable (Anderson, 1991, 41). In Turkey's case, interview is used with other criteria but still it is essential to be principal to get 70/100 and it makes it controversial. Most of the participants think that there should be interview but content of the interview should be changed towards more realistic approaches like case study, problem-based and simulation etc.

Additional criteria recommended by participants that foreign language knowledge could be able to considered. It could be given extra points not as a prerequisite.

To sum up; Criteria for selecting principals should be revised and redefined based on opinions of all stakeholders and broader research results in order to select more talented principals for positions. Before deciding on criteria exactly, opinions from below stakeholders should be considered;

-related person from Ministry of National Education
-person from all trade unions for teachers
-teachers and principals.

In addition, Interview could remain as a criterion in selection process but commission (board) should be consisting of not only person of MoNE but also other governmental organizations like universities and trade unions (multi-member committee). And, content of it must be revised. Moreover, Awards may remain if there are objective standards to which they were given.

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EVALUATION OF THE USE OF A COURSE MANAGEMENT SYSTEM (CMS) IN A BUSINESS SCHOOL

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ABSTRACT
The main goal of this research project was to measure the efficacy of a Course Management System (CMS) in a business school at a university located in central Mexico based on its objectives. The study attempted to establish the CMS functionality, strengths and weaknesses. Additionally, it intended to determine whether the system responded to the technological demands of teachers and students in order to support the educational processes. Two strategies were used to answer these research questions. The first strategy was to hold interactive sessions with focal groups which included system administrators and school authorities. The second strategy was to conduct a survey with teachers and students. Results show that the personnel responsible for providing CMS services are its main strength, together with the technological infrastructure which supports this system. The survey also reveals that teachers and students have a positive opinion of the CMS. In broad terms, results demonstrated that the CMS is working properly.

INTRODUCTION

The business school which carried out this project is part of a public Mexican university, whose program for the years 2013-2017 proposed different lines of action that contribute to the improvement of quality education. According to the National Association of Universities and Higher Education Institutions (ANUIES in Spanish), quality education means that "*processes are efficient, results are accurate and both processes and results are in line with social expectations and demands"* (ANUIES, 2006).

This project sought one specific line of action: to consolidate the use of new approaches to education and the use of Information and Communication Technologies (ICTs) in teaching and learning processes (Villar, 2012). In this context, the school started by working towards a new curriculum in 2004 by evaluating internal and external congruence of its undergraduate programs. (Facultad de Contaduría y Administración, 2006). As a result, during the school period August-December 2006, the new Curricular Model was adopted (Facultad de Contaduría y Administración, 2006). At present, this business school offers five undergraduate programs under a face-to-face modality: Bachelor in Public Accounting, Bachelor in Management, Bachelor in Public Administration, Bachelor in Agribusiness and Bachelor in Marketing. The student population is made up of 3750 students, who are catered by a faculty of 262 professors (Villar, 2014). One of the most important actions to enhance quality education at this school was to adopt a second version of a CMS in the year 2012. Ever since the system was installed, however, it had never been evaluated, making it difficult to predict whether it was working appropriately, its strengths and weaknesses, or teachers' and students' demands from the system.

THE STUDY

According to literature, evaluating an educational program or the services offered by it must rely on the need to make the appropriate decisions to apply strategies that support a good administration, or the adoption of new policies which enable effective service or product delivery with good quality. More specifically, the purpose of these evaluations is to gather information in order to make such decisions (Gall, Gall y Borg. 2002).

In this light, the evidence that suggested the need to evaluate the CMS at this business school, was a resolution by the Technical Advisory Committee-TAC (Comité Técnico Consultivo in Spanish). The TAC is an institutional advisory body, made up of different members who represent all the community at this school including students, teachers and researchers. The aforementioned resolution stated the need to evaluate the programs and services offered at the school, including the use of the CMS, in order to find the degree of quality education at this institution (J. M. Buenrostro, personal comment, April 14, 2013).

Bearing this in mind, the problem stated for this research project was the need to evaluate the CMS in order to establish its efficacy in terms of the following objective: to offer a good quality service through the internet, with several tools to help teacher and student development and training at this business school (Facultad de Contaduría y Administración, 2008). Moreover, CMS strengths or weaknesses had not been established, neither

had students' and teachers' opinions towards the services offered by the system been determined. There was not any evidence either of how the CMS was responding to the technological needs of teachers and students to support the educational processes.

General objective of the Study
To evaluate the use of the Course Management System (CMS) in a business school at a university located in central Mexico, in order to measure its efficacy based on its objectives. The study focused on the identification of strengths and weaknesses to establish the CMS functionality and quality, as well as the way in which this course has been responding to the teachers' and students' technological demands to support their educational processes.

Literature review related to the research problem
Some of the conceptualizations revised were: Program Evaluation; Program or Educational Services Evaluation; and Course Management System (CMS) and their relationship with the research problem. Each of these concepts is described below.

Program Evaluation: According to Stufflebeam y Shinkfield (1987) *Program Evaluation* is a process of identifying, obtaining, reporting and providing useful and descriptive information about the value and merit of the goals, planning, implementation and impact of a given object (p.183).
These authors also pointed out that there are three objectives of the Evaluations: a) to guide decision making, b) to solve responsibility problems, and c) to promote the understanding of the phenomena involved with the evaluated object. As for the evaluation of the use of the CMS, the purpose was the decision making for the design of strategies or policies that contribute to the improvement of the education quality at the institution.

Program or Educational Services Evaluation. Fitzpatrick, Sanders, and Worthen (2004), defined program or educational services evaluation as the identification, clarification and application of criteria which can be used to determine the value of the object being evaluated. The evaluation criteria must be created with the help of all parties involved and each criterion should be discussed. For this particular project, the criteria were formulated with the help of CMS administrators, school authorities, teachers and students.

Course Management System (CMS). According to Graft y Albright (2007), a CMS is a technological platform which can be found as part of a learning management system or as a single and independent system. The authors defined a CMS as a program that builds the structure which allows teachers to create and manage courses, mainly based on the web. Among the actions a CMS allows are: a) synchronous communication through chat, an electronic board and video links; b) asynchronous communication through forums, notices, email, and an activity calendar; c) interaction among all the participants in the educational process from any place at any time; d) electronic data transfer; e) evaluation of activities with immediate feedback; and f) access to general information and session updates (Cuevas-Salazar, 2007).

Research Questions

There were four questions formulated for this project:

1. Which are the strengths and weaknesses of the CMS used in a business school at a university in central Mexico?
2. How is the quality of services offered by the CMS evaluated by teachers and students in a business school at a university in central Mexico?
3. What do students and teachers demand from the CMS in order to help educational processes in a business school at a university in central Mexico?
4. How does a CMS work in a business school at a university in central Mexico?

Methodology

Research Design. Non-experimental, mixed type. Quantitative and qualitative data was obtained (Creswell, 2012).

Participants. Participants in this study were from four specific populations from this business school: a) students, b) teachers, c) authorities, and d) CMS administrators. From the first two groups, probabilistic samples were determined at random. More specifically, the samples were referred to as proportional. The first sample aimed at a larger population was established among students (Ne=3750), and the second, for smaller populations was

taken from the teachers universe (Np=262). The samples were 349 students and 168 teachers. In regards to the third intended population group, made up of school authorities at the business school, information was taken from the five undergraduate program coordinators. The fourth group of participants was integrated by a) two academic coordinators, b) two systems analysts, and c) two programmers, all of whom were managers or responsible for services offered by the CMS.

Instruments. As part of a research technique called "*Focus Group*", two discussion guides were used in order to pinpoint CMS's strengths, weaknesses and functionality. One of the guides focused on strengths and weaknesses, while the second focused on the functionality. Two more questionnaires were used as part of a technique called "*Surveys*" to find out how students and teachers evaluated the quality of services offered by the CMS, and their technological demands from it to support the educational processes. The design of the first questionnaire was based on the scale E-S-QUAL [E-Service Quality]. It consisted on 18 items distributed in four dimensions (efficiency, system availability, delivery and privacy) and one open question. The design of the second questionnaire was based on the scale E-RecS-QUAL [E-Recovery Service Quality]. It consisted on 8 items arranged in only two of the three dimensions (response and contact) from this scale. The dimension of "*compensation*" which originally appears on this scale was eliminated because it was not considered viable to compensate when a problem derives from CMS use. It is worth mentioning that the original scales were developed by Parasuraman, Zeithaml, and Malhotra (2005), who conceptualized, built, refined and tried them out in an attempt to measure the quality offered by an on-line shopping web site. Nevertheless, Parasuraman et.al. (2005) considered this scale generic to be used to evaluate the quality offered by any electronic service. Finally, instrument validity was determined by a group of experts, as well as through a pilot-test so as to calculate Cronbach alpha for each one. The result for this measure was 0.898 for the first questionnaire and 0.912 for the second one.

Research Stages. Table 1 presents the three stages followed during CMS use evaluation. In this table, participants are matched to the research technique they were part of, the instrument used, and the research questions responded during each stage.

Table 1: Procedure for the evaluation of the use of the CMS use

Stage	Participants/Information resources	Research Technique	Instruments	Data Analysis
First Stage	CMS Administrators (six people)	Focus Group	Discussion guide to answer the research question number 1.	-Theoretical bases. (Creswell, 2005)
Second Stage	349 students and 168 professors	Survey	First questionnaire with 18 items and an open question. Second questionnaire with 8 items, both instruments were used to answer to the research number 2 and 3.	-Descriptive Statistics -Content analysis (Hernández et al., 2006).
Third stage	Five undergraduate program coordinators and three CMS administrators	Focus Group	Discussion Guide to answer the research question number 4.	-Theoretical basis (Creswell, 2005)

Source: own information

FINDINGS

Research results were arranged according to the four questions previously stated. Findings are presented below.

Research question number one

For the question "*Which are the strengths and weaknesses of the CMS used in a business school at a university in central Mexico?"* results were obtained from the session "*Focus Group*" carried out with CMS personnel and administrators (two academic coordinators, two systems analysts, and two programmers). The data obtained was arranged according to "*Strengths*" and *Weaknesses*", proposed in the first discussion guide. The defined categories for *strengths* were grouped in: (a) CMS personnel, (b) organization, (c) infrastructure and (d) innovation. While the defined categories for *weaknesses* were: (a) CMS personnel DOKEOSFCA, (b) services

and (c) organization. A summary of the findings for each category is presented below.

Strengths

CMS Personnel. For this category, participants' replies were related to two aspects: technical personnel and their commitment. From the first aspect, it was pointed out that one of the strengths was having specialists in their area. For the second aspect, it was noted that personnel have a high level of personal commitment to making the system run efficiently.

Organization. Replies were grouped in two topics as well for this category: CMS organization and CMS as an institutional reference for educational innovation. For the first topic, participants mentioned duties and responsibilities were clearly identified, and they had well-defined system services and how they are dealt with. In the second topic, they stated that one fundamental strength in educational innovation was that the CMS implementation covers a structural demand from the current Curricular Model at the institution.

Infrastructure. One more strength found in the study was that the institution has modern technological infrastructure. Participants highlighted that servers, practice labs, and student lounges are modern areas designed for students to have access to the CMS. Additionally, they defined the CMS as a modern and efficient tool.

Innovation. This category surfaced from the participants' comments, stating that the use of a CMS in a public Mexican university such as the one subject of this study was innovative, especially by being the first to use one from any of the schools or faculties at this university.

Weaknesses

CMS Personnel. Replies by participants were related to three aspects: technical personnel for CMS, CMS trainers and job uncertainty. In the first aspect, they stated that technical personnel is insufficient to help all the students and teachers. In the second aspect, the weakness they identified was little training to CMS users. The third issue was job uncertainty. People mentioned that the monetary compensation they receive is not proportional to the work they do or to their commitment to CMS management.

Services. For this category notes were arranged in two topics: service and promotion of CMS. In the first topic, they identified a limited schedule to take care of all the users' problems. As for the promotion, they said it was very little.

Organization. One of the weaknesses they found for the CMS DOKEOSFCA was its own identity. In more detail, the participants of the Focus Group stated that it was not clear where CMS DOKEOSFCA offices are or the procedure to use their services.

Research question number two

The second research question was "*How is the quality of services offered by the CMS evaluated by teachers and students in a business school at a university in central Mexico?"* The answer to this question came from the 18 closed items in the first questionnaire, given to 349 students and 168 teachers. It was also possible to have access to 8 items from the second questionnaire which only 133 students and 59 teachers answered. It is important to emphasize that this questionnaire was given only to those users who had reported a problem with the use of the CMS. A summary of the results is shown in Tables 2, 3, 4, 5, 6 and 7.

Table 2: Central Tendency and Dispersion Measurements of the first questionnaire for students

Code	Items	Median	Mode	Standard deviation
V01	Ease of use of the services	4.1	4	0.8
V02	Ease of access	4.0	4	0.9
V03	Fast download of the contents	3.8	4	0.9
V04	Organization of tools	3.9	4	0.9
V05	The page is shown quickly	3.8	4	0.9
V06	Simplicity to download contents	3.8	4	0.9
V07	Quick access.	3.8	4	0.9
V08	Availability of the services	3.6	4	1.0

V09	Operation of the services	3.7	4	0.9
V10	Fallibility of the services	3.3	4	1.0
V11	Errors in the delivery and reception information process	3.5	4	1.0
V12	Correct reception of contents	3.9	4	0.9
V13	Simplicity to download contents	3.9	4	0.8
V14	Download speed of the contents	3.8	4	0.9
V15	Correct download of contents	3.9	4	0.8
V16	Information confidentiality guaranty	3.9	4	0.9
V17	Sharing information with other websites	3.8	4	0.9
V18	Adequate protection of their information	3.8	4	0.9

Source: own information

Table 3: Central Tendency and Dispersion Measurements of the second questionnaire for students

Code	Items	Median	Mode	Standard Deviation
V01	Options to solve their problems	3.4	4	1.1
V02	Problem-solving	3.4	4	1.2
V03	Problem-solving confidence	3.4	4	1.0
V04	Guidance for the publication and/or contents download	3.4	4	1.1
V05	Problem-solving assistance	3.6	4	1.1
V06	Ease to communicate by phone	3.2	4	1.1
V07	Ease to communicate on-line	3.1	4	1.0
V08	Ease to conduct in-person interviews	3.3	4	1.1

Source: own information

Table 4: Central Tendency and Dispersion Measurements of the first questionnaire for teachers

Code	Items	Median	Mode	Standard Deviation
V01	Ease of use of the services	4.3	4	0.6
V02	Ease of access	4.4	4	0.6
V03	Fast download of the contents	4.2	4	0.7
V04	Organization of tools	4.2	4	0.6
V05	The page is shown quickly	4.2	4	0.6
V06	Simplicity to download contents	4.2	4	0.7
V07	Quick access	4.2	4	0.6
V08	Availability of the services	4.1	4	0.7
V09	Operation of the services	4.2	4	0.6
V10	Fallibility of the services	4.0	4	0.8
V11	Errors in the delivery and reception information process	4.1	4	0.8
V12	Correct reception of contents	4.2	4	0.6
V13	Simplicity to download contents	4.3	4	0.6
V14	Download speed of the contents	4.3	4	0.6
V15	Correct download of contents	4.2	4	0.6
V16	Information confidentiality guaranty	4.1	4	0.6
V17	Sharing information with other websites	4.3	4	0.7
V18	Adequate protection of their information	4.0	4	0.7

Source: own information

Table 5: Central Tendency and Dispersion Measurements of the second questionnaire for teachers

Code	Items	Median	Mode	Standard Deviation
V01	Options to solve their problems	4.1	4	0.7
V02	Problem-solving	4.4	5	0.8
V03	Problem-solving confidence	4.3	4	0.7
V04	Guidance for the publication and/or contents download	4.3	4	0.6
V05	Problem-solving assistance	4.2	4	0.8
V06	Ease to communicate by phone	4.4	5	0.6
V07	Ease to communicate on-line	4.3	4	0.6
V08	Ease to conduct in-person interviews	4.2	4	0.8

Source: own information

Table 6: Comparison of the first questionnaire results between students and teachers

Dimension	Positive answers		Negative answers	
	Students *N*=349	Teachers *N*=168	Students *N*=349	Teachers *N*=168
Efficiency	1840	1075	215	8
Availability	831	568	217	22
Fulfillment	1047	617	103	5
Privacy	707	425	66	5

Note. *N* = number of participants
Source: own information

Table 7: Comparison of the second questionnaire results between students and teachers

Dimension	Positive answers		Negative answers	
	Students *N*=133	Teachers *N*=59	Students *N*=133	Teachers *N*=59
Answer	353	263	100	5
Contact	168	156	100	0

Nota. *N* = number of participants
Source: own information

Research question number three
The third research question was: "*What do students and teachers demand from the CMS in order to help educational processes in a business school at a university in Central Mexico?"* The results to answer this question were recovered from a total of 343 student replies and 120 from teachers' demands, in the open question from the first questionnaire.

Students' needs. The main needs expressed by students were: (a) a greater number of computers available to use the CMS, (b) training to use the system, (c) extend the service hours for the use of the CMS, and (d) technical support in the use of the CMS.

Teachers demands. Similarly, teachers' needs were: (a) a greater number of computers available with the CMS, (b) system use training and (c) extended hours of services with the CMS. This group, however, specifically stated that there should be more promotion of services and use of the CMS.

Research question number four
The data regarding the question: "*How does a CMS work in a business school at a university in central Mexico?"* was obtained from the second *"Focus Group"* session which included three individuals from the Innovative Education Department (one coordinator, one systems analyst, and one programmer), and the five undergraduate programs coordinators. Data was then arranged under the topic "*CMS functionality*" in the following groups: (a) inadequate CMS functionality, (b) moderate CMS functionality, and (c) adequate CMS. The results from each category are the following.

Inadequate CMS functionality. The answers were related to two aspects: services offered by the CMS are unclear and the program is understaffed. As for the first aspect, it was pointed out that the services offered by the CMS are not clear enough, nor do the users have a clear idea of how they work. Regarding the second aspect, it was clear that personnel's capacities to respond to users' needs are insufficient, especially during those hours when there are more students at school and they require technical support or a place to work on their assignments.

Moderate CMS functionality. In this category users pointed out that not all the services and tools offered by the CMS are used. In this regard, it was said that they have not made full use of the tools and services because they became program coordinators very recently.

Adequate CMS functionality. This category was organized in two groups: (a) supports teachers' and students' activities, and b) increase in CMS demand. With regards to the first group, users mentioned that the learning and teaching activities were well supported by the CMS services, as well as students' and teachers' training and development. In the second group, participants pointed out that CMS service demand has had a significant increase. In this regard, they mentioned that the requests from new users had increased in the last semester.

CONCLUSIONS

Firstly, the strengths of the Course Management System (CMS) rely on the people who provide the services for this system, as well as on its modern technological infrastructure. Another strength is its relevance as an innovation in the context of the university where the business school is located. At the same time, the system represents a cornerstone for the Curricular Model at this institution. Therefore, these results contribute to the objectives set by the business school towards innovation in education.

Secondly, in terms of weaknesses, it is evident that the program is understaffed to provide all the CMS services to the entire population at this school and the personnel do not have job security. Additionally, procedures are not standardized and there is a lack of strategies for communication and promotion, rules and identity.

In third place, both students and teachers evaluated the quality of CMS services positively. This conclusion shows that the gap between users' expectations and the services provided is minimal. As for the demands of students and teachers, it was concluded that the business school should: (a) increase the number of computer equipment available at the institution, (b) train CMS users, and c) expand the service hours for the facilities where CMS is accessed. More specifically, students require guidance and technical support to develop their academic projects, and teachers need timely and accurate information related to CMS services. From the conclusions above, it is clear that the authorities responsible for CMS functionality must establish a permanent training program for users, a comprehensive evaluation of the technological infrastructure functionality, and plan to renew ICTs, hardware and software upon demand.

In fourth place, CMS does not have adequate promotion of services and its functionality is only moderate in those hours when there is high demand. On the other hand, CMS functions appropriately in students' and teachers' training and development. Another positive aspect is the modern and functional technological infrastructure. This became clear from the relationship between the quality of services and the technological infrastructure of this system. Consequently, it is possible to say that in the aspects of training, development and technological infrastructure the CMS has good functionality. This allows us to conclude that the system contributes to the objective of this business school, which is: "*to provide the academic staff with training and support in the use of ICTs in order to develop didactic materials to innovate in their practice within the context of the Curricular Model at this institution"*. Lastly, the data obtained from this project will allow those responsible for the system to make decisions that contribute to achieve the full operational level expected from this CMS.

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EVOLVING PEDAGOGY IN EDUCATION: IMPLICATIONS TO THE TAUHIDIC APPROACH IN TEACHING AND LEARNING

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ABSTRACT

Within the last 6 decades, there have been significant changes in educational approaches, particularly those related to pedagogy. Our basic argument in this paper is that these changes were the result of the shifting changes in the philosophical underpinnings of education. The changes can be seen from the behavioristic approach in the early 50's to the cognitive science approach in the 60's and recently, the constructivist approach in teaching and learning. In the behavioristic approach, the emphasis is on the inculcating of skills, reflected by the drill and practice methodologies. The proponents of the cognitive science began to see the importance of the thinking processes and understanding as key ingredients in the processes of teaching and learning. The shift from the behavioristic to the cognitive science is considered to be a significant paradigm shift in thinking about teaching and learning. In the early 80's the educational psychologists began to see the importance of the role of the learner in constructing his or her learning. We argue that these pedagogical changes reflect the philosophical shifts that occur in the field of education. For example, the aim of producing well-balanced individuals cannot be achieved through, for example, the "traditional" drill and practice approaches. The need to use various approaches is thus necessary in not only producing individuals who are skillful and knowledgeable, but at the same time, possess the necessary abilities needed in the twenty-first century. The skills in problem solving, communications, just to name two examples, cannot be achieved through the traditional pedagogical approaches. More comprehensive combination of other methodologies is thus needed. The educational philosophical underpinnings which are exhibited in terms of goals of education become the most important factor in determining which pedagogical approach is to be used in the specified educational system. The IKRAM-MUSLEH network of school system, for example, believes that the future citizens, coming from the school system, should comprise of those who are *tauhidic*. Tauhidic character symbolizes the god-fearing personalities. We believe that such characters will make a significant positive impact to the society, in whatever field the students choose. We will illustrate that the pedagogical practices as practiced in IKRAM-MUSLEH schools reflect its aspiration in producing the kind of citizens needed in the twenty-first century. What IKRAM-MUSLEH aspires to do is to produce future citizens who are *tauhidic* in their physical, emotional, spiritual and intellectual capacities.

INTRODUCTION

Improving the quality of teaching and learning in schools has always been a major concern of educators. In general, they emphasized that the pedagogical approaches and the curriculum used in teaching and learning must be consistent with the goals of education. Within the last 6 decades, education has experienced three significant philosophical changes, in terms of goals and objectives, parallel to the world wide developments, demands and changes in educational outlook. In the early 50's to the early 60's, education was seen as the vehicle to produce and develop human capital with skills and competencies, needed in the context of a developing country. However, in the 60's we begin to realize that skills and competencies are insufficient, and thus we need to equip our students with understanding and higher order thinking skills. This is illustrated by the implementation of the "modern curriculum" of which the modern mathematics program is a good example. Lately, we experience another significant change. We began to see the need for the integrated curriculum that will produce the holistic personalities. Balanced character is the order of the day. The changes brought about by the above are in responses to the weaknesses and insufficiencies brought about the educational philosophy on which each is based on. These three syllabi, as in any other curricular development, can be seen to have evolved from changing perspectives on the content, psychological and pedagogical considerations in teaching and learning. We will argue that the development has in many ways attempted to make learning and teaching more meaningful and thus friendlier for students both at the primary and secondary levels. We further emphasized that pedagogical changes must be in harmony with the changes in the philosophy of education.

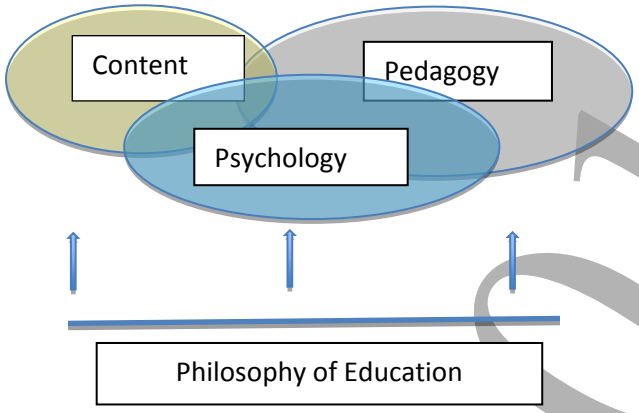
PEDAGOGY

Pedagogy comes from the Greek word παιδαγωγέω (*paidagōgeō*); in which παῖς (*país*, genitive παιδός, *paidos*) means "child" and ἄγω (*ágō*) means "lead"; literally translated "to lead the child". It is the science and art of

education, specifically instructional theory. An instructor develops conceptual knowledge and manages the content of learning activities in pedagogical settings.

Pedagogy involves theory of teaching and learning and methodology that attempts to facilitate learning according to the relevant epistemological perspectives. Thus, the assumptions that we make about teaching and learning define the model of pedagogy that we embrace.

The structure of any curriculum development



Within the last 6 decades, in consistency with the philosophical development of education, the educational theory has shifted from the behavioristic approach of learning, to the cognitivist approach and to the present constructivist bases of teaching and learning (Noor Azlan Zanzali, 2007)

Behaviorist, cognitivist, and constructivist of learning emphasized learning as an individualist pursuit. The pedagogies of behaviorist approach emphasized "transmitting information", reflected in such didactic approaches as drill and practice by the teacher as a way of acquiring knowledge by the student, mostly motivated by the reward and punishment techniques (Harasim, 2012).

The advent of the cognitive learning theory was in response to behaviorism theory on the direct link between "stimulus and response". Cognitive psychologist argued that the link between stimulus and response was not straightforward or simplistic and that a number of other factors such as the mental processes of the learner can intervene or mitigate or reduce the predictability of stimulus response. The pedagogies of the cognitive approach emphasized teaching techniques that stress the thinking processes that can influence the learning output.

The constructive pedagogies focus more on the learner or group of learners (Harasim, 2012), while the other approaches (behaviorist and cognitivist) give more emphasis on the instructors, design and techniques or tools of delivery. Constructivist learning theory focuses on the role of the learner in making meaning and constructing understanding. Both Piaget and Vygotsky emphasized on the role of the learner. The constructivist view of learning has generated a number of teaching approaches, based on the following principles or values:

1) Active learning
2) Learning by doing
3) Scaffolded learning, and
4) Collaborative learning

The above principle further emphasized on the teaching methods as those emphasized in problem solving, project works etc.

The Tauhidic Approach

All the above approaches which form the basis on the evolvement of pedagogies have been used by educators. The focus on the development of the intellect of students in attaining skills and understanding has been remarkable. But what is lacking, however is the focus or the emphasis on the character development of the students which to us is of vital importance to any form of pedagogy. Character development of students adopts the concept of the wholeness, unity and the interconnectedness of creation (Farah Ahmad, 2012). It is about engaging the students as a *whole person* – body, mind and spirit. Therefore individuals have to be developed in a

holistic, integrated and tauhidic approach as shown in verses of Al-Quran and the sayings of Prophet Muhamad s.a.w. in his hadis.

The private Islamic schools that we have established is based on the philosophy that the individuals have been sent by Allah al-Mighty as *insan rabbani* (virtous individuals) with specific *amanah* (purposes and roles). They are as follows: to be His Servants (Surah Az-Zariyat: 56), to be His Khalifah (Surah Al-Baqarah: 30) and to develop the Earth (Surah Hud: 61).

Pedagogy involves strategy, approach, methodology and techniques of how to lead the child towards the goals and aspirations as stated in the philosophy of education. Strategy manages approaches and methodologies leading towards the objectives with optimal utilization of resources. Pedagogy involves the theory of teaching and learning and the methodology that attempts to facilitate learning according to the relevant epistemological perspectives (Noor Azlan Ahmad Zanzali 2005)**.** Plenary paper presented at the workshop of technology and Pedagogy at the Universiti Putra Malaysia

Pedagogical approach could be based on the following:-

1. Criteria for assessment of teaching process – how students are managed (e.g. individually, pairs, groups, classroom, joint classrooms).
2. How facts are delivered – inductive, deductive, departing from simple knowledge to complex, concrete to abstract.
3. Teacher or student activeness – teacher centred (e.g. lecture, demonstration), student centered (e.g. problem solving, play, group discussion).
4. Specific subjects – themes (subject on man and nature – interdiscipline and integrated; language subjects – mentalist theory: translation, grammar or behaviorist theory: communicational, situational).

Pedagogical methodology involves systematic and organized actions towards achieving a particular objective. For example storytelling, discussion, play, repetition, role play, problem solving, brainstorming, debate, quiz, acting, project, questions and socratic (Marsh. C. J., 2009)

Pedagogical technique involves specific skills for each methodology. For example story telling involves voice control, usage of instruments, skills to retain the interest of students, hand movements, face expressions, students position during story telling.

The Foundations of a Tauhidic Pedagogy

In our continuous efforts to attain excellence in the Islamic educational system, we have to take into considerations the following basic tenets:-

1. Looking into the current realities and demands of the present day society, an Islamic educational system should be realistic, produce more work done rather than mere slogans and upholding some basic principles; as follows:-

    1.1. All sources of knowledge and everyday living must be based on Al-Quran and As-Sunnah
        1.1.1. This means that Al-Quran must be the fountain of knowledge whereby one will gain guidelines on how to deal with the challenges faced in education.
        1.1.2. Apart from that, if one were to analyse the sunnah of Rasulullah s.a.w. and the lives of ulama' and salafus solihin, it will discover useful educational models towards establishing Islam as *ad-deenul hayah* (way of life).
    1.2. All efforts must be made towards developing *insan solih* (good man) who will attain *mardhotillah* (pleasure of Allah) and success in this world and the Hereafter. The development of *insan solih* must be based on:-
        1.2.1. Comprehensive knowledge and understanding
        1.2.2. Being focused in work
        1.2.3. Living a life based on *as-Syahadatain* (Islamic ideology)
        1.2.4. Good understanding of Al-Quran, Arabic Language and Science
        1.2.5. Being tolerant and compromising on matters of *furu'* (secondary matters) but firm on principals
        1.2.6. Being firm on rights and truth
        1.2.7. Acknowledgement of individual talents and potentials
        1.2.8. The objective of man is to serve mankind

1.2.9. Need to practice Islamic akhlak, adab and etiquettes
1.2.10. Need to create a harmonious life.

2. All experts in Islamic education must be mobilized dan coordinated so that Islamic education would be continuously strengthened
3. Specific objectives and goals is a must; apart from plannings and detail explanations on academic subjects to be taught.
4. A good understanding of how an alternative to the present educational system must be developed through a clear and correct foundation of a strong civilization
5. The Islamic philosophy of education must be based on:-
   5.1. Syariat Islamiyah
   5.2. Current challenges at local and international level
   5.3. Comprehensive and total development of *insan soleh* – criteria of life, criteria of khalifah and requirements of khalifah Allah on Earth

The Pedagogy in IKRAM-MUSLEH Schools

As compared to the liberal educationists' view of developing personal and moral autonomy, IKRAM-MUSLEH gives particular emphasis on balanced growth of all aspects of individual's personality, including the spiritual and moral, leading to a higher level of religious understanding and commitment in all areas of life (Halstead, 2007; Muhammad 'Uthman El-Muhammady, 2005).

In the IKRAM-MUSLEH schools, learning and teaching processes are based on the unity of Allah (Aqidah at-Tauhid). The objective is to develop virtuous cadres. They are exemplary in their deeds equipped with sound knowledge, strong faith in Allah s.w.t. and imbued with high moral values, capable of managing and administering their personal life, the society, the nation and the world at large, in accordance with the principles laid down in Al-Quran and as-Sunnah. ('Uthman El-Muhammady, 2005). Consequently, balanced, integrated, holistic and continuous educational system is necessary (Halstead, M 2010). In addition, all aspects of the educational processes must emphasize the impact of the social environment and realities in which they are in. IKRAM-MUSLEH schooling system then, aims to:-

1. To mould an Islamic generation who are *muttaqin* (God-fearing) and strives to establish the *syariah islamiah* (Islamic law) in society.
2. To lay down the foundations for a new breed of experts in all fields of life. They are not only experts in a specific field but also possess positive values and attitudes.
3. To build a strong foundation in Islamic knowledge and Arabic language which would enable them to understand Al-Quran and the Hadis of Rasulullah s.a.w.

In essence, IKRAM-MUSLEH aims to develop all dimensions of a human being into an *insan rabani* (integrated personality) which will enable them to face the multitude of challenges in life successfully and thus contribute towards human progress and dignity (Sidek Baba, 2005).

Thus the pedagogy that we see as suitable in the tauhidic approach is one that holistic, integrated and Unity of Allah s.w.t. It consists elements of *dakwah* (invite), *tarbiah* (character development) and *jihad* (strive and commitment). *Zikir* (remembrance) of Allah al-Mighty and *fikir* (thinking) of His creations are fundamental. It encompasses aspects of intellectual, physical, spiritual, emotional and social (Noor Azlan Ahmad Zanzali & Mohamad Bilal Ali, 2011).

There are 7 methodologies (*wasail*) of teaching and learning as mentioned in the *manhaj tarbiah* (character development) programmme, which are adopted by IKRAM-MUSLEH, namely:-(IKRAM-MUSLEH, 2013a).

1. *Liqa' usari* (study group)
   It is the foundation for the development of *ukhuwah fil Islam* (brotherhood in Islam) *dakwah*, *tarbiah* and *jihad* (sacrifice). *Ukhuwah fil Islam* is a central objective in *tarbiah*. It can be nurtured via *taarof* (introduction), cheerfulness, hugs and kisses, sharing, offers to assist, "I love you *lillahi taala*" and sitting close thus enjoying the brotherhood warmth of the other person. It is done weekly for a specific period whereby elements of *taarof* (knowing), *tafahum* (understanding) and *takafol* (mutual help) is fostered. *Liqo usari* may be implemented via group sittings, interface or online. Bonding based on love for Allah s.w.t. is strengthened. Close monitoring on current issues is also an important itinerary in *liqo' usari*.
2. *Katibah* (night prayers)
   It is done monthly to develop *ruhi* (spirituality). Different venues may be selected.

3. *Rehlah* (excursions).
   It is done quarterly to develop social relations. Itineraries may be varied and different locations selected.
4. *Mukhayyam* (camping).
   It is done annually which focuses on physical fitness and discipline. Programmes and physical test may be changed accordingly.
5. *Daurah* (group discussion).
   It is done twice annually to develop ideological understandings on Islam such as "ibadah", "jihad", and "politics in Islam".
6. *Nadwah* (seminar).
   It is done annually to update members on current issues and allow differences of opinions but seeking the truth based on sound arguments and facts.
7. *Muktamar* (conference).
   It is done annually to update members on issues related to the organisation so as to bring the organisation to a higher level of success and capability.

Techniques must be varied and interchangeable. However, the most effective technique is *qudwah hasanah*. This refres to leadership through example.

Programmes. (IKRAM-MUSLEH, 2013a).

Preparations for programmes must include objectives, methodologies, assessment and the jobs are to be assigned to the most capable person. Implementations includes *mutabaah* (supervision), continous support, roles, basic and continous training given so that the person in charge comprehends fully his main task and the critical elements of the *manhaj tarbiah* (curriculum). Programmes of the organisation can be done individually or collectively. However, continuous *tarbiah zatiah* (self improvement) must be carried out by each member of the organisation. *Murabbis* must be made to be involved in social and relief activities. Assessments and reviews must be done subsequent to each programme so as to make improvements and reforms (Megat Mohammed Amin Mohd Nor 2005).

Characteristics of *Tarbiah* Process are as follows:-

1. *Rabbaniah* (Godly).
   It is about purifying the soul to enhance strong iman (faith) to Allah s.w.t., done based on the teachings of al-Quran, exemplified by *as-sunnah* (practice) of Prophet Muhammad s.a.w. and human nature. Seeking the pleasure of Allah s.w.t. is the ultimate. Love for *Akhirat* (Herafter) must be solid. Cleansing the soul from sins must be based on the *sunnah* of Prophet Muhammad s.a.w. Ridding the person's character of *mazmumah* (negative attributes) must be continuous. Supplications, *basmalah* (in the name of Allah), *tadarus* (recitation of Al-Quran), *hafazan* (memorisation of Al-Quran), *istighfar* (seeking forgiveness), *tazkirah* (spiritual reminders), *ikhlas* (sincere), *wudhu* (ablution), *ihsan* (submissiveness), reading stories from muslim greats and congregational prayers as daily rituals are a must. Evidently, they have great influence on the mentee's affections, emotions and frame of mind which are then translated into beneficial actions and deeds to the society. The heart must be hopeful of the *rahmah* (blessing) from Allah s.w.t., fearful of His punishment s.w.t. and believe that, one day, every soul will return to Al-Mighty Allah s.w.t.

2. *Syumul* (comprehensive).
   It is a complete, holistic and well balanced system which fulfils every aspect of a person's life based on *syahadatain* (the Islamic ideology). It covers aspects of cognitive, affective and psychomotor which includes knowledge, outlook, point of view, feelings, work, deeds, actions, mind, heart, limbs, quality, quantity, horizontal and vertical progress. The person which undergoes the process of *tarbiah* therefore must always be humble and never be arrogant. Existing circumstances and situations, however, is a major factor which determines the final details of programmes and activities.

3. *Tajmiah wa tazimiah* (gather and organise).
   Lessons learnt from the historical occasion of *Baiatul Aqabah*, shows that new recruits must be gathered, organised, managed, assigned, inspired and disciplined. During *Baiatul Aqabah*, there were 72 men and 2 women whereby Rasulullah s.a.w. selected only 12 *naqib* (leader) from amongst them. In fact, Rasulullah s.a.w. once said that 3 persons is enough to be considered a group and that a leader from amongst them must be elected without delay.

4. *Harakiah* (Movement)
   A key forte of Rasulullah s.a.w. was his ability, by the will of Allah s.w.t., to move men into action towards reforming the society, establishing the Islamic State in seeking the pleasure of Allah s.w.t. He successfully reformed individuals into men of outstanding calibre and consequently through them, managed to change society which accepted Islam as way of life based on Al-Quranul karim wa sunnah Rasulullah s.a.w. Efforts to reform society will not work until and unless the Muslims themselves interact, intermingle and interrelate (*muayasyah*) every individual in society, inviting them to Islam, enjoining that is good, forbidding that is evil and believe in Allah s.w.t. They display abundant love and respect, get to know more on each and everyone of them, the positives and negatives and afterwards make improvements and reforms. Individually, they make visits, exchange gifts, send messages, participates in programmes, accepts invitations, make personal calls, offers financial help and tuitions, make personal notes and appointments, celebrate birthdays, confides on personal issues, giving trust and sharing common interest. Collectively, they perform *jamaah* prayers, *katibah* (night prayers), *iftar jamaei* (breaking of fast), *tadarus* (Quran recitation), *solat dhuha* (morning prayer), usrah outside homes, play sports, do *rehlah* (excursions), campings, *daurah* (seminar), physical workouts, group work, meals preparation, reunions, receptions, "kutu", hangouts, convoys, active in fb, egroups, visits, have eating out, clean ups, half-way house, discussions, role as God father, enjoy movies, meet up parents, collecting donations, cordial with pet names, active in community service, exchange gifts, witty, personal touch, massages, haircuts and car washes.

5. Continous (kaizen).
   The process of *tarbiah* is a lifelong process which will continue until death. Inspiration and motivation unleashes potentials and sharpens the mind. *Tarbiah* can be liken to nourishment for *dakwah*. The process, therefore, must not merely be continuous but also makes the individual a better person, the next day.

Duties of a *Murabbi*

1. Planning.
   All projects and programmes, no matter how small it may be, must start with a plan. This is to ensure effectiveness and efficiency. Basic elements of a plan includes SMART objectives, SWOT analysis, long term and short term plans, which consequently needs to be presented to the committee, discussed, problems resolved and decisions made. Expert opinions and wide ranging experiences are major factors to be considered. Objectives must be achieved. Benjamin Franklin once said: "If you fail to plan, you plan to fail".

2. Deployment.
   The organisation must fully utilise each and every member to ensure the successful implementation of *dakwah* and *tarbiah*. *Qudwah hasanah* is paramount and must be displayed via noble ethical values such as *adab* (ethics), gentle words, suitable expressions, humblesness, patience, open heartedness, systematic, seeking the truth, clear message, respectful and "we or us" attitude as opposed to "you" attitude.

3. Passing down the management of *tarbiah*.
   Tarbiah is the only process which can instill the characteristics of IKRAM-MUSLEH teacher, effectively and efficiently. *Tarbiah* was passed down to us by Prophet Muhammad s.a.w. which starts with accepting the *syahadatain*. Al-Quranul karim and Sunnah Rasulullah s.a.w. had provided guidelines on how Islam is to be practised as individual, organisation, society and nation. Circumstances, customs, traditions, rituals and experiences, however, need to be taken into consideration before any Islamic law and jurisprudence, organisational procedures and processes are enforced.

4. Solving problems.
   Problems are common phenomena in life and have to be addressed timely. It has to be identified through observations, symtoms and interactions. Reasons for problems need to be ascertained so as to determine and prioritise solutions. Finally, a decision has to be made, usually by consensus, so that the decision can be successfully implemented.

5. Assessment.
   It must be done periodically, at all levels and issues resolved before they become epidemic, even though the assessment is not likeable by mentees. This is crucial so that problems can be resolved before due time and continuous improvements can be made.

Instilling Intense Enthusiasm Towards *Tarbiah*.

To achieve this, mentees must be made aware of their weaknesses and duties as muslims. They need to take examples from great muslims past and present and take serious attention to the current appalling situation of the *ummah* (muslim nations). Islam cannot possibly be practised as a way of life until and unless the *ummah* plays a leadership role. Capabilities, abilities, specialisations and skills need to be developed amongst the muslims in the *ummah*.

The *Tarbiah* Process of Instilling Values Amongst Students (Graph 1)

All students and teachers are expected to undergo the "*tarbiah* process". In IKRAM-MUSLEH, this "*tarbiah* process" is crucial. Students are given "tarbiah" so that they would progress periodically through levels 1 to 5 as indicated below:

Level 1
Student is made aware of the constructs to be assessed

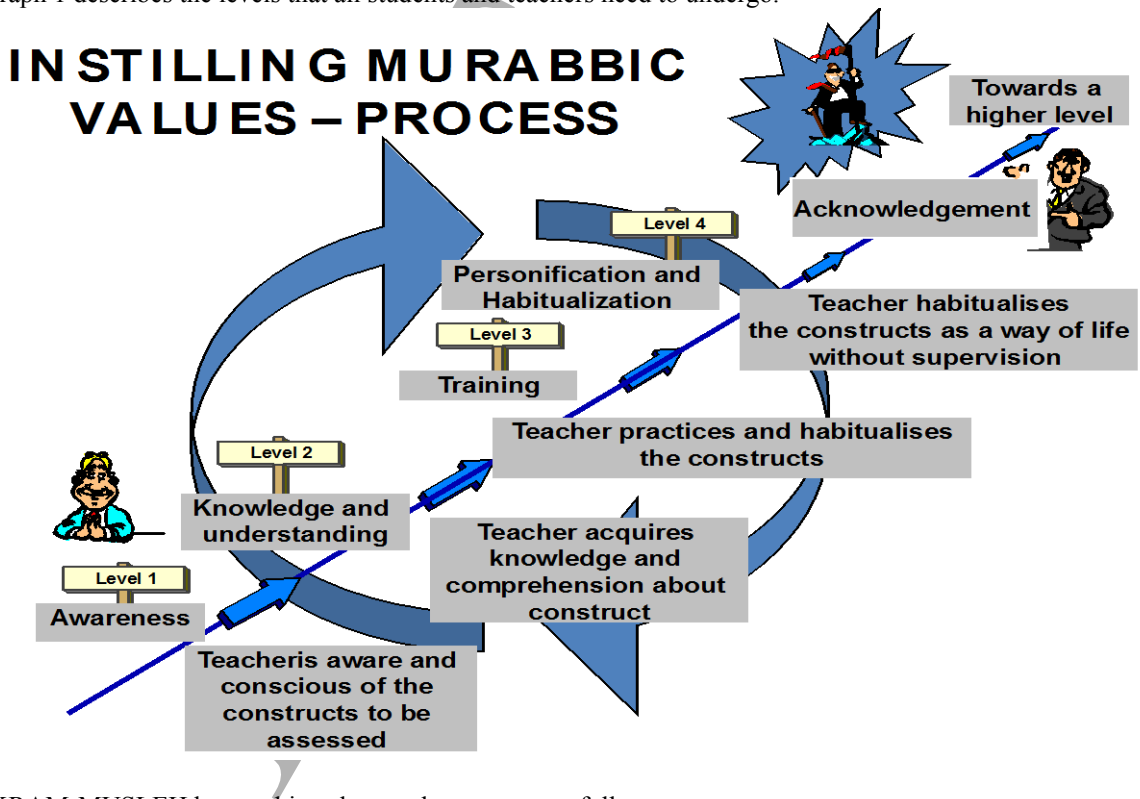
Level 2
Student acquires knowledge and comprehension about each contruct

Level 3
Student practises, habitualises and internalises the construct selected

Level 4
Student habitualises and internalises the constructs as a way of life without supervision

Level 5
Accomplishments are acknowledged, recognised and encouraged for further personal development.

Graph 1 describes the levels that all students and teachers need to undergo.



IKRAM-MUSLEH have achieved several successes, as follows:-

1. Teachers

More than 20% of teachers in IKRAM-MUSLEH schools have achieved the minimum level of 03 (highest level is 05) of the *manhaj tarbiah*. They possess the murabbic values and often participated actively in *tarbiah* programmes in schools, and also *dakwah* and community service.

2. Schooling environment, culture and values

It is evident that the teachers in IKRAM-MUSLEH schools strives to uphold Islamic ethics and disciplines, implement programs based on *sunnatullah* and seek the blessings from Allah s.w.t. Noble values are being given top priority: *sidq* (truthful), *amanah* (trust), *tabligh* (convey) and *fatonah* (wisdom). There is a loving and joyful atmosphere in IKRAM-MUSLEH schools via rewards and punishments, an atmosphere of thankfulness to Allah s.w.t., much supplications, many supererogatory deeds (like fasting and prayers), purification of the soul and much remembrance of Allah s.w.t.

3. Students

Public examination results confirm the fact that the performance of students in IKRAM-MUSLEH schools are amongst the best in the district, state and even at national level. Performance of students in co-curricular activities demonstrate that their skills and attitude are at par or even better than the top students in the country as well as at the international level.

4. School image

IKRAM-MUSLEH schools are highly rated, given strong community support and registration of new students have always been oversubscribed. Parents have also shown their support to IKRAM-MUSLEH schools by sending all their children studying there. IKRAM-MUSLEH schools have been refered to as "Showcase Private Islamic Schools" by the Ministry of Education (MOE) and consulted for their experience and expertise. The MOE have recognised the contributions of IKRAM-MUSLEH schools in a number of aspects; namely:-

4.1. Academic performance in public examinations.
4.2. Annual IIUM Students Debating Championship (English, Arabic, Malay).
4.3. Annual Musleh International Students Debating Championship (English, Arabic, Malay) – finalist from IKRAM-MUSLEH schools.
4.4. International programmes participated by Kelab Remaja Sekolah Musleh (KRS Musleh).
4.5. Community service programmes (Kembara Dakwah) organised by KRS Musleh in remote villages in Sabah, Sarawak and indigenous communities in peninsula Malaysia.
4.6. Islamic Studies, curriculum and teacher training modules specifically designed and implemented
4.7. Teaching of arabic language starts from year one primary up to year five secondary school.
4.8. Affordable school fees.
4.9. In the year 2013, 5 IKRAM-MUSLEH schools have been awarded grade 5 (excellent) for SKIPS by State Education Department. 1 school has been awarded grade 4.
4.10. Almost zero disciplinary issues occurred amongst students and teachers in IKRAM-MUSLEH schools.

Despite the fact that most IKRAM-MUSLEH schools lack quality facilities as compared to the mainstream schools, our achievements were on par, in fact, better than to even the premier schools in all fields such as the academic, co curricular and community programs.

Prospects of Pedagogy in Islamic Education

1. Teaching and learning have their specific objectives. They include objectives which are cognitive, affective and psychomotor. Advances in technology have made the teaching and learning processes more effective and efficient. Students learn better at minimum costs, in a more comfortable and safer environment continuously almost anywhere.

2. On the other hand, teaching and learning can also become more stressful and intimidating, especially to the teacher. Children as young as 2 years old have begun to familiarize themselves with information and

communication technology gadgets. By the time they reach schooling age, they would have acquired skills that would make them accessible to the latest information and news.

3. In Islamic education therefore, pedagogy would have to adopt pedagogical approach involving students to be managed individually and in groups; inductively and deductively; from simple to complex; concrete to abstract; teacher centered; student centered; interdisciplinary and integrated; communicational and situational. Pedagogical methodology would be more user interactive. For example story telling, discussion, repetition, problem solving, brainstorming and quiz. Pedagogical technique would be more multimedia and appealing. For example story telling may make more use of motivating tools

CONCLUSION

In general, educators have emphasized that the modern pedagogical approaches must be based on the recent development in the theories of teaching and learning. Thus, we see the constructivist approaches such as cooperative learning, group work, project and higher thinking skills approaches are often accentuated in teaching and learning situations. What has been clearly indicated by most educators, however, is that the behaviorist approaches marked by the drill and practice pedagogy does not support the aims and objectives of learning based on the constructivist approaches. We at the IKRAM-MUSLEH schools, have often wondered as to whether these modern approaches are parallel or reflect to the educational ways of the Rasulullah s.a.w. Based on our experience we are of the opinion that the modern pedagogical approaches support the goals as envisaged by the Islamic philosophy of education.

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EXAMINATION OF HELPING BEHAVIOR LEVEL OF PHYSICAL EDUCATION AND SPORTS TEACHER CANDIDATES

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ABSTRACT
In this study, which aimed to determine the helping behavior level of Physical Education and Sports teacher candidates, the Helping Orientation Scale was administered on a total of 120 last year student teachers studying in Physical Education and Sports Teaching Department of Kocaeli University. In conclusion, helping behavior of the teacher candidates was not found significant in terms of the variables of age, gender, economic status, year of doing sports, participation in a leisure activity, exposure to violence, type of violence exposure, whereas a significant difference was found in terms of those doing sports for 6-10 years and 16 years over.

Key words: Teacher candidate, helping behavior, physical education and sports teacher.

INTRODUCTION

The term of "prosocial behavior", which is the opposite of antisocial behavior, is stated to be used to refer to helping behavior. It is defined as voluntary behaviors of individuals to reach organizational goals in particular without enforcement. "Prosocial behavior", which is stated to have two sub-dimensions including cooperation and altruism, is also defined as a kind of voluntary behavior which aims to help others such as sharing, helping, supporting and providing care through protection (Brief & Motowildo, 1986; Duru 2002; Eisenberg, Holmgren & Fabes 1998).

It is explained that one dimension of helping behavior is cooperation-oriented and the other dimension contains altruistic behaviors including individuals' thinking about others automatically. The first dimension; cooperation is stated to provide attainment of common objectives, whereas altruism includes voluntary assistance to others without expectation of any benefits or rewards (Bora, 2015; Duru, 2002; Podsakoff et al., 2000).

It is said that there are four subcategories of helping behavior. One of them is Altruism, even though altruistic people help others continuously, they require comparatively less help. Furthermore, Exchanging-behavior is characterized by high levels of requiring and providing help. Thirdly, Self-contained persons provide low levels of help but at the same time also seeking low levels of help. Finally, Selfish people are marked by low willingness to help; however, those people seek high levels of help from others for themselves (Romer, Gruder, & Lizardo, 1986).

When the studies on helping behavior were examined, it was seen that there were very few studies in educational environments, studies were mostly carried out in the field of business and the issue took place as organizational citizenship behavior in this field. It was stated that the concept of " organizational citizenship behavior", which was reported to be business and management oriented, first took place in business management literature in 1983 and the dimension of altruism referred to helping colleagues voluntarily in terms of school in educational environments, (İşbaşı, 2000; Sezgin, 2005).

Organizational citizenship behavior is defined as employees' performance of voluntary effort and extra role behavior out of job description in work environment (Organ, 1988; Schnake & Dumler, 2003). It was also mentioned to be associated with voluntary behaviors intended to make a social and psychological contribution to an organization or institution, to help co-workers and colleagues, to use the working time effectively and to achieve a goal (Kaskel, 2000; Lievens & Anseel, 2004; Sezgin 2005). It was also stated to include voluntary behaviors such as provision of prior notification of absence from work and over participation in work such as helping a work friend who had not come to work or a co-worker who had just started work to socialize even if there was no official enforcement, supporting the management in overcoming difficulties, suggesting new ideas and taking a leave for less than deserved (Kelloway et al., 2002). It was determined that in Turkey, the studies on organizational citizenship behavior were generally conducted in the field of business and management and the studies examining it in terms of school in the dimension of education were limited (Oğuz, 2011; Ölçüm, 2004; Sezgin, 2005).

Considering all these explanations, it was wondered what the level of helping behavior was especially in Physical Education and Sports teachers, who would work in a branch considered more social, in terms of the teachers taken as the role models by the individuals constituting the society no matter what the field was. Based on this main question, the answer to the question what the helping behavior of Physical Education and Sports teacher candidates, who provided an important support in the socialization of students and development of the feelings of cooperation and sharing in school environments and had an important role in teaching sports, was like

was searched for and the level of their helping behavior was tried to be assessed in this respect. In line with this purpose, helping feelings of the Physical Education and Sports teacher candidates studying at the School of Physical Education and Sports of Kocaeli University were determined and it was examined whether these feelings differed by the variables of age, gender, status of amateur or professional sports performance, exposure to violence, type of violence exposure and existence of any leisure time activities.

METHOD

Research group: The Helping Orientation Scale and a 9-question information survey were applied to a total of 102 teacher candidates attending the final grade at the Physical Education and Sports Teaching Department of Kocaeli University in the academic year of 2013-2014 to determine the socio-demographic attributes.

Data Collection Tools: The Helping Orientation Scale, the adaptation study of which was carried out by Duru (2002), was structured to measure the helping reactions which individuals could give depending on the four different types of personality including altruistic, exchanging, self-contained and selfish in 23 real life situations in a way that each question would reflect the reaction of a personality type. In the studies on the reliability of the scale, test-retest reliability was found as r(84)=.75, p<.01 (Duru, 2002).

Data Collection: In order to collect the data, the scale was applied to a total of 102 students studying at the Department of Physical Education and Sports Teaching at the School of Physical Education and Sports at Kocaeli University based on voluntariness.

Data Analysis

The data obtained from the study was analyzed statistically and its significance was tested at the level of 0.05. During the statistical analysis, Mean and standard deviation values were used to determine the scores obtained from the The Helping Orientation Scale. According to the test of normality, it was determined that the data showed normal distribution, and independent group t test was used for the two-set comparisons or one way analysis of variance (one way-ANova) was used for three or more-set comparisons.

FINDINGS

The helping behavior of Physical Education teacher candidates was determined not to show a statistically significant difference in terms of gender, whether they had hobbies or not and whether they were exposed to violence or not [Table 1].

Table1: Examination of the sub-scales of Helping Behavior of Teacher Candidates according to gender

Variables		**Altrustic**		**Exchanging**		**Self-contained**		**Selfish**	
		mean±sd	P	mean±sd	P	mean±sd	P	mean±sd	**P**
Gender	Female	8.85 ±3.68	.744	4.65± 2.36	.485	1.87 ±1.66	.746	2.85 ±1.56	.701
	Male	8.63 ± 2.85		4.36 1.75		1.97 ±1.61		2.97 ±1.69	
Leisure Time Activity	Yes	8.83±3.70	.895	33±1.97	622	79±1.71	467	3.20±1.55	.307
	No	8.73±3.20		4.57±2.14		98±1.61		2.80±1.63	
Exposure to Violence	**Yes**	9.21±3.75	.508	3.89±1.91	.151	1.52±1.71	.244	2.47±1.92	.093
	No	8.65±3.21		4.66±2.12		2.01±1.61		2.78±1.52	

No significant result was found in the factor analyses performed according to the age, the income level, the sports performance status of the Physical Education and Sports teacher candidates, the environment where they were exposed to violence and the type of violence exposure, whereas the difference was found to be at the limit of significance in terms of exchange behavior according to sports performance year [Table 2].

Table.2 Factor Analysis Results of the sub-scales of Helping Behavior of Teacher Candidates (One Way ANOVA)

Variables		Altrustic		Exchanging		Self-contained		Selfish	
		mean±sd	P	mean±sd	P	mean±sd	P	mean±sd	P
Age	18-20	11.0±-		5.0±-		00	.	3.0 ±-	
	21-23	8.53±3.5		4.59±2.3		2.18 ±1.57		2.90 ±1.52	
	24-26	8.60±3.09	.263	4.72±1.85	.128	1.62 ±1.59	.250	2.95±1.78	.988
	27 and over	11.0±2.7		2.71±1.11		1.85±2.11		2.71±1.70	
Income Status	1000 tl and under	7.72±4.33		4.90±2.34		1.72±1.48		3.36±2.37	
	1001-1500	8.38±3.07	.135	4.80±1.99	.288	2.41±1.84	.161	2.66±1.49	.216
	1501-2000	10.19±3.41		3.76±2.16		1.66±1.39		2.52±1.83	
	2001 and over	8.58±2.97		4.58±2.06		1.61±1.51		3.26±1.23	
Sports Status	Amateur	8.94±3.35		4.49±2.18		1.91±1.54		2.75±1.69	
	Professional	8.67±3.6	.502	4.41±1.97	.197	1.93±1.63	.993	3.11±1.55	.540
	Other	6.66±5.13		6.66±2.08		2.0±3.46		2.66±1.15	
Sports experience Year	0-5	8.80 ±2.24		4.53±1.76		1.66±1.04		3.20±1.42	
	6-10	8.77±3.50	.717	4.84±2.32	.052	1.95±1.66	.675	2.62±1.63	.458
	11-15	9.63±3.72		4.68±1.83		1.86±1.81		3.03±1.76	
	16 years and over	-		2.91±1.81		2.45±1.86		3.27±1.42	
Violence Environment	Sports Environm.	9.60±3.89		3.50±1.65		1.70±2.00		3.30±1.82	
	Non-sports	10.20±4.43	.881	3.40±2.07	.084	8.00±.44	.617	3.80±2.48	.481
	Both	8.0±-		8.0±-		100±-		1.00±-	
Type of Violence Exposure	Psychological	11.37±3.11		3.12±1.72		1.25±1.66		2.50±1.51	
	Physical	8.00±00	.180	5.00±1.41	.409	.500±.707	.641	4.50±.707	.212
	Both	8.00±00		4.14±.2.26		1.714±1.7		4.14±2.41	

The Tukey Test was applied to determine between which years this difference, found to be at the significance level according to sports performance year, was observed. As a result of this implementation, the difference between those who performed sports for 16 years and over and those who performed sports for 6-10 years was found significant against those with 16-year and over sports performance according to exchange behavior and at the significance limit in terms of those with 11-15-year sports performance [Table 3].

Table.3 Tukey Test Results of the sub-scales of Helping Behavior of Teacher Candidates (Exchange Behavior Performance Year According to Sports)

Acording to 16 and over year	Averages the difference between	sd	Sig
6-10 year	1.93535	.69405	**.032**
11-15 years	1.7806	.73069	**.077**

DISCUSSION AND CONCLUSION

Although the results were not found significant when the helping behaviors of Physical Education and Sports teacher candidates were examined according to gender in terms of personality types, the altruism, exchanging scores were found high in favor of female students and the self-containment and selfishness scores were found high in favor of male students. The fact that the difference between these scores was compatible with the social gender role learnings; especially females' upbringing in a giving way and males' upbringing in a self-contained way and male oriented service giving (Belansky & Boggiano, 1994; Dökmen, 1997), were thought to be effective in the selfishness scores being high in favor of females. Considering the limited number of studies performed, there are studies finding no significant difference according to gender in terms of total scores supporting our findings, research results supporting our findings were also encountered in the studies on organizational citizenship behaviors considered as helping behavior (Baş & Şentürk, 2011).

In the research, no significant results were found according to whether the teacher candidates had hobbies they dealt with in their leisure time. Nor was the helping behavior of the teacher candidates found significant according to their violence exposure status. Examining the literature studies, no studies evaluating violence exposure and helping behavior were encountered. The altruistic, in other words voluntary, behavior scores of

those exposed to violence, especially psychological violence were determined to be high and the self-contained behavior scores to be low. When these results were interpreted with the literature information that those who are bullied and exposed to violence experience feelings of helplessness (Çalık et all. 2009), it was thought that besides the helplessness feelings occurred as a result of violence exposure, especially psychological violence, an approach to understand the needs of others was developed, and therefore events were approached less selfishly, however there occurred a decrease in the feelings related to self-confidence.

Considering the relationship between the helping behavior and the other variables in the study, no significant results were found in terms of the environment where violence was exposed, age, income level or whether the sports was performed professionally or not.

Considering the sports performance year, it was found out that altruistic, that is voluntariness, behavior scores of those doing sports for 11-15 years were the highest and the scores of both altruistic and exchange behavior of those in the 16-year and over group decreased; however, the scores of self-contained behavior increased. The decrease in the scores of exchange behaviors, the increase in the scores of self-contained behaviors and these results being found significant in the Tukey test analysis indicated that there occurred a decrease in the scores of caring for others and helping behavior towards them when the sports performance year reached 16. When interpreted with the fact that these results were found significant and the sub dimensions of colonialism, superiority and self-contained including states such as self-confidence, independence, self-contained, which are claimed to be some of the narcissistic characteristics of the athletes, (Gülmez 2009; Tazegül, 2013), it was thought that our findings need to be evaluated with more detailed studies together with the information about the success status of the people doing sports and whether they are athletes recognized by the society.

Consequently, it is important to plan detailed studies on the issue with the physical Education teacher candidates both as role models and as educators for the proliferation of voluntary behaviors and active citizenship characteristics in the society. It is suggested that it would be appropriate to prepare study programs and syllabuses which encourage voluntary behaviors especially by working with teacher candidates and to apply studies and course contents which develop helping and empathic approaches within the scope of Community Service Applications course.

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THE EXAMINATION OF MENTAL ROTATION ABILITIES OF ELEMENTARY MATHEMATICS EDUCATION AND MATHEMATICAL ENGINEERING STUDENTS

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ABSTRACT
Mental rotation ability is one of the components of spatial ability. The purpose of the study is to investigate whether there is a difference between the mental rotation skills of elementary mathematics teacher candidates and mathematical engineering students. Elementary mathematics education students from Faculty of Education and mathematical engineering students from Faculty of Chemical and Metallurgical Engineering in the 1st, 2nd and 3rd grade attended to study from a public university. Mental rotation test developed by Sezen Yüksel (2013) was used as data collection tool. The study is a case study and the data obtained from the research were analyzed by a statistics program. The results indicated that there is statistically significant mean difference between mathematics teacher candidates and mathematical engineering students with respect to mental rotation ability. Elementary mathematics education students' mental rotation test scores were higher than mathematical engineering students. Also, comparisons were used at each grade level.

Keywords: Mental rotation ability, elementary mathematics education students, mathematical engineering students

INTRODUCTION

Spatial ability is important in STEM (Science, Technology, Engineering and Mathematics) fields (Battista, 1990; Kayhan, 2005). Spatial thinking is also vital for many occupational groups apart from mathematicians, such as engineers, architects, sculptors, and physicists (Olkun, 2003; Tekin, 2007). There is a great consensus about the importance of spatial ability among researchers. However, in making the definition of spatial ability, different opinions are existed. D'Oliveira (2004) states the reasons why several definitions exist that different researchers describe spatial ability in different ways, there are a number of different components and their different names and different explanations about which spatial ability tests measure which spatial component are available.

When examining the literature the concepts of spatial thinking, spatial perception, and spatial reasoning are used instead of spatial ability (Clements and Battista, 1992; NCTM, 2000; Olkun, 2003). Examples of definitions used in the framework of spatial ability are as follows:

Lord (1985) defined the spatial ability as the ability of creating the image in the mind, changing that image and using it. Linn and Petersen (1985) made this definition about the spatial ability: a general name given to the abilities of presenting, generating, rotating and renaming symbolic and nonverbal information.

This ability is defined by Stockdale and Possin (1998) as understanding the spatial relationship between people and the objects in their environment. Olkun (2003) states that spatial ability is combination of some skills such as visualizing 2D and 3D geometric objects in the mind, rotating them and interpreting their movements. According to Yıldız (2009), spatial ability is identified as imagining the objects in space mentally, recognizing them from different perspectives, moving it bodily or separately.

The number of these definitions can be increased but it can be said that there are common features when examining them about spatial ability. These are abilities of visualizing 2D and 3D components of an object, manipulating, rotating and moving, recognizing from different perspectives, understanding the relationships among objects.

There are also different definitions related to the components of the spatial ability. We can express some of the researchers who recognized mental rotation ability as a component of the spatial ability and some definitions identified by them as follows:

Maier (1996) identified five main components of spatial ability: spatial perception, visualization, mental rotation, spatial relations, and spatial orientation. Linn and Petersen (1985) categorized spatial ability into three components: spatial perception, mental rotation, and spatial visualization. Researcher defined mental rotation ability as the ability to rotate an object in two and three-dimensional space quickly and rapidly.

Karaman (2000) stated that mental rotation is the ability to imagine the appearance of objects from different perspectives according to one's own position.
With these studies we can summarize the mental rotation ability's features as to imagine the views of an object from different perspectives in two and three-dimensional space.
Studies related to spatial ability appears on the year of 1940s and 1950s (Ünal, 2005). In addition, different studies on pre-service teachers' spatial skills are available. (e.g., Güven and Kösa, 2008; Dursun, 2010; Turgut, 2010; Uygan, 2011).
Güven and Kösa (2008) carried out their study with pre-service mathematics teachers. After some applications were implemented by using Cabri 3D software, at the end of the study students' spatial ability test scores were significantly increased. According to their results computer aided activities provided to development of pre-service mathematics teachers' spatial ability.
In his study Dursun (2010) examined total of 1007 elementary pre-service teachers' (elementary mathematics teachers, elementary science teachers, preschool teachers) spatial visualization abilities, self-efficacies for geometry and spatial concerns in terms of gender and continuing the program. The results showed that spatial visualization scores of elementary mathematics education students are significantly higher than other departments.
In his PhD thesis Turgut (2010), it was investigated there was a relationship between elementary mathematics pre-service teachers' spatial ability and gender, geometric thinking levels, academic achievement, and linear algebra course achievement. According to obtained findings, there was no significant relationship between spatial ability and gender and geometric thinking level but a moderate positive relationship was found between spatial ability and linear algebra course achievement and academic achievement. Uygan (2011) examined the effects of Google SketchUp and concrete model supported applications to spatial ability and pre-service teachers' opinions about the implementation were asked. According to the results pre-service teachers thought Google SketchUp applications were most effective tools in the development of spatial ability and teaching of solids.
There have been studies about examining the spatial ability of faculty of engineering students. Alias, Black and Gray (2002) examined the effect of instructions on spatial visualization ability in civil engineering students. 29 students in treatment group and 28 students in control group from Malaysian Polytechnics attended to the study. After spatial instructions, students' spatial ability test scores increased in the treatment group.
There are studies that examined students' spatial abilities of elementary mathematics education in terms of various variables but no study that compares them with mathematical engineering students is available. It is worthwhile to develop the engineering students' spatial abilities. Therefore via this study, their mental rotation abilities in their grade levels will be analyzed and information about the current situation will be acquired. In addition, thanks to the research the opportunity to compare the education faculty and engineering faculty students' a component of the spatial ability is provided.

In line with the above, three research questions guided the study:

1. Is there any significant difference between the mental rotation test scores of elementary mathematics education students and mathematical engineering students?
2. Is there any significant difference in mental rotation test scores in each department according to their grade levels?
3. Is there any significant difference in mental rotation test scores in the same grade levels according to departments?

METHODOLOGY

This research that examined and compared mental rotation ability of elementary mathematics pre-service teachers and mathematical engineering students was a quantitative study and survey model was used. Survey models try to reveal existing circumstances and conditions as they are. To reach a judgment about the universe in general, research is done on samples taken from a group or the whole universe (Karasar, 2007).

Participants

The sample of the research consists of 84 pre-service teachers who were enrolled in the Department of Elementary Mathematics Education and 137 undergraduate students from Department of Mathematical Engineering at Yildiz Technical University in Turkey during 2014-2015 academic periods. The distribution of the students according to their departments is shown in Table 1.

Table 1. The distribution of the students participating in the study

	Freshmen	Sophomore	Junior	Total
Elementary Mathematics Education	34	26	24	84
Mathematical Engineering	69	46	22	137
Total	103	72	46	221

A total of 221 students were included in analyses. 84 undergraduate students were from Education Faculty in the

Department of Elementary Mathematics Education (34 freshmen students, 26 sophomore students and 24 junior students) and 137 undergraduate students were from Faculty of Chemical and Metallurgical Engineering in the Department of Mathematical Engineering (69 freshmen students, 46 sophomore students and 22 junior students). The reason why there were fewer students from faculty of education was that the number of students taken to the faculties at the end of the university exam was different.

Data Collection Tool

Mental-rotation performance was measured by "mental rotation test (MRT)" developed by Sezen Yüksel (2013). The test was developed within her PhD thesis by researcher and necessary permissions were taken from her before applying the test. There were 32 multiple-choice questions in the test. At the beginning of the mental rotation test, an object was given as an example and left, top and front views of the shape after rotating by 90º around x, y and z axis were shown. The first 10 questions in the test were related to rotating the shapes at different angles and their views from various directions. In 3 questions, cubes that had pictures on three surfaces and new cubes resulting from the rotation process of these cubes were given. In some questions, cubes were presented that obtained at the end of rotation process and the first cases of the cubes were asked. In addition to them, questions about rotating three dimensional objects (cylindrical or conical shapes) were included in the mental rotation test. The questions in the test evaluated as true or false and the number of correct questions constitutes participant's test scores. An example question in the mental rotation test developed by Sezen Yüksel (2013) is as follows:

Please answer the following questions according to the figure given in the side

1- Which is the shape formed after rotating the shape above by 45^0 around x axis?

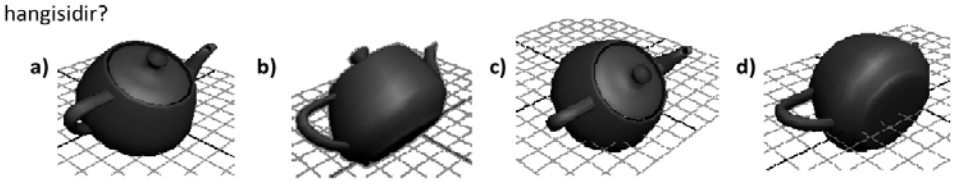

Figure 1. An example question from the mental rotation test

Data Analysis

Data obtained from mental rotation test were analyzed by using the SPSS 20.0 software package. Descriptive statistics (standard deviation values, the arithmetic mean, etc.) were used. Also independent sample t test for comparing the test scores of the departments and one way variance analysis (ANOVA) for comparing grades' test scores in the departments were utilized. When any significant difference was found, it was identified by the Tukey test. Independent samples t-test was also used to compare different departments of the same class. All the analyses were made in 95 % confidence interval and $p<0,05$ values were accepted as statistically significant. The results were presented in tables.

RESULTS

The examination and comparison of mental rotation skills of elementary mathematics education and mathematical engineering students were given in this section.

Descriptive statistics values of the mental rotation scores of elementary mathematics education and mathematical engineering students were shown in Table 2.

Table 2. Descriptive statistics - EME: Elementary Mathematics Education, ME: Mathematical Engineering

	N	Minimum	Maximum	Mean	Std. Deviation
EME 1	34	7	26	15.03	4.661
EME 2	26	10	24	17.69	3.728
EME 3	24	9	27	18.21	4.201
ME 1	69	3	23	10.67	5.204
ME 2	46	10	26	19.04	3.910
ME 3	22	7	26	17.27	5.708

According to the results of descriptive statistics, the mean of the freshmen students of the elementary mathematics pre-service teachers is 15.03, sophomore students' mean value is 17.69, and junior students' mean value is 18.21. Beside, mean value of the first grade of mathematical engineering students is 10.67, the second grade students' mean value is 19.04, and third grade students' mean value is 17.27.
Before determining which test was applied, the obtained data were examined whether they correspond to a normal distribution. Normality test results were given in Table 3.

Table 3. Normality test results

	Kolmogorov-Smirnov			Shapiro-Wilk		
	N	**Statistic**	**Sig.**	**N**	**Statistic**	**Sig.**
EME1	34	.118	.200	34	.971	.731
EME2	26	.141	.200	26	.948	.287
EME3	24	.124	.200	24	.976	.848
ME1	69	.126	.200	69	.942	.220
ME2	46	.141	.200	46	.975	.822
ME3	22	.187	.044	22	.914	.058

To determine whether the data show normal distribution or not, firstly the number of data are examined. If the number of data is greater than 29, Kolmogorov-Smirnov value was used and if the number of data is less than 29, Shapiro-Wilk value is used (Kalaycı, 2010). As shown in Tablo 3, for EME2, EME3 and ME3 Shapiro-Wilk values, for EME1, ME1, ME2 Kolmogorov-Smirnov values were used. Because all values were greater than 0.05, at 5 % significance level the data showed a normal distribution.
Because data were appropriate for normal distribution, independent sample t test from parametric tests was utilized for the comparison of mental rotation test scores of elementary mathematics education students and mathematical engineering students in data analysis. Whether or not there was a significant difference between the mental rotation test scores of students was determined and the results were provided in Table 4.

Table 4. Independent sample t test results of mental rotation test scores according to departments

	N	**X**	**s.d**	**t**	**p**
EME	84	16.76	4.45	2.838	0.005
ME	137	14.54	6.26		

When Table 4 was examined, it was observed that that there was a significant difference between the mental rotation test scores of undergraduate students in departments ($t=2.838$, $p<0.05$). Accordingly, the scores of elementary mathematics pre-service teachers ($X=16.76$) was higher than mathematical engineering students $X=14.54$).
Whether there was any significant difference between the mental rotation test scores of the undergraduate students according to their grades was determined by one way variance analysis (ANOVA). The analysis results were presented in Table 5, Table 6, Table 7 and Table 8.
When the comparison was made between grades in elementary mathematics education students, the results in Table 5 and Table 6 occurred.

Table 5. The ANOVA results of elementary mathematics education students

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	174.771	2	87.385	4.814	.011
Within Groups	1470.467	81	18.154		
Total	1645.238	83			

When Table 5 was examined, undergraduate students' mental rotation test scores had a statistically significant difference by their grades ($F=4.814$; $p<.0.05$). Tukey methodology was applied to evaluate multiple comparisons of grades.

Table 6. Multiple comparisons of elementary mathematics education students

EME Grades	EME Grades	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-2.66290*	1.11003	.049	-5.3131	-.0126
	3.00	-3.17892*	1.13594	.017	-5.8910	-.4668
2.00	1.00	2.66290*	1.11003	.049	.0126	5.3131
	3.00	-.51603	1.20608	.904	-3.3956	2.3636
3.00	1.00	3.17892*	1.13594	.017	.4668	5.8910
	2.00	.51603	1.20608	.904	-2.3636	3.3956

As a result of the Tukey test analysis, it was concluded that significant differences were found between freshmen and sophomore students ($p = 0.049 < 0.05$) and sophomore students' mental rotation test scores were higher than freshmen students' test scores. Similarly, there was a significant difference between freshmen and junior students ($p = 0.017<0.05$) and junior students' mental rotation test scores were higher than sophomore students' test scores. No significant difference was found among sophomore and junior students ($p=0.904>0.05$).

A comparison between mathematical engineering students' grades is made by one way variance analysis (ANOVA) test and the results in Table 7 and Table 8 were obtained.

Table 7. The ANOVA results of mathematical engineering students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2132.419	2	1066.210	44.458	.000
Within Groups	3213.610	134	23.982		
Total	5346.029	136			

According to this finding, it can be said that there was a significant difference between the mental rotation test scores of mathematical engineering students by their grade ($p=0.00<0.05$). Addition to that, to make multiple comparisons of different grades of mathematical engineering students, it was applied Tukey test.

Table 8. Multiple comparisons of mathematical engineering students

ME Grades	ME Grades	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-8.37681*	.93216	.000	-10.5861	-6.1676
	3.00	-6.60606*	1.19903	.000	-9.4478	-3.7643
2.00	1.00	8.37681*	.93216	.000	6.1676	10.5861
	3.00	1.77075	1.26943	.346	-1.2378	4.7794
3.00	1.00	6.60606*	1.19903	.000	3.7643	9.4478
	2.00	-1.77075	1.26943	.346	-4.7794	1.2378

Sophomore students' mental rotation test scores were higher than freshmen students' test scores and there was a significance difference between them ($p=0.00<0.05$). The mean difference between them is also 8.37681. Besides, junior students' mental rotation test scores were higher than freshmen students and the mean difference between them is 6.606. Significant differences were found between these groups. There was no significant relationship between sophomore and junior students ($p=0.346>0.05$).

To compare two different department students' mental rotation test scores in the same grade level independent sample t test was used. The results obtained were given in separate grade level.

Table 9. Comparison of mental rotation test scores of different departments for freshmen students

	N	**X**	**s.d**	**t**	**p**
EME 1	34	15.02	4.66	4.054	0.000
ME 1	69	10.75	5.19		

Table 9 showed that there was a significant difference between the mental rotation test scores of freshmen students ($p=0.00<0.05$). Accordingly, it was seen that elementary mathematics education students test scores ($X=15.02$)

was higher than mathematical engineering students (X=10.75).

Table 10. Comparison of mental rotation test scores of different departments for sophomore students

	N	X	s.d	t	p
EME 2	26	17.69	3.72	-1.432	0.157
ME 2	46	19.04	3.90		

According to the results of the analysis, mental rotation test scores of sophomore students showed no significant differences by department (p=0.157>0.05).

Table 11. Comparison of mental rotation test scores of different departments for junior students

	N	X	s.d	t	p
EME 3	24	18.20	4.20	0.637	0.528
ME 3	22	17.27	5.70		

No significant difference in the junior students mental rotation test scores from different departments was found (p=0.528>0.05).

CONCLUSIONS

Results obtained from this study that compared mental rotation ability of elementary mathematics education and mathematical engineering students can be summarized as follows:

When the mental rotation test scores were examined, it was seen that the highest scores belongs to sophomore students of mathematical engineering department. Also, grade level of elementary mathematics pre-service teachers increases so does average test scores of mental rotation. Among mathematical engineering students, test scores of freshmen students are lowest, after them the third and second grade levels are listed. There is a significant difference between mental rotation ability of elementary mathematics pre-service teachers and mathematical engineering students and this difference is in favor of elementary mathematics pre-service teachers. Spatial ability of engineering students is very important for their future business life. When the grade levels increase, with the impact of the courses they have taken in the faculty development of these skills are expected. However, these studies did not show such an effect. After first grade level, mental rotation ability of them increased but this increase did not continue to 3rd grade level. The highest level of mathematical engineering student's mental rotation ability is in 2nd grade level. A decline is seen in scores when they reach to 3rd class. When you look at the results for elementary mathematics pre-service teachers as the class level increases the mental rotation abilities also increases.

It is important to develop these aspects of the teachers who will give gain ability, especially on spatial geometry lessons to students in professional life. In curriculum of education faculty, geometry courses are given in the first grade, later in the third grade analytic geometry I and analytic geometry II courses are given. According to the results we can say that in the rise of mental rotation ability of students, the course they have received during their education is effective. The study that leads to this conclusion indicates that given courses or applications may increase students' spatial abilities. Indeed in the studies performed with elementary mathematics pre-service teachers, Güven and Kösa (2008) reached the results that indicate the training realized with Cabri 3D affect student's spatial ability positively and Uygan (2011) reached similar results about the training carried out with Google SketchUp. According to other results obtained from this study, when compared the mental rotation ability of the 1st, 2nd and 3rd grade elementary mathematics pre-service teachers there are significant differences statistically between the first and second grade levels and between the first-grade and third grade levels. Mental rotation skills between the second and third grade levels are not different. Mental rotation ability that is the lowest in the first grade increased significantly at the level of 2nd and 3rd grades. In comparison of this difference, in the transition to the second and third grade levels from the first grade level has statistical difference but it isn't seen this difference in the transition to the second from the third grade level. These results can be again connected to the training in the faculties of education. In addition, the increased age, different thinking skills gained in courses, materials and computer-aided courses they received may have been effective in promoting this result. When compared to the mental rotation ability of 1st, 2nd and 3rd grade mathematical engineering students, similar to elementary mathematics pre-service teachers, there are significant differences statistically between the first and second grade levels and between the first and third grade levels. Mental rotation skills between the second and third grade levels are not different. Different from the students in faculty of education, the highest score of engineering students is 2nd year students. Being at first rise and later decline may be due to students who participate this sample but we cannot say that the courses in the faculty of engineering have been directly instrumental in the development of spatial ability of students. When compared to the mental rotation ability of the same grade level students of department of mathematical engineering and elementary mathematics education, a significant

difference was observed only between 1st grade levels.
Mental rotation ability scores of 2nd and 3rd grade students of these different departments do not differ statistically. The average score of mental rotation abilities of the students who choose the teaching profession is greater than about 5 points compared to students who prefer the engineering faculty. In fact, these results are surprising because students in engineering are expected being in studies that require more spatial thinking in their future life. The results in this study may be a consequence relating to the selected sample, so working with different samples can be performed and can be made comparisons.

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EXAMINATION OF THE LEVELS OF ACQUIRING VALUES TO THE STUDENTS OF HIGH SCHOOLS

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ABSTRACT

The purpose of this study is to examine the levels of acquiring values to students in the scope of guidance service in both values education and other educations in high schools. The sample group of study consisted of 300 students continuing their education in 6 high schools in 3 different districts of Istanbul. The data of this study was conducted by personal information form and questionnaire prepared by the researcher to determine how much the students have acquired the values. Examining the obtained results, it was found that students had high scores on the values as "I do not want people to be lack of justice", "I always value when someone does me a favour" and "I want everybody to live in peace and at ease". The obtained results were discussed within the framework of literature and similar studies, and various suggestions were brought forward.

Key Words: Value, Values Education, High School

1. INTRODUCTION

Many theorists have a common idea that puberty stage, which occurs during the elementary school years, constructs an individual's personality traits. Freud describes this stage as "genital stage" and states that personality development of any individual ends in that stage. According to another personality development theorist, Erikson asserts that a young adult goes between building identity traits and experiencing role confusion and on this stage, the young adult tries to systemize his/her personality traits (Bee, Boyd, 2009; Selçuk, 2007; Senemoğlu, 2009).

During the elementary school education, academic knowledge and skills are aimed to be taught to the students; on the other hand, social values are also included to the education programme. It is expected that schools should provide not only cognitive skills-oriented education system, but also they should make the students develop affective skills such as developing positive attitudes, presenting responsible behaviors in the society and acting responsibly towards other people (Akbaş, 2008). School is considered to be as an effective intermediary institution for being social and building values (Ercan, 2001). Some of the most important duties of schools are to teach values whether they are stated clearly or not in the school programme regarding cultural transmission, discipline students in accordance with the school rules, contribute their moral development and positively affect their characters and sense of self (Akbaş, 2004).

Many researchers describe the concept of values differently. In different resources, values can be described as useful and requirable, desirable or undesirable for the individual or the group itself, internalized and experienced social, ideological or divine based beliefs that are accepted in a society, in a belief and ideology systems, or among people (Çelikkaya, 1998; Fichter, 2011; Güngör, 1993).

Schwartz (1992) defined value as a criterion used by people for evaluating people, including themselves, selecting actions and legitimizing those events. Schwartz explained values under 10 dimensions such as self-direction, harmony, stimulation, hedonism, achievement, power, security, tradition, universalism and benevolence. Allport, Vernon and Lindzey (1960) brought forward an idea that there should be a six sub-dimensions value system as aesthetic, theoretical, religious, political, social and economic. These sub-dimensions can differ from individuals. A value might be more important for an individual, whereas the same value might be less important for another one. An individual's life is founded on and directed according to one or more values. The value dimension which is chosen by the individual's himself or regarded immensely constitutes the individual's purpose in life.

Value is an abstract unit of measurement determining the importance of solid or abstract notions; also is a word defining the importance or the states of living and non-living creatures, events and phenomena (Köknel, 2007). Values are shared thoughts about what is right in the society (Kornblum, 1994). Values have a significant role for explaining and examining human behaviors, and preferring any behavior to the other one. Besides, values are the criteria that people consult to evaluate other people, characteristics, desires and intentions, and behaviors (Dilmaç, 1999; Sarı, 2005).

As a criterion, value has a distinction of "being" and "should be" and it is always considered as something positive or negative (Cevizci, 2002). Values are among the most important criteria that give meanings and values to the socio- cultural elements of the society that we live in. Therefore, individuals in the society and patterns of

their behaviors form a basis for sociological studies. Sociologically, the concept of values reflects the importance of things and conscious phenomena in the perspective of human, class and society (Hançerlioğlu, 1986).

In psychology, the importance of value is about the role of being a guide for the human behaviors. Therefore, psychologists regard values as beliefs (Güngör, 1993). Fichter (2001) stated the functions of values as follows:

a) Values are used as an available tool for judging the social value of individuals or relationships. They allow stratification system. They help the individual to know "where he/she stands for" the others.
b) Values make the individual focus on desirable, beneficial and important tangible cultural objects. A very valuable object may not be "the best" for the individual or the group all the time. However, it is a truth that the object is worth for endeavoring because of socially seeming quite important.
c) Values point the ideal ways of thinking and behaving in every society. They draw the scheme of acceptable social behaviors. Thus, individuals can comprehend in what way they should behave as "the best".
d) Values guide the individuals to choose and realize their social roles. They create an attention zone and encourage. Therefore, individuals can comprehend that the necessities and expectations of different roles go right with certain valuable purposes.
e) Values are the tools of social control and pressure. They make individuals obey the morals. Values also prevent unwanted behaviors, points forbidden patterns and enable to be easily understood of shame and guilt stemmed from social violation.
f) Values function as a tool of solidarity as well. One of the actions of social scientists is that groups are formed on purpose of sharing some high values. Individuals gather into other individuals who share the same values. Common values are one of the most significant factors that can create and sustain social solidarity.

When examining the various explanations about the values, it is seen that values are significant for persistence and health of society and the harmony of human relationships; therefore, schools should dwell on the concept of values (Ümmet, 2012).

1.1. Problem Statement

The purpose of this paper is to examine the levels of acquiring values of high schools considering the students' levels of having values.

2. METHOD

2.1. Participants

The sample group of study consisted of 300 students who were chosen randomly and voluntarily (age mean: 16.4) continuing their education in Istanbul, Turkey. To accurately interpret the findings of the study, the structure of the sample group is given as follows:

Table 1. Demographic features of sample group

Gender	Frequency (f)	Percent (%)
Female	189	63,0
Male	111	37,0
Class attendance		
Less than 20	136	45,3
Between 20 and 30	145	48,3
More than 31	19	6,3
Frequency of organizing events as contests, art, sports etc.		
Often	58	19,3
Sometimes	83	27,7
Hardly	117	39,0
Never	42	14,0
Frequency of attending events as contests, art, sports etc.		
Often	59	19,7
Sometimes	69	23,0
Hardly	86	28,7
Never	86	28,7

2.2. Measures

2.2.1. Personal Information Form: Developed by the researcher to determine the demographic information of the students and present the general structure, personal information form consisted of four-item

(gender, class attendance, frequency of organizing events as contests, art, sports etc, and frequency of attending events as contests, art, sports etc).

2.2.1. Values Questionnaire: The questionnaire was prepared by the researcher to determine the present features about the fundamental values of the students. In this context, a question pool was formed by many questions and the pool was sent to three expert academicians for their feedback. Regarding their opinions, some items in the questionnaire were removed, some of them were corrected and some new items were added. Finally, 30-item questionnaire was prepared. Having positive opinions for each of the items in the questionnaire by the students, it was hypothesized that the students had that value and they acquired the value in the school.

3. FINDINGS

The distribution of answers in the value questionnaire by students was given below:

Table 2. The distribution of answers in the questionnaire given by the students

Items	Never		Hardly		Usually		Always		X	SS
	F	%	f	%	F	%	f	%		
I try to treat equally to everyone around me	22	7,3	32	10,7	81	27,0	165	55,0	3,29	0,92
I value the ideas of my friends in a social circle	7	2,3	13	4,3	133	44,3	147	49,0	3,40	0,68
I can express my thoughts freely in my social circle	8	2,7	34	11,3	84	28,0	174	58,0	3,41	0,79
I can ask what I want in the classroom without refraining from my friends of teachers	12	4,0	47	15,7	93	31,0	148	49,3	3,25	0,86
I try to improve myself to be beneficial to society	8	2,7	17	5,7	89	29,7	186	62,0	3,51	0,72
I try to attend activities that make me enjoy the life	6	2,0	35	11,7	109	36,3	150	50,0	3,34	0,76
I value and love myself	11	3,7	35	11,7	55	18,3	199	66,3	3,47	0,83
I always value when someone does me a favor	5	1,7	0	0	67	22,3	228	76,0	3,72	0,54
I can find creative solutions to the problems I face	15	5,0	27	9,0	110	36,7	148	49,3	3,30	0,83
I want everybody to live in peace and at ease	5	1,7	25	8,3	71	23,7	199	66,3	3,54	0,71
I value the customs of society	34	11,3	30	10,0	92	30,7	144	48,0	3,15	1,00
Though I crave some things, I can stop myself	44	14,7	44	14,7	114	38,0	98	32,7	2,88	1,02
I respect the private lives of others	14	4,7	13	4,3	68	22,7	205	68,3	3,54	0,78
I am a loveable person in my social circle	14	4,7	17	5,7	108	36,0	161	53,7	3,38	0,79
Protecting nature and environment is important for me	20	6,7	27	9,0	103	34,3	150	50,0	3,27	0,88
I adapt ever-changing life conditions by improving myself	21	7,0	30	10,0	126	42,0	123	41,0	3,17	0,87
I encourage my friends to act together in pursuit of common goals	13	4,3	49	16,3	138	46,0	100	33,3	3,08	0,81
I am interested in the activities such as contests and arts organized in school	43	14,3	115	38,3	54	18,0	88	29,3	2,62	1,05
I do not want people to be lack of justice	0	0	8	2,7	65	21,7	227	75,7	3,73	0,50
When I start to do something, I believe I can get through it	5	1,7	25	8,3	121	40,3	149	49,7	3,38	0,70

I choose logic instead of emotions on decision-making	17	5,7	62	20,7	136	45,3	85	28,3	2,96	0,84
I can directly express my thoughts to the other people	17	5,7	46	15,3	115	38,3	122	40,7	3,14	0,87
I do my best to shape my future	22	7,3	38	12,7	91	30,3	149	49,7	3,22	0,93
I always respect my family, my teachers and elder people	18	6,0	41	13,7	59	19,7	182	60,7	3,35	0,92
I set goals in my life	9	3,0	22	7,3	118	39,3	151	50,3	3,37	0,74
I accept the situations that I cannot change	43	14,3	65	21,7	115	38,3	77	25,7	2,75	0,99
I am a person who fulfill his/her duties and responsibilities	0	0	31	10,3	108	36,0	161	53,7	3,43	0,67
I do my best to the people who have hard times in my social circle	12	4,0	9	3,0	93	31,0	186	62,0	3,51	0,74
I am not indifferent to the events around me	17	5,7	21	7,0	110	36,7	152	50,7	3,32	0,83
I become gracious when my friends misbehave	61	20,3	54	18,0	111	37,0	74	24,7	2,66	1,06
GENERAL AVERAGE									**3,27**	

When Table 2 examined, it was found out that students gave the most positive opinion on the values as "I do not want people to be lack of justice" ($\overline{X}$ =3,73), "I always value when someone does me a favour" ($\overline{X}$ =3,72) and "I want everybody to live in peace and at ease" ($\overline{X}$ =3,73). It was also found that students gave the least positive opinion on the values as "I am interested in the activities such as contests and arts organized in school" ($\overline{X}$ =2,62), "I become gracious when my friends misbehave" ($\overline{X}$ =2,66) and "I accept the situations that I cannot change" ($\overline{X}$ =3,73). The arithmetic mean of answers for all the values found as ($\overline{X}$ =3,27).

4. DISCUSSION AND CONCLUSION

On examining the findings of the study, it was seen that the acquired values at the highest level among students were "I do not want people to be lack of justice", "I always value when someone does me a favour" and "I want everybody to live in peace and at ease". These are universal values by content In other words; common values such as equality, being faithful and living in peace are at the highest level among students. It was pointed out that the acquired values at the lowest level among students were I am interested in the activities such as contests and arts organized in school", "I become gracious when my friends misbehave" and "I accept the situations that I cannot change". These are personal life values by content. That is to say, rather than universal values, values about their personal lives are at the lowest level among students.

The general result of the study is to present the students who participated in the survey have acquired the values in the questionnaire at the high level. This finding indicates that schools are quite successful to make students acquire the values as stated in the problem statement in this study. It can be said that as within the scope of guidance service, having compulsory sessions about values education in the schools governed by Turkish Ministry of National Education is effective on having these findings. Comprehensive studies are being carried out both in the course contents and in the guidance and counseling sessions to acquire core values to the students in parallel with the instructions. In the studies carried out by various researchers (Özen, GüleryüzveÖzen, 2012; Yeşilyurt, Kuş, 2012; Yiğittir, 2012), it was also found that universal and personal values of the students were at high levels. In a similar study conducted by Çengelci, Hancı and Karaduman (2103), the findings showed that more universal values like honesty than personal values were tried to be acquired to the students in the schools. In their study carried out using the diaries of students, Deveci and Ay (2009) stated that students' preference and tendency of universal values were more important than the others.

In the light of obtained results, it can be stated that giving more importance to values education is crucial both for personality development of children and, therefore, for the health of society. In this context, it can be recommended that teacher should be trained in a more proper and qualified way. In addition, more academic and scientific study should be conducted to emphasize the importance of this subject.

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EXAMINATION OF THE SOCIAL STUDIES CURRICULUM IN TERMS OF DEVELOPING CAREER AWARENESS

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That is experiencing rapid change and transformation in the 21st century together, professional life change because of human qualifications is altered. This situation makes with career awareness and also important to educate students who are aware of the life-changing business and professional skills. In the middle school level, one of the most important lessons that can fulfill this function is social studies. The aim of the study was to investigate the Social Studies Curriculum in terms of developing career awareness. The study was a qualitative research method patterns with document analysis and the data were analyzed by inductive analysis. When the curriculum is examined, it is seen that cross-curricular discipline under the name of developing career awareness and acquisitions belong to this cross-curricular discipline. As well as social studies curriculum in where general objectives, basic approach, learning domains, acquisitions, cross-curricular disciplines, activities and skills, concepts, values to be gained to the students the finding that take part in for developing career awareness and professions has been reached. As a result, the social studies curriculum in terms of developing career awareness to be richer than other curriculum at middle class level, but it should be improved in terms of practicalacquisitions and activities.

Keywords: Social Studies Curriculum, developing career awareness, occupations

EXISTS A GROUP OF DIGITAL NATIVES AT SECONDARY SCHOOLS IN THE CZECH REPUBLIC?

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ABSTRACT
The article describes a research focused on the influence of the information and communication technology (ICT) on the pupils' learning. The investigation deals with the influences that distinguish between the group of pupils influenced by ICT and the group of pupils not influenced by ICT. The group influenced by ICT should evince a different approach in number of areas (in managing of two and more activities at once, in a quick orientation and searching for information on the Internet, in an ability to quickly and effectively assess the data sources, in the assessment of attitudes and opinions of the other users of the network, in critical thinking, in the preference to work in teams, in the sharing of information and personal data via the virtual social networking, in insisting on the immediate reaction on their every action etc.).

INTRODUCTION

As a result of the ICT involvement in everyday life, the character of learning and the needs of pupils and students are changing today, especially with members of the digital native generation (Marc Prensky, 2001). Such pupils and students are no longer passive recipients of information, and as they work with modern technologies that enable them to share information, create independent media messages and communicate virtually ceaselessly every day, they are also active in the process of gaining knowledge and skills.

The article describes the research of the influence of information and communication technology on the learning of pupils and students. The research deals with the effects which distinguish the group of pupils and students affected by ICT and the group of pupils and students not affected by ICT. The group affected by ICT should be characterised by a different approach in more areas (managing more activities at once, fast orientation and searching information on the Internet, the ability to quickly and effectively evaluate data sources, assessing the attitudes and opinions of other network users, critical thinking, preferring activity over static learning, preferring team work, sharing information and personal details in virtual social networks, requiring an immediate reaction to every one of their activities etc.). The research focuses on pupils and students of elementary and secondary schools in the Czech Republic.

WHO ARE DIGITAL NATIVES AND IMMIGRANTS?

Marc Prensky (2001) speaks of the generation of digital natives, i.e. children who were growing up under the influence of ICT and who do not have any problems with working and navigating in the virtual environment. The fact that such people were born in an era full of digital technologies, which surrounded them all the time and which they have used from an early age, means that the people think and process information in a completely different way than members of the previous generations, who grew up in an "analogous world". These differences are much more profound than most parents and teachers realise. Digital natives expect immediate and rapid contact with both technologies and people. They are in contact with technologies all the time and prefer text messages over voice communication. According to Prensky, the conventional learning method based on textual content is no longer sufficient to the generation of digital natives, and is not motivating enough for them. Digital natives are people who were growing up in an environment rich in modern technologies, such as computers, digital music players, video cameras, web cameras, mobile phones etc., from early childhood. The main difference between the generations lies in different ways of thinking and processing information. Digital natives are used to obtaining information very fast, prefer parallel activities and multi-tasking, prefer graphic depiction over text, prefer play over "serious" work, and favour network cooperation and random access to information (hypertext). They expect immediate praise and frequent appreciation of their work. They see computers, mobile phones, the Internet etc. as integral parts of their lives rather than modern digital technologies.

On the other hand, the so-called digital immigrants belong in the generation of users who were not growing up using digital technologies, only acquired ICT skills in their adulthood, and do not see ICT as a natural phenomenon and part of their day-to-day activities affecting their learning strategies and ways of thinking and obtaining information. This generation is still experiencing certain doubts concerning technologies, the people do not actively use such technologies unless forced to do so by circumstances, and the way in which they obtain information and think consists in traditional models, such as linear reading. The people prefer textual information over multimedia, prefer traditional ways of communication, use the Internet only as a secondary source

of information (the primary source being printed documents), study instructions on how to use programs instead of using programs intuitively, print e-mail communication and documents, call other people to ask whether they have received their e-mail messages etc. Digital immigrants do not use the possibilities and methods of work like natives do. They do not believe that digital natives can learn anything while watching TV or listening to music because that is not what the immigrants used to do.

J. S. Brown (2000) takes up Prensky's research and establishes four basic theoretical dimensions of characteristics which define and identify the group of digital immigrants. One of the characteristics of the network generation is the ability to multi-task in an intuitive and effective manner. The other three characteristics form a complex of coherent cognitive skills.

DESCRIPTION OF THE RESEARCH

The research was focused on 8th-year elementary-school pupils and 2nd- and 3rd-year secondary-school students. The research was conducted at elementary and secondary schools in the Moravia-Silesia, Olomouc and South Moravia Regions in the Czech Republic in May 2015. We used our own questionnaire as the research method. The following methods were used to process the data: analysis of variance and correlation.

The questionnaire was mostly based on a four-grade scale, where the pupils selected the degree of agreement with various statements. The questionnaire statements were for example the following: I cannot imagine my life without the Internet, I understand graphically depicted information better than text, I listen to music while I am studying etc. Furthermore, the questionnaire tried to establish other characteristics of pupils that might affect their association with the assumed typical group of digital natives, e.g. whether they had a computer, a TV and a mobile phone at home and whether they used such technologies on a regular basis.

RESULTS OF THE RESEARCH

Overall, 370 pupils and students of elementary and secondary schools in the Czech Republic participated in the survey. 229 were elementary-school pupils and 141 were secondary-school students. 280 boys and 162 girls provided their replies. The replies proved the existence of a group of digital natives at Czech elementary schools. This group can be characterised as follows: they promote multitasking, prefer graphic depiction over text, expect immediate praise and frequent appreciation of their work, use the Internet as the primary source of information, consider modern technologies as an integral part of their lives, prefer online communication (online all the time) and are better acquainted with modern technologies not only than most older people but also than most of their peers.

Unlike elementary-school pupils, secondary-school students showed only some of the characteristics of digital natives. The groups of digital natives and digital immigrants blend together in the individual characteristics. (For more details see the charts below). Secondary-school students cannot be considered full-fledged digital natives. This may be due to the fact that the present-day secondary-school students were not growing up surrounded by modern technologies to the same extent that elementary-school pupils were.

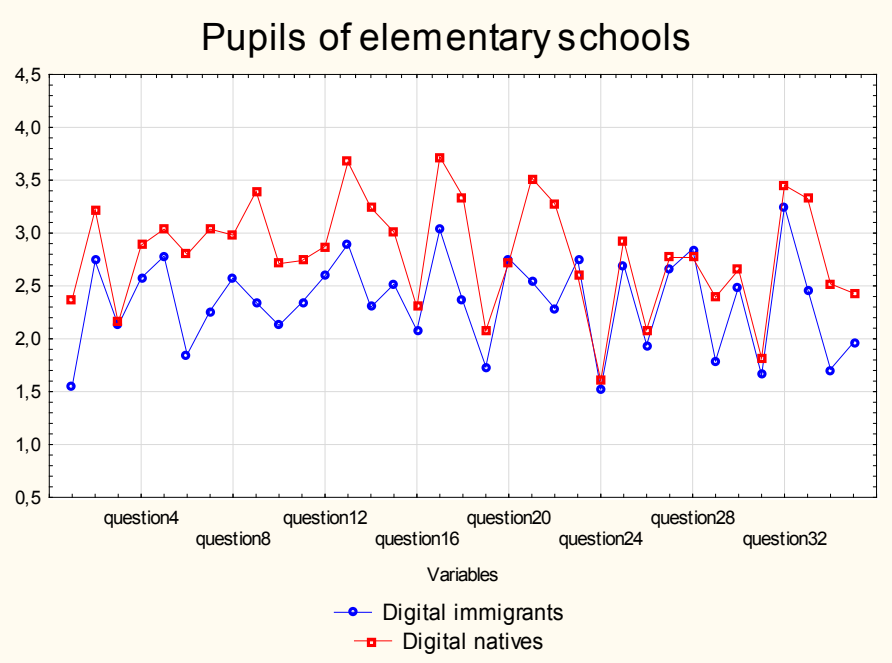

Chart 1: Division of elementary-school pupils into digital natives and digital immigrants according to their replies to the specific questions in the questionnaire.

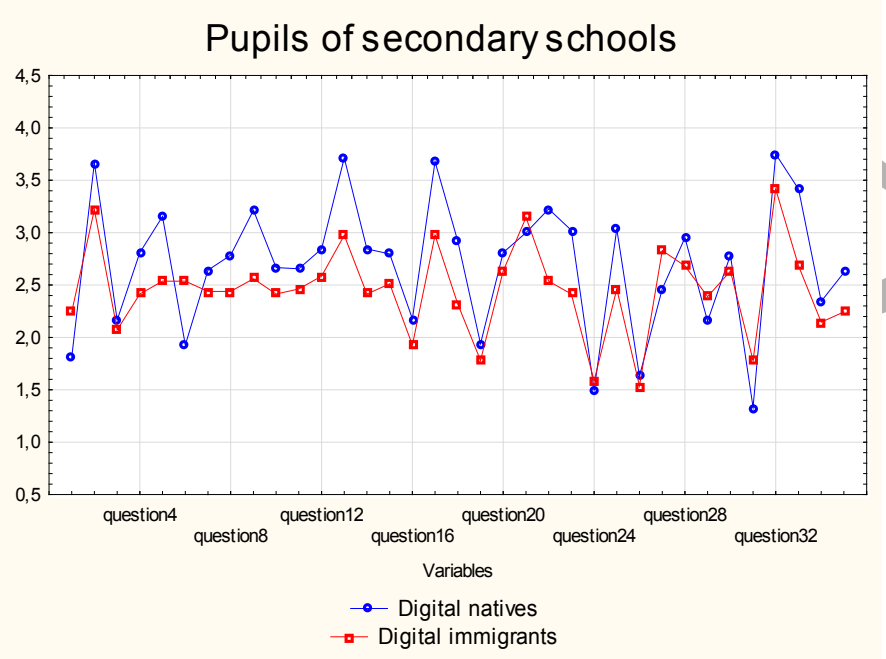

Chart 2: Division of secondary-school pupils into digital natives and digital immigrants according to their replies to the specific questions in the questionnaire.

The questionnaire also tried to establish what modern technologies elementary-school pupils and secondary-school students owned. The following chart indicates the most frequent technologies.

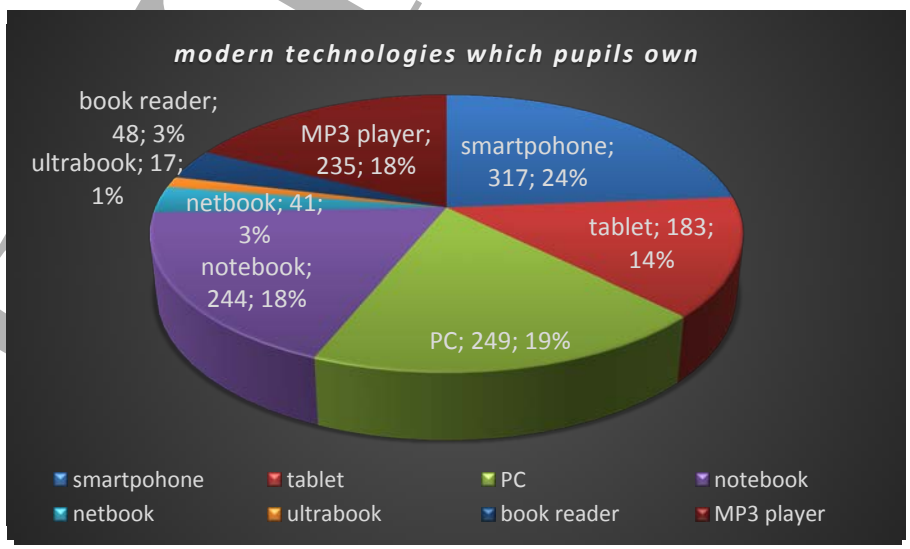

Chart 3 shows the numbers of pupils who own a particular modern technologies.

We also wanted to find out whether the pupils and students usually had access to the Internet and whether they used mobile data. 98.65 % of all the respondents said that they had access to the Internet, of which 45.68 % frequently used mobile data in their mobile phones or tablets. There was no difference between the pupils and the students or between the two sexes. The pupils and students were further asked to specify what they used their computers, tablets or mobile phones for, and how many minutes per day they were engaged in such activities. The results are presented in the following table.

Activity	Searching for information	Searching for information for school	Preparing documents for school	Social networks	Chatting with friends	E-mail communication	Watching movies and TV series	Listening to music	Working with pictures	Downloading movies and music	Playing games
Average no. of minutes	33	20	28	84	152	6	101	165	21	51	109

Table of activities of pupils and students using modern technologies; indicates the average number of minutes per day.

The survey has helped us to establish what kinds of modern technologies are owned by elementary-school pupils and secondary-school students. The major ones include smartphones, MP3 players, laptops, computers and tablets. Generally, the pupils and students use such modern technologies to chat with friends, listen to music and play games. In this respect, no differences were found between elementary-school pupils and secondary-school students or between boys and girls.

CONCLUSION

The research has demonstrated the existence of a group of digital natives at elementary schools in the Czech Republic, even though the group does not include all pupils. Digital natives at elementary schools may be characterised as follows: they promote multitasking, prefer graphic depiction over text, expect immediate praise and frequent appreciation of their work, use the Internet as the primary source of information, consider modern technologies as an integral part of their lives, prefer online communication (online all the time), and are better acquainted with modern technologies not only than most older people but also than most of their peers. The research has also revealed an initially unexpected characteristic, i.e. that members of this group are not very particular about computer security (the use of antivirus software, firewall etc.) and download applications also from unauthenticated sources on the Internet. The following characteristics of this generation have not been proven true: digital literacy, i.e. fast orientation and search for information on the Internet, the ability to quickly and effectively evaluate data sources, the assessment of the attitudes and opinions of other network users, the preference of activity over static learning, the preference of team work, the sharing of information and personal details in virtual social networks, and the preference of games over serious work.

The existence of a group of digital natives has been proven in the case of secondary-school students as well, even though the results are not as clear-cut as at elementary schools. The group's characteristics are fewer than those demonstrated in the case of elementary-school pupils. Secondary-school students cannot be considered full-fledged digital natives.

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EXPERIMENTAL SCIENCES FOR ENQUIRING APPROACH. AN EXPERIENCE WITH TEACHERS

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I am presenting results of research undertaken while I was teaching a course in a Master degree program addressed to science secondary level teachers. In this course I promoted an inquiry approach for laboratory work. Teachers developed a proposal which consisted in performing a striking experiment and asking their students to formulate questions that could be answer experimentally. Students made a plan and carried out the experiments needed in order to answer their questions. At the end, teachers presented their results and their proposals were evaluated.

Keywords: secondary school teachers

EXPERT CONSENSUS ON DIMENSIONS OF ISLAMIC VALUES IN QUALITY MANAGEMENT PRACTICE: ANALYSIS OF FUZZY DELPHI METHOD

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Though quality management initiated in the West at the advent of Industrial Revolution, contemporary scholars elaborated similar principles from Islamic perspectives. A plethora of Islamic values have been consistently highlighted, including behavioral description of its application in quality management practice. While limited effort has been conducted to verify and validate a set of values, this study utilizes the Fuzzy Delphi Method (FDM) to reach an expert consensus on a set of Islamic values in quality management. For that purpose, an expert review questionnaire is developed and administered among experts. The questionnaire is constructed based on extensive literature review focusing on Islamic perspectives of quality management. This article conceptualizes and proposes nine Islamic values dimension based on results of FDM.

Keywords: Islamic values, quality management, Fuzzy Delphi Method (FDM)

EXPLORING THE RELATIONSHIPS BETWEEN CYBERBULLYING PERCEPTIONS AND FACEBOOK ATTITUDES OF TURKISH ADOLESCENTS

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Cyberbullying, a phenomenon among adolescents, is defined as actions that use information and communication technologies such as social media to support deliberate, repeated, and hostile behaviour by an individual or group. With the advancement in communication and information technology, cyberbullying has expanded its boundaries among adolescents in schools. Thus, parents, psychologists, educators and lawmakers must become aware of the potential risks of this phenomenon. In the light of these perspectives, this study aims to investigate the relationships between cyberbullying perception and Facebook attitudes of Turkish adolescents. A survey method was used for the study and the data were collected by "Cyberbullying Perception Scale", "Facebook Attitude Scale" and "Personal Information Form". For this purpose, study has been conducted during 2014-2015 academic year, with a total of 748 adolescents with 493 male (%65.9) and 255 female (%34.1) from randomly selected high schools. In the analysis of data Pearson correlation and multiple regression analysis, multivariate analysis of variance (MANOVA) and Scheffe post hoc test has been used.

At the end of the study, the results displayed a negative correlation between Turkish adolescents' Facebook attitudes and cyberbullying perception ($r=-.210$; $p<0.05$). In order to identify the predictors of adolescents' cyberbullying perception, multiple regression analysis was used. As a result, significant relations were detected between cyberbullying perception and independent variables ($F=5.102$; $p<0.05$). Independent variables together explain 11.0% of the total variance in cyberbullying scores. The variables that significantly predict the adolescents' cyberbullying perception are Facebook attitudes ($t=-5.875$; $p<0.05$), and gender ($t=3.035$; $p<0.05$). In order to calculate the effects of independent variables on adolescents' Facebook attitudes and cyberbullying perception MANOVA was conducted. The results of the MANOVA indicate that the Facebook attitudes and cyberbullying perception were significantly differed according to adolescents' gender, age, educational attainment of the mother and father, income of the family and daily usage of internet.

Keywords: Facebook, cyberbullying, attitude, adolescence

FACTORS AFFECTING SOCIAL ADAPTATION OF PHYSICALLY DISABLED STUDENTS DURING INCLUSIVE EDUCATION, RIGHTS-BASED APPROACH AND SCHOOL SOCIAL WORK

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ABSTRACT

This study aims to determine difficulties in social adaptation of students with disabilities, who are in inclusive education. In this study, it is intended to identify the factors which affect their social adaptation.
While struggling for life with physical disabilities, disabled individuals are trying to integrate themselves to the society. Factors such as inadequacy of social consciousness and physical, cultural, economic and political conditions of their country create obstacles in integration process of disabled individuals to the physical and social environment.
Disabled individuals, like everyone, deserve a life with dignity just because they are human. All human rights are also disability rights and being different cannot be a reliable reason for being treated in a different way.
From the perspective of social integration, it is clearly seen that having equal opportunities for education is an important right and chance to decrease concerns of disabled individuals and their inner circle about the future. However, education is one of the most underemphasized subjects in studies for the social problems of disabled people. That is why we need to focus on the inclusive education, developed for disabled students to enable them having education with other students.

Key Words: Disability, social integration, inclusive education, school social work.

INCLUSIVE EDUCATION AND SOCIAL INTEGRATION OF STUDENTS WITH DISABILITY

Physically disabled children and their families have many economic, social, psychological or physical problems. These problems often cause isolation from the society for the disabled children.

> "Thinking about disabilities as absolute categories of difference also causes trouble because it emphasizes students' common deficits (Tomlinson, Callahan, Tomchin, and Eiss, 1997), rather than their uniqueness and competence" (Broderick, Mehta-Parekh, and Reid, 2005, p. 196).

As Aykara (2011) stated that according to most of the definitions of disability, it is seen that disabled individuals are perceived as they are deprived of meeting the necessities of social life, disadvantaged, indigent individuals having certain needs to be met. Therefore, some resources need to be provided for them in order to have 'normal' life conditions and to carry out 'expected' roles and duties from them. As these individuals differ from their peers, they could not decently fulfill what is expected from them. Because of these reasons, the term 'physically disabled individual' can also be described as an individual who have some special physical needs and can be socially functional and carry out their social roles and responsibilities if only these needs are met by society.
As we can see there are many handicaps for students with disability to integrate into society. One of the most significant handicap is the views of the society. For example, Söder (1990; cited by Veck, 2014) argues that the attitudes against disabled individuals are very complex and non-stable because the society is based on accumulating and consuming. Some attitudes are stated as "disabling attitudes" by Veck (2014, p. 791) which has the intention to condemn and classify individuals. It is also added that positive attitudes such as attentive and caring attitudes can also be disabling. People can be disabled, oppressed, excluded or marginalized because of these attitudes, but it is not only limited by the attitudes. People can also experience a sense of invisibility within a society because of the indifference of the rest of the society. Everyone is potentially disabled within a society without a caring attention, and also adds that some are more likely to be disabled than others.
As we see, the negative views of people about disability may cause exclusion of the disabled children. To avoid this exclusion, the education system should be examined for students with disability.
Beckett (2009, p. 324) states that children's awareness and understanding of disability is not an issue that has been considered in any great depth. Furthermore, the role of education that could tackle with disability is few and/or absent. As a result of researches, Beckett concludes that there are important gaps in people's knowledge.

> "We know that negative stereotypes and attitudes towards disabled people exist within the adult population – to give just one of many examples, employers have justified not employing a disabled person on the basis that non-disabled customers would not like to be served by a disabled person (Miller, Gillinson, and Huber 2006) – and that these attitudes are a key aspect/characteristic of the 'disabling society', but the question is this: what are the origins of these attitudes within childhood?" (Beckett, 2009, p. 325).

When considered from this point of view, it is important to mention about inclusive education. Contrary to special education, in inclusive education disabled students can be together with other peers who are non-disabled.
Inclusive education is education of students which necessitates disabled students to have education and spent as much time as possible with other students in the same environment or to join as many activities as possible with other students (Spodek et al., 1983, p. 61). Separating children with special needs from children without any disability is accepted as incompatible with human rights and that is why children with special needs should get inclusive education instead of separate education (Kırcaali İftar, 1998). As Peters, Johnstone and Ferguson (2005, p. 142) state that inclusive education for all children is based on the concept of social equity and is essentially a social constructivist perspective. All students come to school with diverse needs and abilities; this is to ensure that no student is left different. The general education system is responsible to be responsive to all students. A responsive general education system provides high expectations and standards from all students, while providing them with high quality academic curriculum which is flexible and relevant, with teachers that are well prepared to address the educational need of all students. General education is a process by schools and communities that aim to create citizens into an inclusive society who can fully benefit from it.
In every country, education system is primarily planned and applied for the section of the community that is not disabled. For this reason, the initial education system has a non-inclusive understanding. Later on, various programs are used to integrate disabled students which aims to put these individuals into the system. (Sayar, Özbulut, Küçükkaraca, 2008). This causes some problems such as marginalization of disabled students. The main reason is that their peers, without any disabilities, cannot learn effectively to be empathetic.
Broderick, Mehta-Parekh, and Reid (2005, p. 195) states that many educators perceive inclusive education as having evolved from special education, and therefore as being fundamentally about issues related to disability. It is stated that inclusive education is not only focusing on the integration of disabled students in the classroom with non-disabled peers, but rather to prevent the possible ways students experience marginalization and exclusion in schools. Hence, it is concluded that inclusive education is a system for all students facing various problems, such as poverty, racial and ethnic discrimination and disability.
All of these examples show us the viewpoints of society about disability affects the lives of disabled people and they may not advocate their own rights because of these reasons.

RIGHTS-BASED APPROACH AND PHYSICALLY DISABLED STUDENTS

In defending the rights of disabled students and integrating them to the society, social workers at schools have crucial roles. Social work carries out all of its functions just because they are rights of people and it is really important that disabled individuals and the society as a whole understand that every human being is precious and has rights from birth that must be claimed and used (Aykara, 2011).

> "Some see inclusive education as a fundamental process which defends the view that all children should be educated in mainstream schools, which should be flexible and able to respond to differences without any additional or special provision (Liasidou, 2012). Other perspectives see inclusive education as concerned primarily with providing an optimal education, and as entailing additional or special support in order to meet children's individual's needs" (Terzi, 2014, p. 480).

Following statements about inclusive education are very explanatory to understand how inclusive education and its components should be:

> "Inclusive Education, as the philosophy and practice behind this system-wide change, refers to the education of children and youth with disabilities in general education classrooms with their non-disabled peers (Peters, 2002). From this perspective, Inclusive Education does not happen on a child-by-child basis. Rather, Inclusive Education is a system wide approach (Miles, 1999b) dedicated to making schools accessible and amenable to the learning of all students. The philosophy of Inclusive Education is based on the right of all individuals to a quality education with equal opportunity - one that develops their potential and respects their human dignity. These supports may include flexible curriculum for some students, adequately prepared teachers, and a welcoming school community culture that goes beyond tolerance to acceptance. Students supported in truly inclusive schools are integrated on multiple levels, including physically, socially and educationally (Lynch, 2001)" (Peters, Johnstone, and Ferguson, p. 142).

There are various studies done about inclusive education. The research findings show that there are some problems to integrate the disabled students to society.
Beckett (2009, p. 324) states that one of the central problems regarding the research done in the children's understanding of disability has not been from a social model of disability perspective. It is stated that political and academic factors has implications in the research. Research done in this topic provides valuable information about the social relationships between disabled and non-disabled individuals. These include relationships between disabled children, relationships between disabled and non-disabled children and how these relationships differentiate with the level of disability. These researches have been advantageous in the integration of disabled children into the inclusive education system.

Furthermore, Broderick, Mehta-Parekh, and Reid (2005, p. 196) points out that disability does not affect all students in the same way. Disabled students may differ in terms of a race, economic level, sex, sexual orientation, language and age which affect their lives significantly.

Aykara (2011) finds that problems which students face most frequently are related with social relations in inclusive education. Although most of the students state that they are happy with inclusive education and their relations with teachers, it is striking that they express problems related to their social relations. Among the difficulties that students experience, social interactions take the primary position. Relationships with teachers seem to be less of a problem for disabled students, because those kinds of relationships lay on a formal foundation. The mutual respect which both parties show to each other is promoted by the education system, since most teachers see it as their duty to treat the students well. On the other hand, other non-disabled students don't have this obligation to show respect and good treatment to disabled students, which in turn leads to the exclusion of disabled students in the social sphere of the classroom. Hence in inclusive education, disabled students having education with other students feel alienated and excluded.

CONCLUSION

As we see, according to the findings of the studies about physically disabled students, the most frequently faced problems are emotional and physical difficulties, and social ones take the second place.

As mentioned earlier, one of the main goals of inclusive education is to enable disabled students not only to get education but also to socialize and to feel themselves as a part of society. For this reason, it is necessary for students with no disabilities to increase consciousness about disability, to take support from teachers and school staff on the issue, and thus preventing disabled students to face with problems at school.

Services for physically disabled individuals should be arranged according to the right-based approach and disseminated across the country. It is crucial to inform physically disabled students and their parents about the rights they have.

The adaptation of individuals, whose problems and needs are ignored, will not be an easy and smooth process. Besides, when needed, defending the rights of physically disabled children, social workers should also contribute them to defend their rights by supporting them and their parents' psychologically. Beckett (2009) suggests that it is only by tracing and understanding the starting points of prejudice against disabled people that people can overcome the challenges. Additionally it is stated that it is crucial to understand what non-disabled children know about things such as the presence of disability in the society, achievements of disabled people, and the impact of a disabling society upon the life chances of disabled individuals. It is further suggested that all of the understanding of the issue must be investigated to find educational strategies that promote positive attitudes towards disabled people.

To provide these circumstances, school social workers have roles and functions such as educator, advocator, broker, case manager, and counselor. These roles and functions of school social workers are very crucial for the disabled students lives. For example, when there is a conflict between disabled and non-disabled students because of the negative attitudes of their parents, school social workers should intervene and give information to the parents about disability rights. Similarly, when disabled students fail to advocate their own rights in their schools, school social workers can teach them how to advocate their own rights. School social workers can also organize some trainings for disabled and non-disabled students, their parents and teachers.

Thus, all the people can learn the truth that disability rights are human rights and how to prevent disability discrimination. To realize these practices, the negations and malfunctions in education system and inclusive education should be identified and solutions should be developed for physically disabled students. In this way, physically disabled students could become individuals, who can defend their rights, and find solutions to meet their needs. This is how they will get integrated into the society.

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FAMILY PREPARATION TO SCHOOL ENTRY AND THE ROLE OF TRANSITION PRACTICES

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Entry into school represents a challenge as much for the children as it does for the parents. Our study examines was could explain that some families' feel more prepared for their child school entry than others. Quantitative data have been collected from a sample of 398 parents. Regression analysis revealed that parents' perception of being prepared for school entry is partly explained by their perception that the school is well prepared to welcome their child. This perception is in turn explained by the number of transitional practices the school has placed in preparation for child entry. These data support the importance of transition practices in the preparation of the family as a unit. Transition practices could serve to reassure parents that the school is ready to welcome their child.

Keywords: family involvement, school transition

DETERMINING THE SCIENCE STUDENTS' ATTITUDES FOR SOLID WASTE AND RECYCLING

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ABSTRACT
The aim of this study is to determine the science students' attitudes for solid waste and recycling. A total of 264 science students, who are studying in the first, second, third and fourth grade of Department of Science Education, Faculty of Education, participated in this study. Data in the study was collected using the 33-item scale called "Attitudes Scale for Solid Waste and Recycling" developed by Karatekin (2013). When the results of the study were evaluated, a significant difference was observed in students' attitudes towards the recycling of solid waste in Kruskal Wallis test results [X^2 = 51,337, p< .05] according to grade level. This difference by which class was caused was determined by Mann-Whitney U test. According to these results, it was found that the fourth grade students' attitudes towards the recycling of solid waste were statistically more significant (p< .05) than the first (p=.000), second (p=.000) and third (p=.000) grade students' attitudes.

Keyword: Science Education, Solid Waste, Recycling, Attitudes

INTRODUCTION

The rapid increase in population and living standards around the world has led to a parallel increase in the consumption of natural resources to meet the growing human demand. This rapid rise in the consumption of natural resources has adversely affected the natural balance, contributing to environmental problems that threaten our world and human beings. One of the important environmental problems of our day is the accumulation of solid wastes. In Turkey, both the quantity and variety of solid wastes being produced in populated settlements and urban areas have increased significantly in recent years. Failure to properly dispose and utilize these solid wastes will inevitably lead to serious environmental problems that will adversely affect human health, the environment, and the economy. For this reason, the proper collection, recycling, and utilization of solid wastes is essential for ensuring sustainability.

"Solid wastes" are wastes generated by social, domestic, and industrial activities that can remain in nature for long periods of time without decomposing, thus causing pollution and negatively affecting human health (Kayranlı, Tankut & Pampal, 2003). To prevent the depletion of natural resources, many countries are increasingly focusing on the recycling and reutilization of wastes (Kocataş, 2012). Today, recycling and reutilization are the most important methods for reducing the generation of wastes and decreasing the consumption of natural resources (Meriç & Kayranlı, 2003). Promoting recycling efforts will have the effect of reducing pollution, as well as the demand for raw materials and energy (Kışlalıoğlu & Berkes, 2010), which, in turn, will have a positive impact on the environment, human health, and the economy (Spiegelman & Sheehan, 2004).

To be able to solve environmental problems effectively, it is first necessary to increase the awareness of the general population on the environment. Education is the main instrument through which people can gain knowledge and awareness about the environment, as well as the necessary attitudes for solving environmental problems. Today, environmental education aims to raise individuals who are knowledgeable and aware of environmental issues, and who possess the necessary interest and skills for addressing them (Peyton et al., 1995).

Since attitudes and habits take shape during the early years of life (Pettus, 1974; as cited by Kesicioğlu, 2009), it is important to ensure that children acquire the necessary awareness and sensitivity towards the environment at an early age, so that they can develop positive attitudes towards the environment. Such positive

attitudes can be instilled through effective environmental education, which requires instructors of all levels who similarly possess positive attitudes towards the environment and about solving environmental problems. In this context, the aim of our study was to identify the attitudes of students (teacher candidates) receiving education at the Department of Elementary School Science Education about the recycling of solid wastes; to thereby determine any deficiencies and shortcomings in their level of knowledge about this subject; and to propose recommendations on how their lack of knowledge can be resolved.

METHODS

The study was performed with a total of 264 first-year (N= 67), second-year (N=63), third-year (N=66), and fourth-year (N=68) university students enrolled in the Department of Elementary School Science Education at a university in northern Turkey. The study was performed using a screening study model, and by administering the "Attitude Scale on the Recycling of Solid Wastes," a 33-item scale previously developed by Karatekin (2013). The scale consists of three factors. The 14-item "Initiative and Participation" factor has a Cronbach's Alpha reliability coefficient of 0.892, while the eight-item "Belief" factor has a Cronbach's Alpha reliability coefficient of 0.882, and the 11-item "Interest and Awareness" factor has a Cronbach's Alpha reliability coefficient of 0.877. The answers provided by the students for the scale items were ranked as strongly agree, agree, neutral, disagree and strongly disagree.

Data Analysis

The attitude scores of the science education students were analyzed according to their year by using the Kruskal Wallis test, while the differences in the science education students' attitude scores with respect to their year were analyzed by using the Mann-Whitney U-test. Data concerning the students' responses to the scale items were analyzed in percentages (%).

RESULTS

The results of the Kruskal-Wallis test, performed in order to determine the attitude scores of the science education students according to their year, are provided in Table 1.

Table 1. Kruskal-Wallis test results concerning the attitude scores of the science education students with respect to their year.

Grade	N	Mean Rank	Sd	X^2	p
1	67	104.69	3	51,337	.000
2	63	108.28			
3	66	126.85			
4	68	187.82			

Table 1 indicates that the student attitudes regarding the recycling of solid wastes varied significantly depending on the students' year [X^2 = 51.337 p< 0.05]. The Mann-Whitney U-test was performed to determine the specific years that were responsible for this significant difference. The results of the Mann-Whitney U-test are provided in Table 2.

Table 2. Mann-Whitney U-test results concerning the differences between the attitude scores of the science education students with respect to their year.

Grade	1	2	3	4
1	-			
2	2004.500 (p =.621)	-		
3	1889.600 (p =.148)	1793.000 (p = .178)	-	
4	842.500 (p = .000)	796.000 (p =.000)	1263.500 (p = .000)	-

Table 2 indicates that the attitude scores of fourth year students regarding the recycling of solid wastes were significantly higher compared to the attitude scores of first- (p=0.000), second- (p=0.000) and third-year students (p=0.000).

Table 3 shows the percentage (%) distribution of the science education students' responses to the 14 items in the study scale's "Initiative and Participation" factor.

Table 3. The percentage (%) distribution of the students' responses to the items in the "Initiative and Participation" factor.

Factor's Name	Item No	Item	Grade	A %	B %	C %	D %	E %

Initiative and Participation	**3**	I take initiative to solve problems relating to solid wastes.	**1**	9.0	**50.7**	25.4	11.9	3.0
			2	3.2	0	**54.0**	34.9	7.9
			3	9.1	**57.6**	16.7	13.6	3.0
			4	**25.0**	**57.4**	11.8	4.4	1.5
	11	I warn people who use paper wastefully.	**1**	11.9	**44.8**	25.4	17.9	0
			2	6.3	**50.8**	33.3	6.3	3.2
			3	**22.7**	**39.4**	22.7	13.6	1.5
			4	**22.1**	**60.3**	8.8	4.4	4.4
	16	I believe that it is difficult to separate and sort solid wastes at home.	**1**	0	32.8	14.9	**40.3**	11.9
			2	11.1	28.6	17.5	**36.5**	6.3
			3	6.1	19.7	25.8	**33.3**	15.2
			4	1.5	11.8	5.9	**52.9**	**27.9**
	18	I always prepare a shopping list before I go shopping.	**1**	20.9	**52.2**	11.9	13.4	1.5
			2	22.2	**42.9**	7.9	20.6	6.3
			3	16.7	**48.5**	1.5	28.8	4.5
			4	**45.6**	**38.2**	5.9	7.4	2.9
	19	I warn people who do not throw their recyclable wastes into recycling containers.	**1**	1.5	**46.3**	32.8	16.4	3.0
			2	4.8	**39.7**	**36.5**	14.3	4.8
			3	13.6	**47.0**	27.3	10.6	1.5
			4	**30.9**	**47.1**	13.2	7.4	1.5
	20	At home, I do not sort wastes for recycling.	**1**	3.0	26.9	19.4	**47.8**	3.0
			2	3.2	23.8	28.6	**38.1**	6.3
			3	0	16.7	16.7	**48.5**	18.2
			4	1.5	11.8	5.9	**45.6**	**35.3**
	21	I try to convince my family about the necessity of recycling wastes produced at home.	**1**	1.5	**43.3**	35.8	16.4	3.0
			2	7.9	**41.3**	36.5	12.7	1.6
			3	13.6	**48.5**	21.2	13.6	3.0
			4	23.5	**51.5**	11.8	13.2	0
	22	I encourage my friends to contribute to recycling efforts.	**1**	3.0	**68.7**	13.4	10.4	4.5
			2	6.3	**47.6**	31.7	12.7	1.6
			3	16.7	**56.1**	10.6	13.6	3.0
			4	**30.9**	**58.8**	5.9	0	4.4
	24	In case there are no recycling containers in my street, I notify the relevant authorities.	**1**	1.5	20.9	**38.8**	**28.4**	10.4
			2	4.8	27.0	**41.3**	27.0	0
			3	10.6	**33.3**	**36.4**	13.6	6.1
			4	13.2	**39.7**	**32.4**	5.9	8.8
	26	I would like to participate in awareness-raising activities on recycling.	**1**	25.4	**34.3**	29.9	10.4	**0**
			2	15.9	**49.2**	28.6	6.3	**0**
			3	21.2	**59.1**	19.7	0	**0**
			4	**42.6**	**47.1**	8.8	0	1.5
	27	I voluntarily participate in the solid waste collection activities of non-governmental organizations.	**1**	11.9	**32.8**	**31.3**	23.9	0
			2	12.7	**33.3**	**31.7**	19.0	3.2
			3	21.2	**33.3**	28.8	13.6	3.0
			4	**33.8**	**35.3**	13.2	8.8	8.8
	29	I voluntarily participate in environmental cleanup activities.	**1**	9.0	**47.8**	26.9	16.4	0
			2	15.9	**38.1**	31.7	14.3	0
			3	21.2	**45.5**	7.6	22.7	3.0
			4	**33.8**	**36.8**	17.6	8.8	2.9
	30	I avoid buying over packaged products.	**1**	4.5	23.9	**47.8**	22.4	1.5
			2	6.3	20.6	**38.1**	**28.6**	6.3
			3	12.1	**45.5**	18.2	22.7	1.5
			4	**25.0**	**42.6**	20.6	10.3	1.5
	33	I believe it is important to be informed about legal regulations on solid wastes and recycling.	**1**	7.5	**73.1**	16.4	3.0	0
			2	17.5	**65.1**	12.7	3.2	1.6
			3	25.8	**43.9**	15.2	15.2	0
			4	**54.4**	**42.6**	2.9	0	0

A: Strongly Agree. B: Agree. C: Neutral. D: Disagree. E: Strongly Disagree

Table 3 indicates that the majority of first, second, third, and fourth year students at the Department of Elementary School Science Education have positive attitudes about warning people who use paper wastefully; convincing their family about the necessity of recycling; encouraging their friends to contribute to recycling efforts; participate in awareness-raising activities about recycling; participate voluntarily in environmental cleanup activities; and being informed about the legal regulations on solid wastes and recycling. These positive attitudes were observed more distinctly especially among fourth year students.

It was determined that 54.0% of second year students were indecisive about taking initiative to solve solid waste-related problems, while the large majority of first, third, and fourth year students had a positive attitude about taking initiative for solving these problems. In all years, there were students who were indecisive about notifying the relevant authorities in case there were no recycling containers on their street. In addition, the ratio of students with negative attitudes about notifying the authorities in such cases was higher among first year students (28.4%), while the ratio of students with positive attitudes about notifying the authorities was higher among third and fourth year students.

The ratio of students who were indecisive about participating in the solid waste collection activities of non-governmental organizations was higher among first and second year students compared to the other years (31.3% and 31.7%, respectively). Nevertheless, the ratio of students with positive attitudes about participating in such activities was generally high in all years, being the highest among fourth year students.

Some of the first and second year students were indecisive about avoiding buying more packaged products than they actually need (47.8% and 38.1%, respectively), while most third and fourth year students had positive attitudes about avoiding buying more packaged products than necessary.

Most students in all years–and especially fourth year students–disagreed with the statements "I believe that it is difficult to separate and sort solid wastes at home," and "At home, I do not sort wastes for recycling," thus expressing positive attitudes concerning the sorting of wastes at home.

Table 4 shows the percentage (%) distribution of the science education students' responses to the eight-item "Beliefs" factor of the scale.

Table 4. The percentage (%) distribution of the students' responses to the items in the "Beliefs" factor.

Factor's Name	Item No	Items	Grade	A	B	C	D	E
				%	%	%	%	%
Beliefs	1	In the present-day world, reducing the amount of solid wastes is not really possible.	1	14.9	**44.8**	22.4	17.9	0
			2	12.7	**60.3**	15.9	11.1	0
			3	**47.0**	37.9	12.1	1.5	1.5
			4	**64.7**	0	29.4	1.5	4.4
	5	I do not believe that the recycling of solid wastes will contribute to the country's economy.	1	0	6.0	14.9	22.4	**56.7**
			2	6.3	3.2	0	**47.6**	**42.9**
			3	1.5	7.6	3.0	21.2	**66.7**
			4	4.4	0	22.1	**73.5**	0
	7	I am concerned by the possibility that future generations might not be able to use natural resources due to their depletion.	1	22.4	**52.2**	14.9	3.0	7.5
			2	34.9	**52.4**	7.9	4.8	0
			3	12.1	**65.2**	13.6	4.5	4.5
			4	**44.1**	**42.6**	5.9	1.5	5.9
	10	I believe that effective recycling practices can only be ensured through legal regulations.	1	10.4	25.4	**34.3**	20.9	9.0
			2	14.3	**36.5**	27.0	19.0	3.2
			3	13.6	27.3	**30.3**	16.7	12.1
			4	16.2	**29.4**	16.2	**27.9**	10.3
	12	I would support investments for recycling even if they entailed higher taxes.	1	16.4	**50.7**	23.9	9.0	0
			2	14.3	**65.1**	20.6	0	0
			3	21.2	**60.6**	12.1	0	6.1
			4	**33.8**	**47.1**	8.8	8.8	1.5
	13	The recycling of solid wastes will reduce the pressures on natural resources.	1	**46.3**	**50.7**	1.5	0	1.5
			2	25.4	**63.5**	11.1	0	0
			3	27.3	**62.1**	4.5	6.1	0
			4	**61.8**	32.4	4.4	0	1.5
	15	I believe that products obtained through recycling (i.e. recycled products) have negative effects on human health.	1	9.0	29.9	**40.3**	16.4	9.0
			2	3.2	11.1	19.0	**54.0**	12.7
			3	3.0	12.1	12.1	**42.4**	**30.3**
			4	8.8	11.8	5.9	**35.3**	**38.2**
	28	The participation of individuals in recycling efforts can be increased through the education provided in schools.	1	29.9	**62.7**	4.5	3.0	0
			2	33.3	**54.0**	11.1	1.6	0
			3	**47.0**	**39.4**	4.5	6.1	3.0
			4	**70.6**	**26.5**	0	2.9	0

A: Strongly Agree. B: Agree. C: Neutral. D: Disagree. E: Strongly Disagree

Table 4 indicates that the majority of first, second, third and fourth year students at the Department Elementary School Science Education were concerned about the possibility that future generations might not be able to use natural resources due to their depletion, and would support investments for recycling even if they entailed higher taxes. The majority of these students also had positive attitudes about the belief that the recycling of solid wastes will reduce the pressures on natural resources; that the participation of individuals to recycling

efforts can be increased through the education provided in schools; and that the recycling of solid wastes will actually contribute to the country's economy.

According to the study results, the large majority of the students in all years exhibited an attitude that reducing the amount of solid wastes is not really possible in the present-day world. Some of the first and third year students (34.3% and 30.3%, respectively) were indecisive about the statement that that effective recycling practices can only be ensured through legal regulations, while a some second and fourth year students (36.5% and 29.4%, respectively) agreed with this statement. However, there was also a considerable portion of fourth year students (27.9%) who disagreed with this view. Most of the second, third, and fourth year students disagreed with the view that products obtained through recycling (i.e. recycled products) have negative effects on human health, while a considerable portion of first year students (40.3%) were indecisive about this view.

Table 5 shows the percentage (%) distribution of the science education students' responses to the 11-item "Interest and Awareness" factor of the scale.

Table 5. The percentage (%) distribution of the students' responses to the items in the "Interest and Awareness" factor.

Factor's Name	Item No	Items	Grade	A %	B %	C %	D %	E %
Interest and Awareness	2	I am aware of the environmental problems caused by solid wastes..	1	28.4	**68.7**	3.0	0	0
			2	27.0	**60.3**	9.5	1.6	1.6
			3	27.3	**59.1**	3.0	7.6	3.0
			4	**64.7**	**32.4**	0	0	2.9
	4	I do not think about future generations when spending and consuming.	1	0	4.5	4.5	**61.2**	**29.9**
			2	0	1.6	7.9	**47.6**	**41.3**
			3	0	16.7	6.1	**33.3**	**43.9**
			4	0	0	2.9	**32.4**	**64.7**
	6	Solving problems relating to solid wastes is the government's task.	1	6.0	29.9	**22.4**	**25.4**	16.4
			2	7.9	17.5	**23.8**	**39.7**	11.1
			3	6.1	13.6	**27.3**	**40.9**	12.1
			4	13.2	29.4	**5.9**	**35.3**	**16.2**
	8	I do not believe that solid wastes pose a problem for our country.	1	4.5	1.5	0	**47.8**	**46.3**
			2	0	4.8	4.8	**42.9**	**47.6**
			3	1.5	12.1	7.6	**37.9**	**40.9**
			4	2.9	0	2.9	20.6	**73.5**
	9	Even when there are separate recycling containers in my surroundings, I do not bother sorting them accordingly.	1	0	3.0	9.0	**50.7**	**37.3**
			2	1.6	1.6	3.2	**57.1**	**36.5**
			3	1.5	12.1	3.0	**43.9**	**39.4**
			4	1.5	2.9	4.4	**32.4**	**58.8**
	14	I am aware of the environmental harm caused by waste batteries.	1	**46.3**	**47.8**	3.0	1.5	1.5
			2	**36.5**	**52.4**	4.8	1.6	4.8
			3	**48.5**	**37.9**	3.0	3.0	7.6
			4	**72.1**	**19.1**	2.9	0	5.9
	17	I would not consider buying a product obtained through recycling (i.e. a recycled product).	1	0	9.0	34.3	**44.8**	**11.9**
			2	1.6	6.3	27.0	**52.4**	**12.7**
			3	0	7.6	30.3	**39.4**	**22.7**
			4	0	1.5	4.4	**41.2**	**52.9**
	23	I am concerned when solid wastes are not properly recycled and reutilized.	1	9.0	**65.7**	22.4	3.0	0
			2	11.1	**68.3**	19.0	1.6	0
			3	**30.3**	**53.0**	10.6	1.5	4.5
			4	**41.2**	**48.5**	7.4	2.9	0
	25	I do not think that I have sufficient awareness about recycling.	1	10.4	**34.3**	25.4	26.9	3.0
			2	9.5	**42.9**	25.4	19.0	3.2
			3	0	**48.5**	19.7	18.2	13.6
			4	1.5	16.2	8.8	**42.6**	**30.9**
	31	I am only bothered by wastes that I see on my own street.	1	4.5	3.0	4.5	**38.8**	**49.3**
			2	3.2	7.9	4.8	**49.2**	**34.9**
			3	0	12.1	7.6	**39.4**	**40.9**
			4	0	5.9	2.9	35.3	55.9
	32	I am not interested in the solid waste disposal procedures implemented in my city.	1	0	11.9	17.9	**61.2**	9.0
			2	0	11.1	23.8	**42.9**	22.2
			3	0	21.2	10.6	**45.5**	22.7
			4	0	7.4	13.2	**36.8**	**42.6**

A: Strongly Agree. B: Agree. C: Neutral. D: Disagree. E: Strongly Disagree

Table 5 indicates that the majority of first, second, third, and fourth year students at the Department of Elementary School Science Education were aware of the environmental problems caused by waste batteries and concerned about solid wastes not being properly recycled and reutilized. In addition, the majority of these students viewed solids wastes as a problem for the country; showed interest in the solid waste disposal procedures implemented in their city; were willing to buy products obtained through recycling (i.e. recycled products); and were willing to sort wastes according to their respective recycling containers. The students thus expressed positive attitudes on all these points. The majority of the students also described that they were concerned about wastes in streets other than their own house's street, thus illustrating a positive attitude on this subject as well. Fourth year students in particular expressed the most positive and aware attitude on all these points.

While there were students in all years who believed that solving issues related to solid wastes is not solely the government's task, there was a portion of first, second, third and fourth year students who were indecisive about this topic (22.4%, 23.8%, 7.3%, and 5.9%, respectively). Most first, second, and third year students expressed that they lacked sufficient awareness about recycling, while the majority of fourth year students described themselves as having sufficient awareness on this subject.

CONCLUSION AND DISCUSSION

It was determined that the attitudes of science education students participating in the study about the recycling of solid wastes varied significantly depending on their current year, with fourth year students exhibiting the most positive attitudes. An evaluation of the courses in the Department of Science Education of the university where this study was conducted revealed that, within the frame of the third year course entitled "Special Topics in Chemistry," the students were briefly taught about recycling when covering the subject of polymer chemistry. In addition, the fourth year elective course entitled "Chemical Wastes and Environmental Pollution" also covers the subject of solid wastes and recycling. We believe that these courses (especially the second one) were partly responsible for the positive difference – in other words, the more positive attitude – observed among fourth year students.

Based on the responses given to the items of the "Initiative and Participation" factor, it was determined that the students had initiative concerning the recycling of solid wastes; that they were willing to inform and encourage their families and friends about recycling; that they were willing to find solutions for problems relating to solid wastes; and that they were interested in the legal regulations about solid wastes and recycling. Responses to the items of the "Beliefs" factor similarly illustrated that the students were concerned about the depletion of natural resources and the subject of sustainable growth, and that they consequently supported investments regarding recycling, while also believing that recycling would positively contribute to the country's economy. Furthermore, most of the students held the view that, in parallel to the increase in population, the amount of solid wastes generated by humans will not decrease. The large majority of the students also had a positive attitude towards the view that using recycled products does not pose any problems for human health. Responses to the items of the "Interest and Awareness" factor indicated that the students were generally aware of the serious environmental problems caused by solid wastes, and that they believed that efforts to provide a livable world for future generations should begin with individual efforts such as sorting solid wastes at home. Responses in this factor clearly illustrated the students' intention in demonstrating the necessary efforts for addressing problems relating to solid wastes.

We believe that the participating students' positive attitudes towards the recycling of solid wastes stemmed primarily from the fact that they were adequately informed and knowledgeable about this subject. Simmons and Midmar (1990) previously described that individuals taking part in recycling efforts generally have high environmental awareness. In addition, Domina and Koch (2002) described that recycling efforts further increased the motivation of individuals on environment-related subjects and issues.

To ensure the preservation of the environment and natural resources, and to raise individuals who are aware of the importance of sustainability, it is necessary to train teachers and instructors who are knowledgeable about sustainability, and who possess the necessary awareness to transform sustainability into a lifestyle. In addition, these teachers need to be supported with environmental education programs that allow elementary school students to acquire knowledge on environmental subjects, and to thereby develop a sense of responsibility towards the environment (Lord, 1999; Moseley, Reinke, & Bootout, 2002; Slingsby & Baker, 2003).

To allow science education students – the teacher candidates of the future – to gain positive attitudes about the recycling of solid wastes and to develop a higher level of awareness towards the environment, these students need to be provided with educational programs that will encourage them to consider environmental issues at a social and global scale, while also enabling them to the acquire the necessary skills and knowledge for addressing, and even solving, these problems.

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FEN BİLGİSİ ÖĞRETMENİ ADAYLARININ MESLEĞİ TERCİH NEDENLERİ VE MEMNUNİYET DÜZEYLERİ: FATİH EĞİTİM FAKÜLTESİ ÖRNEĞİ

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ÖZET

Meslek seçiminde, öğrencilerin çıkarcı gerekçelere sahip olmaları ve ülkemizin eğitim sisteminden dolayı kendilerine uygun meslekleri seçmek yerine ilgi alanlarının dışında bulunan mesleklere yönelmek zorunda kalmaktadırlar. Birçok meslek alanında olduğu gibi öğretmenlik mesleğinin seçiminde de bu durum karşımıza çıkmaktadır. Öğretmenlik mesleğini seçen kişilerin nitelikli bir öğretmenin olabilmeleri için, öğretmenlik mesleğini bilinçli olarak seçmeleri, mesleğe karşı olumlu tutum geliştirmeleri ve kişisel özellikleri ile öğretmenlik mesleğinin gereklilikleri arasında uyum olması gerekmektedir. Fen Bilgisi öğretmeni bilgiyi aktarmak yerine bilgiye ulaşma yollarında rehber olmalı ve öğrenciyi aktif kılmalıdır. Bunun yanı sıra, öğrenciler tarafından olumlu tutum geliştirilmeyen bu derse karşı da öğretmenler dersi sevdirmeli ve fennin hayatın her alanında karşımıza çıkabilecek bir bilim dalı olduğuna vurgu yapmalıdır.

Bu çalışma, Fen Bilgisi öğretmen adaylarının, Fen Bilgisi öğretmenliği mesleğini seçme nedenleri ve bölümlerindeki memnuniyet düzeylerini araştırmak amacıyla yapılmıştır. Özel durum çalışması yönteminin kullanıldığı bu araştırma da, Fatih Eğitim Fakültesi İlköğretim Bölümü Fen Bilgisi Öğretmenliği Programında öğrenim gören otuz gönüllü öğretmen adayı yer almıştır. Veri toplama aracı olarak araştırmacılar tarafından oluşturulan yarı yapılandırılmış mülakat kullanılmıştır.

Yürütülen çalışmalardan elde edilen veriler doğrultusunda katılımcılar lise hayatlarında fen bilgisi öğretmenliği bölümünde eğitim görmek istemediklerini, Fen Bilgisi öğretmenliği programını da çıkarcı ve içsel sebeplerden dolayı tercih ettikleri görülmüştür. Ayrıca katılımcılara yöneltilen sorular ışığında fen bilgisi öğretmenin sahip olması gereken özellikler ile öğretmenin sahip olması gereken özellikleri tam olarak ayırt edemedikleri görülmüştür. Öğretmen adaylarının görüşleri doğrultusunda öğretmenlik eğitiminde uygulamaya yönelik derslerin son sınıfta verilmek yerine sürece dağıtılarak uygulanması gerektiği önerilmiştir.

Anahtar Kelimeler: Meslek seçimi, memnuniyet düzeyleri, fen bilgisi öğretmen adayları

ABSTRACT

Students, while choosing a profession, are constrained to make a choice that is not eligible for their abilities and interests because of the education system of our country. As in other areas, while choosing science teaching as a profession, students experience this conflict. In order to become a qualified teacher, there must be harmony between the personal quality and necessities of teaching profession. Science teachers should guide students to access the knowledge instead of transferring it. Furthermore teachers should help students to develop positive attitude towards science. This study was conducted to investigate the reasons why preservice teachers chose teaching as a profession and their satisfaction levels. Case study method was used in this research and 30 volunteer preservice teachers were involved in it. Data collection tool was semi-structured interview created by researchers. In accordance with data obtained, it was seen that participants preferred science teaching as a profession because of their internal and manipulative reasons. In addition, it was realized that participants cannot distinguish between the features that teachers and science teachers are needed to have. According to preservice teachers' views, it was recommended that courses for implementation in teacher education should be applied through whole education period instead of just senior year.

Key words: Choosing a profession, satisfaction levels, preservice science teachers

GİRİŞ

İnsanoğlu yaşamını sürdürdüğü toplumda bir yer edinmek ve kendini gerçekleştirmek için meslek sahibi olmak zorundadır. Meslek, bireylerin varoluşlarını tamamlaması amacıyla, bireyleri belli bir eğitim sürecinden geçirerek kazandırılan bilgi ve becerilere dayalı etkinlikler bütünü olarak tanımlanabilirken (Yanıkkerem, Altıparmak ve Karadeniz, 2004); meslek seçimi ise kişinin çeşitli meslek dalları arasından kendi kişilik özelliklerine, o mesleğe karşı yeterlilik düzeyine ve yeteneğine uygun olacak şekilde haz alabileceği alana yönelmesi olarak ifade edilebilir (Hotaman, 2011). Yapılan araştırmalar (Altun, 2000; Danziger ve Eden, 2006;Dinç, 2008; Sarıkaya ve Khorshid,

2008; Yanıkkerem, Altıparmak ve Karadeniz, 2004) gösteriyor ki; insanlar meslek tercihleri yaparken ilgi ve becerilerinin yanı sıra ekonomik kazanç sağlayacak meslekleri göz önünde bulundurmaktadırlar. Bu mesleklerden birisi de öğretmenlik mesleğidir.

Bireylerin; her mesleğe birey yetiştirmekte, ülkenin her anlamda kalkınmasında, nesiller arasındaki iletişimin sağlıklı olmasında, toplumun kültürünü oluşturan gelenek ve göreneklerin aktarılmasında ve bu değerlerin korunmasında genç kuşaklara rehberlik etmekle görevli (Çelikten, Şanal ve Yeni, 2005) öğretmenlik mesleğini ve bu mesleğin kollarını tercih etmelerinde çok fazla nedenin etkili olduğu görülmektedir. Şahin (2011) yürütmüş olduğu çalışmada bu etkenleri mesleğin gerektirmiş olduğu sorumluluk yükünü alabilecek olduğunu düşünmek, mesleği kendilerine uygun bir meslek olarak görmek, öğretmenliği sevmek ve bu mesleği yerine getirirken maddi ve manevi açıdan doyum sağlayabileceğini düşünmek, ebeveynlerinden ve çevrelerindeki düşünce ve duygulardan etkilenmek ve puanlarının yeterliliği olarak sıralarken; literatür incelendiğinde, öğretmen adaylarının meslek tercihlerini özgeci, içsel ve dışsal olmak üzere üç temel kategorideki etkenlere dayalı olarak şekillendirdikleri karşımıza çıkmaktadır (Bastick, 2000;Boz ve Boz, 2008;Kyriacou ve Coulthard, 2000; Saban,2003). Çermik, Doğan ve Şahin (2010) ise sınıf öğretmenliği adaylarının bu bölümü tercih etme sebeplerini dört başlık altında incelemiştir. Bunlar; özgeci gerekçeler, çıkarcı gerekçeler, içsel gerekçeler ve dışsal gerekçelerdir. *Özgeci gerekçeler;* kişinin karşılık beklemeden topluma yardım etme isteğinin davranışlarını yönlendirmesidir. *İçsel gerekçeler*; kişinin yaptığı davranışlara hayal ve tutkularını neden göstermesidir. *Dışsal gerekçeler;* kişinin davranışlarını çevresindeki bireylerin ya da uyarıcıların etkisi doğrultusunda şekil vermesidir. *Çıkarcı gerekçeler;* kişinin davranışlarını beklenti doğrultusunda icra etmesidir.

Nitelikli bir öğretmen olabilmek için kişinin, öğretmenlik mesleğini bilinçli olarak seçmesi, mesleği sevmesi ve kişisel özellikleri ile öğretmenlik mesleğinin gereklilikleri arasında uyum olması gerekmektedir (Şara ve Kocabaş, 2012). Bu nedenlerden dolayı öğretmen yetiştiren kurumların, öğretmen adaylarına bu mesleği sadece bir görev olarak değil, ülkenin geleceğini şekillendirecek olan öğrencilerin yoluna ışık tutmakla yükümlü olduklarını da vurgulamaları gerekmektedir. Birçok öğretmen yetiştirme programında olduğu gibi fen bilgisi öğretmeni yetiştirme sürecinde de benzer durum mevcuttur.

Fen Bilgisi dersinin temel amacı, günlük hayatta karşı karşıya gelinen olayları, neden-sonuç ilişkisi içinde inceleyen ve bu incelemeler doğrultusunda ortaya çıkan durumlar arasında mantıklı ilişkiler kurabilen bireyler yetiştirmek olarak açıklanmıştır (Çepni, Küçük ve Ayvacı, 2003). Kaptan ve Korkmaz (1999) ise Fen Bilimleri dersinin amacını; öğrencilere Fen Bilimleri ile ilgili temel bilgileri ile bilimsel süreç beceri ve tutumlarını kazandırmak olarak ifade etmişlerdir. Başarı beklentisi çok büyük olan Fen Bilimleri dersi, hem öğrencilerin hem ailelerin hem de toplumun önem verdiği dersler arasında yer almaktadır. Bu derse verilen önemin büyük olmasında öğrencilerin ortaokulun son sınıfında girdikleri TEOG sınavının da etkisi vardır. Ancak, pek olumlu tutum geliştirilmeyen bu derse karşı, Fen Bilgisi öğretmenleri; dersi sevdirmeli ve hayatımızın her alanında karşımıza çıkabilecek bir bilim dalı olduğuna vurgu yapmalıdırlar. 2013 yılında revize edilen Fen Bilimleri Dersi Öğretim Programı'nın hedefleri doğrultusunda Fen Bilgisi öğretmeni de bilgiyi aktarmak yerine öğrencilere bilgiye ulaşma yollarında rehber olmalı ve öğrenciyi aktif kılmalıdır. Bu yüzden Fen Bilgisi öğretmenlerinin alan bilgisi haricinde öğretimi etkin kılan özelliklere sahip olmalıdır(MEB, 2013). Fen Bilgisi öğretmenlerinin sahip olması gereken özellikleri MEB, 2008 yılında özel alan yeterlikleri olarak ifade etmiş ve sınıflandırmıştır.

Öğretmen adaylarının öğretmenlik mesleğine yönelik tutumlarını (Dönmez ve Uslu, 2013; Doğan ve Çoban, 2009; Özder, Konedralı ve Zeki, 2010; Özsoy ve diğerleri, 2010; Demirtaş, Cömert ve Özer, 2011) ve görüşlerini (Kartal ve Taşdemir, 2011; Şumuer, Yakın ve Yıldırım, 2010; Şahin, 2011; Küçükoğlu, Taşgın ve Saadnie, 2014; Hotaman, 2011; Yıldız ve diğerleri ; 2006) inceleyen çalışmalar bulunmaktadır. Ayrıca öğretmenlerin bölümlerini tercih nedeniyle ilgili de (Tataroğlu, Özgen ve Alkan, 2011; Şara ve Kocabaş, 2012; Çermik, Doğan ve Şahin, 2010; Ubuz ve Sarı, 2008; Kılcan ve diğerleri, 2014; Kaya, Aslan ve Günal, 2013) çalışmalar alan yazında yer almaktadır. Ancak öğretmen yetiştirme sürecinde, öğretmen adaylarının sahip oldukları tercihlerin değişime uğraması ile ilgili olarak alan yazında bir boşluk bulunmaktadır. Dolayısıyla öğretmen adaylarının mesleği tercih etme nedenlerini bu programın öğretmen yetiştirme sürecindeki durumunu incelemek öğretmen adaylarının öğretmenlik mesleğine yönelik tutumları hakkında bilgi verebilir. Bunun yanı sıra, öğretmen yetiştirme sürecinin işleyişi süreçte yaşanılan durumların mesleki tutumlar üzerine etkisi mesleğe yeni başlayacak olan öğretmenlere de yol gösterici nitelikle olabilir.

Bu gerekçelerden dolayı da çalışmada, Fen Bilgisi öğretmenliği bölümünde okuyan öğrencilerin bu programı seçme nedenlerini araştırmak ve fen bilgisi öğretmenliği programındaki memnuniyet düzeylerini incelemek amaçlanmıştır. Bu genel amaç doğrultusunda aşağıdaki sorulara yanıt aranmıştır. Öğretmen adaylarının;

1. Fen Bilgisi öğretmenliği bölümünü seçme nedenleri nelerdir?
2. Fen Bilgisi Öğretmenliği mesleğine yönelik sahip oldukları bilgiler nelerdir?

3. Fen Bilgisi öğretmenliği bölümü ile ilgili beklentileri ne ölçüde karşılandı?

YÖNTEM

Bu çalışmanın amacı göz önünde bulundurularak ayrıntılı ve derinlemesine veri toplama, katılımcıların bireysel algılarını, deneyimlerini ve bakış açılarını doğrudan öğrenme, mevcut durumları anlama ve açıklama (Büyüköztürk ve diğerleri, 2009) çabası içerisinde olduğu için nitel araştırma yaklaşımı kullanılan bir özel durum çalışmasıdır. Araştırma 2014-2015 öğretim yılı Bahar döneminde Karadeniz Teknik Üniversitesi Fatih Eğitim Fakültesi İlköğretim Bölümü Fen Bilgisi Öğretmenliği programında 1.sınıfta öğrenim gören 15 öğrenci ve 4.sınıfta öğrenim gören 15 öğrenci olmak üzere toplam 30 öğrenci ile gönüllük prensibi göz önüne alınarak yürütülmüştür. Araştırmada veri toplama aracı olarak, araştırmacılar tarafından geliştirilen yarı yapılandırılmış mülakatlar kullanılmıştır. Çalışmanın amacına uygun olarak hazırlanan mülakat soruları uzman 3 (üç) öğretim elemanının görüşleri doğrultusunda yeniden düzenlenmiştir. Fen Bilgisi öğretmen adaylarıyla yürütülen mülakatlar katılımcılardan izin alarak ses kayıt cihaz ile kayıt altına alınmıştır. Ses kayıtları transkript edildikten sonra elde edilen veriler, içerik analizine tabii tutulmuş ve temalar oluşturulmuştur.

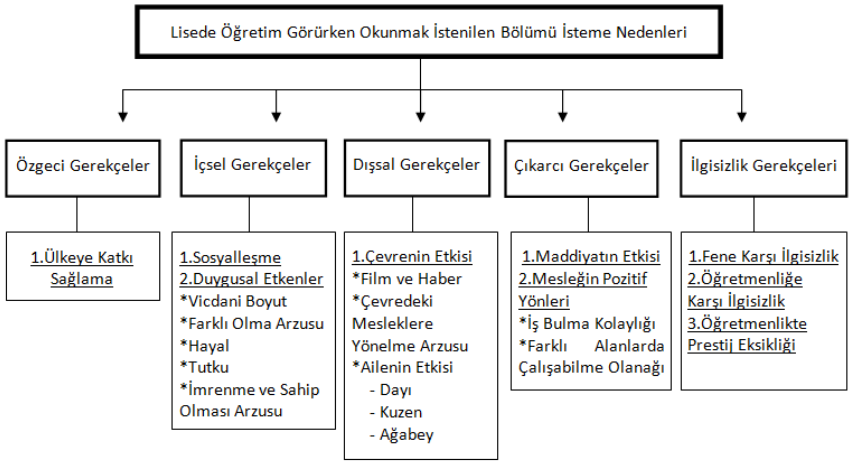
Fen bilgisi öğretmen adaylarının mülakat sorularına verdikleri cevaplar fen bilimleri eğitimi alanında uzman 1(bir) öğretim elemanı tarafından ayrıca tekrar sınıflandırılmış ve yapılan sınıflandırmalar karşılaştırılarak bağımsız gözlemciler arası uyum (Çepni, 2010) ile çalışmanın güvenirliği sağlanmaya çalışılmıştır.

BULGULAR

Fen Bilgisi öğretmenliği bölümünde okuyan öğrencilerin bu programı seçme nedenlerini araştırma ve fen bilgisi öğretmenliği programındaki memnuniyet düzeylerini inceleme amacıyla yürütülen bu çalışmada veri toplama aracı olarak kullanılan mülakat sorularına fen bilgisi öğretmen adaylarının verdikleri cevaplardan elde edilen bulgular tablo ve network'ler ile ifade edilmiştir.

Alt Problem 1'e İlişkin Bulgular

Tablo 1. Katılımcıların lisede öğretim görürken okumak istedikleri bölümü isteme nedenleri

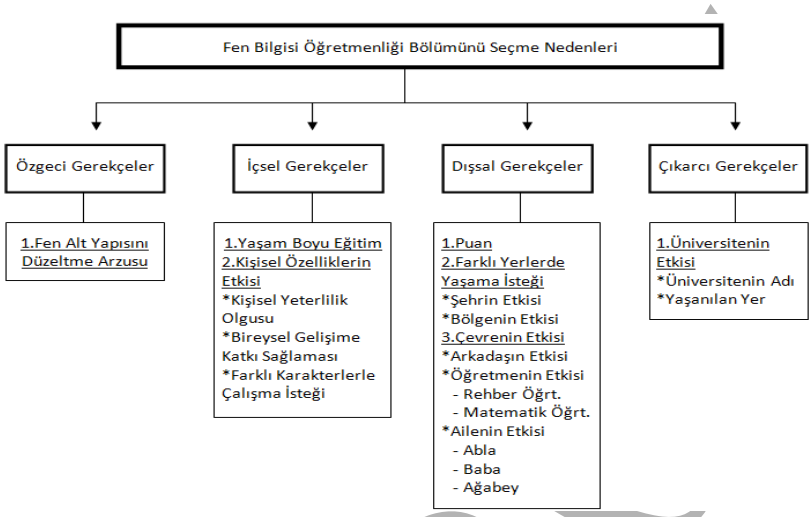


Tablo 1'de görüldüğü gibi Fen Bilgisi öğretmen adaylarının lisedeyken öğrenim görmek istedikleri bölümü isteme nedenleri Çermik, Doğan ve Şahin'in (2010) ifade ettiği şekilde dört başlık altında toplanılmış, ayrıca başlıkların hiçbirine uymayan gerekçeler ise araştırmacıların oluşturduğu yeni bir başlık altında toplanmıştır. İlgisizlik gerekçeleri olarak yer verilmiştir. Katılımcıların cevapları incelendiğinde, fen bilgisi öğretmen adaylarının lisede öğretim görürken okumak istedikleri bölümü çoğunlukla dışsal gerekçelere bağlı olarak şekillendirdikleri görülmektedir. Dışsal gerekçelerin önemli bir faktör olduğunu belirten öğretmen adayları görüşlerini şu şekilde ifade etmektedir:

"*ASELSAN'ın silah geliştirme üzerine yaptığı çalışmalar hoşuma gidiyordu o yüzden makine mühendisliğine karşı bir sempatim vardı… İzlemiş olduğum filmler ve bazı karşılaşmış olduğum haberlerden dolayı güzel meslek olduğunu ve beni daha ileriye götürebileceğini düşünüyor ve istiyordum. Ayrıca da ülkenin gelişimine de bir katkı sağlayabileceğimi düşünüyordum*"

" *... dayım inşaat mühendisi ve küçükken beni inşaat alanına götürürdü hatta çalıştırırdı da. Bu da benim oldukça hoşuma giderdi. Bundan dolayı da bu bölümde okumak istiyordum… inşaat mühendisi olsaydım özel sektörde kolaylıkla iş bulabilirdim…* "

Tablo 2. Katılımcıların Fen Bilgisi Öğretmenliği programını seçme nedenleri



Tablo 2'de görüldüğü üzere Fen Bilgisi öğretmen adaylarının Fen Bilgisi öğretmenliği programını seçme nedenleri Çermik, Doğan ve Şahin'in (2010) ifade ettiği şekilde dört başlık altında toplanılmıştır. Fen bilgisi öğretmen adaylarının çoğunlukla içsel ve çıkarcı gerekçelere bağlı olarak fen bilgisi öğretmenliği programını tercih ettikleri görülmektedir. İçsel gerekçelerin fen bilgisi öğretmenliği programını tercih etmelerinde önemli bir faktör olduğunu belirten öğretmen adayları görüşlerini şu şekilde ifade etmektedir:

"*…Bireysel olarak öğretici bir yanımın olduğunu söylüyorlardı. Dışarıdan gelen tepkiler hep olumluydu…*"

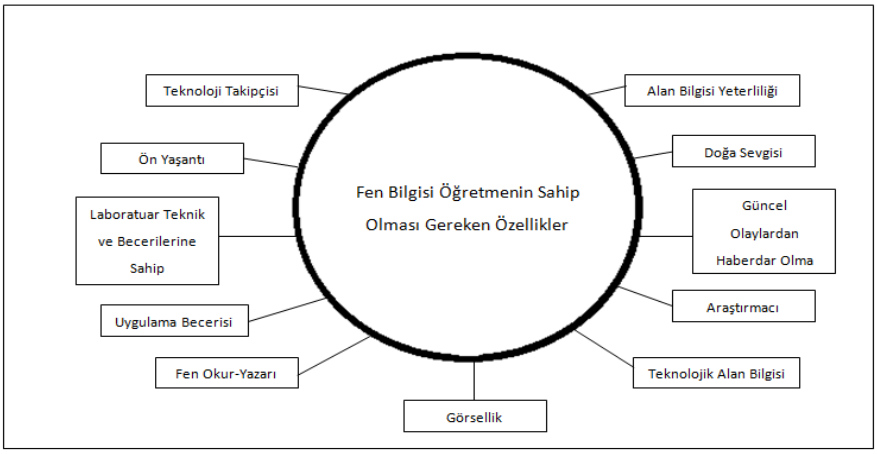
" … Öğretmenlik bir bayan için diğer meslek türlerine oranla daha uygun bir meslek dalıdır …"

Çıkarcı gerekçelerin fen bilgisi öğretmenliği programını tercih etmelerinde önemli bir faktör olduğunu belirten öğretmen adayları görüşlerini şu şekilde ifade etmektedir:

"…sonuçta bana sorulduğu zaman en azından KTÜ mezunuyum diyebileceğim. O çok güzel bir şey bence ve kime söylesem, hangi üniversitedesin diye sorsalar gururla söylüyorum, KTÜ diyebiliyorum"

"… Üniversitenin yaşadığım şehirde bulunması ve Trabzon'a olan sevgim nedeniyle bu bölümü tercih ettim "

Alt Problem 2'ye İlişkin Bulgular



Fen Bilgisi Öğretmenin Sahip Olması Gereken Özellikler

Network 1. Katılımcılara göre fen bilgisi öğretmenin sahip olması gereken özellikler

Network 1'de fen bilgisi öğretmen adaylarının ifadeleri doğrultusunda fen bilgisi öğretmenin sahip olması gereken özellikler gösterilmiştir Katılımcıların ifadeleri aşağıdaki gibidir:

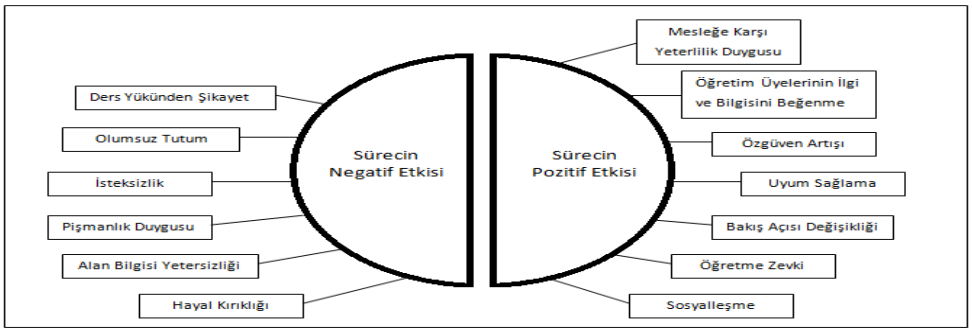
"*Fen okuryazarı olmalıdır. Öncelikli olarak kesinlikle kendi alanında donanım sahibi olmalıdır… Fen bilgisi öğretmeni diğer alanlara göre teknoloji ile daha içli dışlı olması gerekir… Güncel olaylarla ilgili daha çok ilişkili olması gerekir… Kesinlikle araştırmacı olmalı ve bilgiyi takip etmeli…"*

"…uygulama alanında başarılı olması lazım… Bizim çalışma sahamız laboratuar ve buralar olmayınca ne denli başarılı ya da başarısız olduğumuz ortaya koyulamıyor."

"*… Bir fen bilgisi öğretmenin çok bilmiş, çok görmüş, çok okumuş olması gerekiyor. Sürekli doğa ile iç içe olması gerekiyor. Zaten doğa fizik, kimya ve biyolojiden ibaret ben buna inanıyorum."*

Alt Problem 3'e İlişkin Bulgular

Üniversitedeki eğitim öğretim sürecinin fen bilgisi öğretmen adaylarına etkisine yönelik olarak alınan görüşler Network 2'de sunulmuştur.



Network 2. Üniversitedeki eğitim öğretim sürecinin fen bilgisi öğretmen adaylarına etkisi

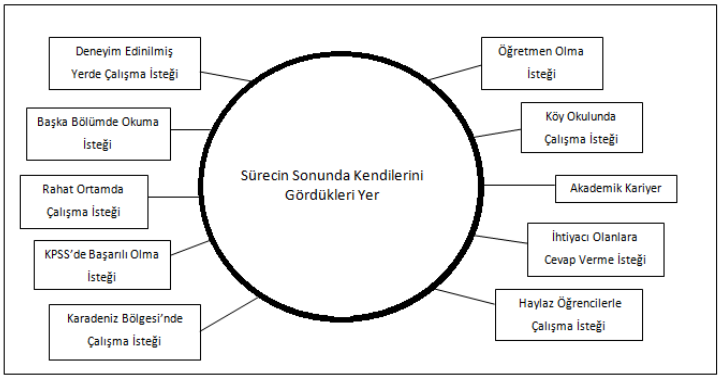
Network 2' de üniversitedeki eğitim öğretim sürecinin fen bilgisi öğretmen adaylarına etkisi sürecin pozitif etkisi ve sürecin negatif etkisi olmak üzere 2 başlık altında gösterilmiştir. Sürecin pozitif etkisine yönelik olarak;
"*…eskiden öğretmenliğe karşı tutumum farklıydı. Bana uygun olmadığını düşünüyordum. Ama artık bakış açık değişti, üniversite de geçirdiğim bu süre zarfından sonra…Birine bir şeyler öğretmek çok güzel bir şey. O yüzden öğretmenlik kesinlikle benim mesleğimmiş diye düşünüyorum."*

"*kendim kişilik açısından liseden çıkıp üniversite boyutuna geçtim. Kendime bu konuda birazcık çeki düzen verdim… Açıkçası kendi ayaklarımın üstünde durmayı öğrendim.*"

Sürecin negatif etkisine yönelik olarak;
"*…eğitim koşulları olsun, dersler olsun gerçekten istemediğiniz bir bölümü okumak çok zor… Koşulların ve imkânların daha iyi olabileceğine inanıyordum. En azından bu mesleği sevebileceğime inanıyordum. Ama buraya geldikten sonra her geçen gün meslekten soğudum."*

"*Bölüm olarak ise pek yarar sağladığını düşünmüyorum. Alan konusunda hala eksiklerim olduğunu düşünüyorum"*

Katılımcıların üniversite eğitim öğretim süreci sonunda hayatla ilgili beklentilerine yönelik görüşleri Network 3'te sunulmuştur.



Network 3. Katılımcıların üniversite eğitim öğretim süreci sonunda kendilerini gördükleri yer

Network 3'te katılımcıların üniversite eğitim öğretim süreci sonunda hayatla ilgili beklentileri yer almaktadır. Katılımcıların beklentileri ile ilgili ifadeler şu şekildedir:

"*Olur da atanırsam Çanakkale'de bir köy okulu ya da Kütahya'da bir köy okulu hayalim var… Ablam orada yapmış öğretmenlik ve o bölgeye karşı bir ilgim var*"

"*Şu anda tek amacım KPSS' yi kazanmak. Kazandıktan sonra öğretmenlik hayatıma başlayarak hayatımı güzel bir şekilde devam ettirmeyi umuyorum* "

"*Tekrardan bir üniversiteye başlayacağım eğer burayı bitirebilirsem* "

"*…köy çocukları daha masum geliyor bana. Onların gerçekten ihtiyacı var… gerçekten azim var onlarda o yüzden köy öğretmenliği istiyorum en ücra köşede* "

"*En kötü ve en yaramaz öğrencilerin olduğu yerde görev almak istiyorum. Çünkü bende öyleydim ve onların dilinden en iyi ben anlarım* "

"*Eğer ortalamam iyi olursa yüksek lisans yapmak istiyorum. Çünkü okumayı seviyorum ve sonrasında da ismimin başına gelecek olan sıfatlardan hoşnut olabilirim* "

TARTIŞMA ve SONUÇ

Bu araştırma, fen bilgisi öğretmen adaylarının fen bilgisi öğretmenliği bölümünü seçme nedenlerinde etkili olan faktörleri incelemek ve memnuniyet düzeylerinin süreç boyunca ne ölçüde değiştiğini sorgulamak amacıyla yürütülmüştür.

Adayların ideallerindeki mesleği istemelerinde çeşitli sebeplerin olduğu sonucuna ulaşılmıştır. Fen bilgisi öğretmen adaylarının tercihlerini özellikle dışsal gerekçeler ile ilgili ifadeleri göze çarpmaktadır. Bu sonuç Kartal ve Taşdemir'in (2011) çalışmasının sonuçları ile çelişmekte iken Çermik, Doğan ve Şahin'in (2010) çalışmasının sonuçları ile benzeşmektedir. Tercihlerini çıkarlara ve dışsal sebeplere dayalı olarak oluşturanların mesleği geleceğe yönelik güvence olarak görmeleri ve daha iyi fırsatlar sunan bir meslek olarak tanımladıkları görülmüştür. Dışsal gerekçelerin önemli bir etken olarak karşımıza çıkmasında ülkemizde yer alan sınav ve değerlendirme sisteminin etkili olduğu düşünülmektedir. Buna bağlı olarak ise çoğu genç istemedikleri bölümlerde eğitim hayatlarını sürdürmekte ya da sınav döneminde yaşanılan olumsuzlukları yeniden yaşamamak adına fikir sahibi olmadıkları bölümleri tercih etmektedirler. Sinclair'de (2008) çekiciliğin ve cazibenin öğretimde değil, mesleğin sağlayacağı fırsatlarda olduğuna dikkat çekmektedir. Ayrıca katılımcılardan hiç biri fen bilgisi öğretmenliğini idealindeki meslek olarak ifade etmemiştir.

Katılımcıların, fen bilgisi öğretmenliği programını seçme nedenleri arasında içsel ve dışsal gerçekler göze çarpmaktadır. Çermik, Doğan ve Şahin (2010), içsel gerekçeleri kişinin yaptığı davranışlara hayal ve tutkularını neden göstermesi, çıkarcı gerekçeleri ise kişinin davranışlarını beklenti doğrultusunda icra etmesi olarak tanımlamışlardır. Meslek seçiminde, öğrencilerin çıkarcı gerekçelere sahip olmaları ve ülkemizin eğitim sisteminden dolayı kendilerine uygun meslekleri seçmek yerine ilgi alanlarının dışında bulunan mesleklere yönelmek zorunda kalmaktadırlar. Bu da mesleki başarı ve kişisel doyumun elde edilmesinde negatif bir faktör olarak karşımıza çıkmaktadır. Öğrencilerin içsel gerekçelere sahip olmaları mesleğin gerektirmiş olduğu

sorumluluk yükünü alabilecek olduklarını, mesleği kendilerine uygun bir meslek olarak gördüklerini ve öğretmenlik mesleğini sevdiklerini göstermektedir.

Yürütülen çalışma kapsamında Fen Bilgisi öğretmen adaylarının öğretmenlik mesleğine, öğretmenlik mesleğini yerine getirirken sahip olması gereken özelliklere ve fen bilgisi öğretmeninde bulunması gereken özellikler ile ilgili çeşitli fikirlere sahip oldukları ortaya konulmuştur. Yapılmış olan mülakatların sonucunda katılımcıların fen bilgisi öğretmeninin eğitim-öğretim sürecinde sahip olması gereken özellikleri bir öğretmenin sahip olması gereken özellikleri birbirlerinden ayrıt edemedikleri görülmüştür. Bunun yanı sıra birçok katılımcı fen bilgisi öğretmeninin alan bilgisi ve teknolojik alan bilgisi yönünden yeterli olmasıyla birlikte bunu ifade edecek bir dile yani aktarımcı olmaya dikkat çekmişlerdir. Bu bağlamda, katılımcıların MEB'in (2008) yayınlamış olduğu fen bilgisi öğretmenin sahip olması gereken yeterliliklerle ilgili bazı hususlara da değinmedikleri ortaya konulmuştur. Özellikle Atatürk'ün, bilim ve teknolojiyle ilgili düşünce ve görüşlerini öğretim sürecindeki uygulamalara yansıtabilme, toplumsal liderlik yapabilme ve öğrencilerin ulusal bayram ve törenlerinin anlam ve öneminin farkına varmalarını ve aktif katılımlarını sağlayabilmelerine değinmemişlerdir. Bu durumunda fen bilgisi öğretmen adaylarının MEB tarafından ortaya konan özel alan yeterliklerinden ve Fen Bilgisi Dersi Öğretim Programı'nın amaç ve hedeflerinden haberdar olmadıklarını göstermektedir.

Fen bilgisi öğretmen adaylarından alınan görüşler doğrultusunda öğretim sürecinin kendilerine olan negatif ve pozitif etkileri ortaya konulmuştur. Katılımcılar öğretim sürecinin negatif etkisine yönelik olarak özellikle alan bilgisi ve tutum konusunda problemler yaşadıklarını, öğretim sürecinin pozitif etkisine yönelik olarak ise mesleğe yatkınlıklarının ve özgüvenlerinin arttığını ifade etmişlerdir.

Öğretim sürecinin öğretmen adayları üzerindeki negatif etkisine yönelik alan bilgisi konusundaki yetersizliğin, öğretim süreci boyunca alan eğitimi derslerinin ezbere dayalı bir sistemde işlenmesi ve süreç içerisinde öğrenilen bilgilerin gerçek hayatla ilişkilendirilmesinin sağlanamamasından kaynaklandığı düşünülmektedir. Öğretim sürecinin öğretmen adayları üzerindeki pozitif etkisine yönelik özgüvenlerinin artmasında öğretim sürecindeki çeşitli dersler kapsamında öğrencilerin sunum yapmaları ve laboratuar uygulamalarında aktif olarak rol oynamalarından kaynaklandığı düşünülmektedir.

Katılımcıların üniversite eğitim öğretim süreci sonunda hayatla ilgili beklentilerine yönelik olarak alınan görüşler incelendiğinde, öğretmen adaylarının hayata dair olumlu ve olumsuz görüşleri bulunduğu karşımıza çıkmaktadır. Öğretmen adaylarının büyük bir çoğunluğu akademik kariyer ve ekonomik özgülük sağlamak adına olumlu görüş belirtirken, düşük bir oranda da olsa yeni bir bölüm okuma isteğinden dolayı olumsuz görüş belirtenlerin yer aldığı da göze çarpmaktadır. Olumlu görüş belirten öğretmen adaylarının ekonomik özgürlük sağlama düşüncesi Altun (2000), Dinç (2008) ve Sarıkaya ve Khorshid (2008)'in yürüttükleri çalışmalarda da ifade edilmiştir. Şirin ve arkadaşları (2008) tarafından hemşirelik bölümünde öğrenim gören öğrencilerin meslek seçimi ve mesleğin uygulamalarına yönelik görüşlerinin alındığı çalışmada hemşirelik öğrencilerinin büyük bir kısmının süreç sonunda akademik kariyer yapma gibi olumlu düşüncelerinin olduğu belirtilmiştir. Yürütülen çalışma kapsamında da benzer sonuç ortaya konulmuştur. Öğretmen adaylarının akademik kariyer yapma gibi olumlu bir düşünceye sahip olmalarının altında toplumun üniversitelerde öğretim elemanı olanlara öğretmenlerden daha üst seviye olarak bakmalarının ve KPSS sınav stresinden uzaklaşma düşüncesinin yattığı düşünülmektedir. Süreç sonunda yeni bir bölüm okuma isteğinden dolayı olumsuz düşüncelerin ortaya konulduğu bu çalışmanın sonuçları ile Beydağ, Gündüz ve Özer (2008) tarafından yürütülen çalışmanın sonuçlarının paralellik gösterdiği görülmektedir.

ÖNERİLER

Fen bilgisi öğretmen adaylarının, fen bilgisi öğretmenliğine yönelik görüşlerini ve memnuniyet düzeylerini belirlemek amacıyla yapılan bu çalışmada ortaya çıkan sonuçlar paralelinde şu önerilerde bulunulabilir:

- Fen bilgisi öğretmen adaylarına, öğretmenlik mesleğini yerine getirebilmek için sahip olunması gereken özellikler ile ilgili olarak seminerler verilmelidir.
- Liseden yeni mezun olan öğrencilerin üniversite tercihlerini daha bilinçli olarak yapmaları sağlanmalıdır.
- Bölümlerinden memnun olmayan Fen Bilgisi Öğretmen adaylarının memnuniyetsizliklerinin sebepleri araştırılmalıdır.
- Öğretmenlik mesleğinin sahip olması gereken değeri ve saygınlığı yeniden kazandırmak adına çalışmalar yapılmalıdır.
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TEACHERS' OPINION REGARDING SMART BOARD APPLICATIONS IN SCIENCE EDUCATION

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ABSTRACT
The aim of this research is to determine the contributions of smart board applications to the process, the difficulties encountered in learning – teaching environment with teachers' opinions. In this research which teachers' opinions on smart board applications are analyzed, data collection and analysis of data is held according to qualitative research. This research is survey model. Physics, Chemistry, Biology and Mathematics at secondary education schools, in which smart board applications are enforced, voluntarily participate to this research. In the scope of this research, teacher survey is used as a data collection tool. Survey form developed by researchers consists of two sections. When first section consists of personal opinions about teachers, second one consists of open-ended questions. Themes are formed according to teachers' opinions given to open-ended questions. In the analysis of data formed according to these themes, descriptive analysis, one of the qualitative analysis, is used. According to the results obtained, solution recommendations will be made related to the difficulties encountered and problems in the smart board applications which are accepted as an intriguing technology for a student and is also helpful for learning

Keywords: Smart Board, Interactive Teaching, Science Education

1. INTRODUCTION

The use of instructional technologies in science and mathematics classes has helped move the classes away from the traditional perspective. Smart boards defined as interactive boards have been introduced to the educational institutions as a digital learning with this perspective (Higgins, Beauchamp & Miller, 2007; Solvie & Kloek, 2007; Pamuk, Çakır, Ergun, Yılmaz & Ayas, 2013). Smart boards are one of the most important tools concerning the effective use of information technologies in learning and teaching environment. Smart boards are composed of three basic components as well as including different types in terms of equipment. These components are a software concerning educational content, a computer and a projector (Smith, Higgins, Wall, & Miller, 2005; Yücel, Orhan, Mısırlı, Bal & Şahin, 2010; Sünkür, Arabacı & Şanlı, 2012). In the literature, there are both teachers' and students' opinions concerning the educational use of smart boards in primary and secondary schools and studies concerning the motivation and attitudes of students against smart board applications (Emre, Kaya, Özdemir & Kaya, 2011; Al-Qirim, 2011; Skutil & Maněnová, 2012; Türel, 2012). Moreover, there are studies in which the negative and positive effects of smart board applications on education have been carried out. Negative effects observed in studies which have been carried out with primary school students and teachers concerning smart board applications have rather emerged in technological dimension (Wall, Higgins & Smith, 2005; Hennes, 2007; Somyürek, Atasoy & Özdemir, 2009; Northcote, Mildenhall, Marshall & Swan, 2010). The positive effect is that students have been able to interact with the smart board and manage the smart board by using its technological features. As for the teachers, they have been able to structure the activities related to the subject and concepts (Levy, 2002; Becta, 2006; Beauchamp, 2004).

2. PURPOSE OF THE STUDY

This research has been carried out with the aim of evaluating the opinions of Biology, Physics, Chemistry and Mathematics teachers concerning smart board applications.

Within this scope, there have been sought answers to the questions below.

1. Do teachers have enough knowledge about the use of smart boards?
2. What are the problems encountered in smart board applications?

3. How do the teachers evaluate the significance of the use of smart boards in learning – teaching enviroment?

3. METHOD

This research has been carried out by using survey model of qualitative research design as a base. In the research, it has been aimed at receiving teachers' opinions concerning smart board applications.

3.1. Sample

The population of this research is composed of schools which use smart board applications in science and mathematics classes. The sample of the research is composed of 50 Biology, Physics, Chemistry and Mathematics teachers who work at private and public schools in Ankara, Amasya and Karaman. 27 of these teachers work at public high schools and 23 of them work at private schools. Descriptive statistics concerning teachers have been given in Table 1.

Table1. Descriptive statistics concerning teachers in sample

		N	%
Gender	Woman	17	34
	Man	33	66
Total		50	100
Branch	Biology	10	20
	Physics	8	16
	Chemistry	8	16
	Mathematics	24	48
Total		50	100
The length of service	0-5 years	3	6
	6-15 years	22	44
	16-25 years	25	50
Total		50	100

The participants in this research are composed of 48% of Mathematics teachers and 52% of Biology, Physics and Chemistry teachers. When the length of service in Table 1 have been examined, it has been observed that teachers who have worked for 6-15 years are 44% and teachers who have worked for 16-25 years are 50%.

3.2. Data Collection Tool

In this research, "Smart Board Application Opinion Questionnaire" has been used as a data collection tool. Questionnaire has been developed by researchers. At the preparatory stage of the questionnaire, studies related to the subject have been examined first. The questions prepared have been broached to experts. Then, the questionnaire form has been prepared. There are six demographic questions, six multiple-choice questions and three open-ended questions in the questionnaire form.

3.3. Analyzing Data

During the analysis process of this research, sub-themes have been formed as a result of opinions obtained from the survey questions. Frequency tables have been created according to these themes.

4. FINDINGS

The findings of this research have been discussed according to sub problems. Accordingly, survey results concerning the question of "Do teachers have enough knowledge about the use of smart board applications?" in the first sub problem have been given in Table 2.

Table 2. Descriptive statistics of teachers concerning smart board applications

		Public School		Private School		Total	
Themes		N	%	N	%	X	%
The efficient use of	Expert	8	30	11	48	19	38

smart boards	Advanced	18	67	11	48	29	58
	Basic	1	4	1	4	2	4
Total		27	100	23	100	50	100
In-service training for smart boards	Yes	24	89	10	43	34	68
	No	3	11	13	57	16	32
Total		27	100	23	100	50	100
Encounter with problems	Yes	19	70	19	83	38	76
	No	8	30	4	17	12	24
Total		27	100	23	100	50	100

The teachers who have reported that they are expert at the efficient use of smart boards are 48% at private schools and 30% at public schools. 67% of the teachers who work at public schools are able to use the smart boards at advanced level. According to this result, it can be said that teachers who work at private schools are rather more efficient at using smart boards than those who work at public schools. The rates of in-service training concerning the use of smart boards are 89 % at public schools and 43% at private schools. According to these results, the effective use of smart boards in classes is expected to be higher at public schools. However, the effective use of smart boards have been higher at private schools. The reason is thought to be the fact that each class has the capability of having smart boards at private schools while only laboratories have smart boards at public schools. According to the results of the sub titles concerning problems encountered in the use of smart boards, the rates are 70% at public schools and 83% at private schools. According to these results, the rate of the problems encountered concerning the use of smart boards in both types of the schools is seen to be high.

Themes formed out of teachers' opinions related to the question of "What are the problems encountered in smart board applications?", the second sub problem of the researcher, have been given in Table 3.

Table 3. Themes concerning problems encountered in smart board applications

Themes	Public School		Private School		Total	
	N	%	N	%	X	%
Ones who have not encountered any problem	7	26	5	22	12	24
Technical problems	9	33	9	39	18	36
Loss of time concerning the preparatory stage	8	30	5	22	13	26
Lack of document concerning subjects	3	11	4	17	7	14
Total	27	100	23	100	50	100

According to Table 3, it has been seen that the incidence of problems encountered in smart board applications is similar at both public schools and private schools.

Some of the problems encountered in smart board applications have been given below.

"*Appropriate program selection, programs' not being free of charge. Lack of prepared activities or their being unsuitable to the class. Lack of internet. Screens of smart boards getting hanged. Programs' not working properly. Computer-board problems. The length for preparing the board at the start of the class. The vision sometimes gets poor and its sharpness decreases. The opening and preparing of the board take time. This time for opening and closing the board causes time loss because of the class system. The projector is bad for eyes. It is hard to find prepared presentations. Updating, calibration and technical problems. Late opening, not opening any kind of application, difficulty in using the buttons, not supporting 3D.*

Themes formed out of opinions related to the question of "How do the teachers evaluate the significance of the use of smart boards in learning and teaching environment?", the third sub problem of the research, have been given in Table 4.

Table 4. Themes concerning the evaluation of smart board applications

	Public School		Private School		Total	
Themes	N	%	N	%	X	%
Viewless	2	7	1	4	3	6
In terms of application	7	26	6	26	13	26
In terms of visuality	17	63	15	65	32	64

In terms of process	1	4	1	4	2	4
Total	27	100	23	100	50	100

In the evaluation of smart board applications, the highest rate in themes concerning positive features has been represented "in terms of visuality" (Table 4). Visuality comes into prominence as being 63% in public schools and 65% in private schools. Positive opinions in terms of application is at lower rate.

Some of the teachers' opinions concerning positive features of smart board applications have been given below.

"*I approve them in terms of showing the experiments which are hard to be carried out in laboratories. Using visuals in biology classes has made it easier for students to understand the concepts. It also makes it easier for students to understand geometry in visual areas. Images and videos enrich the subject. More questions may be examined. More questions are being solved. It provides practicality for graphic drawing. As the questions are already written on the board, less time is taken. When students get bored, animations gather their attention and it can be used in 3D. The subject gets easier to grasp when supported with animations. Visuals gather the attention. It makes learning easier and eases the burden of teacher*".

5. DISCUSSION

The effective integration of smart board application to learning environment has been carried out by having considered the positive features of this technology. In this research, positive opinions concerning the use of smart board applications in science classes can be collected under three titles, which are "in terms of application", "in terms of visuality" and "in terms of process". When evaluated in terms of application, smart board is interactive and visuality is at the forefront. Therefore, student is able to include himself/herself to the application more easily. It also helps the teacher. In terms of process, it increases the motivation of the student. It makes learning easier. It makes easier for learner to include himself/herself to the learning activities. Teachers give more place to the questions related to evaluation. It helps save time for treating subjects in the program.

When problems that teachers and students have encountered in smart board applications are examined, those problems come into prominence: 1. technical problems 2. waste of time concerning preparatory stage 3. lack of document concerning subjects. Therefore, these problems cause teachers to have negative attitudes concerning smart boards. In this research, only one of the teachers has stated that smart boards do not have any contribution. Technical problems are thought to be the cause of this negative opinion. In the literature, it has been reported that there is not any decrease in attitudes albeit problems encountered in applications by teachers (Kennewell & Morgan, 2003). It has been underlined that teachers approve of the use of this technology despite the fact that smart board negatively affects the preparatory stage of the class. In this research, there are also some drawbacks which are not one of the teachers' opinions but are given in the literature. These drawbacks are mentioned as being health problems caused by long term usage of this technology, problems concerning the prevention of the use of the smart board because of the improper infrastructure planning and investments for smart boards from shoe-string budget (ctd: Sünkür, Arabacı & Şanlı, 2012).

When teachers' opinions about the question of "What should be done for smart board application to be efficiency?" are examined, basic opinions underlined are that subject contents should be appropriate for smart boards and teachers should be able to add content to the prepared activities. Moreover, it is thought that students should be able to reach the contents which have been prepared for smart boards. In smart board application, the preparatory stage for the class causes loss of time. This situation has been mentioned by teachers as one of the problems concerning smart boards. It is thought that there should be teacher class systems rather than class systems in order to prevent loss of time originating from the preparatory stage for each class.

6. SUGGESTIONS

The significance of the effect of Information and Communication Technology on structure and functionality is underlined in studies carried out. These technologies are included to the process with the aim of contributing to the improvement of the learner's some skills. However, the inclusion of technology to the process is not enough. The use of instructional technology designed in compliance with constructive understanding requires a certain infrastructure, technical equipment and knowledge. Therefore, teachers should be provided with in-service training seminars with the aim of the effective and efficient use of smart boards in classes. At these seminars, the subjects should be theoretical and practical. New equipment systems and softwares related to the technology being used should be presented and training should be given for its use. In this way, the teacher will not only know about smart board technology but also have the skills to use this technology. What more has come into prominence in teachers' opinions are the situations observed concerning learning-teaching process. This view is about the subject contents being suitable to the smart boards or about the enrichment of available applications suitable to subject contents and their being applicable for change. In the literature, it has been reported that

teachers use the technologies that they have used during their undergraduate education at the schools they work (Lambdin, Thomas & Moore, 1997). Therefore, instructional technologies should be included to the teaching practices at institutions that train teachers. Activities that have been learned during the undergraduate education and that have been put on trial are thought to be a model for candidate teacher during his/her career.

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FIRST AID FOR DISORDERS MUSCLE ADDUCTOR IN FOOTBALL

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The adductor muscle injury most common among athletes, and most especially damaging when the football players and up to his removal from the athletic field, as a concern of Sports Medicine to find the necessary treatment after exposure to infection, so it must address this issue as a study concerned with providing the effects of inner muscles and some important points in the prevention of exposure to injury adductor muscle immediate first aid to maintain a degree not aggravate the injury as they occur, and you know the muscles close to the five kinds as are inserted inside the pubic and extends toward the thigh.

Recently, it was observed that the development of football and its dependence on the speed and rush of physical and tossed a sudden the ball causes severe level of pubic hair, which leads to inflammation of the tendons and the damage that accompanies muscle then Pubalgia, in most cases, the muscle injury adductor begin days after the competition or on rest days , where the player continues to play despite doctor's recommendations, saying that it would not harm his health, and primary indicators of injury is feeling pain as early as at the level of the lower abdomen as a result of a simple effort and over time develop into chronic pain while performing daily activities such as volatility in bed or walk or climb stairs or climb anything then requires the athlete to stop exercising for a preventive and precautionary, and in some cases, and in spite of proper care but that does not succeed, so must on accurate diagnosis of infection is the injury at the level of the tendons or not ?; which requires answering several questions from a medical point do you respect tired or fatigue of the muscles as a result of stress or do serious gestures such as payment legs heavy body requires effort, which calls for accurate diagnosis X usually pain at the level of the lower abdomen or in bands and channels, the injury feared the player and keep him out of the fields for a period ranging between 3 to 6 months, as referred to by Dr. Arezki Noordin and sometimes resort to surgery, and ensure that we avoid falling into such cases, we recommend practitioners of sports by:

1. Avoid the player or athlete sudden muscle contraction before the warm-up and in the preparatory phase.

2. Focus on the side of consistency in trainingTaking into account diet, vitamins responsible for muscle relaxation and contraction.

Private first aid tips directly when Huth injury:

• User infected with the member who earlier in the body proves to prevent an aggravation of the injury in his transfer to the hospital.
• be dealt with on the basis of the injury as hazardous degree whatever type of pain sensation.

• Maintain the gradient angle in increased traffic during the return phase of hospitalization.

Keywords: Adductor muscle; first aid and preventive.

FLIPPED LEARNING: AN APPROACH TO FOSTER GLOBAL AND INTERACTIVE CLASSROOMS

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ABSTRACT
The purpose of this article is to seek the possibility of adapting Flipped Learning strategy in promoting interactive and meaningful learning environments to globally collaborative classes. Three universities from different nations participated in the video conferencing classes which ran for fifteen weeks during the spring semester of 2014. Each class was divided into three parts: pre, in, and post-class. Students joined in pre-class by self-lecturing with the course materials such as lecture slides posted online before each class, and conducted a group project and a discussion session with their international colleagues based on the pre-class lecture. After class, they reviewed the recorded in-class activities on the LMS (Learning Management System). We suggest that Flipped Learning strategy can be more useful for global classes where participating students have different cultural backgrounds.

INTRODUCTION
Instructor-oriented cramming education method started from Prussia in the 19th century. However, due to the nature that the method does not consider educatee's basic knowledge, interest, or problems that they encounter during the learning process, the method has lost its popularity nowadays. Emphasizing the importance of creative nature of human, extensive research into teaching methods for educatee-oriented classes has been conducted, and one of the methods in the spotlight is 'Flipped Learning' strategy.
KAIST has been conducting the flipped learning classes called 'High-Interaction Based Teaching & Learning Model' from spring semester of 2012 to adapt the new student-centered method in the education environment and has enhanced the efficiency and the quality of teaching and learning. To maximize interaction, communication, and collaboration, the instructor's role has been moved from a messenger of information to a facilitator, a mentors, and a coordinator. As a result, the new teaching style has lead over 75% of students' satisfaction.
With the effectiveness of flipped learning, KASIT has extended the online self-directed and offline collaborative learning to a globally collaborative class as one case of 'High-Interaction Based Teaching & Learning Model' class to promote interactive and meaningful learning environments. The globally collaborative video conference class is the student-centered class which requires interaction and collaboration among students. The main aspect to foster global interaction in the class is 'discussion' among students with different cultural backgrounds which requires the flipped learning strategy. In this presentation, we introduce the possibility of the model on the globally collaborative classes.

CASE STUDY
The globally collaborative video conference class under the name of 'global education 3.0' is a project oriented course in which students from three campuses collaborate over the internet. Each campus had 18~20 students and the class ran for 20 weeks during the spring semester of 2014. KAIST participated for 15 weeks due to the university schedule. The course is 'Principles and Practices of Global Innovation' and [Table 1] is the adapted instructional model.

Table 1: Instructional model of global collaborative video conference class

	Teacher	Student
Pre-class (Online Regulated Learning)	- Uploading PPT slides or reading materials covering the learning contents on the LMS(Learning Management System) - Preparing and sharing the teaching materials which will be used in the offline class based on the pre-class feedbacks	- Completing pre-class activities (including quiz, online discussion & feedbacks) and self-checking the contents (vote on the part of learning contents, so that they can figure out what they know and what they don't know)
In-class (Offline Collaborative Learning)	- Coordinating, facilitating and mentoring students for active and meaningful discussion and activities	- Conducting a group project and a discussion session with international colleagues based on the pre-class lecture and teaching materials the professor posted in advance
Post-class (Online Review)	- Uploading the recorded in-class activities on the LMS	- Reviewing the in-class activities

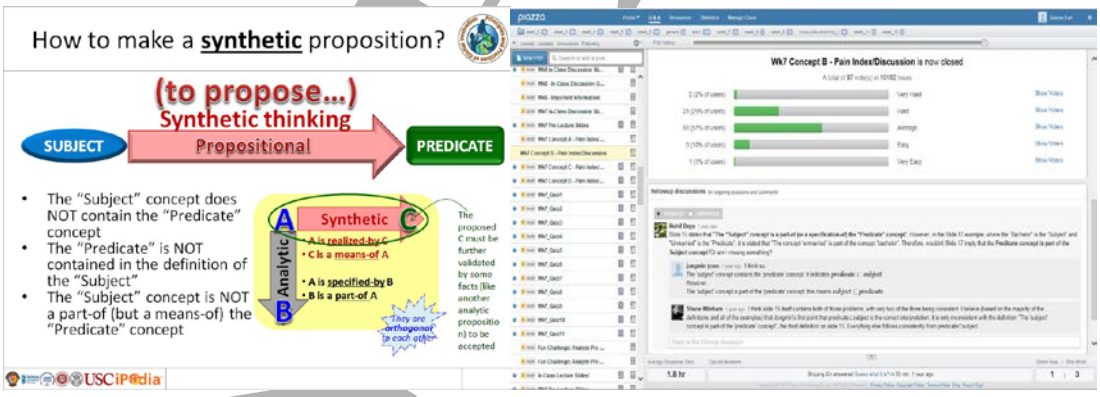

Figure 1: Online Regulated Learning

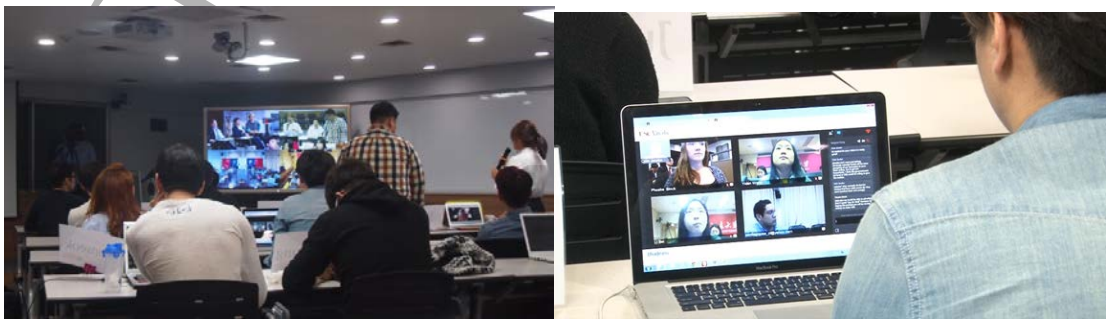

Figure 2: Offline Collaborative Learning

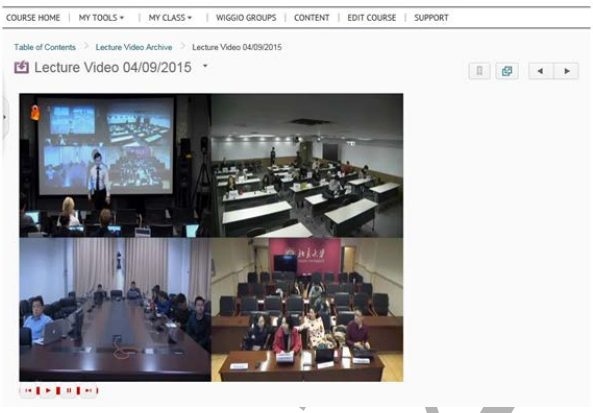

Figure 3: Online Review

RESULTS AND SUGGESTIONS

The survey was conducted at the end of semester using an online survey tool. From 6 universities, 58 students participated (Another course with the same class format was also conducted in 3 different universities). Some questions were not mandatory. Summary of the survey is as follows:

[Overall satisfaction of the course]
81% of the respondents were above satisfaction with the course.

[Class format]
81% of the respondents supported the class format and 84% said that the Online Regulated Learning helped identify the goals and outlines of the contents that they were going to study. 69% agreed that self-checking of the contents activity helped to learn the contents of the subject. We can also find that 75% of the respondents preferred Online Regulated Learning over a traditional class where the only offline classes were offered, and 76% agreed this kind of class format should be expanded for more courses. [Table 2] shows some descriptive opinions about the class format.

Table 2: Opinions of class format

It's very enticing to leisurely skip through pre lecture slides knowing that the teacher will cover it in class.
I think the Online Regulated Learning is effected and efficient.
Sometimes there was a lot of repetition between what we learned at home and in the class, making it less interesting in the class.
If the teacher can give us more reading material, it would be better. because sometimes the PPT is difficult to understand.

[Interaction]
81% of the respondents said that they were satisfied with the interaction in and out of the classes. 84% supported that their overall learning experiences were enriched by interacting with students from another university, and 71% agreed their learning experience were enriched by interacting with students from another country. In addition, 91% of the respondents supported the idea and said that they gained better understanding of another culture through interactions with their counterparts from other university. [Table 3] shows some descriptive opinions about the Interaction.

Table 3: Opinions of Interaction

really learn a lot by talking with peers, they help me think from other respects
It's difficult, because you have to pay attention in class and you want to talk to students abroad at the same time.
I suggest a smaller class, so everyone can know each other better.
Need to find a better platform. BlueJeans was down almost every meeting we had.

[Global Competency]
80% of the respondents were satisfied with the 'international learning' in the class. 68% supported the idea and said that participating in the course improved their global social network and professional network, and 70% agreed that the course enhanced their confidence and preparedness to work for global companies in the future. We were also be able to see that 92% of the respondents desire more interaction opportunities with their counterparts from other countries. [Table 4] shows some descriptive opinions about the Global Competency.

Table 4: Opinions of Global Competency

expand my horizon help me know more about the young people in other countries
I loved meeting people from other cultures, and wish we could have met and interacted more with the kids from the schools not in our session.
It's very hard for me and other students from Asia to understand Indian English.

With these important factors, we can summarize that Flipped Learning strategy can be more useful for global classes where participating students have different cultural backgrounds. To maximize the usefulness and to enhance the quality, more improvements and upgrades are still necessary, expecially in the following three areas; instructional design, interaction, and global experience. In the aspect of instructional design, the level of difficulty and the amounts of the contents should be considered when teachers make the online materials for Online Regulated Learning. Small class size is also important. Since it is video conference class, talking with a large number of students at the same time gives difficulty to understand and interferes with the meaningful discussion. Instructors need to clarify the roles in the instructional model. During the offline classes, they should be coordinators and facilitators to encourage the students if they do not share more with each other. Concerning the interactional aspect, platform with high technical specification should be considered, and a stable internet environment is also necessary for expanding participation from diverse universities. Setting the text chatting system with video conference is also recommended for free communication. Finally, in respect of global experience, multiple culture video assignments at the beginning of the class can be useful to create synergy. Videos about students' own cultures and their perception of other cultures can help to understand other cultures and the backgrounds for those that they are working with and what their skills are.

FROM TRAINING TO THE CONTINUING PROFESSIONAL DEVELOPMENT FOR TEACHERS

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ABSTRACT
The paper aims to describe the experimental project of the adjustment pathway to school that is developed at the Primary Education Degree of the University of Molise. The project starts from the model of the Continuing Professional Development (CPD) typical of the Anglo-Saxon professional culture that does not find in Italy a specific application in schools system of teacher training.
The project aims to develop the students' culture of lifelong learning education, starting from universities education by developing a personal plan of professional development through typical methods of the CPD.
Particularly, students of the fifth year, the final year of the degree course, will start a process of reflection of acquired skills, while those of the second year, the first year of traineeship, will start the process of training and monitoring of their acquisition skills during the course.

INTRODUCTION

Traditionally the development of the professional identity of teachers is an activity carried out by many scholars concerned with pedagogy and didactics. It does not seem, however, there is no one in Italy, but perhaps also in many other European countries, using model of *Continuing Professional Development* to develop the professional identity in other professional fields. Start the pilot project, still undergoing implementation, with the aim of promoting the professional identity of the teacher importing a typical model generally used in company context. The framework comes from a perspective of lifelong learning, proposing strategies and opportunities for empowerment, through the activation of a professional project in continuous development using the Continuing Professional Development model with students of the Primary Education degree of the University of Molise. The key assumptions of this particular educational path are the learning from experience and reflection on it, trigger a project dimension in a lifelong learning perspective, referring to build professional identity. This perspective highlights the context socio-cultural environment (Engeström, Sannino 2010), and encourages a reflective attitude that leads the students to observe their actions in the school, context of work.
The aim is to support the acquisition of a strong identity as a teacher and learning capacity of the continuous development of their professionalism. The theoretical framework of experimentation lead back to UK studies on CPD and their application in the contest of teachers training and supports the ability to build relationships of trust that can strengthen the sense of organizational citizenship.

BASIC PRINCIPLES OF CONTINUING PROFESSIONAL DEVELOPMENT

The Institute of Personnel and Development of the United Kingdom defines CPD as a constant keeping up-to-date (*updating*) of the professional knowledge throughout the entire working life through systematic, informal or self-directed learning models.
A further definition, affirmed by the Royal Town Planning Institute and confirmed by the CPD Certification Service of London, indicates CPD as *"the systematic maintenance, improvement and broadening of knowledge and the development of personal qualities necessary for the execution of professional and technical duties throughout the practitioner's working life"* (Peel, 2005). The definition emphasizes CPD as s systematic process within the professional development in order to maintain, increase and develop knowledge, skills and personal qualities throughout one's working life. The key features can be summarized in four expressions: continuity through the whole working life, professional requirements, personal qualities, systematic nature of the process.
The approach to CPD requires:
– the mutual linking between organisational strategies and individual needs;
– the view of human resource management as an investment and not simply as a cost;
– the enhancement of learning on the job, taking care of the effective transfer of learning in the workplace;
– the planning and designing of training activities at different levels of formality (Eraut, 2000) to support learning processes that correspond to the concept of Personal Development Plans (PDPs).

The key features of the definition which distinguish the CPD are represented by the continuity of learning throughout the working life, the maintenance of high-level quality and competence of professionalism, the development of knowledge, skills and personal qualities, the planning that ensures a systematic process. These characteristics allow CPD to assume a fundamental role to facilitate the accreditation process of professionals and to support the personal professional development and of the group.

WORKPLACE LEARNING, LEARNING ENVIRONMENT AND LEARNING FROM OTHER

The first requirement is considering the workplace as an opportunity of *Workplace Learning* in continuum with university context. The workplace is not only the place where intellectual or practical activities carried out but also the place site with continuing learning opportunities. This means that the range of activities that take place, daily, in the workplace provide learning opportunities supported by actions that Eraut (2000) lists as follows:

– learning from doing routine work activities;

– learning *on the job* through a learning plan with the involvement of a certain variety of roles connected to the own role;

– informal and occasional learning through meetings with other workers;

– both informal and formal learning through the reflection on artefacts in the workplace.

This means that people, the work activities, the materials and the equipment all become learning resources.

The analysis conducted by A. Fuller, L. Unwin (2004) leads to identify a list of factors that shape the environment according to an *Expansive Learning* approach. This list is based on the antinomy between *"expansive-restrictive"* which, in the opinion of the authors, allows a better understanding of the actions to be adopted to define a learning environment .

The comparison between the two methods emphasizes the different actions that will be needed to create the learning environment. Between these two extremes, actually in the *continuum* are identified the most effective practices for the different organizational contexts. Focusing on the *"expansive"* approach the above mentioned research has identified a certain number of actions that allow the realization of an *Expansive Learning Environment*.

Among them, the most significant are: the participation and commitment to diverse communities of practice in order to favour the exchange of different competencies and skills. The attention is also paid to the realized learning experiences (or to realize) in other organizational contexts, overcoming the insurmountable "fear of being copied". This mental approach, if related to a genuine professional interest, supports and strengthens the organizational identity.

Evans et al. (2006) also argue that both formal education and informal learning taking place in the immediate workplace community are essential, thus extending the apprenticeship learning advocated by Lave and Wenger. Second, they offered an analytical continuum, acknowledging the context-specific nature of learning in individual classrooms and schools, in a way that Lave and Wenger's work did not. Third, Evans et al.'s work challenged ideas of a linear journey from novice to expert as being too simplistic.

This framework offered us a way of evaluating workplaces, although in our study from the BTs' perspectives only. It was not designed however to offer a way of understanding teachers' responses to such environments.

Another requisite for the start of CPD is given by what Eraut defines *learning from others* through peer learning (peer to peer) as well as learning from experts or significant others (tutoring). In a research conducted by M. Eraut (2007), that evidences some approaches that support *Expansive Learning Environment* (Fuller & Unwin, 2004), the persons interviewed affirm that "learning from others" in the working context represents one of the most significant methods for professional development.

This approach can be placed, according to Eraut, in the *continuum* where on one side there is the individual dimension and on the other the organizational dimension. Referred to the individual one, the fulcrum of "learning from others" is the importance of the tacit knowledge of everyone to share daily with the colleagues while carrying out one's profession. On the opposite side of the continuum in the organizational dimension the reference point of learning is mainly based on "propositions and written documents" which are progressively more formalized. According to Eraut, "the learning process started by the worker moves within this *continuum* in accordance with some central reference points: the own personal dispositions and the manager's support" (Ibidem, p. 36). In other words, the effectiveness of a learning environment that gives value to the support and mutual help is fully implemented if it is hold up, on one hand, by the personal motivation and the willingness to a social participation and, on the other hand, by the workplace configuration and the organizational culture that encourages and stimulates co-participation and collaboration.

The vast majority of teacher trust that there is still a lot to be discovered and developed for consistently brilliant teaching. Istitute for Leanring write that «evidence shows that the CPD most likely to lead to the desired impact is based on learning from others – from shared resources, from peer support and working together and through formal and informal networks. Organisations with a real interest in developing teaching and learning also identified working in teams, mentoring, and engaging in action research as most likely to lead to brilliant teaching and training » (IfL, 2010).

A. D. Ellinger and M. Cseh (2007), who identified a certain number of factors, such as behaviour and communication that facilitate the learning process of the participants, have also investigated the importance of the personal dimension for the creation of working environments. The authors indicate the listed factors as behaviours that experts can adopt to facilitate the learning, mentioning managers and responsible persons in charge, by improving confronting techniques and forms of co-participation starting from daily experiences.
A recent Irish study (Morgan, 2009), highlighted that life beyond school is important in helping novice professionals to cope with new workplace demands, both in terms of emotional and informational support. It is for these reasons that we have investigated the role of personal networks to help us understand how support is offered and used by Beginner Teachers. (Fox et ali, 2010). The study of Fox evidence that the Beginner Teachers found schools as largely expansive learning environments in terms of support planned into their induction or training or as opportunities with which the teachers could engage informally. This represents the strong invitational nature of these schools as learning environments (Billett, 2001). This should not be entirely surprising given that the schools, at least in the pre-service year, were selected by the University as suitable environments into which to place training teachers.

TEACHER'S PROFESSIONAL DEVELOPMENT THROUGH THE CPD APPROACH

«Brilliant teaching and training does not happen by accident. It is created through careful thinking ahead and preparing teaching or training to meet the needs of each learner; the level and kind of course; and the range of outcomes and progression needed» (Fazaeli T., 2010). Become brilliant teachers requires a process of gradual integration into communities, as referred professional, this is done through a dual path of professionalism: the first relates to specific disciplinary skills, the second path regards teaching methodologies that promotes effective teaching practice.
The application of CPD can have three different approaches (Bonometti, 2013) that represent different levels of formalization of the process.
The first approach, defined "certified", has a "standardized" structure with the designing of the process according to the rules and the culture of a specific profession. In fact, the scientific community and the "professional group" can determine the development-phases and the steps of continuing updating which are essential to ensure a certain level of professionalism. The development of the process and the sharing agreement of the updating according to the rules guarantee public accreditation to the professional (in some cases with legal value). In such a case, the process of professional development (CPD) becomes a sort of obligation while carrying out one's profession and the lack of respect for the operational guidelines may produce sanctions by the "professional group". The risk that may occur with this approach is to confine people exclusively within basic routine activities, asking them to perform a standard of disciplinary skills, rather than producing new ones and going beyond. It becomes a kind of pre-formulated module of development which will give the necessary certification at the end. In the international healthcare sector all professional in medicine and nursing follow a learning program to ensure the maintenance and development of the professional skills, just called CPD. A comparative study, Peck et al. (2000), compares the use of CPD in Canada, United States, Europe and Australia and highlights the common elements and the differences.
A second approach can be defined "organized", in other words it is characterized by the explicit planning of a consistent learning program in line with the indications given by the relevant organizational context or in some cases by the scientific community. Compared to the previous path it is not connected to legal aspects and certifications. In this case, CPD is closely linked to the strategies of the Human Resource Development (HRD) and, converging individual needs and position requirements, a skill development process is defined in line with the strategies and the expectations of the belonging organization. A particular attention is paid to the transfer of knowledge in the *workplace* and at the same time, the workplace must provide continuing learning opportunities to the people. The characteristic of this second approach is given by the close correlation between personal professional expectations and business development prospects. In the organization an effective *people strategy*, a strategic thinking applied to the development of human resources in line with the organizational strategies is put into practice, in which CPD can be considered a tool in supporting management and professional development with an eye to the future.
Finally, the third approach, called "personalized", presents CPD as an opportunity for individual growth which is less bounded to organizational needs but, nevertheless, related to a specific working context. Compared to the previous approaches, this one could seem less systematic and continuing, leaving more possibilities to the participant to design the process and to redefine the objectives to achieve. This method finds more application possibilities during the internship of post-graduate participants, where the practitioner is facing the professional integration and role integration with the support of a project designed by a third party in addition to the company and the employee. This process requires a definition of the own initial competences and the planning of the learning process with a possible redesign of the module in case of need, in order to respond in an appropriate way to the expectations of the participant and the organizational context. The development of a personalized CPD implies as specific characteristic the presence of a third party who is involved in the negotiation between

participant and company, in order that the skill development process allows sufficient time for the training and not just the time convenient to the organization. The places with similar characteristics that carry out this function between worker and organization are the placement services of the universities or colleges, the employment centres of the provinces/districts, the vocational education centres.
As regards the CPD apply to the professional development of teachers, research of Istitute of Learning higlights that shows that the key to success is when CPD mirrors the learning of others, including students and trainees, what is good practice for one is good practice for the other. Effective CPD is not an end in itself but fundamental to the sustained, positive teaching and continuous improvement of teachers and trainers, sector organisations and brilliant success for learners.
A project of continuing professional development is considered a learning action during the work placement and a socialization process with the professional context and role when a real and proper apprenticeship is provided that turns knowledge into competencies. During this period, the new entrants, through a continuing internship or during the professional integration, activate their knowledge and skills linking them to the specific working context in order to develop the appropriate skills requested by the daily activities in the workplace. It is a challenging time where the willingness to learn of the employees and the commitment of the company to provide learning opportunities are at the top, aiming at the achievement of the fixed objectives.
In the school context, the process of construction of the professional identity of a teacher has the aim to increase the capacity to reflect on the experience, analyze the practices, and deepen the theoretical models. Specifically, learning how to learn, to make the best decisions in school situations.
To make all this happen some essential pedagogical-didactical approaches are needed to favour the start of the learning/teaching processes. Initiate the CPD from university education can encourage the formation of beliefs, pedagogic and didactic skills centred on the identity teacher.
An important but largely neglected factor is teachers' own beliefs, which are the best indicators of the decisions individuals make throughout their lives. Beliefs are critical guides of thought and behaviour (Borg, 2001), as well as filters through which people screen new knowledge and experiences for meaning. Teachers' beliefs about learning and teaching have often been subjects of research; they relate closely to the instructional decisions that teachers make (de Vries et al., 2012).

AN APPLICATION FOR INTERNSHIP OF DEGREE COURSE IN PRIMARY EDUCATION

The steps of a professional development process concerns we take some illustrative indications from the model provided by C. Abrutyn and L. Danielson and used by P.G. Rossi for the definition of portfolio (Rossi, 2005). The model consists of four stages/phases that represent the cycle of development of the portfolio according to a logic that does not limit a one-off application but with a regular procedure and method. The starting point is the model developed by Danielson and Abrutyn that articulates the process in four phases:
a) *Collection*, defining the criteria to identify artefacts related to the objective and the participant;
b) *Selection*, selecting the materials, specifying the criteria for the selection of the materials that meet the educational goals fixed for the portfolio;
c) *Reflection*, including reflections in each section of the portfolio and a global reflection;
d) *Projection*, revising periodically materials and reflections on learning included in the portfolio to verify the achieved goals and those to achieve.
The model is characterized by the integration of the four phases of the process. During the first phase it is decided how and from which source selecting the material, the second phase involves the selection of the material, in the third phase reflection and self-assessment are activated, as well as in the fourth phase can be identified with the analysis of the achieved goals and the definition of the objectives to achieve.
These phases can be applied during the structuring phase of the CPD, broadening the perspective beyond the evaluation. In particular, the CPD process consists of 4 macro-phases (V. Cross, C. Liles, J. Conduit & J. Price, 2004) and it starts with an initial briefing that includes the period of time where tutor and trainee know each other, the contract agreement and the definition of the competency standards. The initial period is crucial for the prosecution of the process. It's the moment to develop a relationship built on trust and respect and to recognize the roles and the mutual commitments to achieve the goals.
This specific stage/phase provides for the *Educational Agreement* and the *Start* of the process with a look to the standards related to the role and the competences to achieve. These references will become central elements even during the intermediate and final evaluation.

Educational Agreement	Period of time where tutor and participant know each other and sign a learning contract (*Educational Agreement*). It is the moment to develop a relationship built on trust and respect, to recognize the roles and the mutual commitments to achieve the goals.	Briefing phase
Start	Collecting of internal and external material that allows the definition of the *standards competency* of the role. The material can be placed in a *personal folder* with all the material that will document the professional development.	

The second macro-phase, *Collection,* highlights the importance of the active role of the participant who has the commitment to record the significant events in his personal diary (log or blog) that may occur after the work placement. Since the CPD scheme is characterized by continuing learning, the following phases can become cyclical and can be proposed after a certain time interval. The evidences recorded in the personal diary will refer to the first professional experiences, in case of newly hired or interns, or will mainly focus on critical events during the following training periods.

Personal log (Blog)	Recording the significant events related to the workplace (both positive and negative) aimed at the increase of practical experience and related to a certain period in the *personal diary*.	Collection
Inner contradiction and problems	Evidencing problems and contradictions or adopted good practices and connecting a representative object to the event, integrating the material in the personal folder.	

The third macro-phase is defined *Selection* with the purpose of focusing the attention on specific events related to the professional experience which are significant in the sense of acquiring skills. In particular, it is meant to select some (for instance three) events among the ones reported in the personal diary where the trainee has carried out some activities relevant to his professional role. The next step (*Analysis*) requires the analysis of the selected material starting from the competency standards that were defined in the initial phase.

Selection	Selecting three particularly significant events from the list based on personal experiences and the priorities of the role.	Selection
Analysis	Identifying and reporting the facts *(evidences)* for each of the events that practically describe what happened.	

The macro-phase called *debriefing* is the moment where with the support of mediation and analysis tools a *critical reflection* on the performance is made. That moment represents the starting point of the effective learning process. The reflection on the performance, the definition of the analysis methods and the determination of the development goals represent the kick-off of the process that changes the competencies and plans the next phases. In this phase the materials are linked in a network in order to describe the change, a new knowledge, the attention towards the constituent elements of a task or work activity (Rossi e al. 2012).

Critical reflection	Analysing activities with the support of mediation tools, such as concept maps, models of organizational analysis, flow charts and identifying the core problem of the critical issue. Searching for solutions, formulating the work activities to achieve and identifying areas to improve related to skills development.	Debriefing

Subsequently the critical reflection aims to identify areas of improvement, the problematic issues, the involved professional issues, the priorities and emergencies, converging towards a shared definition of the core problem.

Through problem solving techniques, that help to perceive the discomfort and the symptoms, the real problem can be focused and the participant is invited to reflect upon the critical situations and the committed mistakes. Once identified the problem, the required working practices and the skills to achieve must be investigated. According to the method of *scaffolding*, the tutor (as well as the participant and his peer) supports the reflection with appropriate stimulus that help the understanding from another point of view, with more distance and a different knowledge not known to the participant up until that moment.
The process continues with the definition of the goal that focuses on the work activities to achieve and to become good practices in the workplace. At that point, it is necessary to assess the required skills for the application of the new practices by identifying the sources, the offer and the activities that allow the evolution of knowledge.
The phase at the end of the process starts off the cyclical process of *project work*. This tool allows the planning of learning activities, starting from the working activities to achieve and the skills that are considered necessary. The articulation of project work highlights the correlation between the detected problem and new expected working activities in terms of monitoring systems.

Project work	Defining the project's objective and goals in terms of learning and planning of the *project work.* Assessing the resources in terms of skills, sources, social *network.* Planning the schedule and the rate of efficiency.	Planning

The phases are the result of the interlacing of the methods of reflective practice, of the learning from and through experience and of the planning of changes in the working context. In CPD these factors are well documented with the help of many tools that support the learning process.
The monitoring of the learning projects becomes an opportunity to verify the steps taken during the execution of the project, to modify the schedule in case of insuperable problems and to set new goals in the continuing professional development.
In order to find a different way of working on the development of the skills of teachers we decided to experiment in the process of training of the degree in primary education model of CPD applied to school.
This will follow two different approaches: the first will involve students who for the first time will do the traineeship and they will build an educational agreement starting according to the more traditional approach of the CPD. The goal of this planning is to define a personal project work that will be useful for their professional life. With this approach we aim to form immediately in students the aptitude to reflect on the knowledge and skills for each year acquire in their degree course and that will be needed to teach.
The second approach will be done with the final year students to develop an *educational agreement* starting from *competency standards* gained in degree course and starting a critical reflection during the *debriefing* for planning the most effective and useful project work with any objectives to be achieved. In the latter case, the aim is to allow students to reflect on the critical aspects of their professionality, their professional weaknesses to plan training courses and self-training to fill up any professional gaps.
This double work will be carried out through times of classroom teaching but also through the use of an online platform that students have available for networked working with each other and with the tutors.

CONCLUSIONS

Introduce at school a model of training staff in the perspective of life long learning in other contexts seem to have success stems from the belief of the authors that this different approach the teaching profession may help to improve the approach to updating and continuing education that in Italian schools it is not developed.
Educate from the beginning the usefulness of a teacher form throughout the life allows you to learn about the society in which you live, the young student that need to be trained and potential practices used for their training. It will be possible achieve this only by developing in the teachers the knowledge to be professionals and growing the competence to reflect on their experience and the capacity, to analyse the practices used by other teachers and learn the ability to deepen theoretical models of these practices. That means to learn how to learn from the experience; only through these capabilities, it will be able to take appropriate decisions to problematic situations that can be found in school.
The belief of the authors is that as for professionals in general for a teacher is necessary to acquire skills critical-reflective about its own being a teacher through a training process that enables them to acquire the ability to reflect critically on their educational action and teaching, both on the positive elements that characterize it but also about what is not, they represent, therefore, the need for training during their lifetime.

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FUNCTION MEANS ANALYSIS FOR ABLUTION CONCEPT SOLUTION

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ABSTRACT
The challenge of current trends in design research and point out some of their activities, such as the gap between aesthetic and technical need, and the chasm between ambiguous and quantified in design practice. So, it is hardly to surprising the product designers fail to combine a systematical methodology in analyzing design activity. This paper will assess the comprehensible and abilities of Function Means Analysis in mapping and analyzing design activities. We summarize some current trend and commonly accepted standards in design research. This paper thus attempts to provide a practical guidance to researcher and discuss a few key demands on structuring a new concept of design such foundation, include with the design principles and monitoring used for concept solution strategy. The establishment of basic structure is achieved by connecting one process of each ablution sub-function. The basic arrangements, which become as principle seem satisfactory by, explore a number of concept sketches with possible arrangements of ablution models.

INTRODUCTION
The purposely creation of artifacts demand is depend on what exactly the requirement or needs and what suit the form structure of artifact must visualized and validate the required way (Anwar et. al., 2015). This consideration is typical for any design activity, and problem-solving approach in design activity used to be the main issue to be discuss among designer in any engineering discipline. "Old Master" obviously remains practicing these approaches in such a way of design thinking (Abidin et. al., 2008). However, any design activity normally discussed on specific type of application domain. For examples, industrial design refers to the design of industrial products that associated to visual elements. Visual elements form part of the attributes of form that create tone and texture, imparting visual interest and meaning (Abidin, 2012). "Design" can be based on patterns in nature and on mechanical functions. It can also be based on other factors such as the use of code of language, semantics, symbols, reproductions, or the individual choices of the designer.

In ceramic sanitary ware design (CSWD) the most crucial situation is to introduce a leap forward design especially on the form-generation (Anwar et. al., 2014). It could be concluded that formgiving involvement is a keywords to enhance the aesthetical value in design process. Many designers used the term 'shaping' rather than 'designing' on structuring the design concept. In this paper, we intend to provide some viewpoints about introducing a new sub-sanitary ware design concept based on morphological analysis perspectives. We realize potential and advantages in designing ablution tub design. Ablution was state is a prerequisite of praying (Johari et. al., 2012). The form-generation introduce will base on the understanding of Muslim most important practice (ablution) in their daily life. It's continues with the elements and properties of conventional or existing product form on current ablution practices. As a part of introducing a new design structure, morphological analysis is extended to purposely identify the most possible shape, material and mechanism. It's aim to propose and provide and efficient model for concept solution through Function Means Analysis. With an appropriate measurement system based on the scale of the human body, built with a suitable material, and finally, this concept can resolve the problem that faced by the conventional ablution design structure.

REVISITED THEORY OF FORM GENERATION THROUGH COMMUNICATION THEORY
Tjalve (1979) has presented a procedural model for product synthesis as shows on figure 1. The propose model start with problem analysis that gives the main functions. It can segment as sub-functions that can be solves with means. The mean can be combine into basic structure where the varied means from structure variation can come to a quantified structure. Defining the quantified structure has to deal with a Total Form (aesthetic demands) and Form of

Elements (technical and economical demands).

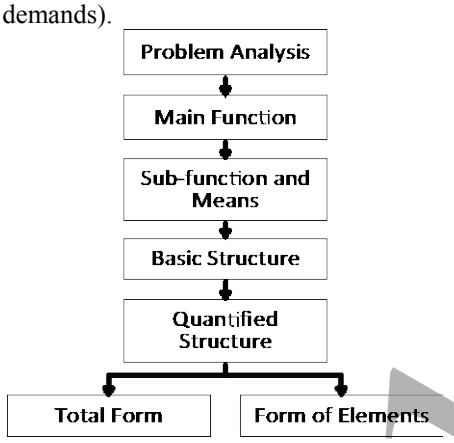


Figure 1. The model of product synthesis, showing the stages in the creating the product (Tjalve, 1979)

Since the aesthetic demand in form became a crucial situation in any product development; Xenakis (2013) expanded the aesthetically-oriented emotions influence design participants towards creating, communicating and using those design representations that will bring them closer to their goals. Figure 2 below shows the aesthetics interaction on evaluating the interactive alternatives assist the user to goal achievement by construct such meanings that will make clearer the way (action pattern). The concept of signal messaging is crucial in the design of product. However, the use of product semantic can contribute to make the use of products self-evident. At the same time, product semantic can help to supply products with a distinct character automatically develop the products culturally meaningful (Butter, 1987).

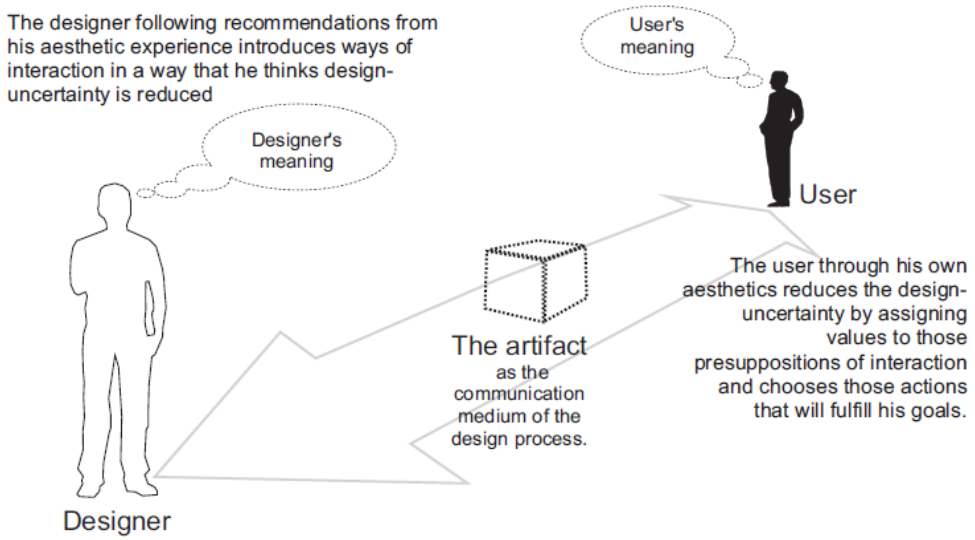


Figure 2: The design process. (Xenakis, 2013)

As regards by Buur & Andreasen, the signal as created by a sender and transferred through a medium of some sort to the receiver and during transmission, the signal may be distorted (Warell, 1999). However, product semantic has seen as implementation of product-user communication in the sign of the product (Butter and Krippendorff, 1984). Figure 3 shows the model projected by Monö (1997), messages are encoded into the product by the designer (the sender). These messages are carried by the physical product gestalt (the combination of form, color, texture, structure, etc.), and eventually decoded by the user (the receiver of the message). There are four types of semantic function (describing, expressing, exhorting, identifying) in Monö's model as a basis for the communication of meaning between artefacts and users.

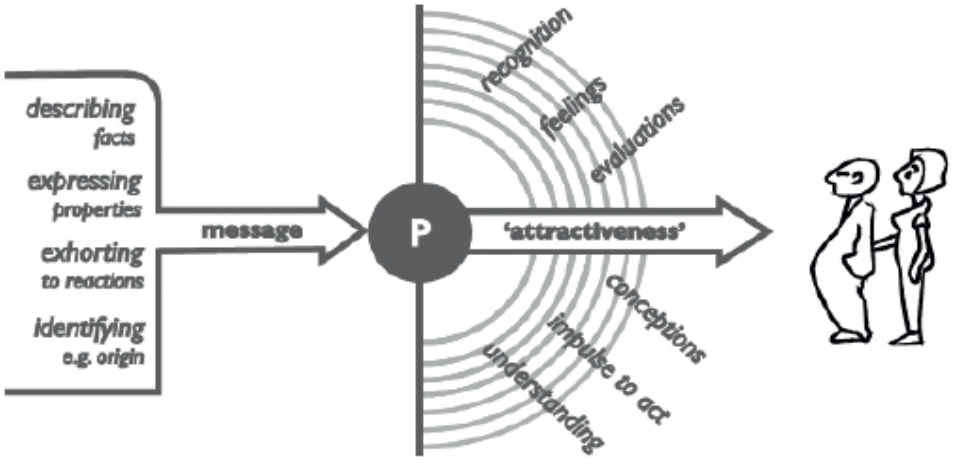


Figure 3. Monö's (1997) model of the communication process

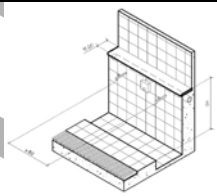
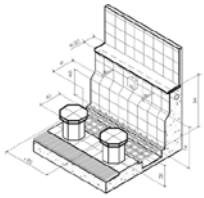
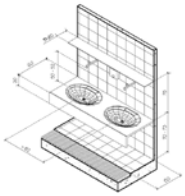
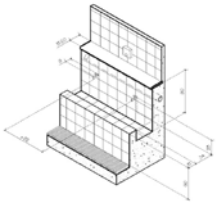
ABLUTION FUNCTION MEANS ANALYSIS

The product synthesis, takes as its starting point the two outputs from the problem analysis, namely formulation of the desired function and the list of desired properties (Tjalve, 1979). The following paragraph outline the ablution design stages in the product synthesis include with the typical examples. A case study by Johari (2013) has found a relation between water, human gesture, and human behavior becomes the major and fundamental factor in designing the products. It has provided more similar approach toward the designing ablution tub based on ergonomic perspective. In order to build a relational theory for design, Jonathan (2009) reported that, they need a concept that will enable them to address the interactions between designers, artifacts, and users.

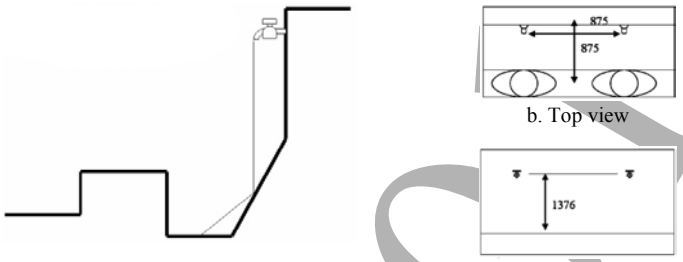
There are several possible models (see table 1) for the designs of an ablution unit identify by Mokhtar (2005). The simplest design model shows on Model 1. This kind of model includes with a shelf for users to put their belongings and happen to be as support of balancing their bodies by grip strictly on the bench. This low cost model was uncomfortable to perfume ablution because it requires users to sturdily bend their knees or back. Model 2 shows an ablution space that provides seats for users to perform ablution while seated. This design figure shows the most recommended design and dimensions to sit while perform ablution. The design also measures a concern about the level of seat, water drainage, including a shelf. In the other view, Model 3 became as model that includes with a lavatory. This model happens to be most users apply at homes to perform ablution. Based on this model, the main problem is, users need to bend to reach the faucet and require raising their feet as last of ablution process to the lavatory.

To solve these problems, the lavatory level was lowered and faucets level moved up. As a part of conventional ablution tub, Model 4 shows a recommended design and dimensions to stand while perform ablution. The faucet level is higher than usual to minimize the bend over while the user intended to stand opposite the barrier. The barrier was designed as low knee level to give a comfortable level for users to raise their feet and aligned with the faucet. A shelf also includes and provides a same practice as mention on model 1. The platform was design with anti slip tile.

Table 1. Conventional Ablution Design by Mokhtar (2005)

	Model 1	Model 2	Model 3	Model 4
Ablution Design				
Standard Features	Faucet / Platform / Top Shelf	Faucet / Platform / Top Shelf	Faucet / Platform / Top Shelf	Faucet / Platform / Top Shelf
Additional Features	Drain	Seat / Covered Drain	Lavatory / Pipe System Drain	Barrier / Drain

On the other point of view, Nashirudin (2008) describe on the determination of actual size of ablution design. It is actually a data, recorded as scale of the human body (users). All around the globe especially Muslim community initiate an ablution area, which the proposal has developed based on a human standard size as mentioned in the Architects' Data. The problems occur is about the squelch water between ablution area, and force wetness on the floor including user's cloths. To solve these problems, an angled wall as shown on fig. 3 (a) need to emphasize. Based on the findings, its clearly prove that design improvement needed in order to design an ergonomic ablution tub. Cross-section picture with falling water faucets to prevent splashing to user while perform Ablution (Nasharudin, 2008). The important factor need to re-design is the space distance between user and faucet including range between users while performing ablution. The right distance suggestion is defined on fig. 3 (b) & 3 (c), which give a suitable distance of measurement in accordance to perform ablution.



a. Falling water solution b. Top view c. Front view

Figure 4. Cross-section picture that shows a required distance between faucets

In order to conduct the Ablution Function Means Analysis, the functions should be at the same level of generality (Burge, 2006). He acknowledges the possibilities of common sense as good tool to identify as many realistic whole system concept solutions as possible. These principles should not be applied blindly but used with thought. Here, we use the reduce Function Means table to "trace out" potential whole system concept solution as shown in Table 2. In conjunction with Function Means Analysis, often called as *morphological analysis*, the example by Hubka et. al. (1988) and Muller (2001) has illustrates the approach. Morphological chart were originally developed as a design method, we construct the overviews of function considered and representation produce especially on the ablution perspectives. From here, it's allowed us to analyze the development of ablution design concept.

Table 2. Function Means Analysis for Ablution

Function – Means Analysis Chart				
Function	Means			
Ablution Principle	Face	Both hand	Forehead	Both Feet
Body Posture While Perform Ablution	Stand	Bend	Sit	Squat
Faucet design	Lever-type	Single-hole	Center-set	Wall-mount
Water fall method	Flush (Pipe)	Dipping (Pond)	Scoop (Bailer)	Mixed Bailer & Dip (Pond)
Drain System	Open	Covered	Pipe	Trap & pipe

CONCEPT SOLUTION BASED ON PRODUCT SYNTHESIS MODEL - ESTABLISH THE CLASSES OF ABLUTION FUNCTION MEANS ANALYSIS

Principle-solution requires design-inspired approaches, and final design structure of ablution design endows the theory of formgiving design (Anwar *et al*., 2015). Shahriman (2008) has defined the notion of qualitative structure and quantitative structure throughout the methodology featuring formgiving. He clarifies visual elements form is part of the attributes of form that create tone and texture, imparting visual interest and meaning. Their importance becomes evident through their use in generating images and form(s) that are both two-dimensional (2D) and three-dimensional (3D). With in agreement about the understanding of use of basic entities of visual elements such as point, line, plane or surface, and volume, as well as the organization rules and principles for putting together the composition or structure (Akner Koler, 2000). This element then will become a guide on generating the ablution form.

Using the Function Means Analysis (Table 2), as the starting document, tracing out the potential system of concept solution, and for each of these, the relevant ablution function-carrier (morphological matrix) able to realize them at various levels of abstraction (Hubka et. al., 1988). This is the stage they called as a very creative phase. The brainstorming is to inverting the ablution problem; help to produce solution, and problem identification. Enabling us towards an overall optimum solution. Each ablution function-carrier is assessed for its compatibility with user's need, the combination of design parts are simplest to realize. The process for conducting an Ablution Function Means Analysis derived from design philosophy (Burge, 2006). He applied the Structure of Intellectual (SI) theory advanced by Guilford (1950) for design purpose which highlight two of six SI processes; Divergent Production, the ability to generate multiple solution to a problem (creativity); and Convergent Production, the ability to deduce a single solution to a problem (rule-following or problem-solving). The process for conducting Ablution Function Means Analysis (AFMA) illustrates on Figure 5. Here, we realize the Concept Solution based on Product Synthesis Model by Tjalve. As overall, the process can be divide into Divergent Process (Step 1 & Step 2) and Convergent Process (Step 3, Step 4, & Step 5).

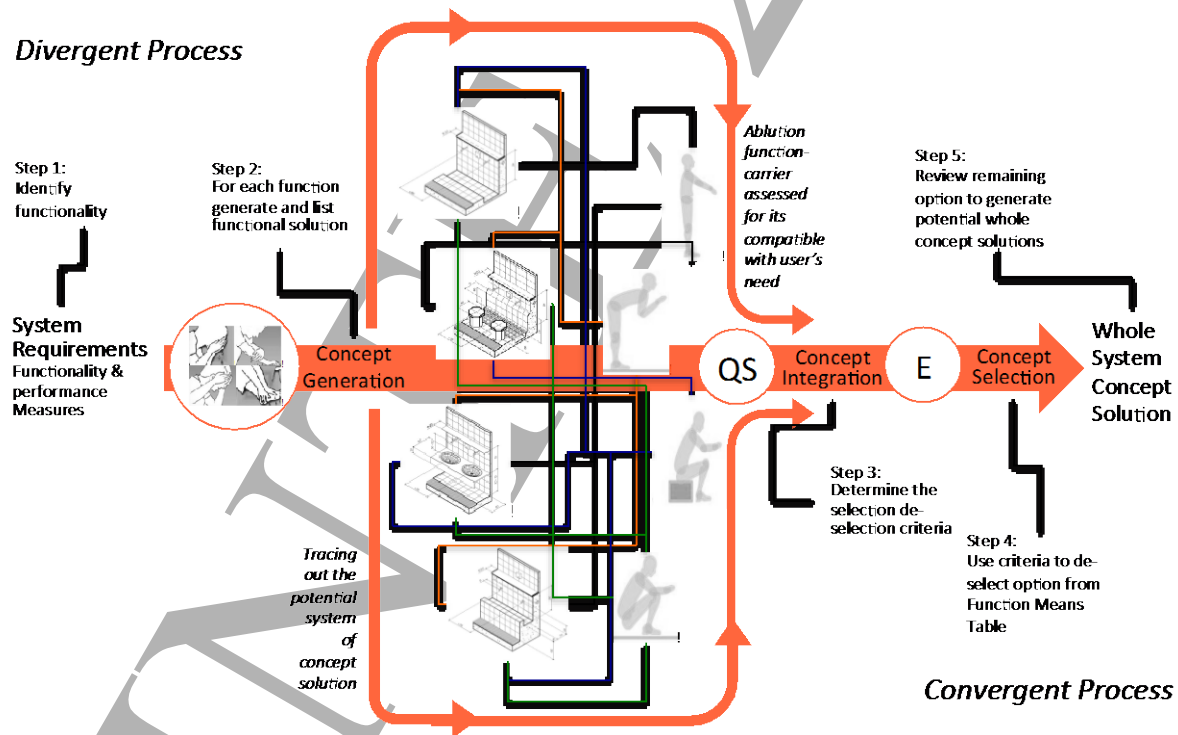


Figure 5. The design model and conducting process of Ablution Function Means Analysis (AFMA)

Divergent Process begin (Step 1) with concept of ablution problems analyze from the four principles practice or method, identify the functionality and the practicality of existing ablution design. The *main function* of ablution models components clearly constructed to meet the needs of ablution implementation. By *means*, we understand the potential functional solution, with which given all four-ablution principle compulsory to perform (Step 2). Becoming the most important sub-functions. The concept generation here achieved as solution by connecting the ablution process for each sub-structures that known as basic structure (Tjalve, 1979). This is the phase where the potential system of concept solution traced out. Here, the design activity is still on the stage of working drawing with no any

decision made. However, Tjalve define, this is the most important parameters in creation of a product but still nothing is yet to decide. Based on AFMA, the quantified structure on the relative arrangement of ablution elements (four types body posture) optimized and specified with ablution design (four models). This stage required a large amount of quantified structure (QS) to assess ablution design, and its compatible with user's need.

Convergent process or phase begins by selecting key criteria that can promote the solution document in the AFMA (see Table 2). As recommended by Burge, three or six criteria are enough to avoid enthusiasm and concentration. Here, ablution design Concept Integration (Step 3) approach should select all four ablution principles, perform on two combination of four models mentioned with optional of two human posture. These selections decide based on the primary ablution requirement from Table 2. Before we can decide to move into Concept Selection phase, its required to evaluate (E) the selected criteria and organized in order of importance. This is the stage we can establish basic arrangement. The reason is to explore possible arrangements, and continual refinements until the ablution design seem satisfactory. Evaluation of the solution can embark into concept development as an embodiment of a complete feasible solution towards the design problem (Liem, 2004). This is the phase that Liem's characterized as 'possible versus feasible', "global versus detailed', and 'specific versus holistic'.

The option of ablution models by Mokhtar (2005), propose efficiency ablution water performance by Nashirudin, (2008) and practical purpose requirement as mention by Johari *et al*., (2012), (2013), (2014) has become the main issue on generating design solution. As the important elements and criteria determined, the next activity (Step 4) is the critical design situation as stated by Anwar *et al*. (2015) in which, the configuration of formgiving design in humane process (designers and users) can grasp not only a goal, but include thoughtful and enthusiastically, for the transcendent of ablution design. To describe this activity, the roles of Function Means Table of ablution need to be considered to reduce number of options, and it's depend on the designer to decide the consideration made. As nature, designer tend to use solution conjectures as the means of developing their understanding of the problem (Cross, 2006). After completing the clarification phase, the conceptual design phase will determine the principle-solution (Step 5) of ablution design where, the remaining option should be review to generate as much as potential solution. Here, the collaboration of Industrial Designer (ID) and Engineering Designer (ED) play an important role to ensure product appearance, expression and impression still allow the technical function to be fulfilled within the forms and shapes created.

CONCLUSIONS

In this paper, we conclude that Function Means Analysis defined by Burge able to play as important parameter in introducing a new design segment for CSWD. Ablution analysis is extended to propose and provide and efficient model for concept solution. There are five steps with a division of Divergent Process and Convergent Process. In Divergent Process, two steps involve where the first steps is to analyze problems, identified the functionality and the practicality that meet product (ablution) needs. By *means*, potential functional solution understood, becoming the most important sub-functions and generation concept solution for the second steps. This stage required a large amount of quantified structure (QS) to assess design requirements. For Convergent Process, it does involve three steps to be as problem solution method where AFMA table used as guide. Concept integration (Step 3) selections decide based on the primary ablution requirement from AFMA and required to evaluate (E) the selected criteria and organized in order of importance. The 'option of models', the 'propose efficiency performance' and the 'practical requirement' that become as main issue on generating design solution. As the important elements and criteria determined, the critical design situation (Step 4) is to reduce number of options, and it's depend on the designer to use solution conjectures as the means of developing their understanding of the problem. The conceptual design phase will determine the principle-solution (Step 5), examining potential of remaining option able to generate as much as potential solution.

Table 3. Function Means Analysis for Ablution

Function – Means Analysis Chart				
Function	Means			
Ablution Principle	Face	Both hand	Forehead	Both Feet
Body Posture While Perform Ablution	Stand	Bend	Sit	Squat
Faucet design	Lever-type	Single-hole	Center-set	Wall-mount
Water fall method	Flush (Pipe)	Dipping (Pond)	Scoop (Bailer)	Mixed Bailer & Dip (Pond)
Drain System	Open	Covered	Pipe	Trap & pipe

The successful of AFMA was derived from Tjalve procedural model for product synthesis. The finding show the Function Means Analysis (Table 3) often called as *morphological analysis*, used to "trace out" potential whole system concept solution. Morphological chart were originally developed as a design method, overviews of function considered and representation produce especially on the product design perspectives. From here, it's allowed us to

analyze the development procedure of ablution design method. For future work, collaboration development between ID & ED exploring qualitative structure and quantitative structure, throughout AFMA, in order to evolve the theory to and understand, how it might create an implicit and explicit underlying the designer's way of thinking.

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GAZİANTEP ÜNİVERSİTESİ EĞİTİM FAKÜLTESİ ÖĞRENCİLERİNİN ÖZEL EĞİTİME YÖNELİK TUTUMLARININ BELİRLENMESİ

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ÖZET

Öğretmen tutumu, özel eğitim uygulamaları arasında yer alan kaynaştırma eğitimi sürecinde öğrencinin gelişiminde önemli bir etkiye sahiptir (Batu, 1998). Olumlu öğretmen tutumu, kaynaştırmanın niteliğini arttıracak ve özel gereksinimli öğrencinin kaynaştırma eğitiminden faydalanma olasılığını arttıracaktır. Ayrıca, öğretmenin olumlu tutumu ile normal çocuklara model olarak, kaynaştırma öğrencisinin sosyal kabulünü sağlayacaktır. Sınıflarında özel eğitime muhtaç öğrencilerle karşılaşacak olan öğretmen adaylarının kaynaştırma uygulamalarını daha etkin yürütebilmeleri için özel eğitim ve kaynaştırma uygulamalarıyla ilgili görüşlerinin olumlu yönde olması gerekmektedir. Bu bağlamda bu araştırmanın amacı; öğretmen adaylarının özel eğitime ve kaynaştırma uygulamalarına yönelik görüşlerini incelemek ve bu görüşlerin cinsiyet, branş, özel eğitim dersi alıp almadığı, ailesinde veya yakın çevresinde engelli birey olup olmadığı değişkenlerine göre değişip değişmediğini araştırmaktır. Araştırma ilişkisel tarama modeli ile desenlemiştir. Araştırmanın evrenini Gaziantep Üniversitesi Gaziantep Eğitim Fakültesinde öğrenim gören toplam 1485 öğretmen adayı oluşturmaktadır. Evrenin % 20'si örneklem olarak seçilmiş ve her bölümden evreni temsil ettiği oranda rastgele seçilen öğretmen adayı araştırmaya katılmıştır. Araştırmanın verileri, öğretmen adaylarına Polatlı İlçe Milli Eğitim Müdürlüğü tarafından 2011 yılında bir Avrupa Birliği Projesi (Learning for All) kapsamında geliştirilen "Öğretmen Adaylarının Kaynaştırma Eğitimine Yönelik Tutum Ölçeği" uygulanarak elde edilmiştir. Elde edilen veriler SPSS 22.0 paket programı ile analiz edilmiştir. Veriler normal dağılım göstermedikleri için (N=338, Kolmogorov-Smirnov Z=1.487, p=.03<.05) non-parametrik testler kullanılmıştır. Araştırma sonucunda öğretmen adaylarının kaynaştırmaya yönelik tutumlarının cinsiyete göre anlamlı şekilde farklılaşmadığı tespit edilmiştir. Ayrıca; özel eğitim dersi alanların almayanlara göre, ailesinde ve yakın çevresinde engelli olanların olmayanlara göre daha olumlu tutum geliştirdikleri tespit edilmiştir. Ek olarak branş bazında da anlamlı farklılıklar tespit edilmiştir. Sonuç olarak kaynaştırma ve özel eğitim derslerinin öğretmen adaylarının kaynaştırmaya ilişkin görüşlerini olumlu yönde etkilediği, ailesinde ve yakın çevresinde engelli olan öğretmen adaylarının kaynaştırma sürecine daha pozitif yaklaştıkları görülmektedir.

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GENDER DIFFERENTIATION IN CZECH PRIMARY SCHOOLS

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ABSTRACT
The article briefly explains the basic theoretical concept of the gender issue and explains the keywords of the subject. The aim is to highlight the fact that in the environment of Czech primary schools there are various approaches to male and female pupils according to their gender. This fact is illustrated by the results of the research study aimed at a key area of education and training, i.e. the quantity and quality of the interaction between a male/female teacher and a male/female pupil. The study is a part of an extensive research project, implemented by means of the following grant: Internal grant of PDF UP: From subjective implicit theories of education to teaching knowledge. The process of constitution of a cognitive framework sciences education in the national and international context.

INTRODUCTION
Education of any degree is an essential and fundamental part of the life of every human being and it has an unquestionable influence on the shaping of such being's personality. From early childhood, the personality of an individual goes through certain stages of institutionalized education. An individual attends a kindergarten, then a basic school. In the Western society, a majority of individuals continue their education in secondary schools, some of them in universities. The element that connects all levels of the educational system is the previously mentioned training and education. The Czech educational system has a great potential to equally provide its male and female pupils (male and female students) with information and education, but according to some male and female authors (cf. Pavlík, 2007; Smetáčková, 2006) it is evident that, although male and female pupils (male and female students) sit in the classroom together, they do not have an equal access to education, and that there is a degree of differentiation according to their gender. This presumption is especially associated with secondary and higher education; however, some signs of this fact can be observed even in basic schools and kindergartens.

INTRODUCTION – THEORETICAL BACKGROUND
In the Czech environment the term "gender" and its meaning is still perceived with a degree of inconsistency and there is no exact definition although the term has been included in the current vocabulary for many years. The word "gender" comes from the Greek language; from Greek it probably penetrated the English language from where it was taken over by the Czech language. In contemporary English "gender" originally meant "grammatical gender" (Maříková, 2000, p. 11), later also "voice". However, to translate this expression to Czech simply as "grammatical gender or voice" may be misleading; therefore, it is not translated or is translated as "social gender". The advantage of the Czech equivalent is that it emphasises the fact that gender also has an own social (not only biological) aspect. (Valdrová, 2006, p. 6) From the scientific language, where the term was re-discovered by John William Money, who enriched the term with a new meaning, the meaning of the term gender was adopted by common English, and later by Czech, and became an integral part of it. "Gender" is a psycho-cultural term, and signifies not biological but also social aspects. (Jandourek, 2007, p. 90) The term "gender" refers to cultural and social stereotypes and expectations associated with the members of the opposite sex (Fafejta, 2004, 30) and these cultural and social stereotypes and patterns of behaviour, which are abundant in our culture, are considered typically male or female in the society and by the society. (Jandourek, 2007, 90) As added by Maříková (2000, p. 11), the term gender refers to the social differences between the man and the woman, between men and women, or between masculine and feminine. Human sex (male and female) is given biologically, but in terms of social behaviour people are not born as men and women; instead, they must learn to live and act as men and women. We are not born as women and men, we become women and men. From a gender perspective, this involves such differences between men and women that are not biologically or genetically predetermined, or otherwise "by nature", but originate and are culturally, historically and socially determined. (Maříková, 2000, p. 11) In reality, these culturally, historically and socially determined stereotypes and patterns of behaviour then influence, shape or modify the qualities, abilities and personalities of specific men and women. Naturally, they also influence the

attitudes, opinions and behaviour of men and women and direct them towards the conventions for each gender, i.e. towards the "typically male" or "typically female". (Maříková, 2000)

Due to the fact that gender is a social construct of the society, the number of genders is socially determined, and therefore, theoretically there can be an infinite number of them. Valdrová (2006, p. 53) states that the Euro-American society has typically nine sexual variants (heterosexual man, heterosexual woman, homosexual man, homosexual woman, bisexual man, bisexual woman, transgender FtM (Female it Male, hetero- or homosexual), transgender MtF (Male it Female, hetero- or homosexual) or intersexual man/woman). However, gender constructs, expectations and prejudices have never been, are not and will never be something universal as they change according to the place and time of origination and the society in which they are applied.

The word or term "differentiation" was taken from the Latin "differ" ("dis" and "fero" = to carry, which together means "to distribute, to distinguish". (Vokurka et al., 1995, p. 82) Hartl and Hartlová (2000, p. 113) allude to the differentiation in the teaching process, which they define as different work with male/female pupils of the same age by means of parallel classes, optional subjects, different study programmes or the use of group work within one class. In the context of gender, the term "differentiation" could be explained as differentiating, distinguishing, dividing or classifying male and female pupils (male and female students) and different ways of working with them, not only on the basis of various types of optional subjects and study programmes, but also on the basis of social and biological gender, i.e. their sex. In practice, this means that we expect different things from female pupils (female students) than from male pupils (male students), teach them different things and communicate with them in different ways. Accordingly, we expect different things from boys and teach them different things than girls. In other words, this expectation can be expressed as a "prejudice", "presage", "stereotype" of the fact that this is the way it should be.

GENDER DIFFERENTIATION IN CZECH PRIMARY SCHOOLS

Although the principle of equal opportunities for girls and boys in education is one of the priorities of the Government of the Czech Republic and thus has formal support, in everyday practical life the situation is very disputable. It is assumed that gender equality in education in the Czech Republic is assured by means of co-education, i.e. that girls and boys attend or have an opportunity to attend the same schools and sit in the same classrooms, in the same desks, and hence they should get the same education. In the Czech Republic, co-education exists only in basic schools, and not always. Once children go to specialized secondary schools, gender segregation (differentiation) takes place. This happens despite the fact that there are no schools that would allow only one gender. Secondary education is very segregated (differentiated) as there are so-called boys' and girls' fields of study that correspond to the segregation of professions on the labour market. However, gender equality is not guaranteed even if girls and boys are in the same class and sit in the same desks. Female and male teachers often conduct with stereotypes and through their uneven demands and discriminatory statements might and often do deepen gender inequalities. Often we might encounter underestimating the intellectual abilities of girls, from whom teachers (both male and female) expect and require neat exercise books and impeccable behavior rather than real knowledge. Many male and female teachers show this discriminatory behavior towards their female and male pupils not with malice but as a result of insufficient knowledge. Some male teachers and some female teachers do not even acknowledge that they behave in a discriminatory manner, and believe that they treat girls and boys in the same way, that they have the same expectations from them and that they pay the same attention to them.

The gender issue is new to the society and Czech education; and currently, faculties of education do not offer courses, in which female and male teachers could learn to behave correctly in terms of gender, to conduct classes in a gender-sensitive way and to avoid pushing boys or girls into stereotype roles. In any case it is important to succeed in fulfilling the principles of gender equality, to fight for them and to provide children with education that will not bind them with stereotype solutions, but offer them a real free choice of their future profession and satisfactory arrangement of their future family life. If we look at schools as social, educational and training institutions – we will find out that gender inequality enters schools in various and often hidden and invisible ways. We will focus on one of these areas, which we believe to be most important, i.e. quantity and quality of communication between the teachers and male/female pupils, because teachers generate pupils' activity through their own activities (Plischke, 2008).

QUANTITY AND QUALITY OF COMMUNICATION BETWEEN TEACHERS AND MALE/FEMALE PUPILS

One of the contexts, in which the gender-based incorrectness of the school institution can be observed, is the quality of communication and quantity of interactions between male and female teachers and male and female pupils. Male and female teachers interact and communicate with their pupils in different ways. This difference in based on the pupils' sex and on associated and generally known gender stereotypes. Communication between male/female teachers and male/female pupils is based on verbal communication, sociability and nonverbal communication (Andrysová, Martincová, Včelařová, 2014). Male and female teachers themselves believe that the quantity of interactions and the quality of communication with their male and female pupils is all right, that they

approach them fairly, equally, and that one gender is not favored over the other, but in this way they become the victims of their own gender stereotype thinking, which they had been inculcated from childhood in the family and also in school, where this should not occur at all.
We decided to verify this fact by means of a research survey focused on the assessment of the quantity and quality of interaction between a male/female teacher and a male/female pupil in a mainstream class in primary school.

OBJECTIVE AND HYPOTHESES OF THE RESEARCH STUDY

The main objective of the research study was to find out whether there are any differences in primary schools concerning the approach of teachers (irrespective of their gender as no male teacher was included in the research sample) to boys and girls with regard to the frequency and length of interaction and also the quality (addressing) of this interaction.
The main objective of the research was achieved by means of partial goals represented by the following research questions:

1. Is there a statistically significant difference in the frequency of calling upon boys/girls by the teacher?
2. Is there a statistically significant difference in the length of the boy/girl-teacher interaction?
3. Is there a statistically significant difference in the form of addressing boys/girls by the teacher?

These research questions were used to formulate the following hypotheses:

H1.1: There is no statistically significant difference in the number of boys and girls called upon by the teacher.
H1.2: There is no statistically significant difference in the number of boys and girls called upon by the teacher in the Czech language.
H1.3: There is no statistically significant difference in the number of boys and girls called upon by the teacher in mathematics.

H2.1: There is no statistically significant difference in the length of the boy/girl-teacher interaction.
H2.2: There is no statistically significant difference in the length of the boy/girl-teacher interaction in the Czech language.
H2.3: There is no statistically significant difference in the length of the boy/girl-teacher interaction in mathematics.

H3.1: There is no statistically significant difference in the form of addressing boys and girls by the teacher by means of the original form of their first name.
H3.2: There is no statistically significant difference in the form of addressing boys and girls by the teacher by means of a diminutive form of their first name.
H3.3: There is no statistically significant difference in the form of addressing boys and girls by the teacher by means of a meliorative term.
H3.4: There is no statistically significant difference in the form of addressing boys and girls by the teacher by means of a pejorative term.

RESEARCH METHODS AND TECHNIQUES

To achieve the objective of the research we used an analysis of an audio recording. By means of statistical data processing in the Excel programme we subsequently calculated the frequency and length of the monitored categories, which were then divided according to whether the teacher's statement was intended for boys or girls. These data were then converted to average values per one boy and one girl; in case of interaction quality we used absolute values of the occurrence of a given category with respect to boys and girls (the contents of the statements was not analysed).

RESEARCH SAMPLE

The research was carried out in 148 lessons, in 74 classes of primary schools in the whole Czech Republic. The classes were chosen deliberately due to the fact that the research material was collected by the students of teaching for primary schools as a part of their continuous teaching practice. In each class, i.e. for each teacher, audio records were taken in two lessons (mathematics and Czech language), which form the basis of education in primary schools. The research involved a total of 74 teachers and 1857 male and female pupils, of which 896 were boys and 961 were girls. Regarding the uneven number of boys and girls the obtained data were recalculated to one boy and one girl.

STATISTICAL EVALUATION METHODS

The obtained data were further processed using statistical methods. The hypotheses were statistically verified in order to determine whether there is a statistically significant association between the selected variables and to exclude any coincidences. The data were tested using the chi-squared goodness of fit test. The testing was

performed at a level of significance of 0.05, which implies that the risk of a wrong confirmation or rejection of the null hypothesis was 5%.

RESULTS OF THE RESEARCH STUDY AND DISCUSSION

To achieve the main objective of the research we verified 3 research questions represented by the hypotheses.

Research question No. 1: Is there a statistically significant difference in the frequency of calling upon boys/girls by the teacher?

H1.1: There is no statistically significant difference in the number of boys and girls called upon by the teacher – a boy was called upon on average 23 times per lesson, a girl 11 times per lesson, the calculated the value of $\chi^2 = 4.24$ is greater than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to reject the null hypothesis.

H1.2: There is no statistically significant difference in the number of boys and girls called upon by the teacher in the Czech language – a boy was called upon on average 9 times per lesson, a girl 7 times per lesson, the calculated value of $\chi^2 = 0.25$ is lower than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to confirm the null hypothesis.

H1.3: There is no statistically significant difference in the number of boys and girls called upon by the teacher in mathematics – a boy was called upon on average 14 times per lesson, a girl 4 times per lesson, the calculated value of $\chi^2 = 5.56$ is greater than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to reject the null hypothesis.

Research question No. 2: Is there a statistically significant difference in the length of the boy/girl-teacher interaction?

H2.1: There is no statistically significant difference in the length of the boy/girl-teacher interaction – the boy-teacher interaction lasted on average 76 seconds, the girl-teacher interaction lasted on average 52 seconds, the calculated value of $\chi^2 = 4.50$ is greater than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to reject the null hypothesis.

H2.2: There is no statistically significant difference in the length of the boy/girl-teacher interaction in the Czech language – the boy-teacher interaction lasted on average 74 seconds, the girl-teacher interaction lasted on average 63 seconds, the calculated value of $\chi^2 = 0.89$ is lower than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to confirm the null hypothesis.

H2.3: There is no statistically significant difference in the length of the boy/girl-teacher interaction in mathematics – the boy-teacher interaction lasted on average 83 seconds, the girl-teacher interaction lasted on average 41 seconds, the calculated value of $\chi^2 = 14.26$ is greater than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to reject the null hypothesis.

Discussion

The survey suggests that the teacher in the class more often interacts with boys than girls, girls are less often called upon than boys; the teacher responds to boys' questions in a different way compared with girls' questions and deliberately leaves boys more time to answer questions or deliberately gives them clues, while girls tend to be interrupted in their responses more frequently. The reason might be that girls are believed to memorize knowledge by heart and that they either know or do not know the answer, while boys are expected to make up solutions at the time of asking; therefore, they are left more time to think.

A significant difference was observed in mathematics, which is generally acknowledged as one of the so-called masculine subjects. It is assumed that girls are not interested in these types of subjects, which might be the reason why in these subjects they are not provided with attention that they deserve. According to Valdrová (2006, p. 32), this imbalance may be caused by another factor, i.e. that girls are usually well-behaved and therefore, male/female teachers pay more attention to and are more demanding on boys in order to keep them busy so that they do not have time for misbehaviour. As a result, girls get used to being overlooked and wait for their turn.

Research question No. 3: Is there a statistically significant difference in the form of addressing boys/girls by the teacher?

H3.1: There is no statistically significant difference in the form of addressing boys and girls by the teacher by means of the original form of their first name – a boy was addressed on average 1195 times by means of the original form of the first name, a girl 87 times, the calculated value of $\chi^2 = 957.62$ is greater than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to reject the null hypothesis.

H3.2: There is no statistically significant difference in the form of addressing boys and girls by the teacher by means of a diminutive form of their first name – a boy was addressed on average 312 times by means of a diminutive form of the first name, a girl 1488 times, the calculated value of $\chi^2 = 768.32$ is greater than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to reject the null hypothesis.

H3.3: There is no statistically significant difference in the form of addressing boys and girls by the teacher by means of a meliorative term – a boy was addressed on average 5 times by means of a meliorative term, a girl 55 times, the calculated value of $\chi^2 = 41.67$ is greater than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to reject the null hypothesis.
H3.4: There is no statistically significant difference in the form of addressing boys and girls by the teacher by means of a pejorative term – a boy was addressed on average 367 times by means of a pejorative term, a girl 43 times, the calculated value of $\chi^2 = 256.04$ is greater than the critical value of $\chi^2_{0.05}(1) = 3.84$, and therefore it is possible to reject the null hypothesis.

Discussion

The quality of communication between teachers and male/female pupils is as important as its quantity. The survey clearly shows that teachers tend to speak with boys and girls differently. They use more diminutive forms of the first name (Janička, Evička) and meliorative forms (darling, sweetheart) when they interact with girls and, on the contrary, pejorative forms (rascal, rogue) for boys. In this way of addressing, both girls and boys acquire certain predetermined stickers indicating the way they are perceived by their surroundings and suggesting their gender roles. In this way, teachers, again maybe unconsciously, promote gender differentiation and strengthen gender stereotypes in girls and boys based on long-term historical development.
Apart from this perspective, gender incorrectness and discrimination in the quality of interaction in the Czech school environment is also affected by the significant overuse of the so-called "generic masculine". The so-called "generic masculine" is a masculine form of the name of a group of person/persons meant to signify both men and women. Although the so-called "generic masculine" is not characteristic for primary schools and male/female teachers do not use it on an everyday basis, it can be encountered in various documents (school rules, school reports, school educational programme, etc.) that significantly influence education and training in primary school and shape each female and male pupil.

CONCLUSION

In the text above, we asked a question whether in Czech primary education there is any gender differentiation between male and female pupils and whether there are different approaches to male and female pupils on the basis of their gender. According to our survey it might be concluded that the existence of gender differentiation in education is not a matter of coincidence and that the phenomenon of gender affects teaching at least in the context of prejudices.
The issue of correctness or incorrectness of the existence of gender prejudices, or more precisely stereotypes, is a complex one. On the one hand, gender stereotypes have a positive role in routine problem solving, speed up the assessment of the situation and facilitate decision-making. On the other hand, they can reduce the abilities and skills of an individual on the basis of belonging to a specific gender. For this reason, we consider the existence of gender stereotypes incorrect; therefore, gender differentiation should be eliminated at the very beginning of the educational-training process, i.e. in primary school.

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GENERAL EVALUATION OF SECONDARY LEVEL TEACHERS IN LINE WITH Z-GENERATION

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Today, many technologically advanced countries are aware of that real power is based on education. Nowadays, education has been had such an important position that factors affecting education should be considered. Among these factors, teachers are on the first rank. Future generations shape by the hands of teachers. Recently, educators have concentrated on differences and similarities among the generations because of having different properties of each generation. The concept of generation is defined as a group of people who are born approximately in the same year, share the same age conditions and so similar difficulties, have been responsible for similar tasks. Z generation which is discussed often lately is a generation that was born in 2000's, has grown in a technological world, can perceive quickly and can get bored quickly. Educating Z-generation is difficult for teachers who have backgrounds from different generations.

The purpose of the study was to determine the opinions of teachers in Turkey regarding Z-generation. Qualitative research methods were used in this study. Semi-structured interview form was created by the researchers and was taken experts' opinions about the form. As for the results of the study, data were analyzed using the descriptive analysis method.

The results of the study suggest that, teachers need to be equipped with technological terms and developments in order to keep up with the changing student profile. Especially implementation of in-service training activities in the field of technology is recommended considering the fact of lack of teachers in this area. Training well-equipped teachers increase the quality of education and in line with that fact, this situation will contribute to the development of the country.

Keywords: Turkey, Z-Generation, Secondary Level Teachers, Suggestions

GLOCAL VIRTUAL ENVIRONMENT FOR LANGUAGE TEACHER DEVELOPMENT

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Glocal Virtual Environment for Language Teacher Development

Not only the necessities of today's world but also future's semi-estimated requirements ask for flexibility in and adaptability to the learning environments and existing conditions. Inevitability of keeping abreast of the innovations and adding value and alternative applications to the field maintains its continuation for the aim of a language teacher's professional development. Realizing and/or struggling to keep the pace for the current needs of the current conditions in the global scale support itself with the global trends in each and every field of life. Yet, indeed, the global phenomenon has been in tandem with the glocal practices, which has increased the effect of unique values, cultures or stances within the global scale in every part of life. In the same vein, this reciprocal effect of global and glocal phenomena over the language teaching provides changes not only in the definition of what language or language teaching is but also of the materials and learning environments. In that sense, Appadurai's (1992) Scales help people better understand how globalization realizes itself in the real world but at the same time it allows the availability of adding several other scales in today's way of understanding. Starting from this point, this study first discusses the concepts of globalization and glocalization, then puts forth the significance of the scales in the language teaching and mentions additional scales. Those additional scales are determined -and clearly explained- by the candidate language teachers all of whom are in their last academic year to be positioned as language teachers in the field. Besides, putting emphasis on the concept technology and what it stands for, the study furthers its discussion over the virtual environment and its use for and effectiveness in a language teacher's professional development. Having mentioned about the practical uses and examples of virtual learning environments, it ends with offering virtual environment-based suggestions for an enriched learning environment effective. This study, all in all, aims to open up a discussion over the two brand concepts, namely globalization and glocalization, and their possible and inspiring reflections over language teachers' development by means of utilizing virtual environments.

Keywords: Glocal virtual environment, teacher development, Appadurai's scales, technology, globalization and glocalization.

GOOD TEACHER QUALITY FROM THE PERSPECTIVE OF LEARNERS, TEACHERS AND HEADMASTERS OF PRIMARY SCHOOLS AND HIGH SCHOOLS/SECONDARY GRAMMAR SCHOOLS

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ABSTRACT
The aim of this paper is to identify differences in perception of personal qualities of good teacher among learners, teachers and headmasters of primary and high/secondary grammar schools. The sample consisted of 425 respondents aged 13-60 years old (87 elementary school learners, 81 primary school teachers, 40 headmasters of primary schools, 87 students high schools/secondary grammar schools, 94 teachers of high schools/secondary grammar schools, 36 headmasters of high schools/secondary grammar schools). We used the Osgood's Semantic Differential for measurement of the perception of the concept of the good teacher quality. The semantic space was defined by three dimensions: value, power and activity. The scale contains 24 bipolar adjectives. We have identified a significant difference in the dimension "power" among internal partners of primary schools (learners, teachers and headmasters). The highest inclination to attribute “power” of the personal characteristics of good teacher quality was recorded in the primary school headmasters and vice versa the least one was represented by primary schools learners (among all groups). We have also found significant differences in the perception of good teacher quality in dimensions "value" and “power” between the headmasters of the primary schools and the headmasters of the high schools/secondary grammar schools. More significant focus on the personal characteristics of good teacher quality within the dimensions "value" and “power” was reflected by the headmasters of the primary schools. We did not find the significant differences among the groups in the dimension "activity".

INTRODUCTION

A teacher quality is the term not clearly defined in different resources, so authors of studies usually apply terms such as successful, effective or good teacher in this context. According to Kennedy (2008) a teacher quality is the term difficult to explain and therefore he connects it with three various lists of features of the quality teacher: personal resources, performance, and effectiveness. By “personal resources” he means those qualities that teachers have even before they are employed as teachers and that are often assumed to contribute to the quality of their teaching practise (beliefs, attitudes, values, personality traits, knowledge, skills, expertise, credentials). By “performance” he means the work teachers actually do in their daily practise (practices that occur outside the classroom, practices within the classroom, learning activities provided for students). Finally “effectiveness” usually refers to how good teachers are at raising student scores on achievement tests (fostering student learning, motivating students, fostering personal responsibility and social concern).

Novák (2011) points out the teacher quality from the professional point of view of the teacher. A quality is a dynamic issue – it is applying of abilities in the action: performance – effective application of knowledge and abilities in various teaching situations followed by responsibility for his/ her performance. This is the basis of professional work: aware of his/her goals, target-oriented, planned, systematic and critically evaluated approach to activities within the teaching and learning processes.

Blaško (2013) states that the excellent teacher is a scholar, professional who can arouse in each learner a need to learn and teach him/her how to learn to be able to apply it in lifelong learning. This process can be achieved by teacher´s influence, by a system of achieved teacher´s competences, qualification, ethical and personal potentials.

Peng et al. (2014) draw attention to the expectations of an excellent teacher, which include addressing all aspects of their students’ development; possessing a rich subject knowledge; displaying such personality traits as happiness, kindness, confidence, diligence, intelligence and humor; to innovate and use modern teaching strategies and resources, and to frequently evaluate and update their teaching techniques; to carry out their own research; to network both socially and academically; and, above all, to achieve high student outcomes.

The main tasks of a teacher are to educate, bring up and develop personality of learners and it implies to his/her adequate education which involves university education, including study of pedagogy, as well as general education. A teacher is also an example of good behaviour for his/her learners. Furthermore, high demands are placed on a teacher, mainly his/her personal and character traits, including: honesty, conscientiousness, diligence, fairness, patience, consistency, responsibility, self-control, good relationship with the people, initiative, creativity, good verbal skills, logical and systematic thinking, sense of humour, willingness to accept new ideas, etc. (Turek, 2008).

An excellent teacher, according to Blaško (2012), should have necessary professional knowledge and skills which are developed and enhanced continuously and thus s/he increases his/her professionalism, as well as quality of his/her impact on learners. A teacher keeps all his/her list of knowledge and skills in his/her teacher´s portfolio, which includes not only feedback of his/her activities (mostly done through questionnaires), but also learning outcomes of his/her learners. A teacher respects ethical principles of teaching profession; s/he is an example of good ethical behaviour and polite interpersonal relationships. S/he should prove his/her positive attitude to work with learners, s/he is motivated to improve his/her activities, and s/he increases his/her professional development and self-education systematically. An excellent teacher sets the goals to enhance the quality of his/her activities, a plan of his/her professional development based on information about his/her teaching through self-reflection, observation of colleagues, feedback from learners and parents too. Moreover, it is necessary to highlight the relationship between a quality of school and quality of a teacher, and a quality of the relationship a teacher versus management of a school, etc. All above mentioned definitions and views on a quality/good teacher point out his/her professional, skilled and personal disposition to work as a teacher.
A good teacher is according to Black and Howard-Jones (2000) a person having the following personal and working attributes: good relationship with learners, s/he can identify with their roles, s/he is interested in them, motivates them, s/he encourages and inspires learners; s/he is honest and fair; s/he is an enthusiast; s/he is a good and understanding; s/he has a positive thinking; s/he sets up a positive learning environment; s/he has sense of humour; s/he is patient; s/he has some expectations form learners; s/he can manage a learning unit; s/he activates learners, mainly by applying a group work and modern teaching methods; his/her lessons are interesting and amusing; s/he likes subject s/he teaches and masters it; communicates with learners out of school; gives instructions what and how to learn; s/he arouses a sense of responsibility at learners for studying; s/he flexible.
Leskovjanská (2007) has carried out the research in the field of quality of teacher´s personality in primary school from teachers and psychologists´ points of view. She has found out that psychologists and teachers consider the most important characteristics and manifestation in teacher´s behaviour the following attributes: capability of empathy, emotional stability of a teacher, patience at work. Another important attribute of a teacher from teachers and psychologists ´points of view are: love and relationship to learners, teacher´s adherence to principles, justice, responsibility at work and creativity. On the other hand, the least required personal characteristics and elements in teacher´s behaviour are: negativism, aggression against a learner, lack of organization, non-systematic, indecision of teachers, not using the individual approach to learners.
Hoferková and Šťastná (2009)have carried out research on perception of „ideal“ teacher´s characteristics from points of view of teachers in primary school, students of ninth grades in primary schools, students-teachers and public. Learners connect the ideal teacher with the following attributes: nice, tolerant, educated, funny, kind, fair, s/he should teach "something", enjoyable, strict, funny, nice, patient, friendly, natural authority, indulgent. Students-teachers perceive the following attributes of an ideal teacher: patient, position of authority, empathetic, tolerant, educated, friendly, creative, s/he should have a sense of humour, thorough, communicative, helpful, rigorous, intelligent, positive relationship with the children. According to the teachers the ideal teacher should be particularly empathetic, patient, tolerant, fair, creative, friendly, communicative, kind, open, humorous, be an example, optimistic, pro-social, education / sophisticated, authentic. According to the public, the teacher should be mainly matured morally, educated and empathetic.
According to the Istvan research (2011) a good teacher is from the perspective of students: reasonably rigorous, fair, s/he treats each learner the same way, s/he should not scream at students, s/he should not punish them if they do not know something, s/he should be patient, calm, s/he should have a sense of humour and clearly explain the subject matter. Comenius has already demanded that the teacher should be wise, deliberate, moral, vivid model of grace, cultural, educated, good speaker, and leader.

Our research intention is to identify and describe attributes of a teacher quality from points of view of learners, teachers and head-masters in primary and secondary schools. We are asking:

- what is the difference in attributes of a quality teachers from points of view of these internal school partners within three dimensions (value, power, activity) in particular school levels (primary and secondary)?
- what is the difference in attributes of a quality teacher within three dimensions (value, power, activity) from points of view of learners in primary schools and students of high schools and secondary grammar schools?
- what is the difference in attributes of a quality teacher within three dimensions (value, power, activity) from points of view of teachers in primary schools and teachers of high schools and secondary grammar schools?
- what is the difference in attributes of a quality teacher within three dimensions (value, power, activity) from points of view of headmasters in primary schools and headmasters of high schools and secondary grammar schools?

METHODS

Research sample consisted of 425 respondents (internal partners of schools in Slovakia), including 87 learners in primary schools aged 13-14 (average age 13.7), 81 teachers in primary schools aged from 27 to 60 (average age 43.1), 40 headmasters in primary schools aged from 40 to 60 (average age 47.8), 87 students in high schools aged 17-18 (average age 17.2), 94 teachers of high schools aged from 28 to 59 (average age 48.1), 36 headmasters in high schools and secondary grammar schools aged from 41 to 58 (average age 48.3). Totally, 286 women and 139 men participated on research.

We have applied psychosemantics method within the research – semantic differential of Osgood, which enables to identify the way how people perceive terms (in our case it is a term of a quality teacher). Each term has except a denotative meaning, a connotative (hidden) meaning as well, while each term can be specify in semantic area using three dimensions (Gavora, 2010):

1. Dimension "value" – represents evaluation of the term according to impression it raises.
2. Dimension "power" – represents an energetic drive of the term. It is considered if it affects as a dominant, strong or on the other way weak, undistinguished.
3. Dimension "activity" – represents if the term expresses dynamic, activity or if it acts as calm and passive.

We have compiled the semantic differential consisting eight terms to each particular dimension. The following bipolar adjectives were involved in the "value" dimension: interesting – boring, friendly – unfriendly, creative – uncreative, competent – incompetent, having sense of humour – serious, tolerant – intolerant, fair – unfair, honest – insincere. The following adjectives were involved in the "power" dimension: certain – uncertain, peaceful – unfriendly, systematic – disorganised, demanding – easy, liberal – authoritative, sensitive – insensitive, principled – unprincipled, practical – theoretical. The following adjectives were involved in the "activity" dimension: active – passive, responsible – irresponsible, peaceful – dynamic, extrovert – introvert, fast – slow, patient – impatient, judicious – unfair, communicative – quiet.

RESEARCH FINDINGS

Table 1 Average values of bipolar adjectives in the perception of quality teachers by learners/students (L/S), teachers (T) and headmasters (H), in primary schools (PS) and high schools/secondary grammar schools (HSGS)

Bipolar adjectives	L in PS	S in HSGS	T in PS	T in HSGS	H in PS	H in HSGS
interesting/boring	1.77	1.82	1.50	1.82	2.15	1.63
friendly/unfriendly	1.59	1.92	2.00	1.56	2.28	1.73
active/passive	1.99	1.39	1.80	2.67	1.86	1.61
responsible/irresponsible	1.53	1.06	1.06	2.34	1.52	1.17
certain/uncertain	1.94	1.58	1.50	1.93	1.38	1.50
peaceful/dynamic	1.80	2.49	2.50	1.36	2.39	2.78
extrovert /introvert	2.13	3.12	2.80	2.56	2.75	3.16
fast/slow	2.51	2.96	3.20	2.12	2.75	2.77
creative/uncreative	1.97	1.31	1.60	2.40	1.61	1.33
strong/weak	1.74	2.11	1.80	1.69	1.86	1.83
systematic/disorganised	1.89	1.90	1.40	1.76	1.86	1.50
competent/incompetent	2.10	1.59	1.30	2.17	1.54	2.00
demanding/easy	4.99	3.81	2.40	2.67	3.43	3.47
liberal/authoritative	3.07	3.66	4.40	3.23	4.03	3.56
having sense of humour/serious	2.11	3.20	3.00	1.86	3.13	2.67
sensitive/insensitive	3.14	3.02	2.90	3.13	2.59	2.39
patient/impatient	2.09	1.47	1.60	1.73	1.83	1.89
judicious/impulsive	2.55	1.80	1.50	1.68	1.95	1.78
tolerant/intolerant	1.82	1.66	1.30	1.62	2.05	1.83
judicious/unfair	1.74	1.17	1.85	1.25	1.55	1.56
principled/unprincipled	2.85	1.58	1.60	2.54	1.96	2.05
honest/insincere	2.28	2.26	1.70	1.61	1.69	2.11
practical/theoretical	4.15	3.60	2.10	4.29	2.74	3.72
communicative/quiet	1.63	1.47	1.40	1.40	1.64	1.72

According to learners in primary schools, a teacher quality is mainly responsible, friendly, communicative, strong, judicious, interesting, calm, tolerant, systematic, active, certain and creative. According to students in high schools and secondary grammar schools, a teacher quality is mainly responsible, judicious, creative, systematic and friendly. Teachers of primary schools perceive a teacher quality mainly as responsible, tolerant,

competent, communicative, systematic, interesting, certain, judicious, patient, creative, principled, honest and active. Teachers in high schools and secondary grammar schools perceive a teacher quality mainly as fair, calm, communicative, friendly, honest, tolerant, judicious, systematic, patient, competent, interesting and certain. Headmasters in primary schools declare that a teacher quality is mainly responsible, active, competent, fair, creative, communicative, honest, patient, active, strong, systematic, judicious and principled. Headmasters in high schools and secondary grammar schools perceive a teacher quality as responsible, creative, certain, systematic, fair, active, interesting, communicative, friendly, judicious, tolerant, strong and patient. Perception in studied groups in most of the bipolar adjectives was located significantly under a level of average (scale consisted of 7 degrees) in a strong semantic area of the term a teacher quality (in the area 1-1.99 above listed adjectives).

Move away from unambiguity in all studied groups have been recorded in bipolar adjective liberal – authoritative, because measured score got close to the central value, while learners in primary schools and teachers in high schools and secondary grammar schools have a tendency to accept a liberal teacher more. Headmasters in primary schools and teachers in primary school tend to support an authoritative teacher. Students in high schools and secondary grammar schools and headmasters in high schools and secondary grammar schools are in the zone of unambiguity (mean). Significant differentiation have been recorded in adjective demanding – easy, while ease with the term a teacher quality is highlighted by learners in primary schools and students in high schools and secondary grammar schools have a slight tendency to support it as well. Teachers in both levels of schools tend to support a slight demanding character. Headmasters in both levels of schools have supported unambiguity in the area of the mean within the bipolar adjective. We have recorded differentiation within the scale practical – theoretical. Learners in primary schools and teachers in high schools and secondary grammar schools support adjective theoretical. Teachers in primary schools and headmasters in primary schools support adjective practical. Students in high schools and secondary grammar schools and headmasters in high schools and secondary grammar schools do not perceive definite connection of a teacher quality with an emphasis on either practical or theoretical character.

Table 2 Differences in perception of a teacher quality by learners, teachers and headmasters in primary schools

Dimension	Research group	N	Mean	SD	ANOVA	Sig.
Value	Learners in primary school	87	15.44	6.22	2.766	.065
	Teachers in primary school	81	14.84	3.22		
	Headmasters in primary school	40	13.40	1.22		
Power	Learners in primary school	87	23.78	3.95	43.384	.000
	Teachers in primary school	81	21.27	2.74		
	Headmasters in primary school	40	18.10	2.28		
Activity	Learners in primary school	87	16.24	5.84	.258	.773
	Teachers in primary school	81	15.77	3.73		
	Headmasters in primary school	40	15.80	2.82		

In the field of differences identification in the semantic perception of the term a teacher quality in all three dimensions (value, power, activity) among three internal partners of primary schools (learners, teachers, headmasters), we have identified a significant difference only in a dimension “power”, while significantly the highest semantic connection with the teacher quality in dimension “power” have headmasters in primary schools, while, on the other hand, the lowest one have learners in primary schools (see Table 2).

In the field of differences identification in the semantic perception of the term a teacher quality in all three dimensions (value, power, activity) among three internal partners of high schools and secondary grammar schools (students, teachers, headmasters), we have not identified any significant difference (see Table 3).

From the aspect of comparison of perception of a teacher quality through attributes centred to three categories of the semantic area (value, power, activity) among learners in primary schools and students in high schools and secondary grammar schools, we have identified a significant difference only in the dimension “power”, while significantly higher semantic connection with a teacher quality in this dimension have students in high schools and secondary grammar schools in comparison with learners in primary schools (see Table 4).

Table 3 Differences in perception of a teacher quality by students, teachers and headmasters in high schools and secondary grammar schools

Dimension	Research group	N	Mean	SD	ANOVA	Sig.
Value	Students in high schools and secondary grammar schools	87	14.90	5.39	.043	.958

	Teachers in high schools and secondary grammar schools	94	16.01	4.99		
	Headmasters in high schools and secondary grammar schools	36	14.86	2.04		
Power	Students in high schools and secondary grammar schools	87	21.24	5.17	2.350	.098
	Teachers in high schools and secondary grammar schools	94	19.85	4.41		
	Headmasters in high schools and secondary grammar schools	36	20.03	2.40		
Activity	Students in high schools and secondary grammar schools	87	16.87	3.92	1.454	.236
	Teachers in high schools and secondary grammar schools	94	16.70	4.88		
	Headmasters in high schools and secondary grammar schools	36	16.89	3.97		

Table 4 Differences in perception of a teacher quality by students in primary schools and students in high schools/secondary grammar schools

Dimension of semantic area	Learners in primary schools		Students in high schools/secondary grammar schools		T-test	Sig.
	Mean	SD	Mean	SD		
Value	15.44	6.22	14.90	5.39	.612	.541
Power	23.78	3.95	21.24	5.17	3.643	.000
Activity	16.24	5.84	16.87	3.92	-.838	.403

Table 5 Differences in perception of a teacher quality by teachers in primary schools and teachers in high schools/secondary grammar schools

Dimension of semantic area	Teachers in primary schools		Teachers in high schools/secondary grammar schools		T-test	Sig.
	Mean	SD				
Value	14.84	3.22	16.01	4.99	-1.869	.063
Power	21.27	2.74	19.85	4.41	2.593	.010
Activity	15.77	3.73	16.70	4.88	-1.409	.161

Based on statistical comparison of perception of a teacher quality through three categories of the semantic area (value, power, activity) among teachers in primary schools and teachers in high schools and secondary grammar schools, we can state that a significant difference among them is again only in semantic dimension "power" towards higher semantic connection of this dimension with a teacher quality at teachers in high schools and secondary grammar schools (see Table 5).

Within the perception of a teacher quality through attributes centred to three categories of the semantic area (value, power, activity) there is also a significant difference at headmasters in primary schools and headmasters in high schools and secondary grammar schools. We have identified a significant difference in two dimensions of the semantic area of the term a teacher quality – "value" and "power". We have recorded significantly higher semantic connection with a teacher quality in both dimensions at headmasters in primary schools (see Table 6).

Table 6 Differences in perception of a teacher quality by headmasters in primary schools and headmasters in high schools and secondary grammar schools

Dimension of semantic area	Headmasters in primary schools	Headmasters in high schools/secondary grammar schools	T-test	Sig.

	Mean	SD	Mean	SD		
Value	13.40	1.22	14.86	2.04	-3.735	.000
Power	18.10	2.28	20.03	2.40	-3.580	.001
Activity	15.80	2.82	16.89	3.97	-1.389	.169

CONCLUSIONS

One of our research intentions was to describe attributes of a teacher quality from points of view three internal school partners: students, teachers and headmasters. Based on results presented in the previous part of the study paper we can sum up that the term a teacher quality within the semantic area is placed at all studied internal school partners (students, teachers and headmasters) in both levels of schools (primary and secondary schools) in the strong meaning of adjective (mean zone 1.00-1.99): certain, systematic, fair and communicative. In case of an adjective "responsible", it is placed at the significantly highest ranks out of all adjectives describing the term teacher quality at 5 groups (excluding teachers in high schools and secondary grammar schools, where the average value is 2.34). Similar situation is with adjectives creative (teachers in high schools and secondary grammar school with the average value 2.40) and tolerant (headmasters in primary school with average value 2.05). In relation to the term a teacher quality, we have come up with findings that the term a teacher quality might by identified in the field of his/her personal features as a responsible, systematic, certain, creative, fair and communicative. Our findings, which describe personal attributes of a teacher quality, support findings of other authors (for instance Ištvan, 2011, Leskovjanská, 2007, Hofferková & Šťastná, 2009, Black & Howard-Jones, 2000 and others).

Another goal of our research was to identify whether particular internal school partners have different perception of a teacher quality (measured by 24 bipolar adjectives saturated in three dimensions of a semantic area of the term a teacher quality – value, power, activity) and, moreover, in the context of the school level (primary school, high school, secondary grammar school). We have identified a difference only in a dimension "power" in the field of identification of differences among all groups of internal school partners, as well as in the field of differences among internal partners in high school and secondary grammar schools. Headmasters in primary schools, followed by students in high schools and secondary grammar schools, perceive a teacher quality significantly more with such personal attributes, which include energetic impulse of the term a teacher quality. While seeking answers for developed research questions by ourselves: 1. What is the difference in attributes of a quality teacher from points of view of students in primary schools and students in high schools/secondary grammar schools within three dimensions (value, power, activity)?, 2. What is the difference in attributes of a quality teacher within three dimensions (value, power, activity) from points of view of teachers in primary schools and teachers in high schools/secondary grammar schools?, 3. What is the difference in attributes of a quality teacher within three dimensions (value, power, activity) from points of view of headmasters in primary schools and headmasters of high schools/secondary grammar schools?, we have come to conclusion that students from primary schools and high schools/secondary grammar schools, as well as teachers from primary schools and high schools/secondary grammar schools and headmasters from primary schools and high schools/secondary grammar schools, significantly differ in dimensions of the semantic area of the term a teacher quality "power". As for students and teachers, higher semantic inclination to the term in the level of the energetic impulse, can be seen on the second level of education (high schools/secondary grammar schools). In case of headmasters, we have recorded a significant difference in two dimensions of the semantic area of the term a teacher quality – "value" and "power". Headmasters from primary schools have higher demands on personal attributes of a teacher quality in both dimensions ("value" and "power") compared with the headmasters of high schools/secondary grammar schools.

A teacher quality is one of the significant indicators of the school quality and quality of education (e.g. Verešová et al., 2012, 2014, Blaško, 2012, 2013 and others). The quality of a teacher in the process of education and his/her cooperation with all internal and external school partners is significantly determined by his/her personal features. The findings of the research by Arnon & Reichel (2007) indicate that there are two major categories that comprise perceptions of the ideal teacher: first, personal qualities; and second, knowledge of the subject taught as well as didactic knowledge. Personal qualities are parts of his/her "personal self"and are reflected in the teaching profession and his/her "professional self". As Korthagen states (2004), most researchers in this area agree that excessive inconsistencies between one's personal and professional identities would in the long run give rise to friction within the individual teacher. The personal attributes of a teacher quality, which we have identified, significantly fit to the frame which Korthagem (2004) calls as "missions". The "mission" and "professional self" are the ones of the deepest determinants of teaching profession (another are in direction from deep to observed ones beliefs, competencies, behaviour). According to Tickle (1999, in Korthagen, 2004) related to the deeper levels are people's personal qualities, for example creativity, trust, care, courage, sensitivity, decisiveness, spontaneity, commitment, and flexibility. Therefore, we consider important (in the context of our research) that a teaching profession should do not only professionals in the field of their specializations and

professionals in didactics of curriculum subjects (result of higher education), but mainly people whose personal qualities are represented by deep positive personal qualities, including our identified attributes of a teacher quality, such as responsible, systematic, to be sure of him/herself and preferred approaches to others, creative, fair or communicative.

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GOOGLE ANALYTICS AND ADAPTIVE LEARNING IN MOBILE LEARNING ENVIRONMENT

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Statistics on the usage of mobile devices (phones and tablets combined) show that there has been a significant increase in recent years. In 2012, 56 million tablets were sold and it has expected to reach 375 million units in 2016. In 2015, over 80% of people across the globe now can access to internet on mobile device. In parallel with this increase, mobile learning activities showed a similar trend. And these numbers are increasing.

This trend also increases the importance of the educational activities being carried out on the mobile learning environment. Recent studies show that considering user needs and designing of user-specific environment have a positive impact on learning outcomes. It is necessary to apply adaptive systems in order to ensure this impact. Adaptive educational environments are flexible systems that can be changed depending on the student's own characteristics and individual differences. The adaptation's success depends on revealing all the characteristics of the user. One way to achieve this, is making modelling user. User model is a collection of personal data associated with a specific user.

In this study we focused on user modeling process based on Google Analytics (GA). We have identified and used sub-categories of GA metrics (lifetime value, cohort analysis, demographics (age, gender), user navigation, interests, behavior (new, returning, frequency & recency, engagement), technology (browser & OS, network), mobile device features). We have finally developed a framework for understanding and using GA metrics while designing adaptive educational environment.

Keywords: Mobile learning environment, adaptive learning, google analytics, user modelling

PHOTOGRAPHY AS A VISUAL COMMUNICATION TOOL

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ABSTRACT
The number of mass communication tools is increasing day by day worldwide. The most important common tool for effective use of publications via mass communication tools. There are many types as well as many different techniques of photography. Therefore different shots are taken on different times from the same frame. This variety also reflects in the communicative language. Since photography is a communication tool, this research examines photography as the basis of communication and a visual communication tool. It is thought that this research will make a contribution to the literature of this field.

INTRODUCTION

Today, with the rapidly progressing technology, photography became the most frequently used tool therefore being one of the most effective nonverbal communication tools and having extensive usage. Communication is divided into three categories namely verbal, nonverbal and written. Verbal communication relates to living creatures, nonverbal communication relates to actions and behaviors, and the basis of communication relates to information and transfer of information (Guiraud, 1990).

At the bottom of communication lies human. Effectively using all types of communication, people both feel external communications with their senses and perceive different communications simultaneously. People also communicate with others using all of their sense organs. When being transferred, the messages are given certain meanings. The senses that are utilized during this process have a priority order. Tactile sense examines shapes in detail based on contact. Screening through tactile sense on three dimensional space is more difficult compared to that can be easily done through eyes by a single examination. Another process that can be easily achieved through eyesight is to obtain visual images of near or far objects via optical projection. To utilize our auditory sense through ears is easier, because we are able to easily and simultaneously hear and discriminate loud or soft, or high-pitched or sharp sounds (Arnheim, 2007).

Even if all sense organs are utilized in communication, the means used for initial perception of the surrounding objects is seeing. When light reflects onto objects, an image is created within the eyeball through inverted reflection on the retina as a result of the known physical structure of the eye. Seeing is a result of the transmission of nerve signals to the brain following the reflection of light onto objects. However, explanation of the meanings of seen things may be different in different individuals. The impression left by communication on individuals may be at different frequencies depending on the cultures and social structures of them (Özcan, 2007).

Given the diversity of communication, the meanings of visual expressions should be plotted according to certain meaning codes. Effective use of language is the basis of communication. Individuals utilize language as well as visual expression possibilities during their socialization processes. To give a meaning to something, we evaluate things that we know as well as those we do not know with respect to meaning.

Visual elements are types of expression that have a function with respect to what it is meant to show as well as what it actually shows with the images used (Özcan, 2007). Visual elements may be signs other than natural language. Signs facilitate understanding. The trilogy of signified-signifier-sign other than the linguistic signs play an effective role in understanding. Therefore, regardless of the classification, the sign produces a certain communication objective. This gains a meaning within a certain system. Signs of communities are produced for the purposes of visual communication. Icons, texts and other types of signs, that are all communication tools, are important with respect to their relationships with each other, and with respect to explaining the meanings of the relationships between the denotative and connotative meanings of the signs used and the various sign types (Özcan, 2007).

The essential difference of communication using symbols from text is that it is easily learned and its meaning is rapidly explained. Communication using symbols helps gaining meaning and perception worldwide. People from different languages, religions and cultures may use the same symbols. Many people from different languages and cultures use the same signs at public areas such as airports or hospitals.

Communication is one of the different sharing platforms used worldwide, and there are visual, auditory and behavior-based communication types. People who laid the foundations of communication produced permanent symbols to express their wishes, desires and feelings or share their successes. These begin with symbolic forms and continue with letter strings. All these works are called visual communication tools. Visual communication covers our entire lives through visual materials. Photography is one of the most important visual communication tools.

Photography as a visual communication tool

Photographs, as a result of their nature, appear on many platforms. A photograph is a slice of our life and an image selected from the environment we live in. Photographs appear on many media. We see photographs on many mass communication tools such as magazines, newspapers, books, banners, billboards and TV. There are many types of photographs in the fields of advertisement, news and art. Besides having many types, a photograph has a theme, message and target audience although the reason and objective of publishing are different for each photograph. Regardless of their subjects, photographs are important in that they underlie visual communication. The characteristics of the target audience are also important in determination of the message the photograph will give. The creator of a photograph expects the viewers to examine it to robustly establish the communication chains. In our surrounding environment in which there are too much visual stimuli, a photographer strives to arouse curiosity and interest in the viewer. Photographs should arouse a feeling in the audience. Besides technical infrastructure, knowledge, skills and composition elements are also important in the construction of a photograph. The visual elements constituting the language of the photograph may find a correct way of expression by making a combination with the design elements. We can list and review the essential design elements as line, form, texture, color, hue, repeat, motion, perspective, light and shadow, and the design principles as rhythm, harmony, contrast, balance and integrity. The photographer is very important in the creation of a photograph as a visual communication element. A photographer is also a good observer. A photographer sees well and shows well. He/she sees many details in the surrounding environment and reflects them in the photographs (Kafalı, 2003).

Photographers are known as history collectors. From the moment they capture a view, that view becomes a trace of the past. Every shot and every record is a melancholic object (Tekin, 2002). Another reason that photographs have a communicative aspect is the evaluation of the qualifications that constitute the general structure of them. Since they are also documents, photographs also have a documentary aspect. When a theme is documented through a photograph, it also becomes a universal document (Kaygun, 2003). When examining the structural characteristics of a photograph, it is helpful to look also at the variations of photographic images.

1. Abstract View: to capture forms consisting of light through subjecting the emulsion to light with color or black-and-white photograms.
2. Objective View: creating documentary photographs with the images of objects
3. Rapid View: to capture images of moving objects by using high shutter speed
4. Slow View: to capture the motion events of moving objects during a certain time using low shutter speed
5. Enhanced View: to shot invisible images using micro-objectives or filters with certain properties, or to shot objects in misty or dark environments using infrared light
6. Through View: capture images using x-ray, infrared
7. Simultaneous View (Different things): capturing overlapped views using automated photomontage
8. Distorted View: capturing views in a dark chamber by making physical or chemical interventions to the negative film or to the paper, using prisms and mirrors during shooting (Karoğlu, 2009).

One of the essential aspects of photography is its artistic aspect while the other is its technical aspect. Combination of these two different aspects constitute photography and the origin of communication. It is affected by many variables at the moment the shot is taken when the shutter is pressed. The photographer should know and be aware of the effects on the photograph and the motions of the viewer. The feature of photographs as a piece of art originates from the fact that they follow the photographed object, the act of photographing, and even the viewer (Karaca, 2011).

Photographic image alone does not have a time. Photographs can be taken from the same frame on different times to create different effects. Photographs refer only to the moment they are taken. To give the photograph a motion, one must have an idea about the event occurred before and after the shot was taken. Therefore the meaning that gives a motion to the still image with the photograph is the interaction it creates with the viewer. A photographer takes a slice of developing and changing time. This slice obscures the meaning of the image. However, it will gain a meaning in life if it is associated with a certain theme and the relationships and meanings contained within it are addressed separately. A photographer is the person who takes his/her theme during the

most appropriate timeframe by making the right observations. For artistic photography, the photographer works through, before and after taking the shot, compositions that will create an aesthetic expression depending on the theme. A qualified photograph is universal. Therefore, the shot taken, as a visual communication tool, gives the most accurate message to a target audience within a theme. The most important feature of photographs differentiating them from the other communication tools is that they have a universal language (Derman, 2009).

CONCLUSION

Transmission of individual and social information and emotions underlies communication. Mass communication tools are used to complete communication processes. Although communication is thought as a written and verbal concept, visual communication tools are also a part of communication. This research discusses the qualities and quantities of photography as a communication and visual communication tool. In a technological view, photography continuously progresses and therefore appears in many channels. Black-and-white photography and dark chamber, color photography and techniques gave new meanings to traditional photography. Besides being thematic, photographs also have the characteristics of documents. Moreover, a camera is an important tool when we want to seize or stop the moment. Today, in addition to providing multiple advantages, photography also allows editing and control at preview stage. Therefore photography, as a visual communication tool, is important both as a document and an artistic object. Being used as a language worldwide also gives an universal structure to photography.

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GRAVÜR BASKI SANATININ GRAFİK TASARIM EĞİTİMİNE KATKILARI
CONTRIBUTION OF ENGRAVING TO GRAPHIC DESIGN EDUCATION

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ÖZET
Grafik Tasarımı eğitimi içerisinde Gravür Baskı Sanatı tekniğini öğrenme süreci tasarım ilkelerini, renklerin etkin kullanımını öğrenmeye ve kendi ifade biçimini ortaya koymaya yardımcı olmaktadır.
Ayrıca, grafik tasarım ürünlerinde iletilmek istenen mesajı doğru bir şekilde aktarmada ve yeni çözümler (fikirler) üretmekte yol gösterici bir alt yapı sağlamaktadır.

Bu süreç öğrenciyi bilinçli bir tasarımcı konumuna getirmektedir. Gravür baskının, grafik tasarım eğitiminde göz önünde bulundurulması gereken diğer bir yansıması; öğrencinin ifade tarzının gelişmesiyle, karakteristik çizgilere sahip olması ve edinilmiş bilgilerin paralelliği ışığında, yine grafik tasarım ürünlerinde de daha yaratıcı sonuçlar elde etmesine büyük oranda fayda sağlamasıdır. Bu bağlamda grafik tasarım öğrencisine kazandırılmaya çalışılan tasarım yetisinde gravür baskı tekniklerinin önemli bir yer tuttuğu gözler önüne serilmektedir.

Anahtar Kelimeler: Gravür Sanatı, Grafik Tasarım, Grafik Tasarım Eğitimi.

ABSTRACT
Learning Engraving printmaking techniques in graphic design education help to understand principles of design, color theory along with its effective use and ways of expression.
In addition it maintains a substructure to figure out finding new solutions (ideas) and conveying the message accurately.

With the help of this process student becomes a conscious designer. Another aspect of having engraving printmaking techniques in graphic design education is the fact that engraving creates an opportunity to enrich student's ways of expression using line element and through that and all the paralel informations students can have more creative resolutions to design problems. In this respect, engraving printmaking techniques take a significant space in graphic design education regarding the design sense students are tought to have.

Key Words: Engraving, Graphic Design, Graphic Design Education.

GİRİŞ

Özgün Baskı; sanatçının plakalar üzerine çalışması, bu plakalarla yaptığı baskıları birebir gözlemleyerek her aşamasında ve ayrıntısında sanatçının kendisinin bulunması ve altında da imzasının olduğu çalışmaların bir sonucudur. Özgün Baskı tekniklerinde sanatçı; çeşitli malzemeler yardımı ile çoğalma tekniklerini tek tek veya bir arada kullanarak doğrudan ya da kalıplar yolu ile bir kalıptan birçok baskı elde eder ve bu baskıları numaralandırır. "Grafik tasarım ise, görsel bir iletişim sanatıdır. Birinci işlevi de bir mesaj iletmek ya da bir ürün ya da hizmeti tanıtmaktır" (Becer, 2006, p. 33). Grafik sözcüğünün tanımı biraz daha açılacak olursa, "sanatçının elinden özgün biçimlendirmeyle çıkan ya da özgün çoğaltmayla (baskı yöntemiyle) elde edilen eserin, bilgi iletmek, basılmak, kitle iletişim araçlarında kullanılmak amacıyla hazırlanan; çizgi, yazı, resim ve bunların düzenlemeleriyle ilgili tasarımları kapsar" (Sözen ve Tanyeli, 1987). Grafik tasarım terimi ilk kez 20. yüzyılın ilk yarısında metal kalıplara oyularak yazılıp çizilen ve daha sonra da çoğaltılan görsel malzemeler için kullanılmıştır. Özgün baskı teknikleri de grafik sanatların çoğaltma esasına dayanmaktadır. Bu özelliği ile grafik sanatlarla olan en temel ortak özelliğinin yanında özgünlüğü ile boya resminin tüm özelliklerini taşımaktadır (İçmeli, 1985, p. 61).

Özgün baskının içinde önemli bir yer teşkil eden gravür baskı sanatı geçmişe baktığımızda ilk çağlara kadar uzanmaktadır. Grafik tasarım tarihinin gelişim süreci de burada başlamaktadır. Gravür baskı sanatını içine alan grafik tasarım kişinin görsel algısını geliştirmede ve değiştirmede büyük ölçüde katkı sağlamaktadır.

Gravür baskı kalıbı hazırlama tekniği resmin kalıba çelik uç ve kalemler kullanarak elle kazınması veya kalıbın kimyasal eritme ile oyulması şeklinde uygulanır. Resimleme ayna görünümündedir. Desen ters çizilerek uygulanır (Yalçın, 1998, p. 28). Metalin kalınlığı 0,5-2mm arasında olmalıdır. Metalin yüzeyi alkol ve üstübeç

yardımıyla kirden arındırılmalıdır. Levha kağıtlar ile beraber prese gireceği için kağıt ile levha arasında hava kabarcığı oluşmaması ve levhanın kağıda yapışıp zarar vermemesi için kenarları eğe yardımı ile pahlanır. Ardından pahlanan kısımlar "0" numara su zımparası ile düzeltilerek köşeler yuvarlanır.

Gravür baskıda levha uygulanacak olan gravür baskı tekniğine göre verniklenir. Daha sonra verniklenen levha üzerine desen, tığ veya çelik uçlarla aktarılır. Tekniğe göre değişen indirgeme yöntemleri uygulanır ve vernik gazyağı ile temizlenir. Temizlenen levha üzerine parmakla veya tamponla ezilen matbaa mürekkebi sürülür. Levha üzerinde kalan fazla mürekkep kağıt yardımı ve el ayası ile fazla bastırılmadan temizlenir. Boya sadece çukurlarda kalır. Boyalı levha üzerine nemli ve gramajlı kağıt yerleştirilerek presten geçirilir. Kağıdın nemli olmasının nedeni ise çukurda kalan boyaları kağıdın emmesidir. Baskı işlemi bittikten sonra levhalar gazyağı ile temizlenir.

Baskılar paspartulanmadan önce baskının 0,5 cm altına el yazısı ile imza atılır. Sırasıyla kaçıncı baskı ve kaç tane baskı olduğunu baskının çeşidi, baskının adı ve kişinin adı, son olarak da yıl yazılır.
Gravür Baskı kendi içerisinde farklı teknikleri de barındırmaktadır.

1- Tahta Üzerine Kabartma Gravür
   a. Lifli tahta Üzerine Kabartma Gravür
   b. Uç Tahta Gravür
2- Metal Üzerine Çukur Gravür
   a. Asitsiz Teknikler
      i. Drypoint (Kuru Uç, Tığ Kalemle Kazıma)
      ii. Engraving (Kazıma/Oyma Gravür)
      iii. Crible (Kalburlama Gravür)
      iv. Mezzotint (Siyah Tarz Gravür)
   b. Asitli Teknikler
      i. Etching/Eau-forte(Asitle Oyma)
      ii. Soft Ground (Yumuşak yüzey)
      iii. Aquatint (Reçine, tozlama ile doku verme)
      iv. Lift Ground (Şekerli Vernik)
      v. Fırça ile Asitleme
      vi. Relief (Derin oyma, Kabartma)
      vii. Yazıları plakaya aktarma yöntemi (Alparslan, 2008, p. 219)

Teknikler her ne kadar birbirinden bağımsız görünse de uygulama esnasında birinden alınan sonuçlar ve deneyimler doğrultusunda karşılaşılan ve ortaya çıkabilecek sorunlara hem yeni çözümler getirmek, hem de doku, renk, anlatım biçimi gibi konularda öğrencinin kişisel gelişimi kendi gözünüzle görmesi mümkündür.

Gelişen toplum içerisinde grafik tasarım öğrencisine kazandırılmaya çalışılan tasarım yapabilme yetisinde gravür baskı teknikleri önemli bir yer tutmaktadır. İçmeli, Grafik Sanatları temelde özgün baskı resim ve grafik tasarım olarak ikiye ayrılmaktadır (İçmeli, 1985). Tarihsel gelişim ele alındığında her iki yönünün de iç içe ve yan yana geliştiği görülür. Gravür sanatına baktığımızda da, desenle olan bağlantısı ve teknik gereklilikler uyarınca çizgisel ifade, kurgu ve biçim anlayışına dayalı olduğu görülmektedir. Verilen bu eğitimle ise hem öğrencinin yaratıcılık ruhu gelişim gösterir, hem de sanat eğilimi en üst düzeye çıkabilir. Gravür baskı sanatını ise sadece yüksek öğrenim gören öğrencilerin değil, sanat eğitimi veren liselerde de uygulatılması gerekmektedir.

Tasarım aşamasında lekesel değerlerin doğru uygulanması ve bu aşamada kullanılan temel tasarım ilkeleri, tasarıma yön veren temeller arasında yer almaktadır. Özgün baskı için hazırlanan tasarımlarda da öğrencinin baskı sonrasında elde edeceği sonucu önceden tahmin edebilmesi gerekmektedir. Bunun için öğrencinin tekniği çok iyi özümseyerek kavraması gerekmektedir. Kazandığı yetiler sonucunda da grafik tasarımın temel ilkelerini daha bilinçli bir şekilde kullanacağı, görsel ve zihinsel algısına katkı sağlayacağı düşünülmektedir.

Yapılan bu çalışma ile gravür Gravür Baskı Tekniğinin tasarım ve uygulama sürecinin grafik tasarım eğitiminde önemi ele alınmıştır. Gravür Baskı Sanatının farklı tekniklerinden birkaçı seçilip uygulanarak "Gravür Baskının grafik tasarım eğitimine katkıları nelerdir?" sorusuna cevap aranmıştır.

ARAŞTIRMANIN YÖNTEMİ

Araştırmada, uygulama modeli kullanılmıştır. Gravür Baskı tekniklerinin arasından seçilen asitli tekniklerden; derin oyma (relief), asitle oyma (etching / eau-forte), yumuşak yüzey(soft ground), reçine / tozlama ile doku verme (aquatint), şekerli vernik (lift ground), asitsiz tekniklerden kuru uç veya tığ kalemle kazıma (drypoint) uygulanmıştır. Son olarak da uygulanan teknikler bir arada kullanılarak karışık teknik uygulaması denenmiştir. Uygulama esnasında asitle oyma tekniği haricinde diğer uygulamalarda tekniği ve ortaya çıkabilecek olan

dokuları tanımak adına sadece deneme baskıları yapılmıştır.

Asitle oyma tekniğinden 11 adet (Resim 1), derin oyma tekniğinden 9 adet (Resim 2), şekerli vernik tekniğinden 4 adet (Resim 3), yumuşak yüzey tekniğinden 4 adet (Resim 4) ve kuru uç ve tığ kalem ile kazıma tekniğinden 3 adet (Resim 5) baskı yapılmıştır. Reçine / tozlama ile doku verme tekniği, karışık tekniğin denenmesi safhasında kullanılmıştır (Resim 6). Uygulamalar EK-1 bölümünde yer almaktadır.

BULGULAR

Araştırma için yapılan gravür baskı uygulamalarının sonucunda aşağıda yer alan bulgular ortaya çıkmıştır.
Asitle oyma tekniğinde farklı kazıma uçları ile tarama ve noktalama yardımı ile zengin lekesel değerler oluşmaktadır.

Yumuşak yüzey tekniğinde don yağının yüzeyi yumuşatması sonucunda dokulu materyaller yolu ile alana baskı uygulamak suretiyle baskı sonrasında zeminde farklı dokular elde etme imkanı oluşmaktadır.

Yumuşak yüzey tekniğinde farklı materyaller ile zemine uygulanan doku üzerine çizgisel çalışmalar yaparak deneysel çalışmalar ortaya çıkmaktadır.

Reçine / Tozlama tekniği ile noktasal ve farklı tonlamalarda dokular elde edilebilmektedir. Grenli bir yüzey oluşturularak zengin değerler ortaya çıkmaktadır.

Reçine / Tozlama tekniğini özellikle arka planda kullanarak oldukça etkili koyu lekeler ortaya çıkmaktadır.
Derin oyma tekniği ile kağıt üzerinde kabartma alanlar oluşturulabilmektedir. Dokulu ve kalın gramajlı bir kağıt kullanılarak da kağıdın dokusu üzerinden yükseltili alanlar elde etmek mümkündür.

Derin oyma tekniği ile dokulu ve etkili beyaz alanlar elde etmek mümkündür.

Şekerli vernik tekniğinde fırça kullanarak hareketli desenler elde edilmektedir. Yer yer şekerin noktasal dokusu kullanılarak da zengin değerler ortaya çıkmaktadır.

Kuru uç veya tığ kalemle kazıma tekniğinde net ve güçlü çizgiler ortaya çıkmamaktadır. Ancak bu teknik karışık teknik uygulamasında kullanılarak zengin dokuların ortaya çıkmasında yardımcı olmaktadır.

Tekniklerin bir arada kullanılması ile oldukça farklı sonuçlar ve dokular elde edilmektedir.

Karışık tekniğin uygulanması ile yaratıcı ve özgün çalışmalar ortaya çıkmaktadır.

Karışık tekniğin uygulanması ile hayal gücü zorlanarak yüksek ölçüde zihinsel aktiviteye ve gelişime katkı sağlamaktadır.

Teknikleri uygulama aşamasında kullandıkları farklı kazıma uçları ve materyaller yolu ile ortaya çıkan karakteristik çizgiler ve lekesel etkiler, öğrencilerdeki ifade yöntemini geliştirmektedir.

Uygulamalarda ortaya çıkabilen tesadüfi sonuçlar öğrencilerin yaratıcılığının gelişmesine katkı sağlamaktadır.

Öğrencilerin baskı uygulamasında tek renk kullanımı ile kontrastlığı dengeleme yetileri gelişmektedir.

Öğrencilerin baskı uygulamasında farklı renkler kullanarak renk uyumu yetileri gelişmektedir.

Kağıt üzerindeki pozitif ve negatif alanların dengesinin sağlama becerileri gelişmektedir.

Öğrencilerin kazıma uçları ile elde ettikleri izleri kontrol edebilme becerisi ve farklı karakterdeki çizgilerin ifade gücünü nasıl desteklediğini anlama becerileri gelişmektedir.

Grafik Tasarım eğitimi sürecinde temel tasarım öğelerinin pekiştirilmesinde katkı sağlamaktadır.

SONUÇ

Grafik Tasarımın içerisinde yer alan Gravür Baskı Sanatını kendine özgü bir anlatım diline sahiptir. Gravür Baskı, tasarım aşamasında lekesel değerlerin kullanımı, çizgisel anlatımı, renklerin bir aradaki uyumu ve doku etkisini hissetmesi açısından bir grafik tasarım öğrencisinin sahip olması gereken tüm tasarım ilkelerini en iyi

şekilde özümsemesi ve hayata geçirebilmesinde önemli ölçüde rol oynamaktadır.

Grafik Tasarım eğitimi sürecinde Gravür Baskı ile yapılan çalışmaların ve uygulamaların diğer atölye dersleri ile ilişkilendirilmesi gerekmektedir. Bu doğrultuda öğrencilerin edindiği bilgiler birbiri ile paralellik göstererek kendi çizgilerini oluşturmanın yanı sıra yaratıcı çalışmalar da ortaya çıkartmalarını sağlayacaktır. Başka bir deyişle öğrenciler çalışmalarında sanatsal değer oluşturacak unsurlar kullanarak özgün çalışmalar sunacaklardır. Gravür Baskı uygulaması esnasında derin incelemeler ve ortaya çıkan farklı karakteristik çizgilerle, onların doğru kullanımı sonucunda dokuları daha iyi tanıma ve onları etkili kullanma becerileri artacaktır. Bu bağlamda, grafik tasarımda önemli olan yalın anlatım becerileri, gravür baskı yoluyla edinilmiş olan karakteristik çizgi ve doku bilgileri ile öğrencinin yalın ifade yetisini büyük ölçüde geliştirecektir.

Öğrencinin atölye ortamında çalışma esnasında deneme yanılma yöntemiyle ortaya çıkarttığı farklı etkiler ve yeni arayışlar farklı bakış açıları kazandırarak, görsel algısını geliştirmede ve değiştirmede katkı sağlayarak tasarım becerisini ve üslubunu da büyük ölçüde geliştirecektir.

Gravür baskı ile grafik tasarım arasında doğru orantı olduğu görülmüştür. Gravür baskı için esas uygulamalardan önce yapılan deneme baskıları öğrenciyi yeniden düşünmeye zorlayarak beklenmedik durumları ortadan kaldırmasına yardımcı olacaktır. Ayrıca, önceki uygulamalardan edinilmiş bilgiler yolu ile öğrencinin bir sonraki aşamada ulaşabileceği noktayı hayal edebilme imkanı artacaktır. Bu durumda Gravür Baskı öğrencinin, hem geriyi hem de ileriyi görebilmesini sağlayan, grafik tasarımının her alanında ifade yeteneğini geliştiren bir araç olduğu ortaya çıkmaktadır.

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EK-1

Resim 1

Resim 2

Resim 3

Resim 4

Resim 5

Resim 6

HACETTEPE ÜNIVERSITESI FEN FAKÜLTESI ÖĞRENCILERI İÇIN ERASMUS ÖĞRENIM HAREKETLILIĞI ANALIZI

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Erasmus Programı, Avrupalı yükseköğretim kurumlarının birbirleri ile işbirliği yapmalarını teşvik etmeye yönelik bir öğrenci değişim programıdır. Bu program, Avrupa'da yükseköğretimin kalitesini artırmak ve Avrupa boyutunu güçlendirmeyi amaçlamaktadır. Erasmus Programı, üniversiteler arasında ülkelerarası işbirliğini teşvik eder ve öğrencilerin Avrupa'da karşılıklı değişimini sağlar. Bu çalışma kapsamında 2011-2012 ve 2012-2013 yılları içerisinde Erasmus Programı kapsamında yurt dışına giden Hacettepe Üniversitesi Fen Fakültesi öğrencileri incelenmiştir. Öğrencilerin yaş, cinsiyet, bölüm, sınıf, gittikleri üniversite ve ülke, yurt dışında kaldıkları süre, gittikleri eğitim-öğretim dönemi, genel akademik ortalamaları, yabancı dil puanı, yurt dışındaki başarı durumları istatistiksel analizi ile elde edilen sonuçlar yorumlanmıştır.

Keywords: Erasmus; öğrenci; ilişki analizi

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ÖZET
Çalışmanın amacı Bartın ilinde yaşayan kız öğrencilerinin "Kariyer ve Meslek Beklentilerini" ölçmek ve değerlendirmektir. Bu amaçla Bartın ilinde 19 Orta Öğretim Kurumunda öğrenim gören 13-18 yaşları arasında 380 kız öğrenciye anket uygulanmıştır. Anket sonuçları değerlendirildiğinde, kız öğrencilerin genel olarak hayatlarından memnun oldukları meslek edinmede ailelerin ve okulların çok önemli olduğunu düşündükleri, meslek seçiminde öğretmen, hemşire, doktor ve polis tercihlerinin ön planda olduğu tespit edilmiştir.

Anahtar Kelimeler: Kız Öğrenciler, Kariyer ve Meslek Beklentileri, Bartın.

LET'S SHARE OUR DREAMS[1]

ABSTRACT
The aim of the study was to measure and evaluate their career and proffessional expectations for female students living in Bartın. For this purpose, a survey was conducted to 380 female students between 13-18 years of ages, studying in secondary schools. The survey results are evaluated, it was found that female students are satisfied with their lives; they think that the role of their families and schools is very important to pursue a career and they favour to be a teacher, nurse, doctor or police.

Key Words:. Girl students, Career and Professional Expectations, Bartın.

GİRİŞ

Her toplumda ekonomik ve kültürel düzeyi birbirinden ayıran farklı gruplar vardır. Bu gruplar birçok özellikler bakımından (değer, yaşama biçimi vb.) birbirinden farklıdır. Bu farkları gösteren ön önemli ekonomik etkinlik, meslektir.

Seçme, erişme olasılığı olan seçenekler arasından, istenilir yönleri istenmeyen yönlerden farklı olana yönelmedir. Meslek seçimi de bireyin kendisine açık meslekleri, çeşitli yönleriyle değerlendirip, kendi gereksinmelerini dikkate alarak, istenilir yönleri çok, istenmeyen yönleri az olan birine yönelmeye karar vermesidir (Kuzgun, 1982).

Seçilen meslek, bireyin ömründe oldukça uzun bir zaman alacağından kişinin en önemli kararlarından biri olmak durumundadır. Her insane çok küçük yaşlardan itibaren basit düzeyde de olsa geleceği hakkında, seçeceği mesleği hakkında bazı kararlar alır, planlar yapar. Alınan bu kararlar, yapılan planlar bir takım özellikler dikkate alınmadığından (ilgi, yetenek vb.) kişiler çoğunlukla tercih ettikleri mesleğe sahip olamamakta ve tesadüfi yollarla mesleklerini seçme durumunda kalmaktadırlar.

Küçük bir çocuğun meslek hakkındaki görüşleri günlük fantazilere dayanır. Eğer TV'de yangın seyrediyorsa o gün itfaiyeci olmayı düşünür. Daha sonraları ise yakın çevresinde gördüğü meslekleri benimsemeye başlar. Özellikle babanın mesleğine bir yakınlık duyar ve eğer baba eczacı ise "Neden bende eczacı olmayayım?" diye düşünmeye başlar. Çünkü en iyi bildiği meslek, baba mesleğidir (Grant, Dennos, Edwards, 1986).

[1] Bu çalışma Bartın Ticaret Odası Kadın Girirşimciler Kurulu tarafından Batı Karadeniz Kalkınma Ajansı (BAKKA) desteği ile hazırlanan Hayallerimizi Paylaşalım isimli projeden üretilmiştir.

ARAŞTIRMANIN YÖNTEMİ

Çalışmanın amacı Bartın ilinde yaşayan 13-18 yaşları arasındaki kız öğrencilerinin "Kariyer ve Meslek Beklentilerini" ölçmek ve değerlendirmektir. Öğrencilerin kariyer, meslek, meslek seçimi ve gelecekten beklentilerini ölçmek ve iyileştirmeye yönelik faaliyet planları oluşturmaktır. Bu amaç dahilinde çalışmada şu başlıklarda inceleme yapılmıştır; demografik bilgiler, gelecek ve hayattan beklentiler, kariyer ve meslek, kariyer ve meslek seçiminde başarı.

Çalışmada verilerin toplanması için anket yöntemi kullanılmıştır. Tam sayım yöntemi kullanılarak, 01-10 Kasım 2012 tarihlerinde Bartın İlinde 19 Orta Öğretim Kurumunda öğrenim gören 13-18 yaşları arasında 380 kız öğrenciye yüz yüze görüşme metodu uygulanarak anket doldurtulmuştur.

BULGULAR

Araştırmaya 380 kız öğrenci katılmıştır. Araştırmaya katılan öğrencilerin % 52.6'sı 13 yaşında, % 27.9'u 14 yaşındadır, %57.1'i 8. sınıf öğrencisidir (Tablo 1).

Tablo 1: Katılımcıların yaşlarına ve öğrenim gördükleri sınıflarla göre dağılımı

Yaş	***Frekans (f)***	***Yüzde (%)***
13 yaş	200	52,6
14 yaş	106	27,9
15 yaş	33	8,7
16 yaş	15	3,9
17 yaş	20	5,3
18 yaş	6	1,6
Sınıf	***Frekans (f)***	***Yüzde (%)***
7. sınıf	82	21,6
8. sınıf	217	57,1
9. sınıf	41	10,8
10. sınıf	3	0,8
11.sınıf	17	4,5
12. sınıf	20	5,3
TOPLAM	**380**	**100**

Araştırmaya katılan öğrencilerin % 87,9'unun annesi % 66,3'ünün babası ilkokul mezunudur, % 88,4'ünün ise annesi ev hanımıdır (Tablo 2).

Tablo 2: Katılımcıların anne ve babalarına ait demografik bilgileri göre dağılımı

Annenin Eğitim Durumu	***Frekans (f)***	***Yüzde (%)***
İlkokul	334	87,9
Ortaokul	35	9,2
Lise	7	1,8
Üniversite	4	1,1
Babanın Eğitim Durumu	***Frekans (f)***	***Yüzde (%)***
İlkokul	252	66,3
Ortaokul	51	13,4
Lise	62	16,3
Üniversite	15	3,9
Annenin Mesleği	***Frekans (f)***	***Yüzde (%)***
Ev hanımı	336	88,4
Serbest	10	2,6
İşçi	30	7,9
Memur	4	1,1

TOPLAM	**380**	**100**

Araştırmaya katılan öğrencilerin % 27,4'ünün ailesi 5 kişidir, % 53,4'ünün evinde bilgisayar vardır, % 59,5'inin evinde internet yoktur. Öğrencilerin % 45,8'i hiç internet kullanmadığını belirtirken % 36,6'sı bazen internet kullandığını belirtmiştir (Tablo 3).

Tablo 3: Katılımcıların ailevi olanaklarına göre dağılımı

Ailedeki birey sayısı	***Frekans (f)***	***Yüzde (%)***
3 kişi	23	6,1
4 kişi	98	25,8
5 kişi	104	27,4
6 kişi	72	18,9
7 ve üstü kişi	82	21,6
Ailesi yok	1	0,26
Ailenin toplam aylık geliri	***Frekans (f)***	***Yüzde (%)***
0-500 TL	77	20,3
500-1.000 TL	170	44,7
1.000-1.500 TL	65	17,1
1.500-2.000 TL	40	10,5
2.000-3.000 TL	28	7,4
Evinizde bilgisayar var mı?	***Frekans (f)***	***Yüzde (%)***
Var	203	53,4
Yok	177	46,6
Evinizde internet var mı?	***Frekans (f)***	***Yüzde (%)***
Var	152	40,0
Yok	226	59,5
Dışarıda	2	0,5
İnternet kullanma sıklığı	***Frekans (f)***	***Yüzde (%)***
Hiç	174	45,8
Bazen	139	36,6
Sıklıkla	65	17,1
Çok ender	1	0,3
Her zaman	1	0,3
TOPLAM	**380**	**100**

Araştırmaya katılan öğrencilerin % 35'i toplumsal ve sosyal yaşama dair olumlu beklentiler içinde olduklarını belirtirken, % 36,1'i genel olarak hayatından memnun olduklarını belirtmişlerdir. Öğrencilerin % 26,3'ü kariyer ve meslek seçiminde okulların son derece önemli olduğunu, % 49,5'i de ailelerin son derece önemli olduğunu düşünmektedir (Tablo 4).

Tablo 4: Katılımcıların gelecekten ve hayattan beklentilerine göre dağılımı

Genel olarak düşündüğünüzde, toplumsal ve sosyal yaşama dair beklentilerinizi nasıl değerlendiriyorsunuz?	***Frekans (f)***	***Yüzde (%)***
Fikrim yok	5	1,3
Hiç olumlu değil	6	1,6
Pek olumlu değil	14	3,7
Olumlu	133	35,0
Çok olumlu	90	23,7
Son derece olumlu	132	34,7
Tüm hayatınızı düşündüğünüzde, hayatınızdan	***Frekans (f)***	***Yüzde (%)***

genel olarak ne derece memnunsunuz?		
Fikrim yok	9	2,4
Hiç memnun değilim	13	3,4
Pek memnun değilim	36	9,5
Memnunum	137	36,1
Çok memnunum	75	19,7
Son derece memnunum	110	28,9
Genel olarak düşündüğünüzde kariyer ve mesleğe sahip olunmasında okulların önemini nasıl değerlendiriyorsunuz?	***Frekans (f)***	***Yüzde (%)***
Fikrim yok	9	2,4
Hiç önemli değil	1	0,3
Pek önemli değil	5	1,3
Önemli	56	14,7
Çok önemli	94	24,7
Son derece önemli	214	56,3
Genel olarak düşündüğünüzde kariyer ve meslek edinmede ailelerin önemini nasıl değerlendiriyorsunuz?	***Frekans (f)***	***Yüzde (%)***
Fikrim yok	8	2,1
Hiç önemli değil	7	1,8
Pek önemli değil	17	4,5
Önemli	74	19,5
Çok önemli	86	22,6
Son derece önemli	188	49,5
TOPLAM	**380**	**100**

Araştırmaya katılan öğrencilerin seçmeyi düşündükleri meslek seçimlerine bakıldığında % 32,4'ü öğretmen, % 21,1'i polis, % 12,1'i doktor olmak istediklerini belirtmişlerdir (Tablo 5).

Tablo 5: Katılımcıların gelecekte seçmeyi düşündükleri mesleğe göre dağılımı

Gelecekte hangi mesleği seçmeyi düşünüyorsunuz	***Frekans (f)***	***Yüzde (%)***
Kuaför	16	4,2
Polis	24	6,3
Hemşire	80	21,1
Öğretmen	123	32,4
Avukat	17	4,5
Doktor	46	12,1
Mühendis	15	3,9
Psikolog	7	1,8
Diğer	52	13,7
TOPLAM	**380**	**100**

Araştırmaya katılan öğrencilerin %36,1'i meslek seçiminde ailece yönlendirildiğini belirtirken, % 51,8'i meslek seçiminde kararın kendisine ait olduğunu belirtmiştir. Öğrencilerin % 71,8'i kariyer yapmak için ekonomik gelirin önemli olduğunu düşünürken, % 69,2'si meslek seçiminde aynı şekilde okonimk gelirin önemli olduğunu düşünmektedir (Tablo 6).

Tablo 6: Katılımcıların kariyer ve meslek seçimlerine etken faktörlere göre dağılımı

Meslek seçiminde ailenizde sizi kim yönlendiriyor?	***Frekans (f)***	***Yüzde (%)***

Anne	64	16,8
Baba	44	11,6
Hiçkimse	74	19,5
Ailece	137	36,1
Kendim	32	8,4
Dede	4	1,1
Abla	19	5,0
Büyükanne	5	1,3
Kuzen	1	0,3
Meslek seçiminde ailenizde kararı kim veriyor?	***Frekans (f)***	***Yüzde (%)***
Anne	29	7,6
Baba	44	11,6
Ailece	57	15,0
Hiçkimse	48	12,6
Kendim	197	51,8
Abla	2	0,5
Büyükanne	1	0,3
Dede	2	0,5
Kariyer yapmak için ekonomik gelir ne derece önemli?	***Frekans (f)***	***Yüzde (%)***
Önemli	273	71,3
Önemli değil	106	27,9
Fikrim yok	1	0,3
Meslek seçmek için ekonomik gelir ne derece önemli?	***Frekans (f)***	***Yüzde (%)***
Önemli	263	69,2
Önemli değil	115	30,3
Hiç önemli değil	1	0,3
Fikrim yok	1	0,3
TOPLAM	**380**	**100**

Araştırmaya katılan öğrencilerin % 65,'ünün ailesinde mesleği olan kadın bulunmazken % 95'inin ailesinde kızların meslek edinmesine olumlu bakılmaktadır. Öğrencilerin % 90,3'ü kızlara kariyer ve meslek edinmelerinde fırsat verildiğine inanmaktadır. % 58,4'ü ise evlilik yaşının 18-25 yaş aralığında olduğu görüşündedir (Tablo 7).

Tablo 7: Katılımcıların kızların meslek ve kariyer edinmelerine ilişkin görüşlerine göre dağılımı

Ailenizde kızların meslek edinmesine olumlu bakılıyor mu?	***Frekans (f)***	***Yüzde (%)***
Evet	361	95,0
Hayır	18	4,7
Bilmiyorum	1	0,3
Ailenizde mesleği olan kadınlar var mı?	***Frekans (f)***	***Yüzde (%)***
Evet	132	34,7
Hayır	248	65,3
Kızlara kariyer ve meslek edinmelerinde fırsat verildiğine inanıyor musunuz?	***Frekans (f)***	***Yüzde (%)***
Evet	343	90,
Hayır	37	9,7

Sizce evlilik yaşı ne olmalı?	*Frekans (f)*	*Yüzde (%)*
18 ve altı	7	1,8
18-25	222	58,4
25-30	129	33,9
30 ve üstü	19	5,0
Evlenmeyi düşünmüyorum	3	0,8
TOPLAM	**380**	**100**

Araştırmaya katılan öğrencilerin % 46,8'i ailesini, % 44,5'i öğretmenlerini meslek seçiminde yol göstermeleri konusunda son derece başarılı bulmaktadır. Meslek seçiminde sivil toplum kuruluşlarının yönlendirmeleri konusunda ise % 26,1'i fikirleri olmadığını belirtirken, % 28,2'si ise sivil toplum kuruluşlarını bu konuda başarılı bulmaktadır.

SONUÇ

Bartın İlinde 19 Orta Öğretim Kurumunda öğrenim gören 13-18 yaşları arasında ki kız öğrencilerin kariyer ve Meslek beklentilerinin değerlendirildiği bu çalışma göstermiştir ki; ailelerin gelir düzeyi yaklaşık olarak 1.000 TL ve altı (%65), evinde bilgisayar bulunan öğrenci % 53 iken % 60 öğrencinin internet erişimi yoktur, % 46'sı ise hiç internet kullanmamaktadır. Genel olarak öğrenciler hayatlarından memnundurlar. Meslek edinmede ailelerin ve okulların çok önemli olduğunu düşünmektedirler. Meslek seçiminde 33 başlık görülmekle birlikte ön plana çıkan meslekler öğretmen, hemşire, doktor ve polistir.

Öğrenciler meslek seçiminde kendilerini ailelerinin yönlendirdiğini söyleseler de seçim kararlarını kendilerinin verdiğini ifade etmişlerdir. Meslek seçiminde elde edilecek gelirin önemli olduğunu vurgulamışlardır. Aileleri meslek edinmelerine olumlu bakmaktadır ancak ailelerinde mesleği olan kadınlar azınlıktadır. Meslek edinmelerinde fırsat tanındığına inanmaktadırlar. Meslek seçiminde ailelerinin ve öğretmenlerinin kendilerine yol göstermesini başarılı bulmaktadırlar. Sivil toplum örgütlerinin yol göstermedeki rolünden bilgileri olmadığını ifade etmişlerdir.

Yapılan araştırmanın değerlendirilmesi sonucunda şu önerilerde bulunulmuştur; genç kızlarımızın başarılı rol-model'lerle etkileşimi için kanallar açılmalıdır, sivil toplum kuruluşları genç kızlarımızın kariyer yollarıyla ilgili daha çok projeye el atmalıdır, genç kızlarımızın hayata olumlu, umut dolu bakışları bizim en büyük hazinelerimizden biridir. Bunun değeri bilinmeli, bu motivasyonlarını kaybetmemeleri için rehberlik ve psikolojik danışmanlık çalışmalarının üzerinde çok durulmalıdır.

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HIGHER PROFESSIONAL EDUCATION FUNDING SYSTEMS IN SELECTED EUROPEAN COUNTRIES AND IN THE CZECH REPUBLIC

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ABSTRACT
This paper provides a framework for understanding the structure of funding systems for professional higher institutions in selected countries in Europe – in Belgium (Flanders), the Netherlands, Austria and England, compared to the system in the Czech Republic. It also delivers an analytical research of their structure, funding sources, student tuition fees and student support systems. The analysed countries already implemented formula funding models for education but offer quite different approaches. Three of the monitored countries address the need for greater funding increase by direct participation of students (and their families) to cover the costs of education. That investigation is followed by a comparative analysis of the higher education systems of all selected countries as a whole by mathematical method of the multi-criteria evaluation of alternatives, which gives an overall picture about comparison of different approaches of higher professional education.

INTRODUCTION

Higher education, number of students and institutions, funding of institutions and students or public and private spending on education – these are the topics that are discussed at present not only in the Czech Republic. Today's economic circumstances and global financial crisis have had the negative impact on the public expenditures including public spending on education. Higher education institutions across Europe face today a threat of critical underfunding, which could result into decrease of quality in teaching and research activities. The dependence on the public sources seems to be a problem and so the discussion about the private sources and tuition fees is more important than before. European higher education institutions (HEIs) can be academically or professionally oriented and usually are separated according to the main funding sources as public and private ones. Academic higher education is traditionally offered by universities whereas professional higher education is offered by non-university institutions - universities of applied sciences, university colleges, polytechnics, institutes of technology, Fachhochschulen, hogescholen. Terminology in higher professional education is based on national concepts and is generally a product of historical tradition and background. The problem is that there is no clear and internationally shared definition for the two types of higher education (Camilleri et al., 2013). Professional higher education is a specific form of higher education that offers a particularly intense integration with the world of work in all its aspects (including teaching, learning, research and governance). Its' function is to focus especially on application of learning. This means the combination of study and work processes and the cooperation with employers about the use of practice-relevant knowledge (Camilleri et al., 2013). In some European countries the distinction of the academic/professional higher education was influenced by the Bologna process that started the reform of higher education in the sense of the separation of the system into two cycles, undergraduate (usually three year study bachelor degree) and graduate (Bologna declaration, 1999). According to this changes more non-university institutions practically oriented started to grow. As Kyvik (2004) mentioned, "the main purpose of the non-university institutions was to offer a wide spectrum of vocational education, either to qualify for a specific occupation or to prepare for a profession." Following these assumptions we can suppose that the professional higher education is connected with non-university sector. But the problem is that the boundaries between universities and non-university institutions started to blur (Witte et al., 2008).

Education expenditure is financed by two distinct types of funding: public funding and private funding. Public expenditure includes all direct funding of education by the public sector, whereas private expenditure includes the payment of tuition fees and all other payments primarily by households (i.e. students and their families), businesses and non-profit associations. Blankenau et al. (2007) found a positive relationship between public education expenditures and long-term growth but the relationship is also influenced by the level of government spending, the tax structure and the parameters of production technologies. As it is not easy to control all these parameters the idea of private funding seems to be logical step.

The main aim of this paper is to analyse funding sources of higher professional institutions in four selected European countries and compare their approaches with the situation in the Czech Republic. The analysed countries are Belgium (Flanders), the Netherlands, Austria and United Kingdom (especially England).

MATERIALS AND METHODS

Higher education in Europe is predominantly financed from public sources. The financial crisis of 2007-2008 and the consequent economic downturn have had a huge impact on public finances in all European Union countries over the last seven years. The need for the government to limit the increasing higher education expenditures is guided by the intention that public resources should be allocated in a transparent way while at the same time offering specific performance incentives (OECD 2010). When we compare the public spending of education as the % of GDP of the selected countries we see, that in some countries (Belgium, Netherlands) the crisis had more positive than negative effect [Figure 1] but the public spending on education as the percentage of government expenditures tends to oscillate around the same limits except of the Czech Republic where the percentage is lower but the trend is rising to be closer to other countries.

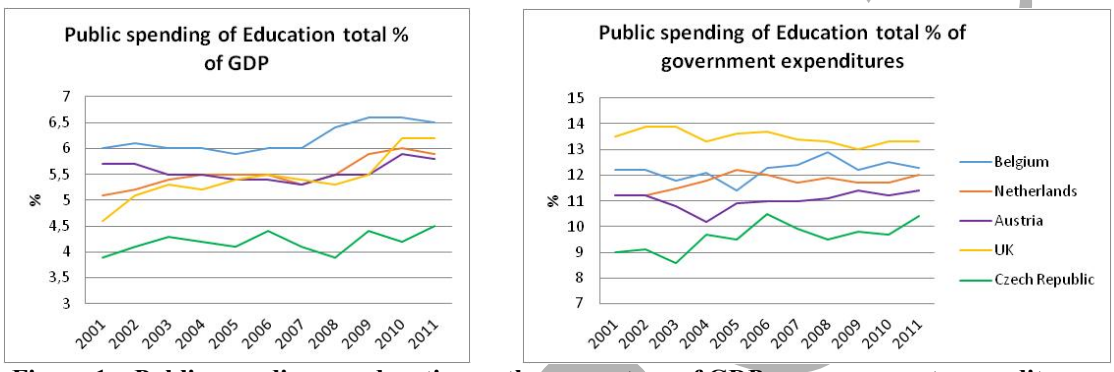

Figure 1 – Public spending on education as the percentage of GDP or government expenditures
(Source: http://data.worldbank.org/indicator)

Private expenditure on higher education includes the payment of tuition fees and all other payments primarily by households (i.e. students and their families), businesses and non-profit associations. This paper will deal only with fees and other payments by students. Because of the fees should not be considered in isolation this paper is considering grants, scholarships, loans, tax allowances and exemptions and other social benefits. The private expenditures as the percentage of GDP have been (in the year 2010) only 0.3% (Belgium) or max. 2% in UK (Reis, Gheorghiu 2011).

We start our research by analysis of four European countries and the Czech Republic. The main aim is to analyse funding sources of higher professional institutions practiced in Flemish part of Belgium, in the Netherlands, Austria and in the United Kingdom (resp. England). Because in the UK there are significant differences in management of higher education in England, Scotland, Wales and Northern Ireland, the analysis focuses only on England. The selected sample includes European countries with a long tradition of higher professional education. Analysing and determining factors of higher education funding systems will primarily focus on formula based funding models for education at public higher professional institutions. We use qualitative and quantitative data including literature findings and statistical data as well as information gained from interviews with representatives of professional higher education institutions in each country studied. Indicators were then transformed and adjusted using basic mathematical operations into to the desired form of tables. British pounds are converted at the exchange rate in force on December 15, 2014. For the calculations we use the average net income and maximum fees for countries where the amount is limited.

Funding system in Belgium (Flanders)

Belgium is a federal state, composed of three Communities (Flemish, French and German-speaking) and three Regions (Flanders, Walloon and Brussels). The responsibility for education is on the Communities. Higher education in Flanders is offered at university colleges and universities. Universities organise the academic programmes, non-university institutions of higher education called „hogescholen“(university colleges) organise the professional bachelor's programmes. Study programmes at hogescholen are divided into one-cycle and two-cycle programmes. One-cycle higher education covers a study period of three years (60 credit points each). Since January 2008, a new model of funding in higher education in Flanders is operational. All public funds to higher education institutions are allocated in the form of a "lump sum" on basis of funding formula. The awarded lump sums are allocated on basis of a series of criteria and factors that compose the financing mechanism. The specific components of the funding formula are:

- a fixed amount of funding, about 8-to-15%, depending on the size and profile of the institutions, taking into account economies of scale;
- a variable amount for teaching, depending on the output of teaching activity

Factors are:

- the number of credit points (ECTS) which the newly enrolled students take up;
- the number of credits (ECTS) awarded;
- diploma's: the number of bachelor and master degrees awarded which are converted to a number of credits (one degree is equivalent of 30 credits).

There are weights applied to the study points and the credits related to the type of curriculum. (Architecture - 1,4, health care - 1,6, commercial sciences and business administration - 1,1, industrial sciences and technology - 1,6, audio-visual and fine arts, musicology and dramatic art – 1,0, biotechnology - 1,4, product development – 1,6, social sciences – 1,1 and applied language studies – 1,2). The range of weights and all credits awarded in a study program will be multiplied to calculate the financial block grant for the institution (Decreet, 2008).

The student fee has two components: a fixed amount (EUR 61.90 paid at the beginning of an academic year) and a flexible part that differs according to the number of ECTS credits followed (at least 54 and maximum 66 credits for one year). Each credit point carries a fee of EUR 9.30. The amount of fees varies with the income of the student and the type of study. For a full-time student with 60 ECTS points the total fee is EUR 619.90. If a student is eligible for a grant, (s)he pays only EUR 0.70 per ECTS point. This means the maximum total fee for a full time student with a grant is EUR 103.90. There is a system of grants from the public purse to support students coming from lower socio-economic backgrounds. Also tax benefits and family allowances are provided. (EC, 2014, p.11).

Funding system in Netherlands

The system of higher education in the Netherlands is built upon two pillars: professional higher education (hogescholen) and academic higher education (universities). The Dutch higher professional education system maintains a unique position in Europe as more than 65% of all students in higher education study at a "university of professional education". The overall budget for higher professional education is allocated to the individual institutions on the basis of a set formula. Since 1994, hogescholen have received a block grant, which is adjusted to reflect wage and price developments. In addition, the budget is reviewed each year on the basis of the latest data with regard to student enrolment. Publicly funded hogescholen receive almost 75% of their total educational budget from the public sources. In addition to government contributions, the hogescholen also generate income from student tuition and services to third parties (average about 5%). Tuition fees play a significant role in funding higher education institutions, 18% of the budget of universities of applied science consists of tuition fees (Eurypedia 2014). Tuition fees are maximized by the Act on Higher Education (WHW). The study grant and loan system covers the students' costs for the tuition fee. There are three types of fee: the statutory fee and the prolonged study surcharge, which are fixed by law, and the non-statutory fee which is set by the institution, the statutory tuition fees, which are charged for a full-time courses in the academic year 2014/15 amount EUR 1 906. Students in part-time programmes, or programmes combining study and work (dual courses) pay between EUR 1 099 and EUR 1 906 upon the decision of the HEI. Student finance comes as a mixed funding: it is partly a non-repayable grant, partly a loan and for some students, depending on parental income, partly a supplementary grant. In addition to the study allowance, student finance also encompasses a public transport pass. The students are also entitled to loans or grants (the number of students entitled to and receiving grants or loans is 69%). There are no tax benefits for parents and no family allowances (Eurydice, 2014).

Funding system in Austria

Higher education in Austria is provided by 22 public universities (the biggest sector), 21 universities of applied sciences (Fachhochschulen, FH, introduced in 1994), 13 private universities (introduced in 2000), and 17 university colleges of teacher education (Pädagogische Hochschulen, introduced in 2007). (Eurydice, 2014). Fachhochschulen are institutions under private law. For the whole sector, a development and funding plan is decided upon between the Austrian federation, states and the Fachhochschul Council. The negotiations are based on calculated student places. The public funding is limited to 90% of the full cost; the remaining part is to be covered by local authorities and business sponsors. This system of mixed funding is based on the standard cost system. The Federal Government bears the costs per study place, provided that the catalogue of established criteria is complied with. The Austrian Science Council (Österreichischer Wissenschaftsrat) (2012) lists four groups of courses and unit costs per student place:

- For students admitted in courses with an engineering content of at least 50%: EUR 7,940
- For students admitted in courses with an engineering content of at least 25%: EUR 6,990
- For students admitted in courses with a focus on tourism: EUR 6.580
- For students admitted in all other courses: EUR 6,510

Costs for buildings, investments and a part of the running costs are borne by the provider of the Universities of Applied Sciences degree programme. The professional higher education sector is also predominantly government-funded - this part varies between 60 and 70 % of the total expenditure, regional sources vary between 22 and 36 % of the total expenditure. There are no tuition fees for students but providers of the Fachhochschulen are entitled

to charge fees up to the maximum amount of EUR 363.36 per semester (it must be paid if students exceed the minimum study duration for more than a year). The federal student grants are divided into two sections: direct study financing received in cash, and indirect study financing which the student may receive by a transfer payment to the students' parents, or through non-cash benefits. There are no student loans in Austria.

Funding system in UK and England

Within the higher education sector in England, individual institutions are very diverse, varying in size, history, mission and subject mix. Some HEIs, particularly those established as universities prior to the passing of the 1992 Act, are more research-intensive and typically focus their teaching on traditional academic courses at bachelor's degree level and above. Post-1992 universities (new universities) often former polytechnics or teacher training colleges, may be less research-intensive, typically offer a wider range of vocational courses, some of which may be short-cycle programmes below bachelor's degree level. The majority of public funding is provided by central government through the Higher Education Funding Council for England (HEFCE). The total public funding for higher education in England is decided annually by the Government. The sources are:

- tuition fee loans and maintenance grants and loans to students;
- grants to universities and colleges from HEFCE;
- grants to institutions and bursaries to students from other public bodies.

Under the new arrangements, introduced in September 2012, more public funding is provided directly to students (in the form of up-front tuition fee loans, repayable when the student begins earning above a stipulated income threshold), and less funding is provided to institutions through HEFCE teaching grants (HEFCE, 2014). HEFCE use formulae to divide the majority of the money between institutions. These formulae take into account certain factors for each institution, including the number and type of students or the subjects taught. Subject-based funding for 2014-15 students is allocated using the following formula:

- sector-wide funding rates by price group and level (A-medicine, dentistry, veterinary; B-laboratory-based science, engineering, technology; C1-archaeology, arts, IT; C2-geography, languages, computing; D-humanities, business or social sciences)

multiplied by

- Full-time student equivalent for the year reported by institutions

multiplied by

- a scaling factor - for 2014-15, this scaling factor has initially been set at 1.

HEIs receive an increasingly significant income from tuition fees. Students now paying £9,000 per year (compared with £3,000 prior to 2012). The increase in tuition fees in England was very perceptible. Students are not required to pay up front and can apply for a loan to cover the full fee. Tuition fee loans are paid directly to the institution. Interest rates are indexed to inflation rates and borrowers repay, in real terms, broadly the same amount as that borrowed. Tuition fees will be payable after a student has completed his or her course. Students will not be expected to contribute towards repaying their graduate contribution until they are earning over £21,000. There are also possibilities to support first cycle full-time students – like grant or loans for living costs. Tax benefits for parents and family allowances do not play a role in the student support system. (EC. 2014, p. 38)

Funding system in the Czech Republic

In the Czech Republic there is the same system for financing public professional higher education (non-universities) and public academic higher education (universities) and also the criteria for evaluation of institutions are common for both segments. But the portfolio of the criteria is quite wide, which creates space for some specialization of each organisation.

Until 2009 the formula of contribution allocation was depended only on quantity of students. As a result of financial and demographical situation, it has been decided to introduce a new mechanism of performance based funding encompassing the whole range of activities HEIs could perform. Three measures have been taken. First, the Performance Based Funding was introduced only in certain parts of the budget allocated to Public HEIs and its proportion has been gradually increasing. Second, further expansion of the sector has been capped by limiting the number of new students that would be funded by the state. And third, both measures were linked together – for each HEI the number of students funded by the state would depend on performance indicators attained. It is thus clear that the choice of performance indicators is very sensitive as it would significantly affect the behavior of HEIs and their further development. (Koucky, 2012)

The Performance Based Funding (PBF) is being implemented step by step. When PBF was introduced preparing the 2009 budget, it was limited to 9 % of the overall HEI budget. Since 2009, the gradual implementation of PBF has continued and the proportion of PBF has been increased more than twice, to 24 % of overall budget of HEIs

in 2015. Also the composition of indicators has become more sophisticated. The Performance Based Funding for 2015 is based on following indicators and their weights:

- Performance in research activities (system of so called RIV points based on number of journal articles, publications, patents, applied research) – 34.3 %
- Performance in artistic activities (system of so called RUV points based on register and classification of artistic performance indicators) – 3.5 %
- Funds for research gained by the HEI through competition for grants – 4 %
- Income generated by the HEIs – 4 %
- The professional quality of teachers (measured by the staff structure) – 2.6 %
- Employability of graduates (unemployed in the period of 6 months to one year after graduation) – 16 %
- Number of foreign students – 2.6 %
- Self-funded students – 4 %
- Students mobility outgoing – 14.5 %
- Students mobility incoming – 14.5 % (MSMT, 2015)

Study fees are related only to admission procedures and need to be paid once per cycle. No tuition fees are paid by 'typical' higher education students, provided that they complete their study programme in the regular timeframe. Students who exceed a regular length of study by more than one year have to pay fees. Exemptions are made for students who become parents during their studies. The fee amounts to at least CZK 8,457/academic year, based on the average cost of a student for the public budget. No maximum is set by law. Students who study in second or further degree programmes have to pay fees (maximum CZK 2,819/academic year). Students of study programmes in a foreign language also have to pay tuition fees and no maximum limit is set by law. Such arrangements are decided by each higher education institution. Fees for international students are the same as for home students. (EC, 2014)

Methods for comparison

It is not easy to compare the funding systems of the countries because of the different conditions and different situation inside each country. As this is the first step in our comparison we have decided to use the multi-criteria evaluation of alternative (MCEA). MCEA belongs to the category of discrete multi-criteria decision making (MCDM) methods where all the alternatives ($a_1, a_2, \ldots, a_p$) and criteria ($f_1, f_2, \ldots, f_k$) are known. In this sense we take each country as an alternative. The process of the criteria selection was more complicated as it is hard to compare qualitative criteria. That is why we have only summarized the facts into the table - see [Table 1]. To add also a quantitative comparison we decided to start this analysis only with the quantitative data connected with higher education expenditures- see [Table 2]. To solve this kind of model it is necessary to describe the preferences of the decision maker – by aspiration levels, criteria order or by weights. As we suppose the same weight of all criteria we use two methods from the last category - WSA and ELECTREE III (for detail description see for example Figueira et al. 2005).

WSA (Weighted Sum Approach) sorts the alternatives based on the values of their utility functions (created from the data) which in this case are assumed to be linear. In the first step it changes the real data into the scale 0-1 (the best value of each criterion starts to be 1, the worst is changed into 0). Afterwards all the values are multiplied by the weight of the criterion to obtain the utility of each alternative according to each criterion. The total utility of each alternative is calculated as the sum of the utilities in all criteria for the given alternative. Higher value of the total utility means better alternative.

ELECTRE III. method uses the pairwise comparison of the alternatives and summarizes the weights of the criteria where the alternative is better than the other. According to the strength of the preference the final indifference classes are made and used for the alternatives order creation. It is necessary that all the alternatives are nondominated (so there is no alternative that is better in at least one criterion and no worse in any other).

RESULTS AND DISCUSSION

Funding is more than merely an instrument to allocate financial resources to higher education institutions and students. Among the countries analysed there are considerable differences. Table 1 summarizes the comparison of funding mechanism and criteria used in all analysed countries. In all countries HEIs generally receive block grants (lump sum funding), which means they have a defined autonomy to decide on the spending of their public resources. The basic funding mechanism in all countries is formula funding but governments use different approaches to implement formula mechanism in order to fund teaching.

	Belgium (Fl.)	The Netherlands	Austria	England	Czech Republic

Criteria used in teaching formula	New entrants; Credit awarded; Diplomas	New entrants; Diplomas	Number of students	Agreed number of students	Agreed number of students
Criteria allocation	1.6 Health care, product development 1.4 Architecture, engin., technol. 1.2 applied language studies 1.1 Sociology, business studies 1.0 Audio-visual and fine arts, music, dramatic	Groups of disciplines with different factor: Low cost - 1 (arts, humanities, law, social sciences, languages) High cost 1,5 (science, engineering, agriculture)	Four groups of study fields: Engineering more than 50% € 7.940 Engineering at least 25% € 6,990 Tourism € 6.580 All other € 6.510	Five price groups of subjects: A £ 10,000 B £ 1,500 C1 £250 C2 0 D 0	1.0 Economical, political, law social 1.2 Pedagogical, philosophy 1.65 Architecture, engin., technol. 2.25 Health care, agriculture 2.8 Medicine, chemistry, biology 3.5 Veterinary 5.9 Art
Tuition fees per academic year	Yes € 619.90	Yes € 1 906	Provider can charge € 363 per semester	Yes Max. £ 9000	No tuition fees, only admission (600 CZK)
Admission system	Open but some regulations	Open but some regulations	Calculated student places	Harmonised admission procedure	Calculated student places

Table 1: Criteria of funding formula models in selected countries. Source: EC 2014

The final comparison of the systems is based on 6 selected criteria. All data are taken from the years 2010 or 2011 (as newer data are not available for all these countries and criteria) according to the World Bank (2014) and Eurostat (2014). Only the last criterion has been created by ourselves on the basis of the tuition fees per academic year (taken from the Table 1) divided by the annual net earnings in EUR in each country and correspond to the year 2014. We have to decide the type of each criterion (max., min.). According to our expectances that the "ideal" system gives high amount of money to education and it is not expensive for students we suppose all criteria to be maximised except of the last one. The criteria are:

- C1: public expenditures on education spending as % of GDP
- C2: private expenditure on education spending (% of GDP)
- C3: public expenditure per pupil as % of GDP per capita
- C4: percentage of inhabitants studied at HEIs
- C5: Expenditure on public and private educational institutions per pupil/student (PPS for full-time equivalents)
- C6: Share of tuition fees on annual net earnings (2014)

The results are presented in Table 2. Although Belgium has max. % of GDP public expenditures on education, UK has max. % of GDP private expenditures, Austria has max.expenditures on institutions per student and the Czech Republic has min. share of tuition fees on annual net earnings, the winner in both methods is the Netherlands. It has max. public expenditures per pupil as % of GDP per capita and max. percentage of inhabitants studied at HEIs. The final utility and order of the Czech Republic is worse of all countries but we have expected this position because of the low public expenditures on education and low expenditures on educational institutions per student. On the other hand the percentage of inhabitants studied at HEIs and private expenditures on education as % of GDP are comparable with other countries. So the question of the installation of the tuition fee at the Czech public HEIs starts to be important again.

	Criteria						ELECTRE III	WSA	
Country	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**Order**	**Order**	**Utility**
Belgium	6.5	0.3	34.4	0.041	8 037	2.35	3	3	0.630
Netherlands	5.9	1.0	36.9	0.046	8 523	6.03	1	1	0.799
Austria	5.8	0.5	36.2	0.043	9 218	2.69	2	2	0.686
UK	6.2	2.0	26.0	0.039	8 335	34.14	4-5	4	0.443
Czech Republic	4.5	0.6	27.3	0.042	4 601	0.09	4-5	5	0.291

Table 2: Comparison of countries according to the selected criteria

The comparison described above was aimed at the public expenditures and fees. As the area of higher education is wide and can be seen from different points of view, the results and comparisons may differ from each other and it is necessary to define the scope in view. As an example we show the results mentioned in a review made by Brown at al. (2010) – see [Figure 2] – where the order of the selected countries is inverse than in our comparison as the highest private net present value for a male with higher education was in the Czech Republic (244 USD), lowest in Netherlands (100.5 USD). So this is another perspective that can be followed.

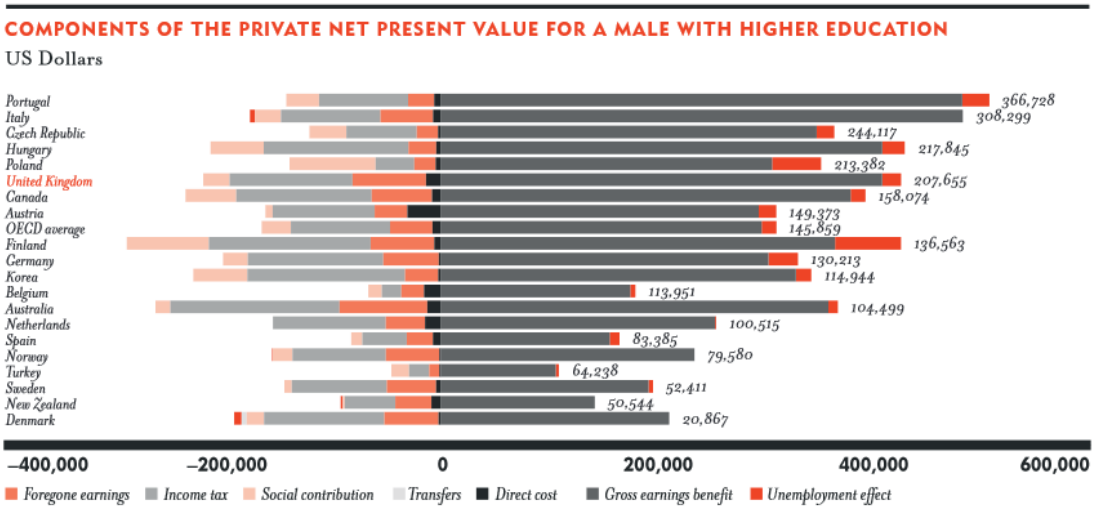

Figure 2 – Components of the private net present value for a male with higher education (2010) (Source: Brown et al., 2010)

CONCLUSION

The main aim of this paper was the comparison of funding system of higher education (specialized at professional education) in selected countries. We may conclude that each country has its own specific rules and different conditions of public and private funding. All countries except of the Czech Republic use systems of the tuition fees paid by students (extreme values we see in UK). The results correspond with previous expectation – that the system in Netherlands is aimed at the higher professional education mode than in other countries and that the higher education funding is still below the level of other countries which opens the question of the tuition fee installation.

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HONG KONG SECONDARY SCHOOL STUDENTS' LEARNING MOTIVATION AND TUTORING EXPERIENCE

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Shadow education refers to non-compulsory after-school tutoring that supplements formal schooling to improve students' academic achievement. As a response to the increasingly exam-oriented, commercialized educational systems, not only has it become an extremely prevalent practice in Asian contexts, such as Hong Kong, but it is also receiving heightened research attention. However, the focus has mostly been on its impacts on student performance, education policy, and social and economic consequences including family investment and social disparity. The present study thus proposes a new perspective to bring together cultural, social and psychological dimensions by investigating how private tutoring affects students' learning motivation by drawing upon 2 major motivation theories, namely self-determination theory and goal orientation.

Adopting a cross-sectional mixed-methods design, rich data has been collected through questionnaires administered in Year 8 (N=348) and Year 11 (N=264) students in 6 Hong Kong secondary school, involving 1 international school, 2 local top (band 1) schools and 3 local middle (band 2) and bottom (band 3) schools. Additionally, 4 focus interviews have been conducted with 19 students and 1 individual interview with 1 in-service teacher, who has previously been both a tutee and a tutor himself.

Strikingly, impacts of students' tutoring participation is found significant for students' relatedness satisfaction, competence satisfaction and competence frustration, identified regulation, intrinsic motivation. Gender effects are found to be significant for non-autonomous motivations such as external regulation and introjected regulation and intrinsic motivation. Significant differences are found by school banding in all four goal orientations, namely mastery-approach goal. Correlation and MANOVA tests are also applied for further quantitative analysis with the enrichment of students' and tutor's reflections from interviews.

The significance of this study lies in that, theoretically not only does it juxtapose a complexity of important motivational variables in parallel to closely examine their interconnection and potential for integration, but it also sheds light upon Asian students' learning motivation, one that is markedly different from the contexts where the two theories were developed. And empirically, the study explores the overlooked aspects of students' learning motivation in the increasingly commercialized educational system with an explicit emphasis on acknowledging and listening to students' voices and feelings in tutoring, which already constitutes a major part of students' learning experience.

Keywords: Shadow education, secondary education, learning motivation, self-determination theory, achievement goal orientation

HOW SIGHTED AND BLIND STUDENTS PERCEIVE RELATIONAL SIMILARITY BETWEEN FONT-SIZE AND LOUDNESS IN TEXT-TO-SPEECH

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ABSTRACT
Font-size variations constitute text signals that help readers to create an organizational framework for the coding of a text. The current study investigates the relational similarity between font-size and the voice loudness in Text-to-Speech (TtS) as perceived by sighted and congenitally blind students in primary and secondary education. We conducted two experiments with 25 blind and 26 sighted participants. In the first experiment, we have explored how a polar value of one dimension maps to the polar value of the other dimension. In the second experiment we have studied how the notions of the participants about one dimension map on to the perceived poles of the other dimension. The results confirm the hypothesis that all participants demonstrated a high consistency of polarity choices and relational similarity between font-size and loudness in TtS.

INTRODUCTION
Printed or electronic textbooks constitute the main class of documents in the domain of education. The content of a document includes mainly the text and the images. The term *text-document* refers to the textual content only of a document. Besides its content, a printed or an electronic document contains a number of presentation elements or attributes (Kouroupetroglou & Tsonos, 2008) that apply on its text content: a) design glyphs or typographic elements (i.e. visual representation of letters and characters in a specific font and style) and b) arrangement of the content on the page and the document as a whole. Presentation elements include: a) font (type, size, color, background color, etc.) and b) font-style, such as bold, italics, underline. In contrast to the rich text, the term plain text indicates text in any unique font type and size, but without font style.

Rich-text documents use writing devices which intend to highlight the important information which is in the text as well the text structure (Kintsch, & van Dijk, 1978). The term text signal has been proposed (Lorch, 1989) as the writing device that emphasizes aspects of a text's content or structure carrying semantic information over and above the content. It attempts to pre-announce or emphasize content and/or reveal content relationship (Lemari, Eyrolle, & Cellier, 2006). Headings or titles in text-documents are considered as signals (Lorch, Chen, & Lemari, 2012).

The font-size of a chapter heading in a textbook is usually bigger than the font-size of the main text. It is also bigger than the one of the subheadings, if there are any in the text (Steno & Retti, 2003). Thus, the different font-sizes used in textbooks aim mainly to differentiate the headings and the footnotes from the main text as well as to accomplish a hierarchy among different level headings. It has been experimentally proved that font-size and font-type influence memorization and comprehension. Both of them help the readers in the creation of an organizational framework for the coding of a text (Smith & Sera, 1992; Spyridakis, 1989a), which facilitates them to maintain and to recover information (Spyridakis, 1989a; Spyridakis, 1989b; Sanchez, Lorch & Lorch, 2001). Font-size represents the main characteristic that reveals the text macrostructure to the reader (Kintsch & Yarbrough, 1982).

Nowadays, Text-to-Speech (TtS) software systems (Freitas & Kouroupetroglou, 2008), combined with screen readers (Asakawa & Leporini, 2009), constitute the main alternative for the blind and partially sighted students to access the content of schoolbooks and other educational resources. Moreover, TtS represent an emerging technology in teaching and learning of non-disabled students (Rughooputh & Santally, 2009), as well as in the practice of Universal Design for Learning (Gordon, Proctor & Dalton, 2012).

Most of the current TtS systems treat the content as plain text and do not support an effective audio provision of the presentation elements or text signals of a document, such as font (type, size, color, background color, etc.) and font style (Fellbaum & Kouroupetroglou, 2008). As a consequence, blind students or learners who use the

audio channel only to access educational content through TtS lose important information incorporated in a rich text document and they are at a disadvantage respectively to the typical readers who use their vision to access the same content. Recently, there has been an effort towards Document-to-Audio (DtA) synthesis (Kouroupetroglou, 2013), which essentially represent the next generation in TtS. DtA supports the efficient acoustic representation of typography and text formatting through modelling the prosodic parameters of the synthesized speech signal.

In the present study our effort is to discover relation similarities between dimensions that are perceptible through different senses, such as the font-size and the loudness in TtS. The semantics of quantitative dimensions, such as the size and the loudness, are often conceptualized with the significance of the named *poles*. One pole is the positive or differently *more* and the movement towards this pole is augmentative, while the other pole is negative or *less* and the movement in this direction is decreasing (Holyoak, 1978). A number of researchers have supported that the origin of these poles is found in our sensory system (Boring, 1993; Marks, Hammeal & Bomstein, 1987; Treisman & Gormican, 1988). According to Stevens (1957), the quantitative dimensions, such as size and loudness, have certain unitary and well-defined psychophysics attributes which he calls "prothetic". These psychophysics attributes are reflected in a common sensory physiology. Thus, size and loudness have a common sensory physiology and consequently the directions of psychological decrease or increase are specified by the physiology of the sensory system (Smith & Sera, 1992).

Smith & Sera (1992) found that the children that are older than 2 years begin to correspond to the dimensions of size and loudness with the significance *more* or *less*. Another factor which contributes to this cross-correlation is the natural structure of the world. The bigger objects tend to make more noise than the smaller ones. The results of Smith & Sera research show that the young children know this cross-correlation, which helps them to combine the notions *big* and *loud*. Under this view, Smith & Sera, propose that, apart from the predetermined sensory structure, other factors also exist, such as the language and the physical structure of the world that converge to this correlation.

As there is a lack of research on the relational similarity between font-size and loudness in TtS used by blind and sighted persons, this work aims to contribute towards this achievement, particularly in the domain of education. Our main hypothesis is that congenitally blind and sighted students in primary and secondary education perceive a linear relational similarity between the dimensions font-size and voice loudness in TtS.

METHOD

Of the 51 Greek students who took part in the study, 25 were congenitally blind or students who became blind during the first years of their life and the other 26 were sighted. Among them, 29 were females (15 blind and 14 sighted) and 22 males. The sighted students ranged in age from 10 to 17 and the blind students ranged in age from 10 to 18. In particular, 15 of the 25 blind participants were students of the secondary education and 10 of the primary education. Moreover, 16 of the sighted participants were students of the secondary education and 10 of the primary education.

In order to select the values for the font-size, we statistically analyzed a corpus of 72 textbooks (a mixture of all subjects): 36 of them use by the K-12 schools in Greece and 36 in the English language used by the K-12 American Community School in Athens, Greece. The results indicate that the text size has a range between 6 pts and 72 pts. With a view to design an experiment with duration of less than half an hour, the selected font-sizes were 12pts, 32pts and 56pts. In order to achieve a linear relationship between the two modalities ($y=0.6566x+45.7$, y=loudness in db and x=font-size in pts), we selected the values of loudness to be 53db, 68db and 82db.

The acoustic stimuli generated with the Document-to-Audio (DtA) software tool (Xydas, et all, 2005) along with the DEMOSTHéNES Greek TtS system (Xydas, & Kouroupetroglou, 2001). The optical stimuli were generated as MS-Power Point presentations. Blind participants had access to the presentation using the JAWS screen reader software Ver. 11.0 (Freedom Scientific, 2014).

All participants used a laptop (Acer Aspire 1314LC) with a screen of 15´´ (resolution 1024X768), MS-Windows Vista operating system and semi-open headphones (AKG K-66).

There were two tasks:

A) Percept-to-Percept (P-P) task: This task investigates how a value on one dimension maps onto the polar values of another dimension; the participant is presented with an exemplar stimulus of a value on one dimension and is asked which of two choice stimuli values on the other dimension is like the exemplar. Initially, a visual

exemplar of the biggest or the smallest value of one dimension (e.g., the font size, as it appears in Figure 1) was presented to each sighted participant and the researcher raised the following question: «If you have to read the word you see, in such a way so that your schoolmates perceive the specific font size the word is written, which voice you will select between the two you will hear? » For a blind participant, the researcher first explained that: «Contrary to the Braille writing, the letters used in the texts for sighted people do not always have the same size. Sometimes they are bigger than regular, such as in headings, and at other times they are smaller, as in footnotes. Imagine a Braille cell to be bigger in the titles than in the main text, and be smaller in the footnotes». Then, he raised the following question: «If you had to read the word "pyramid" that is written with very big letters, in such a way, so that your schoolmates perceive the font size the word is written, which voice you will select between the two you will hear? » Next, the P-P task was repeated with the addition of an intermediary value in each dimension. In the case the exemplar was auditory and the stimuli of choice visual (Figure 2), the researcher raised the following question to the sighted participants: «Which of the words you see matches better the voice you will hear?». For a blind participant, the researcher first explained that: «The word triangle has been written twice: first with very big letters and second with very small letters» and then he asked: «Which of the two words matches better the voice that you will hear?»

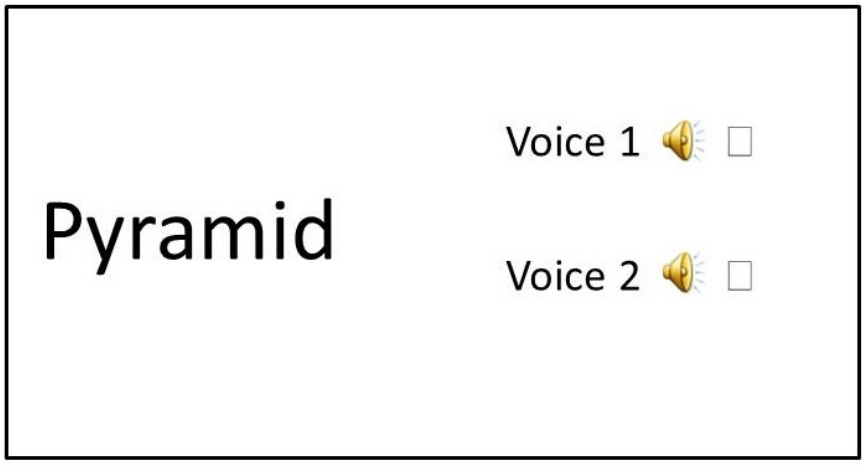

Figure 1: Visual exemplar with auditory choice stimuli.

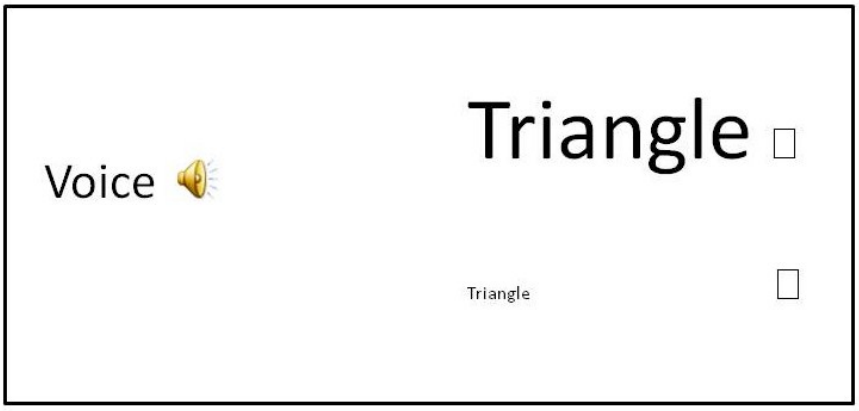

Figure 2: Auditory exemplar with visual choice stimuli.

B) Word-to-Percept (W-P) task: In this task we examine how the words on one dimension map to the perceived poles of the other dimension. A word expressing a value in one dimension was presented and the participants were asked to correlate it with the suitable choice stimulus of the other dimension. In the case of the blind participants, the researcher asked: a) for the word exemplar with the notion of font-size: «With which of the three voices that you will hear can you match the phrase big letters? » and b) for the word exemplar with the notion of voice loudness «We have written the word triangle three times. The first time with very big letters, the second with normal letters and the third time with very small. With which of these words can you match the word loud?» The words used as exemplars had always the same font-size.

In the Percept-to-Percept task (P-P) 20 questions were presented in total. In 10 of them, the exemplar was visual, i.e., a word with one of the three font-sizes and the choice stimuli were auditory. In the rest 10 questions the

opposite was applied. In the Word-to-Percept task (W-P), 20 questions were also presented in total. In 10 of them, the exemplar was a word or phrase described one of the three font-sizes and the choice stimuli were auditory (3 voices with different loudness). In the rest 10 questions the exemplar was a word or phrase describing one of the three voice loudness and the choice stimuli were visual (words with three font-sizes). In both the P-P and the W-P tasks the questions were presented in a random order for each participant. Between the two tasks, there was a time interval of four weeks. The acoustic stimuli were repeated, if a participant hesitated to answer or asked to hear them again.

The participants were asked individually in a quiet room. Each participant was sitting in front of the computer desk. Prior to the above tasks they were familiarized with all the visual and auditory stimuli.

RESULTS AND DISCUSSION

The results for the means of the consisted choices are presented in Table 1: a) for the blind participants in the P-P task M=19.56 (97.8%) and M=20 (100%) for the W-P task, and b) for the sighted participants in the P-P task M=19.96 (99.8%) and M=19.85 (99.95%) for the W-P task respectively. Thus, we observed very high rates of consistent choices between font-size and voice loudness in both conditions of the research. The mixed design ANOVA, 2(visual condition of the participants)×2 (task), did not show significant differences, either between the participants, $F(1.49)=0.478$ $p>0.05$, Partial Eta-squared = 0.01, or within the participants, $F(1.49)=2.384$, $p>0.05$, Partial Eta-squared =0.046.

Table 1: The means of the consisted choices in the P-P and W-P tasks.

Task	Participants	Mean	%	Std. Deviation	N
P-P	Blind	19.56	97.8	1.64	25
	Sighted	19.96	99.8	0.20	26
	Total	**19.76**	**98.8**	**1.16**	**51**
W-P	Blind	20.00	100.0	0.00	25
	Sighted	19.85	99.2	0.78	26
	Total	**19.92**	**99.6**	**0.56**	**51**

The means of the valid answers between the blind and the sighted participants for the polar choices (Table 2) did not present important differences. Thus, the polarity does not seem to be influenced by the visual condition of the participants. The results of the mixed ANOVA design 2(vision condition)×3(pole) showed no statistically significant differences between the groups $F(1.49)=0.478$ $p>0.05$, Partial Eta-squared=0.01, and within groups $F(1.49)=1.19$ $p>0.05$, Partial Eta-squared=0.24.

Table 2: The polar consistent choices between the blind and the sighted participants.

Pole	Participants	Mean	%	Std. Deviation	N
MORE	Blind	15.80	98.75	0.82	25
	Sighted	16.00	00.0	0.00	26
	Total	**15.90**	**99.4**	**0.57**	**51**

MEDIUM	Blind	7.96	99.5	0.20	25
	Sighted	7.92	99.0	0.39	26
	Total	**7.94**	**99.3**	**0.31**	**51**
LESS	Blind	15.80	8.75	0.82	25
	Sighted	15.88	99.3	0.43	26
	Total	**15.84**	**99.0**	**0.64**	**51**

Table 3 presents the results of the consistent choices among the students of primary and secondary education when the exemplar was a word (with different font-sizes) or a voice (with different loudness). The mixed ANOVA design 2(education level)×2(exemplar) shows that there was no significant difference either between the groups $F(1.49)=2.223$ $p=>0.05$, Partial Eta-squared=0.043, or within the groups $F(1.49)=1.164$ $p>0.05$, Partial Eta-squared=0.23.

Table 3: The consistent choices among the students of primary and secondary education.

Exemplar	Education	Mean	%	Std. Deviation	N
FONT-SIZE	Primary	20.00	100.0	0.00	21
	Secondary	19.63	98.2	1.07	30
	Total	**19.78**	**98.9**	**0.83**	**51**
VOICE LOUDNESS	Primary	20.00	100.0	0.00	21
	Secondary	19.83	99.2	0.75	30
	Total	**19.90**	**99.5**	**0.57**	**51**

CONCLUSIONS

The results of this research study confirm our initial hypothesis that all participants demonstrated a very high consistency of polarity choices and relational similarity between font-size and loudness in TtS. Moreover, the results showed that important differences do not exist between students of primary and secondary education. Thus, the same mapping between the text font-size and the voice volume in TtS can be applied in both cases. In our future work, we will investigate the mapping between the font-type (e.g. bold, italic, and bold-italic) and the prosodic parameters in TtS as perceived by sighted and blind students.

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HOW TO IMPROVE THE EFFECTIVENESS OF TRAINING: THE SCHOOL-WORK ALTERNATION PROJECTS

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ABSTRACT
The school-work alternation project is a teaching methodology of the system of education and training. It allows students to alternate periods of study and work on the basis of agreements with companies or organizations available to accommodate students.
Think of school and work as two separate realities may limit students' growth. Knowledge and know-how are two sides of the same coin. The goal is to achieve a mix of these two aspects, beyond the idea "before study and then work". Students can develop skills to better integrate into the labor market.
Work experience as the only training program is designed in collaboration with the business world. It is not, therefore, a simple operating experience, but a process that involves all players in the education of each student.
It is important to evaluate the training and professional needs of the territory, you must create the conditions to create a collaborative relationship between school and territory.
The objectives pursued are:
- reduce the school dropout rate
- raise the level of education
- promote the connection between classroom training and practical experience
- enrich the student's education with new skills, that are useful to the student in the world of work
- encourage the student orientation towards career opportunities

In this context, it is important to create networks of relationships between schools and external realities to promote job placement.

INTRODUCTION
Today companies, because of the change of the context in which they operate, require more knowledge. These latter are an important factor in global competition.
This increase in the centrality of knowledge has led to review the conditions under which people are trained. This highlights the role of training and to reflect on the role of the school in what is called "knowledge society".
The development of a country are related to work and the creation of new job opportunities. This leads us to reflect also on the value of education and vocational training, which should contribute to the development of skills needed to cope with the changes of the current work context.
In this context, some issues arise:
- early leavers from education: 12% in Europe but, for example, in Italy is 15%, in Spain is 22% in 2014 (EUROSTAT, 2014);
- high level of young people are not studying and not working (NEET rate): 12,4% in Europe but in Italy is 22% in 2009 (EUROSTAT, 2009);
- high unemployment rate 10.8% in Europe in 2013 (EUROSTAT, 2015);
- transition from school to work takes place in Italy after 25 years (the longer than other OECD countries) (OECD, 2000);
- significant is the number of young people that carry out activities inconsistent with the training received.

Questions that we can do are:
- How to enable an effective system of orientation of young people?
- Does the school adequately prepare young people to work?
- Are the laboratory experiences effective and efficient?
- Is there a combination between basic training and practical preparation?
- Can you overcome the belief that "before you study and then work"?
- Does it emerge the desire to experiment new paths in the student's education?
- How work can become an integral part of the school system?

The school-work alternation is an educational methodology to facilitate the acquisition of skills that students can use in the job market (Allen-Meares & Montgomery, 2014). It is a methodology not only centered on the subject knowledge but also on the personal skills of students. The school-work alternation is a teaching and training transverse mode that differs from the channels of the education system with the ability to "learn by doing".
It uses different tools such as classroom training, laboratory activities, internships in companies and/or public and private entities, company visits, meetings held at the school by external experts on specific issues of the world of work, with the aim of expose students to a concrete reality of work.
The work experience becomes a tool to promote the personal and professional development of the student. The

heart of the experience of school-work alternation is to innovate education through teaching methods really capable to promote a know-how conscious (Akkerman & Bakker, 2012).
Alternation allows students to complete a part of their education at a company or an institution. We can speak of an organic link with the world of work: it is a mode of flexible learning with the aim of linking classroom training with practical experience. The alternation is a combination of educational attainment and experience assisted in the workplace, designed in collaboration with the corporate world. In fact, this methodology allows students to carry out a training through alternating periods of study and work, under the responsibility of the school or educational institution (Illeris, 2011).
The school-work alternation is an educational moment, played in the corporate context, where the student checks, integrates, expands the knowledge learned at school; it becomes aware of itself and its professional orientation, strengthens the motivation to study; it can learn about the economic and productive context in what will fit. We can talk about a possible answer to the question of personalized learning for students; help young people to be leaders of their career choices, through experiences in which test their aptitudes and to respond to their aspirations.
The school-work alternation is made on the educational choices of the school, the professional needs of local companies, the personal learning needs of students (UNIONCAMERE, 2006).
In this context, we can reflect on the one hand the importance of training for the job and on the other hand, the role of job for the training.
The school becomes more open to the territory and the companies (Bramanti & Odifreddi, 2003). It can play a formative role to young people in a context where the participation and collaboration of different actors is necessary for the realization of school-work alternation, such as industrial associations, chambers of trade, etc. This enriches the training of students with the acquisition of knowledge put to use in the workplace. The work experience in the company in fact permits the student to gain a realistic picture of what will its professional reality.
The student experience in the company does not qualify as an isolated activity: it is part of a training program to promote a process of personal development of the student. In contact with the concrete operational, organizational and interpersonal problems of the workplace, the student not only widens its knowledge, but acquires greater security and operational autonomy. The stage may allow the student to test the limits of its technical preparation and its social behaviors (Coleman, 1974; Smith, & Rojewski, 1993).
This is possible through agreements with companies or public and private institutions available to accommodate students for holding an internship.
We can say that targets of school-work alternation are:

- implementation of flexible learning mode can connect classroom training with practical experience
- achieve improved results in student learning
- enrich the school training with the acquisition of skills they can use in the job market
- facilitate the orientation of young people to enhance the vocation and personal interests
- connect educational and training institutions with the world of work, with active participation in the educational process
- create a link among cultural, social and economic development of the territory

At the local level, it may apply network agreements among different schools and implement framework agreements or protocols of agreement specifying the various parties involved and their intervention projects. Moreover, if we see the school and work as two distinct realities, each with its own rules and its dynamics, we can compromise the individual growth of each student. It seems important to seek synergies and break down mutual distrust. The human resource is the center for the school and the company, so they should talk and work together and understand each other. What are the reasons that lead companies to accept students in alternation?

- ability to identify, recruit possible future resources;
- play an active role to update schools on job profiles and skills required by the labor market.

Knowledge and know-how are two sides of the same coin: the possibility of alternating school and learning experiences in the workplace, it contributes to an improvement in the results of student learning. The design of routes alternation can promote the acquisition of skills in young people with the knowledge and know-how (Dewey, 1980). This combines the training of the person with the marketability of what it learns in the working realities. Thinking and doing can be considered as complementary processes, integrated and not alternative. In this way, students can develop the skills (including practices) needed to get into the labor market: theoretical knowledge are joined also the ability to do, using the company as a classroom (Smith, & Rojewski, 1993).
The school-work alternation is not a simple experience in the world of work, but it is part of a training program designed by those who are the real protagonists of the student's education. The alternation should be considered a direct teaching method to complete the training of the young, recognizing the educational value of the work (Ribolzi, 2004). Overcome the separation between classroom lessons and practical experiences, it is realized by the combination of formal and informal education and work experience in a single training program.
First of all the school has to play a guidance activities for young people to improve personal vocations, interests,

modes of individual learning.
In planning the alternation project, it is also important to consider the training and professional needs of the territory: we speak of a virtuous circle of flows of skills that can contribute to the growth of all involved, a correlation between training offer with the cultural, social and economic development of the same territory. Promote the connection between education and the world of work can contribute to the economic, social and cultural development of the same territory. The school must consider the contribution of the different players in the territory to address its institutional initiatives. We must create the conditions to establish a school-community collaboration. This to support initiatives that arouse students' interest and encourage their active participation in the educational and training experience. The ability to create effective cooperation among the different actors involved is an important added value. We can talk about the creation of a network of external partners, localized in a model of diversified experience, corresponding to the variety of skills that students can develop. A fruitful dialogue is essential for the enhancement of the study and personal commitment (Coleman, 1974).
In a multicultural society and projected more and more to international relations appears also important the treatment of language skills through participation in specific short courses or work experience summer.
Any participation in trade events can highlight the opportunities in the sector and create an experience that allows students to immerse themselves in the real professional world. This allows students to compare their knowledge with the concrete problems of work.
They are realized courses of safety training in the workplace to enable an understanding of the elements of safety-related activities. They can realize business visits and / or meetings with experts to bring young people to the issues of work and professional activities of their interest with the aim of encouraging and supporting the actions of orientation (Ribolzi, 2004).
The paths of school-work alternation take place over several years, so young people can have a wider knowledge of the job market and their attitudes and skills.

THE DESIGN OF SCHOOL-WORK ALTERNATION

The planning of the training project is the most important step for the realization of a school-work alternation process, because it should integrate education with the skills can be learned and used in the world of work. From a methodological point of view it is necessary to define a single training plan.
The phase of design allows different actors involved to participate in a process that requires a strong partnership. In the first place, in this process it is important to define the objectives, resources to use, timing, responsibilities and how to check the progress, to optimize the achievement of targets during each phase of the project.
General goal is to build tools that combine the real needs of the companies with skills acquired by students through the training courses offered (Bertagna, 2003).
The student can verify the topics covered during the training in the classroom in the operational reality. It becomes part of a system of relationships with the aim of promoting the growth of the same from a human and professional point of view.
We can define more specific objectives, such as:

- carry out a project where the school is integrated into the economic fabric of its territory, through a synergistic collaboration with the corporate world;
- identify the professional profiles required by companies, in order to direct the educational attainment and developing specific issues that may be indicated by the same companies;
- promote the acquisition of skills by the student that allow it to enter in the productive fabric;
- develop more effective methods of learning;
- develop interpersonal, communication and self-assessment capacity;
- enhance the skills acquired.

The analysis of the reference context can identify professional profiles consistent with the current market trends (for example we can think of the professional profiles in the tourist industry for a hotel management school).
With regard to these professional figures, we can define an analysis of training and professional needs to join the classroom training with the practical experience, through the adoption of flexible learning mode. We can talk about of basic educational goals (language skills, computer, etc.), technical and professional goals related to the type of activity and transversal training goals related to the capacity of analysis of the problems, self-learning, relational, etc.
Then the project includes two training sessions, integrated together and involving the school, students and companies: training in the classroom by teachers and with the support of experts identified in collaboration with the companies involved (this activity is related to the topics considered consistent with the professional profiles) and a period of training in the company through an internship.
Over the agreement and the necessary documentation, the school shares with the company the training project of the student.
From the organizational point of view shows some key figures:

- the teacher responsible for the entire project, it manages the project of school-work alternation in the school,

coordinating the figures of tutors and managing relationships with external figures;

- a school tutor, it is identified among the teachers of the class, preferably of vocational subjects. It assists and guides the student engaged in a process of alternation and checks the correspondence of the path to the project signed with the agreement between the school and company. Furthermore, it is called upon to:
  - perform an orientation activity to direct the student to a more consistent with their aspirations; it aims to collect useful items also compared the expectations and motivations of individual students to participate in the path of alternation;
  - prepare the agreements with the companies;
  - address management and organizational issues;
  - agreed with the students the choice of the company considered more suitable and explain to the students the main characteristics of the context in which it will be inserted;
  - define the training agreement, that is the document by which the educational institution shares the project with the student; it aims to make students aware of the learning objectives of the course and to inform the activities in the company requires responsible behavior, in compliance with the rules of hygiene, health and safety;
  - agreed with the company tutor the path of the project by defining a training plan will be subject to testing during and at the end of the same path;
  - follow the students in companies, evaluate the progress of the experience and try to resolve any problems;
  - ensure the proper completion of forms related to the Stage performed;
  - collect the feedback of the company tutor toward the student and the student himself about the whole experience;
  - check the skills acquired by students.
- a company tutor, who is the point of union between the company and the school. It also:
  - facilitates the orientation and induction into the company, explaining the operation of the host organization;
  - guides the student in the various activities, favoring its integration in company;
  - supports the student in learning, favoring an efficient integration between training outside the workplace and training within the company;
  - draws up the request forms (e.g. the attendance sheet) and evaluates the student.

During the first steps towards school-work alternation, there are specific training actions to the listed tutorial figures (Bertagna, 2003). In particular, the training courses can analyze the regulatory environment and the labor market of where it fits the methodology of school-work alternation to:

- provide information and tools to design systems and define learning objectives;
- promote a reflection on the opportunities related to the alternation, developing methods of preparation and management of concrete training;
- allow interested persons to independently develop tools for monitoring and evaluation of the actions undertaken.

Relations and contacts between two tutors are continuing for the duration of the course, integrating concretely the training path implemented in the school with the path of integration in the employment context. The synergistic action of the two tutors evaluates the path of the student and certifies the skills acquired.

The evaluation phase should be seen as a collegiate action, fundamental to check the quality of the course, to assess the knowledge, skills, attitudes acquired by students during the experience in the company.

At this stage contribute different figures (teachers, tutors, students) through different tools (assessment sheets). In particular it may be noted that:

- the company tutor must provide, with a special card, to the school, the elements to assess the student's activities and effectiveness of educational processes. it can assess the behavioral and relational skills (punctuality, responsibility, common sense, relationships with colleagues and superiors, ability to work in a team, willingness to learn, motivation, etc.) and the organizational abilities and skills (understanding the activities to be carried out, the degree of autonomy in carrying out its responsibilities, etc.) of the student;
- the student itself is called a self-assessment of their activities. This may allow it to determine whether the work experience has improved its capacities and has played an effective approach towards a possible future professional activity;
- the school tutor, based on the assessments of the company tutor and the student, assesses overall path alternation and learning outcomes of the same.

In the course of school-work alternation is important to consider:

- the execution of the individual training program agreed with external tutors
- the degree of possession of relational and cognitive skills acquired (based on the objectives defined in the training program)
- the repercussions on the class for experiences in the workplace

- the self-assessment of the student.

In particular, the evaluation of the skills acquired is a necessary condition of the entire project of alternation, because it makes visible the results of the activities carried out by students.

We can speak of valuation techniques that allow us an assessment of the process and the result. The attention to process enables us to evaluate the organizational efficiency of the various stages of the project. This fact allows us to evaluate the ability of the school to manage the different phases of the same path while maintaining adequate quality standards.

The attention to the result leads us to talk about educational effectiveness of the learning process: in this context are also important attitudes and behavior of the student, such as, for example, those related to the acquisition of an appropriate sense of initiative and availability to learning how to learn (search for information, ask questions, etc.).

We can identify quality indicators that concern the comparison between surveys on the professional needs of the area and the results achieved by schools. This contributes to the school to validate the quality of its training.

A final evaluation of the path of school-work alternative:

- a certification of skills acquired. this can be used in situations of work or study and in professional and personal development of the young; the certification of skills acquired is an important element of the methodology of alternation;
- an integral part of the learning assessment at the end of the school year, carried out by the teachers of the class council.

The analysis of several concrete experiences of school-work alternation allows us to highlight definitely different strengths but also some critical elements. Among the strengths we are: integration of school and work, an integrated planning of the training programs, effective guidance of young people and the enhancement of training needs of the students. Among the critical elements can, however, highlight, for example: the limited information on the topic, the difficulties of dialogue at times between the school system and the labor market, the limited availability of resources by the school, the lack of incentives for companies to accommodate students in internships.

CONCLUSIONS

The improvement of the strengths and the reduction of critical factors allow us a further enhancement of this methodology to support direct cooperation of educational institutions with the world of work and the professions. If it is true, that the school-work alternation is a process in which different actors are connected, then the success of this experience can be reached when all parties involved are able to collaborate and share their objectives. This in the belief that to fully realize the training needs a closer link with the work environment. Schools and companies must achieve greater integration. The school must open outwards, creating and strengthening synergies with the territory to grasp the links between school experiences and business opportunities.

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İNSAN HAKLARI VE EĞİTİM

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ABSTRACT
According to understanding of natural rights that justify human rights, all people have absolute, non-negotiable, universal, indispensable rights. Since they are based on the pre-existance of society, all of these rights independent of society. Human being as rational beings only living creatives that have the capability of preference and making choises, in this sense human rights are individual's universial and ethical rights. Nowadays, with increasing importance and power, human rights come in standard for the political legitimacy. Although it's frequent use the question of what is concept of human rights remains unanswered. This study will try to answer this question focusing on its features and legal bases. In addition, the role of education in embracing human rights, and the purpose and importance of education of human rights will be touched on

GİRİŞ

Günümüzde neredeyse bütün ülkeler tarafından çok fazla önem verilen, pozitif bir değer yüklenen ve çok sık söz edilen insan haklarının, felsefi ve ahlaki temelleri olmakla birlikte, insan hakları, işlevi açısından aynı zamanda siyasidir. Hakkın, öznesi, konusu ve yükümlülük altına aldığı unsurları vardır. Sınırlandırılan ya da yükümlülük altına alınan siyasi iktidar ya da devlettir. İnsan hakları doğrudan doğruya devlete karşı ileri sürülür. Hak kavramının temeli, toplumsal yaşam biçimine geçişe dayanır. Toplumsal yaşamla birlikte devlet, insanların isteklerini karşılayacağını ileri sürmüş, onların doğuştan gelen bir takım hak ve özgürlüklerinin bulunduğunu ve bunları korumayı amaçladığını açıklamıştır. Hak ve özgürlüklerinin güvence altına alınması şartıyla insanlar da bazı sınırlamalara razı olmuşlardır.

Hak kavramı genel olarak, bir kimsenin isteyebileceği, ileri sürebileceği ve kullanabileceği bir durumu ifade eder. "Hak, hem ahlaki hem de hukuki bir kavramdır. Her iki alanda da hak, bir kişi, bir kurum veya bir şey üzerindeki gerekçelendirilmiş bir iddia veya talebi ifade eder."[1] Hak sahibi olmak, hak sahibi olduğu varsayılan bir kişinin bir şeye yetkili olduğu veya o kişinin bir şeyi meşru olarak talep edebileceği anlamına gelir. Birinin bir şeye hakkının olması, o şeye yönelik iddiasının tartışılmamasını ve hakkının herkesçe tanınmasını gerektirir.[2] Hak kavramının bu şekilde kullanılması, içinde ahlaki meşruluk düşüncesini barındırır. Hakkın, varlığı tartışılmaması gereken meşru bir yetki ve talep olarak anlaşılması bunu gerektirir. Bu tür bir hak iddiası, hakkın sonucu olan negatif ve pozitif taleplerin gerektiğinde zora başvurmayı meşru kıldığı anlamına da gelir. Yani her hak iddiası belli bir somut durumda başkasının özgürlüğüne müdahale edebilmek için ahlaken yetkili olduğunu da gösterir. Hukuki haklar söz konusu olduğunda tanınma ve saygı gösterilme talebi siyasi otorite tarafından zorla yerine getirilme ile karşılanır. Böylelikle hak sahibi hakkının tanınmadığı ve ihlal edildiği durumlarda yasal yollara başvurarak fiilen sonuç alabilir. Sadece ahlaki hak söz konusu olduğunda ise, hakkı ihlal edilen kişinin buna karşı koyabilmesi ahlaki gerekçelendirmenin gücü ile sınırlıdır.[3] Ahlaki hakkın, yasal bir boyut kazanmadan herhangi bir yaptırımı söz konusu değildir.

Hakkın özü, bir şeyi yapabilme yetkisidir. Bu, onun aynı zamanda zorunluluk değil, bir izin niteliği taşıdığı anlamını da yansıtır. Yani, hak sahibi hakkın konusundan yararlanıp yararlanmamak bakımından bir takdir yetkisine sahiptir; kişi hakkını kullanmaya zorlanamaz. Her hak, sahibine olumlu ya da olumsuz bir talepte bulunma yetkisi verir. Genellikle özgürlük hakkı negatif taleplerin, talep hakkı ise hem olumlu hem de olumsuz taleplerin dayanağı olabilir. Başka bir ifadeyle, bir hak başkalarına sırf kaçınma yükümlülüğü yükleyebileceği gibi bir edim ya da yerine getirme yükümlülüğü de yükleyebilir. Bir hak iddiası, hakkın konusundan yararlanma yetkisinin genel ve özel olarak tanınmasını, ona saygı gösterilmesini istemek zorundadır. Hukuki haklar söz konusu olduğunda, bu özellik "zorla yerine getirme" ile takviye edilir. Hak sahibi, hakkını tanımayan veya ihlal edenlere karşı yasal yollara başvurarak hakkın konusundan yararlanmasını fiilen sağlatabilir. Sırf bir ahlaki hak durumunda ise, hakkı ihlal edilen kişinin buna karşı koyabilmesi ahlaki iddiayla sınırlıdır.[4]

[1]Erdoğan, Mustafa, *İnsan Hakları Teorisi ve Hukuku*, Orion Kitabevi, Ankara, 2007, s. 7.
[2]Gewirth, Alan, "Basis and Content of Human Rights", *Human Rights: Essays on Justification and Applications,* The Univ. Of Chicago Press, 1982, p. 46-47.
[3]Erdoğan, Mustafa, *İnsan Hakları Teorisi ve Hukuku*, s. 8.
[4] Coşkun, Vahap, *İnsan Hakları Liberal Açıdan Bir Tahlil*, Liberte, Ankara, 2006, s. 106-107.

Wesley N. Hohfeld'e göre, "hak" kavramı başlıca dört farklı anlamda kullanılır: talep hakkı, özgürlük, güç ve dokunulmazlık. Talep hakları, başkalarına ödev yükleyen haklardır. Talep hakları, hakka muhatap olanların eylem özgürlüğünü, onları pozitif bir edimde bulunmaya zorlayarak fiilen kısıtlar. Özgürlük hakkı, hiç kimseye belli bir ödev yüklemeyen haktır. Bir özgürlük hakkına sahip olmak, bir ödevden muaf olmaktır. Bu hak başkalarına da pozitif ödev yüklemez. Hohfeld'in ayrıcalık olarak da adlandırdığı özgürlük hakkı aslında bir tür ruhsat veya izindir. Yetki, hak sahibinin mevcut bir hukuki durumu veya ilişkiyi değiştirebilme yeterliliğini veya iktidarını ifade eder. Sözleşme yapma, dava açma veya parlamentonun yurttaşlara yeni ödevler yükleyebilmesi gibi durumlar yetkiye örnek olarak gösterilebilir. Dokunulmazlık ise, kişilere tanınan yasalardan istisna edilme durumunu ifade eder.[5] Örneğin, bir kişinin ifade özgürlüğüne sahip olması, yasama organının onun konuşma özgürlüğünü ortadan kaldıran yasalar yapamayacağı ve meşru olmayan herhangi bir gerekçeden dolayı müdahale edemeyeceği anlamına gelir.

İnsan hakları, insan onurunu korumayı ve insanın maddi-manevi gelişimini amaçlayan haklar olup, bireylerin sadece insan olmalarından dolayı kazandıkları haklardır. İnsan haklarına sahip olmak için, insan olarak dünyaya gelmek yeterlidir. Bu yüzden, ırk, din, dil, cinsiyet, ekonomik, sosyal ya da siyasi statü bakımından farklılıklar olsa da, bütün kişilere sadece insan olmaları nedeniyle tanınan, insan onurunun gereği sahip oldukları vazgeçilemez ve devredilemez hakların tümü insan haklarıdır. Bütün insanların özgür, onur ve haklar bakımından eşit doğdukları, akıl ve vicdan sahibi oldukları, yaşama ve güvenlik haklarının olduğu, hiçbir biçimde işkence veya kötü muameleye maruz bırakılamayacakları gibi anlayışlar maddeler halinde birçok insan hakları bildirgelerinde de yerini almıştır.

İnsan haklarının bireyin hakları olması, evrensel haklar olması, en üstün ahlaki haklar olması ve siyasal meşruluğun ölçütü olması gibi bir takım özellikleri vardır. İnsan haklarının öznesi topluluklar değil, bireylerdir. Akıl sahibi bir varlık olup tercihte bulunma ve seçebilme özgürlüğüne sahip tek varlık bireydir. İnsan haklarının evrenselliği iddiası, özellikle yirminci yüzyılda büyük güç kazanmıştır. Bunun iki nedeni olduğu söylenebilir. İlki, I. ve II. Dünya Savaşlarında milyonlarca insanın hayatını kaybetmesi ve savaş sonrasında yine milyonlarca insanın temel haklarından mahrum bırakılmasıdır. İkinci olarak da, yirminci yüzyılda otoriter yönetimlerin insan haklarını sistemli bir şekilde ihlal etmesi ve insan onurunu ayaklar altına alması karşısında, bu tür olaylara imkan vermeyecek bir insan hakları sisteminin oluşturulmasına ve buna ilişkin istemlerin evrensel düzlemde dile getirildiği kurumsallaşmaların oluşturulmasına yönelik çabalar, insan haklarının evrensel olduğu inancının ortaya çıkmasına neden olmuştur.

İnsan hakları, ahlaki hakların bir türüdür ve o, en üstün ahlaki haktır. İnsan haklarının ahlaki haklardan olması, onu geleneksel ve hukuki haklardan ayıran bir noktadır. En üstün ahlaki hak olması ise, ona dayanan taleplerin başka bütün hak iddialarına göre ahlaki öncelik taşıdığını ifade eder. İnsan haklarının en geniş anlamda siyasal meşruluğun ölçütü sayılmasının nedeni de budur. Siyasal meşruluk, toplumsal yönetimin temel dayanağının sorgulanması anlamına gelir ve hukuksal bir sorunu ifade eder. Çünkü tüm hukuk normlarının meşruluk açısından sorgulandığı bir dönemde, tüm toplumu ilgilendiren siyasal iktidarın dayanağına ilişkin bir meşruluk sorgulamasına gerek görmemek ya da konuyu hukukla ilişkisiz bir olgu saymak olanaksızdır. Bir siyasal erkin meşru sayılabilmesi, onun bireylerin iradesine dayalı bir uyum ve uzlaşmayı sağlayabilmesine, yönetiminin yönetilen tarafından onanmasına bağlıdır.[6]

Modern insan hakları düşüncesinin ilk ve etkisi hala devam eden kaynağı doğal hukuktur. Tarihsel olarak insan hakları ilk önce doğal hukuktan türeyen veya insanların doğa halinde sahip oldukları doğal haklar olarak anlaşılmıştır. Doğal hakların genel olarak şu özellikleri taşıdıkları kabul edilmektedir: doğal haklar geçerlilikleri pozitif hukuka bağlı olmayan bağlayıcı ilkeler olarak, bütün insanlara doğaları gereği verilmiştir. İnsanlar doğal haklarla birlikte doğarlar, bunlar insani var oluşun ayrılmaz bir parçasıdır. Doğal hakların reddi, bir ölçüde insanın reddi demektir. Bundan dolayı, doğal haklar doğuştan, devredilmez ve dokunulmaz haklardır. Doğal hakların varlığı toplum-öncesi olup, herhangi bir toplumsal yapının, gelişmenin veya siyasal düzenlemenin eseri değildirler. Aksine bunların korunması siyasal toplumun kuruluş amacıdır. Doğal haklar mutlaktır. Hiçbir düşünceyle doğal haklar geçersizleştirilemez, uygulamadan alıkonamaz ve kapsamları daraltılamaz. Doğal haklar pazarlık ve taviz konusu olamazlar. Doğal haklar evrenseldir, zamana ve mekana bağlı olmaksızın bütün insanların doğal hakları vardır.[7]

Ayn Rand'a göre, insan doğasının, zorlamadan kaçınma ve rasyonellik gibi bazı özellikleri vardır. İnsan doğası, zorlama ya da baskı altındayken sağlıklı olarak eylemde bulunmaya uygun değildir. İnsanın bu doğal

[5] Waldron, Jeremy, "Introduction", *Theories of Right*, ed. Jeremy Waldron, Oxford University Press, 1995, p. 9.
[6] Coşkun, Vahap, *İnsan Hakları Liberal Açıdan Bir Tahlil*, s. 109-111.
[7] Erdoğan, Mustafa, *İnsan Hakları Teorisi ve Hukuku*, s. 34.

özelliğinden dolayı özgür bırakılması gerekir. Aynı şekilde rasyonellik yani akıl sahibi olmak da insan doğasındandır. İnsan hakları, insanın bu kendine özgü doğasının zorunlu bir şartıdır. Rand'ın ifadesiyle haklar, insanın doğasının, insanın insana yaraşır bir şekilde yaşayışı için gerekli kıldığı varlık şartlarıdır.[8]

Alan Gewirth insan haklarının meşruluk temelini, insanın doğası gereği ahlaki bir özne olmasına dayandırır. Gewirth'e göre haklar, ahlaki olarak hareket etme fikrinde yer alır. Eğer insanların ahlaki özneler oldukları kabul ediliyorsa, onların eşit haklara sahip oldukları da kabul edilmelidir. İnsanın ahlaki bir özne olarak eylemde bulunabilmesinin en temel şartları ise özgürlük ve refahtır. Çünkü, kendi davranışını kontrol etmesi engellenen birey eylemde bulunamayacağı gibi, hayat, fiziki bütünlük, kendine saygı ve eğitim gibi insan iyiliğinin temel unsurlarından yoksun olması halinde de kendi amaçlarını izleyemez. Ahlaki özne olarak insanın özgürlük ve refah iyilerine sahip olması zorunludur, dolayısıyla onun özgürlük ve refah hakkı vardır.[9]

Modern liberteryenizmin ilkelerinden biri olan "kendinin sahibi olma" düşüncesi John Locke'a kadar geri gider. Locke, eğer tek bir doğal haktan söz etmek gerekirse, bunun kişinin kendisi üzerindeki sahipliği olacağını ileri sürmüştür. Dolayısıyla Locke'a göre hayat, özgürlük ve mal-mülk hakları gibi doğal hakların kaynağı aslında kendisinin sahibi olma ilkesidir. Doğal hakların devredilmezliğinin temeli de budur. Kişi rıza yoluyla da olsa doğal haklarını devredemez veya bunlardan vazgeçemez. Kendinin sahibi olma düşüncesi her bir bireyin kendi fiziki ve manevi varlığı üzerinde mutlak bir hakka sahip olduğunu varsayar.[10] Hiç kimse, bireyin kendisini belirmesine, sahip olduğu potansiyeli ve kapasiteyi gerçekleştirmesine engel olamaz.

Bazı insan hakları teorisyenleri insan hakları normlarını insan onurunun korunmasıyla temellendirmişlerdir. Esasen insan haklarına ilişkin anlayışlarının çoğunun temelinde, bütün insanların sırf insan olmak itibariyle kişiliklerine bağlı bir değeri bulunduğu inancı yatar. Bu inanç bazen insan onuru fikriyle, bazen kişilere saygı fikriyle, bazen de insanlara sırf araç olarak değil, kendinde amaçlar olarak muamele edilmesine ilişkin Kantçı fikir yoluyla ifade edilir. Her birey, kendinde bir değere, onura sahiptir ve başkalarının amaçlarının araçları yapılamayacak kadar değerlidir.

Bazı siyaset felsefecileri, insan haklarının asıl temelinin vicdan özgürlüğü olduğu görüşündedir. Vicdan özgürlüğü korunması gereken en temel insanlık değeridir. Eğer haklar evrensel iseler onların korudukları değerlerin bütün toplumların veya kültürlerin üstün saydığı değerler olması gerekir. Eğer böyle olmazsa, insan hakları bu değerlerin teşvik edilmesini kabul etmeyenlerce pekala baskıcı olarak görülebilir. Öyle olmaması isteniyorsa, insan haklarını bir topluma yabancı olan değerlere veya nedenlere dayandırmaktan kaçınmak gerekir. Hiçbir topluma yabancı olmayan temel değer ise, insan hakları mücadelesinin tarihinde önemli bir yeri bulunan vicdan özgürlüğüdür. Vicdan özgürlüğünün önemi, ilk olarak, bu kavramda doğru hareket etmenin kişi veya kişiler için öneminin kabul edilmesinde yatar. Bir kişiden yanlış olduğunu düşündüğü şekilde davranmasını istemek ona çok ciddi bir talebi dayatmaktadır. Vicdan özgürlüğü hakkı insanlardan yanlış olduğunu düşündükleri tarzda hareket etmelerinin istenmemesi gerektiğini kabul eder. İkinci olarak, vicdan özgürlüğü insanların doğru ve yanlışa ilişkin düşüncelerinin birbirinden farklı olduğunu tanır. Nihayet, vicdan özgürlüğü kavramının özünde inanca zorlamak üzere güç kullanmamaya bağlılık yatar.[11]

İnsan haklarını meşrulaştırmada başvurulan alanlardan biri de dindir. İnsan hakları kavramı geleneksel dinlerde yer almamakla beraber, dinler pozitif hukuktan daha üstün olan ve Yüce Varlıktan kaynaklanan bir hukukun varlığı düşüncesiyle insan hakları teorisine bir bakıma temel hazırlamışlardır. Nitekim, Eski Ahit "insanın Tanrının suretinden yaratıldığını" belirtmekte, Kur'an ise "Biz, insanoğlunu şerefli kıldık" demektedir.[12] Ayrıca Kur'an'da bazı ayetlerde, "bir insanın hayatı bütün insanların hayatına denktir", "bir insanın hayatına son vermek bütün insanları yok etmek, bir insanın yaşamasına sebep olmak bütün insanları yaşatmak demektir" gibi anlayışlar yer alır. İlahi dinler bu şekilde insana yüksek bir değer verir ve adeta her insanı kutsal kabul eder. Neredeyse bütün ilahi dinler, en başta yaşama hakkı olmakla birlikte, özgürlük hakkı, din ve vicdan özgürlüğü gibi diğer birçok insan hakkına önem verir ve insanların bu haklardan mahrum bırakılmaması gerektiğini emreder.

İnsan hakları eğitimi, insan haklarının evrensel bir kültür olarak yapılanmasını amaçlayan eğitim, öğretim ve bilgilendirme faaliyetleri olarak tanımlanabilir. İnsan haklarında kapsamlı bir eğitim tek başına insan haklarını

[8] Rand, Ayn, "İnsan(ın) Hakları" çev: Atilla Yayla, *Sosyal & Siyasal Teori: Seçme Yazılar*, der. Atilla Yayla, Siyasal Kitabevi, 1993, s. 259.
[9] Erdoğan, Mustafa, *İnsan Hakları Teorisi ve Hukuku*, s. 36.
[10] Erdoğan, Mustafa, *İnsan Hakları Teorisi ve Hukuku*, s. 37-38
[11] Erdoğan, Mustafa, *İnsan Hakları Teorisi ve Hukuku*, s. 40-41.
[12] Erdoğan, Mustafa, *İnsan Hakları Teorisi ve Hukuku*, s. 43.

koruma mekanizmaları hakkında bilginin temin edilmesini değil, aynı zamanda gündelik yaşamda insan haklarının kullanılması, savunulması ve yaygınlaştırılmasına yönelik ihtiyaç duyulan becerilerin kazanılmasıdır.[13]

İnsan hakları eğitimi, insan hakları ve temel özgürlüklere saygının kuvvetlendirilmesini; insan kişiliğinin ve onurunun tam olarak gelişmesini; tüm uluslar, yerli halklar ve ırksal, ulusal, etnik, dinsel ve dilsel gruplar arasında dostluğun, toplumsal cinsiyet eşitliğinin, hoşgörünün ve anlayışın yaygınlaştırılmasını; tüm bireylerin hukukun üstünlüğü ile idare edilen demokratik ve özgür bir toplumda etkin bir şekilde katılımını temin etmesini; barışın korunması ve yapılanmasını; insan merkezli sürdürülebilir kalkınmanın ve sosyal adaletin yaygınlaşmasını amaçlar.[14]

İnsan hakları eğitimi, karşılıklı anlayış, hoşgörü, saygı ve dayanışmayı sağlar. Bireye hak bilinci kazandırmanın yanı sıra, başkalarının haklarına saygı göstermeyi de öğretir. İnsan hakları eğitimi, insanların, sosyal adalet, barış, demokrasi ve özgürlük kavramları özümsemesine katkı sunar.

İnsan haklarının özellikleri ve meşruluk temelleri değerlendirildiğinde, anlaşılacağı üzere insan hakları, en temelde ahlaki olmakla birlikte, hukuki ve siyasi bir kavramdır. Akıl ve vicdan sahibi olan insan, doğası gereği vazgeçilemez, devredilemez ve çiğnenemez birtakım haklara sahiptir. Dili, dini, ırkı, cinsiyeti, ekonomik durumu her ne olursa olsun, her insanın, en başta yaşamaya ve can güvenliğinin sağlanmasına hakkı vardır. Her insanın, düşünce özgürlüğüne ve düşündüğünü özgür bir biçimde ifade etmeye ve kendini gerçekleştirmeye hakkı vardır. Doğal hukuk ve doğal haklar, insan doğası ve onuru, kendinin sahibi olma, vicdan özgürlüğü, din gibi faktörler insanların bu haklara sahip olduğunun meşru temelleridir.

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[13] Ataman, Hakan, *Eğitim Hakkı ve İnsan Hakları Eğitimi*, İnsan Hakları Gündemi Derneği, İzmir, 2008, s. 70.
[14] Ataman, Hakan, *Eğitim Hakkı ve İnsan Hakları Eğitimi*, s. 72.

HUMAN RIGHTS EDUCATION: THE CASE OF RUSSIAN UNIVERSITIES

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ABSTRACT
The promotion of human rights is one of the main issues of the global agenda for the 21st century. UN and UNESCO documents describe human rights education as a necessary condition for equality and sustainable development. This paper analyses the current situation of human rights education in Russian universities. The research is based on analysis of international and national documents, as well as a student survey. The article examines the main forms of youth engagement on human rights issues and its instruction in the Russian regions. The authors discuss the challenges, analyse their origins and make recommendations for the enhancement of human rights education in Russia.

Keywords: human rights education; higher education; curriculum; Russian Federation.

INTRODUCTION

The promotion of human rights is one of the main issues of the global agenda for the 21st century. UN and UNESCO documents describe human rights education as a necessary condition for equality and sustainable development. In addition, the universality of human rights implies that they should be studied by students of all ages and all over the world.

The Vienna Declaration and Programme of Action of the World Conference on Human Rights (1993) "considers human rights education, training and public information essential for the promotion and achievement of stable and harmonious relations among communities and for fostering mutual understanding, tolerance and peace" (Vienna Declaration, 1993). The Conference appealed to all countries to include issues of human rights, humanitarian law, democracy and rule of law as subjects in the curricula of both formal and informal educational institutions (Manuchehr, 2010).

In 2004, the UN General Assembly adopted the World Programme for Human Rights Education. The first phase refers to the integration and inclusion of human rights education into elementary and secondary education. The priorities of the second phase (2010–2014) were human rights instruction in higher education and training of teachers, civil servants, law enforcement officials and armed forces personnel. During the third phase (2015–2019), nations should continue the promotion of human rights education in schools, as well as in universities. Considerable efforts have been made to include a human rights agenda in academic programmes worldwide, including in the Russian Federation (Mahdi Meghdad, M., Erfani Nasab, A., 2010; Bajaj, M. 2012).

Before entering human rights courses in Russian academic programmes and curricula, it is necessary to consider the current state of human rights teaching, as well as students' needs and their background on the issue.

The term "human rights education" is not mentioned in current Russian laws. However, according to a letter by the UN High Commissioner for Human Rights, "Russia, considering the development of education as a social policy priority, establishes the humanitarian character of education, priority of universal human values, health and wellbeing, free development of personality, development of civic consciousness and respect for human rights and freedoms as key principles of state policy in this area (Permanent Mission of the Russian Federation to the United Nations, 2012). According to Article 43 of the Russian Constitution and the Federal Law "On Education in the Russian Federation" (2012), Federal state standards (FSS), which are adopted by Russian Ministry of Education, contain certain requirements for academic programmes. Article 3 of the same law states that the main principle of state educational policy is the humanistic character of education, and the priority of human rights and freedoms, free development of personality, civic consciousness and legal culture (Federal Law, 2012).

Human rights issues may be integrated into Russian higher education through established law courses, including "Legal studies", "Theory of state and law", "Constitutional law" or "International law", or a special course. The main goal of this research is to assess the current state of human rights education through analysis of federal educational standards and curricula, as well as a student survey, and to provide recommendations. The student survey allows for assessment of the students' background knowledge when they enter the university and analysis of their motivation to study human rights. It is important to uncover students' preferences for the form and level of a special course on human rights, as well as to find out their opinions on factors that hinder human rights education.

METHODOLOGY

This research is descriptive, combining both qualitative data analysis and a quantitative survey. The authors analyse strategic UN documents, Russian federal educational standards, Bachelor's programme curricula and literature on education. A student survey was undertaken in order to identify students' perceptions of the quality of human rights education, and survey results are presented in table form and interpreted. The target group of the survey was made up of students enrolled in Bachelor's programmes at Ural Federal University in Ekaterinburg, Russia.

ANALYSIS

State educational standards and academic programmes

In the Russian Federation, human rights education and training are regulated by federal educational standards (FGOS); academic programmes are designed in compliance with those standards. Human rights education in schools consists of three stages. During elementary and secondary years, children are taught core moral values and behavioural norms in a course titled "The World Around". At this stage, students conceptualize the meaning of human dignity, their own personal values and the values of other people; they also develop respect for others, tolerance and cooperation.

Throughout compulsory education, values and behavioural norms are taught in more detail through a "Civic Studies" course, which meets one hour per week, where teenagers develop respect for law and the rights of others. However, this course is elective, not obligatory, and it is not included in the academic programmes of all schools. During the survey, no respondent indicated this course as a source of knowledge about human rights. At further stages of secondary education, human rights are taught through inclusion of these issues in "History" and "Civic Studies" courses, elective courses such as "Legal Studies", as well as extracurricular activities (Azarov, 2008).

As mentioned above, the second and third phases of the World Programme are aimed at higher education. According to this Programme, human rights should be included in Bachelor's and Master's level courses and academic programmes in order to interpret social and global human rights issues.

Analysis of federal educational standards and Bachelor's programme curricula revealed that the higher professional education system includes a "Legal Studies" course, which presents a short review of current Russian law. This is a one-semester course, consisting of 36 academic contact hours, two hours per week. Future chemists, engineers, journalists and ecologists study human rights issues in one lecture on "Constitutional Law of Russia" that is included in this course. This restricted approach to human rights studies creates a situation in which students who do not study law are, in turn, not aware of Article 2 of the Russian Constitution on "Human and Civil Rights and Freedoms" or European and international human rights standards, and they cannot assert their rights in everyday life (Glushkova, 2014).

Since 2010, a third generation of federal state standards have been implemented in Russian universities, where only foundational courses are indicated; the content of other courses is described according to a competence-based approach of knowledge and skills. The broad academic freedom included in these standards allows each higher education institute to design and decide on the content of academic programmes and curricula independently. (Federal Law, 2012).

In 2014, a new educational standard called 3+ was launched. Foundational courses are not indicated; the educational content is described through general cultural and professional competences. However, analysis of these curricula reveals a paradoxical situation. The university must decide whether a course is obligatory or elective. However, this freedom to define programme content resulted in a situation where many general humanitarian courses related to tolerance and human rights issues were excluded from curricula. For instance, the political science curriculum at Ural Federal University included a course titled "Human Rights and International Humanitarian Law". After the transition to the third generation and 3+ federal standards, this

course was excluded. This may be explained by the fact that federal standards for Bachelor's programmes in political science do not require competence in human rights and freedoms or the skills to defend their own rights and the rights of others. (Decree of the Ministry of Education and Science of Russia, 2014).

The elimination of human rights courses will negatively impact the implementation of the World Programme for Human Rights Education as its second and third phases focus on the educational structures that prepare future citizens and leaders. Political science departments, in part, serve as these structures where future politicians and civil society leaders are trained.

Despite the significance and value of human rights topics, human rights courses remain elective for Bachelor's programmes in Russia. The exception is law universities and departments, where "Human Rights" is a required course. Human Rights and freedoms issues are broadly covered in courses on Russian and comparative constitutional law, civil law, theory of state and law, international public law and European Law. This coverage is due to the fact that federal educational standards for lawyers stipulate the ability "to respect human honour and dignity, to respect and protect human and civil rights and freedoms, to prevent and stop lawlessness, to take necessary actions for the restoration of violated rights" (Federal State Educational Standard, 2011). Moreover, very few human rights departments exist, primarily in law schools and departments. The first department of legal theory and human rights was established in 1995 by famous lawyer F. M. Rudinskiy at the Academy of the Ministry for Interior Affairs in Volgograd (Glushkova, 2014).

However, positive advances in this field should be mentioned. Implementation of the second phase of the World Programme for Human Rights Education in Russia led to the creation of human rights departments in universities such as Moscow State Pedagogical University, Russian State Humanitarian University, Moscow State Institute of International Relations (MGIMO), Perm State Pedagogical University, Humanitarian University in Ekaterinburg and in Bashkir and Kazan Universities. Ural Federal University is home to the UNESCO department on human rights, peace, democracy, tolerance and international understanding.

Student survey

The implementation of the World Programme for Human Rights Education and inclusion of a special human rights course in curricula of university programmes requires prior investigation of the target group's needs. This includes the level of knowledge of high school graduates and Bachelor's students on human rights issues, and their opinions on the obstacles to the successful promotion of human rights in Russian higher education. What are the reasons for the lack of interest for human rights in Russian society? What is the opinion of future professionals about teaching human rights in university? How interesting are human rights issues for students in the modern world? These questions were researched by means of student survey in order to find out students' perceptions of human rights and, in turn, the most appropriate form of human rights education.

Research group

The survey of Bachelor's students in Chemistry, Economics and International Relations was carried out at Ural Federal University in Ekaterinburg, Russia during the 2014/2015 academic year. The group included 92 students in the Chemistry programme, 67 of which are in their second year, and 25 in their fourth year; 47 second-year Economics students; 112 students in International Relations, 63 of whom are second-year students and 49 of whom are third-year students. The total number of participants in the survey is 251 Bachelor's students.

Data analysis

Answers to the question of whether human rights were studied at the student's school showed that the topic of human rights was introduced in school. The vast majority of students responded that knowledge of human rights was acquired during the course "Social Studies" (87.6%), 11.5% of respondents mentioned history lessons and 14.3% of respondents indicated other disciplines, in particular, law courses. As noted above, the majority of Russian schools include legal issues in the "Social Studies" course, but in a number of specialized schools with a focus on the humanities, law is an elective subject [Table 1].

Table 1: Students' answers to the question "Were human rights issues studied at your school?"

Programme	Total number of respondents	Yes		No	
		Number	%	Number	%
International Relations	112	98	87.5	14	12.5
Economics	47	47	100	–	–

Chemistry	92	84	91.3	8	8.7
Total	251	229	91.2	20	8.4

The high percentage of students who answered in the affirmative to the question of human rights awareness in high school, is not an indication of gains in knowledge quality. For example, questioning 108 second-year students of the Department of International Relations after the lecture “Constitutional and legal status of man and citizen” (October 2013) showed that for 60% of students, lecture material was completely new. Students wrote that they never received such information (Bogatyreva, 2014). Students studied this subject within the course "Comparative Constitutional Law”, which is included in the International Relations curriculum. Students of other departments participating in this survey did not have the opportunity to deepen their knowledge of human rights at university. There are no courses dedicated to the topic of human rights in their curricula.

The following responses were received to the question of whether students' knowledge on the subject of human rights expanded during their university studies [Table 2].

Table 2: Students' answers to the question “Did your knowledge on the topic of human rights expand during your studies at the university?”

Programme	Total number of respondents	Yes		No		Undecided	
		Number (n)	%	Number (n)	%	Number (n)	%
International Relations	112	100	89.3	9	8.0	3	2.7
Economics	47	25	53.2	16	34.0	6	12.8
Chemistry	92	40	43.5	35	38.0	17	18.5
Total	251	216	86	18	7.1	17	6.7

The presented results [Table 2] reflect the content of curricula and programmes. International Relations students responded positively to this question with few exceptions. This is due to the fact that professional competences within the federal standards involve “the ability to protect their legal rights in practice, including personal rights, with respect to the relevant rights of others in a multi-ethnic and international environment” and “the ability to understand the theoretical and political concepts of human rights issues in international relations and international practice of human rights protection” (Federal State Educational Standard, 2009). Courses such as “Theory of State and Law”, “Russian and Comparative Constitutional Law” and “International Law” are included in the International Relations curriculum in order to develop these competencies. However, the curriculum does not contain a separate “Human Rights” discipline.

Economics and Chemistry students were only able to expand their knowledge of human rights in the “Legal Studies” course. Analysis of curricula in Russian universities revealed that this course, which is the only source of knowledge on human rights for students of non-legal professions, is an elective one. For instance, at Ural Federal University, Chemistry students may choose between “Legal Studies” and “History of Civilizations”.

It is especially interesting to compare the data in Table 3 and Table 4. The majority of students believe that human rights represent a challenging issue in the modern world. Thus, 92.8% of International Relations students who may work with people of different civilizations, cultures and traditions in their future professional life agreed on the importance of human rights issues. However, only 59.8% of them consider it necessary to introduce a course on human rights in their curriculum [Table 4]. Even fewer Economics students agreed with the importance of studying human rights at 31.9%.

Table 3: Students' answers to the question “Do you consider human rights issues relevant to the modern world?”

Programme	Total number of respondents	Yes		No		Undecided	
		Number (n)	%	Number (n)	%	Number (n)	%
International Relations	112	104	92.8	5	4.5	3	2.7

Economics	47	37	78.8	5	10.6	5	10.6
Chemistry	92	75	81.5	8	8.7	9	9.8
Total	251	216	86	18	7.1	17	6.7

Despite the fact that the vast majority of surveyed students (86%) consider human rights issues relevant and important to modern society [Table 3], only slightly more than half felt the need to introduce a separate human rights course at 54.9% [Table 4].

Table 4: Students' answers to the question "Should Human Rights course be included in the curriculum?"

Programme	Total number of respondents	Yes		No		undecided	
		Number (n)	%	Number (n)	%	Number (n)	%
International Relations	112	67	59.8	24	21.4	21	18.8
Economics	47	15	31.9	24	51.1	8	17.0
Chemistry	92	56	60.8	19	20.7	17	18.5
Total	251	138	54.9	67	26.9	45	17.9

Meanwhile, only 39% of those who consider it necessary to study a special course on human rights believe that this course should be taught in high school, 37.4% think it should be taught at university and only 7.1% of respondents believe that this course should be taught both at school and at university.

It is important to mention that the students who expressed the need to introduce a special course on human rights insist on its elective nature at 62.9%. Only 19.1% of students believe that it should be mandatory. Preference for the elective course might indicate students' heavy workload or their unwillingness to study another course. In written comments to this question, students explained that they cannot cope with the existing curriculum, and they do not wish for the introduction of an additional course.

The absence of a special course on human rights in the curriculum and the lack of worldly humanitarian courses in modern Russian higher education, even in curricula for future politicians and managers, evidence the unpopularity and low interest of Russian citizens in this topic. The respondents were asked to comment on the reasons for the lack of popularity of human rights in Russia and the obstacles to the development of human rights education. The question was open, and students could name several factors preventing the advancement of human rights issues in Russian society. The most common responses are presented in Table 5.

As shown in Table 5, respondents associated the main obstacle to human rights issues in Russian society with the low quality of education. It should be noted that aggregated groups are presented in the table. The group titled "poor quality of human rights education and lack of qualified personnel" is comprised of the following respondents' answers: 'lack of systematic scientific study of the subject'; 'lack of public awareness'; 'people do not know their rights', 'people do not have the necessary knowledge'; 'human rights issues are not studied at school or at university or in the media'; 'human rights are not compulsory in the school curriculum or they are considered superficially'; 'only the introduction of a compulsory course in schools will improve the situation'. Respondents also mentioned 'the lack of qualified teachers who can teach human rights so that it would be interesting', 'very poor teaching of human rights', 'human rights issues are taught poorly, so it is not interesting'.

The next groups include factors associated with the weakness of Russian civil society and the lack of interest on behalf of the state in disseminating knowledge about human rights. Respondents reported 'low activity among the population', 'lack of necessary civil society institutions and traditions to defend their rights', 'societal indifference', 'the reluctance of people to fight for their rights', 'the inability to defend their rights in the fight against the state - Leviathan', 'for the government issues of sovereignty are of top priority instead of human rights', 'our ignorance is to the state's advantage; there will be no need to change anything in the country'.

30 respondents attributed the causes of human rights' lack of popularity with the traditions of autocratic Russian statehood, serfdom and the communist past.

In 83 questionnaires (33% of all respondents), the corresponding columns were left blank. This finding also indicates a low level of civic consciousness and lack of awareness of Russian students in the field of human rights.

Table 5: Frequency distribution of answers to the question "What is an obstacle to the study of human rights in Russia?"

	Generalized groups of reasons	Number of respondents (n)
Obstacles to the study of human rights in Russia	The poor quality of human rights education and lack of qualified personnel	48
	The weakness of society (underdevelopment of civil society, low level of legal awareness and political culture)	45
	The conscious efforts of authorities (the less citizens know their rights, the easier they are to control)	38
	Socio-cultural factors and traditions of Russian statehood (mentality and Russian traditions coming from autocracy and serfdom)	31
	Systematic violations of human rights, abuses	10
	Immaturity of the legal system (youth of the judiciary system in Russia)	5
	Human rights are not an important topic	4
	Complicated, boring topic	2
No obstacles		7
Columns were left blank		83

The last question asked students to rate their knowledge of human rights on a 5-point scale [Table 6]. It is interesting that the lowest and highest values totalled 11 responses each. The most common self-evaluation was the answer "I have a vague idea". Students explained that "human rights were not taught at school" or "little mentioned"; "systematization of knowledge was not carried out during studies"; "human rights were not taught at school, there was no systematic knowledge, but legal studies were taught at university where I got the general idea". Some students wrote that it was "difficult", "boring" and "uninteresting".

Table 6: Evaluation of students' knowledge in the field of human rights

Programme	Total number of respondents	Evaluation				
		I know nothing about this subject 1 point	I have vague ideas 2 points	I know general concepts 3 points	Knowledge is systematic, but there are some gaps 4 points	Excellent knowledge 5 points
International Relations	112	1	4	45	55	7
Economics	47	–	–	29	17	1
Chemistry	92	1	5	57	28	1

Total (n)	251	2	9	131	100	9
%	100	0.8	3.6	52.2	39.8	3.6

Assessing their knowledge in the field of human rights, 52.2% of respondents answered that they have a general idea. 39.8% rated their knowledge as systematic, and only 3.6% considered their knowledge to be excellent. Chemistry students commenting on their level of knowledge in the field of human rights responded that they would like to know more, but they never had to study them deeply and systematically. Students often explained their low self-evaluation by the lack of appropriate lessons at school, and only the "Legal Studies" course helped to form general perceptions on human rights.

According to Table 6, students' self-evaluation in International Relations is relatively high; 55 respondents gave themselves 4 points. They explained their human rights awareness by the fact that they attended university courses such as "Theory of State and Law", "Comparative Constitutional Law" and "International Law", where they were able to examine the concepts of "human rights and freedoms", as well as national, regional and international human rights defence mechanisms. However, it should be borne in mind that the table presents the results of students' self-evaluation, and it can be assumed that the respondents may either overestimate or underestimate their knowledge. Objective evaluation is possible only when the assessment is carried out by a qualified teacher.

CONCLUSIONS

This study showed that, despite the intrinsic value of human rights education, the "Human Rights" course still has not received the status of a separate subject, which would oblige each higher education institution to include it in the curriculum as a compulsory, rather than elective, course. A separate course on human rights is only common for law schools.

Analysis of federal educational standards, academic programmes and the results of the survey of Bachelor's students showed that human rights are still not considered a mandatory element of curricula. General cultural and professional competences that are related to the ability to know and protect individuals' rights are not included in a significant part of the federal standards. The exceptions are law students, as well as those enrolled in International Relations programmes since the national standard stipulates competence in human rights protection. According to the results of the survey, students of other programmes are poorly informed about their fundamental rights and freedoms. During their university studies, 43.5% of Chemistry students expanded their knowledge of human rights, while 89.3% of students in the Department of International Relations did so.

According to these conditions, it would be appropriate to include topics of rights and freedoms protection in courses such as history, philosophy, law, sociology and political science. The authors believe that representatives of all professions, not just lawyers, need the knowledge and skills to observe and protect human rights and freedoms. Development of these competences within special workshops would contribute to the enhancement of political and legal culture and the promotion of values such as peace, non-discrimination, equality, justice, non-violence, tolerance and respect for human rights and fundamental freedoms in all cultures and civilizations. The vast majority of respondents agreed that these issues are relevant in today's world. However, only half of the respondents agreed to the introduction of a course on human rights into the curricula at universities. Respondents attributed the impeding of the development of human rights education to the lack of a compulsory course in schools and university programs, poor quality of teaching and the lack of highly qualified personnel.

The authors believe that it is necessary to update human rights education in universities through the wide use of new teaching technologies and interactive teaching methods, including informational. Teachers should actively use resources that are commonly used among young people: Internet, IT technologies, social networks, e-learning courses. On-going reform to the Russian higher education system made the creation of flexible curricula possible, which implies a shift to individual educational paths for students. This new educational strategy in universities will allow a "breath of fresh air" for subjects related to human rights issues. Implementing the above-mentioned recommendations can help to increase the interest of young people in human rights. Given the ability to plan their own educational paths, students would give priority to a human rights course while selecting disciplines, regardless of their study programme,

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ICT AS AN ACADEMIC SUPPORT AND COMPUTER BASIC SKILL AT TEENAGERS STUDENTS

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ABSTRACT
The purpose of this document is to show the use of Information and Communication Technology (ICT) on students in middle school on the computer basic skills as academic support in the city of Veracruz, Mexico. Obviously, is important to point the proper use of these technological resources for growth and improve the student´s skills. In effect, ICT contribute improvements on the quality of teaching, but only if teachers know how to take advantage of them, they should have the proper training and also should have the necessary infrastructure (Vallejo & Huertas, 2010). Consequently, it has become essential to analyze how is migration happening and evolution of the media applied as a support tool and computer science in educational activities. The subjects for study were 979 students of two secondary schools in Veracruz city. The instrument designed by the Technological Institute of Sonora (Angulo, 2012) used in order to measure the level of adapting and using of ICT on the students according to Likert spectrum. The results show a low frequency of use in the students about ICT as an academic support and for computer basic skills.

Keywords: ICT, Mexico, secondary schools, teaching-learning, online interaction, academy support.

INTRODUCTION

Nowadays, it is very important the implementation of ICT as a work tool in learning activities, however, the great impact of social networks and the consequent misuse give them a disadvantage in the potential of the attributions that they can bring when these technologies are been used as academic support. Nonetheless, it's extensive and satisfying work made by a school network in the educational context, to promote the use of ICT that provide multiple advantages within the teaching-learning process resulting in greater efficiency in teaching activities the results are significant knowledge acquisition by learners (Vela & Cituk, 2010).
Of course, computers along this technological adaptation are positioned as electronic devices very useful in making effective procedures digitally, through which you can share information in a highly structured way.

ICT as a tool for academic support

Importance of ICT as an academic resource

Students have a lot of information, however, is not equivalent to the knowledge acquired therefore ICT contribute to the advancement of student learning if teachers know how to exploit them in order to achieve improved education (Vallejo & Huertas, 2010). In the same way, Berríos and Buxarrais (2005) sustain the importance of the level of training of teachers who play an important role, also as proper advice in ICT and involve it in teaching the students. Moreover, both authors agree that applying these measures would result in an educational and social progress.

According to Hernández, Alvarado, Teherán y León (2013) in reference to ICT applied as a tool for school support, "the educational environment might not be the exception, considering their potential for more efficient

handling of information, however, its application in this area has not been the desired and still a long way to go" (Tapia & Martínez, 2013). In relation to this, the students who should take advantage of opportunities it is noteworthy that the application of ICT in educational environments can be favorably motivation of students with learning difficulties (García-Valcárcel, Basilotta & Camino López, 2014).

In the same way, Escalera and Santillán (2011) support evolution would happen if education support of ICT: "The quality of high school, entails major transformations such as redesign their educational programs to make them more flexible and student-centered; to create strategies that facilitate self-learning by exploiting the potential of information and communication technologies".

For Andión (2010), incorporation of ICT in the educational context involves a change in the pedagogical paradigm, it is necessary to pass of the model focused on teaching to other model that turn focused in knowledge acquisition. Which makes it more obvious to integrate the Internet in the training process as a new way to access to multiple information sources within the global network.

Related studies

Students as cornerstone in this context, demonstrate an unfortunate use of ICT on academic environment, looking from their perception, the majority (82.5%) considered competent in relation to the use of Internet in a study performed in Chihuahua, Mexico. While when we asked to the students about the use of mobile phone as a resource for school, they mention a lower percentage (13.38%). In contrast, most students (88.23%) perceived that ICT can provide personal influence that may manifest as learning, equally they considered this kind of tools in their future or working life (Tarango, Romo-González, Murguía-Jáquez & Ascencio, 2013).

In addition, we found an investigation of the University of Murcia (Spain) obtained similar results as the study in Mexico. Regarding the data obtained, showed that only 13% of students aged between 13 and 15 years use their computer as a working tool. Also, who doesn't have Internet service turn out to be mostly young people who use office tools in their computer (López, 2014).

Respect to the use of ICT by teachers and application to their students, a study by the Autonomous University of Tlaxcala indicates that in three schools, the majority noted that they use computer at home to check email, develop educational materials, download educational materials, make their class planning, and to participate in social networks. This means that all interviewees have minimum knowledge and skills using ICT, so it means ICT role is far to be a key teaching tool for educational purposes (Andrade, 2013).

Finally, Elvira, Torres, Echegaray and Barradas (2013) in a study in the city of Veracruz, Mexico found that students despite the lack of technological knowledge provided by their schools, they acquired knowledge through research tasks and projects that teachers asked them. Likewise, they commented that using ICT helped them to manage, find and update information easily. Moreover, the students affirmed the relevance of using the Internet as communication channel between students and teachers.

ICT in secondary schools in Mexico today

Regarding to the situation of Mexico, the government is supporting programs that may contribute counteract the technological divide and promoting adaptation to ICT applied as a school tool. Farfán Gutierrez José Enrique, director of the Technical High School 36th (benefited by this program) explain: "Teachers have internet groups, medium through which they communicate with students about homework even review them right there. Communication with Parents also is already adapting according to these technologies" (Navarro, 2014).

Regarding the situation of ICT in basic training, are located to support the activity of the teacher, a resource to promote student learning. However, a project of "Enciclomedia" was thought to steer the digitization of books and other electronic media for later use it in classrooms, the program contemplated the start in the classrooms of fifth and sixth grade and then spread to secondary level. However, regarding the financial management of such plan, Ministry of Public Education, SEP (Secretaría de Educación Pública in Spanish) proposed not to provide computers in all classrooms, instead of that just use one classroom between students groups (Canales, 2007).

Currently, the official website of the Ministry of Education in the state of Veracruz (Secretaría de Educación Veracruzana, SEV in Spanish) has informative programs and educational content dedicated to the use of ICT in the state. Which is important to mention "project network" specialized for primary and secondary (basic education) as booklet of teaching suggestions, "Galileo" focused on supporting materials online, "Brain Pop" provides animated films for children, adolescents and adults, "PISA" (oriented to docents), among others (Secretaría de Educación de Veracruz, 2015).

According to a report realized by census of schools, teachers and students in basic and special education (Censo de Escuelas, Maestros y Alumnos de Educación Básica y Especial, CEMABE in Spanish) collected information proportioned by National Institute of Statistics and Geography (INEGI, 2014) that only 20.5% of public schools have Internet access. In relation to general data (Mexico), the results of schools with access to information technology 31.1% (public educational institutions) and 56.8% have functional computer equipment.

According to Forbes, in Mexico there are one computer for every 46 students, and warns that one of the four areas that deserve attention is the speed connectivity in schools, among other points mentioned are a better web presence in municipalities, move towards a single health record (Morales, 2015).

METHODOLOGY

The study was a descriptive using a quantitative methodology. The population consisted of students from two secondary schools. In total there were 979 students, 587 from the ESTI # 1 (Industrial Technical Secondary School No. 1) and 392 of Miguel Alemán secondary (General # 5). The average age of them was 14 years, with a minimum of 11 and maximum of 16 years, of which 527 (53.8%) were female and 452 (46.2%) were males.

The instrument designed by the Technological Institute of Sonora (Angulo, 2012) used in order to measure the level of adapting and using of ICT on the students. These two dimensions comprising 19 items on a scale with five options ranging from "never" to "every day".

RESULTS

Using ICT as academic support

It is relevant to mention that at least 34.5% of students chose "never" regarding to the use of email for academic counseling with the teacher. While in the response "1 to 4 times per month", lower participation is observed to be chosen by 25.3% of respondents. In both the alternative "1 to 3 times a week" shows 28.2% of incidence. However, "every day" chosen only by 12%.

Regarding the use of ICT as academic, support on using email to discuss school topics with their classmates in respect to the variable frequency, they assert that "1-3 times a week" used by 33.3% the students. However, the response "never" reported a 26.8% of incidence. While the alternative of "1-4 times a month" is very close to the above, is demonstrated 26% participation by students. Instead, the answer "every day" earned less repetition, one remaining 13.9% by the students.

On the use of ICT as an academic support regarding the use of Chat to work with theirs teammates, the variable frequency shows most frequently in the answer "1-3 times a week" with 38.2%. Consequently, the item "1-4 times a month" expresses a level of use of 24.3%. Also, "never" was selected by 20.3% and the lower trend (17.3%) argues that uses it "every day".

About the use of ICT as an academic support regarding the use of virtual forums to work with their teammates, the variable frequency indicates that the response "never" is used to 32.3% of students. However, the "1-3 times a week," says 31.4% resort to it. However, for the response "1-4 times a month," said that 25.9% used such teamwork. That indicates us a significantly lower incidence of "everyday" which was selected by the remaining 10.4% of students.

Concerning the use of ICT as an academic support by participate in online learning communities to share learning experiences with students from other places, the variable frequency notes that the increased use by students is at the "1-3 times a week "which was noted by 35.9%.

Table 1. Use of ICT as an academic support

Item	Never	1-4 times a month	1-3 times a week	Everyday
Use of email for consulting with the teacher.	34.5	25.3	28.2	12.0
Use of email to discuss school topics with classmates.	26.8	26.0	33.3	13.9
Participate in panels of academics with Internet resources discussion.	33.2	25.5	31.4	9.9
Use of Chat to work with your teammates.	20.3	24.2	38.2	17.3

Use of online forums to work with your teammates.	32.3	25.9	31.4	10.4
Work with an email account for sending and receiving emails.	22.8	24.7	34.5	18.0
Collaborate with classmates in blogs through comments and publications.	23.5	24.2	34.7	17.6
Participate in online learning communities to share learning experiences with students from other places.	28.1	24.7	35.9	11.3

Computer basic skills

The Table 2 presented the information about computer basic skills, so for the item: use antivirus software in your computer, the frequency variable demonstrate the option "1-3 times a week" as the choice more selected with 36.9%. Nonetheless, the alternative "everyday" obtained 28.9% of preference. On the other hand, the option "1-4 times a month" point to 24.7% incidence. While the remaining 13.3% chose the option "never".

In reference to computer basic skills about if, they can install and uninstall software in their computer, the frequency variable indicates in the answer "1-3 times a week" with 37.4% as favorite by respondents. However, 25.2% of pupils selected "1-4 times a month". Therefore, it refers to alternatives "everyday" and "never" they obtained 21% and 16.4% respectively.

Respect to computer basic skills in the category download software using Internet, the frequency variable results indicates 24.5% for "1-4 times a month" and 34.6% for "1-3 times a week". In return, the option "everyday", close to previous mentioned with 24.3%. Further, the alternative "never" indicates 16.6% incidence

On the part of computer basic skills in the category use computer basic tools (calculator, calendar, etc.). The frequency variable presents a tendency to utilize "1-3 times a week" with 40%. Likewise, in the option "1-4 times a month" obtained 25.1%. However, the alternative "everyday" was confirmed by 19.8%. Therefore, the answer "never" point to 15.1% remaining.

With relation to computer basic skills in the category: I use word processor. The frequency variable marked with most assiduity "1-3 times a week" 39.8%. In the same way, "1-4 times a month" is support by 28.5% of student body. In return, the alternative "everyday" reached 16.8%. While "never" was select by 14.9% of students.

Attending the computer basic skills in the category: I use Power Point presentation software. The frequency variable shows an incidence notable respect to realize "1-3 times a week" with 39.7%. In addition, in the option "1-4 times a month" confirms 26.3% of student body. While the answer "everyday" obtained an assiduity of 20.4%. Moreover, in alternative the answers selected "never" they was preferred by 13.5% of respondents.

About of computer basic skills in the category: I use accessories to save information, the frequency variable has an orientation "1-3 times a week" with 39.3%. Afterwards, the item "1-4 times a month" with a reiteration by 24.6%. Even though, the alternative "everyday" was indicated by 21.8% of pupils. Contrastingly, the answer "never" got 14.3%.

Referent to computer basic skills in relation to category: I can make online shopping; the frequency variable emphasizes the option "never" with 38.6%. By the answers de "1-4 times a month" and "1-3 times a week" the students point to 22% and 27.4% respectively. Contrarily the alternative "everyday" manifested 12% of preference by schoolchild 12%.

In relation to dimension computer basic skills, the frequency variable was presented the maximum value in the section: I use the alphanumeric keys combination and punctuation from keyboard confirms in the alternative de "1-3 times a week" confirms by nearly half of respondents (46.9%). While that 20.4% of pupils manifested that uses "everyday". However, the option "never" was claimed by 17.3% of students. Finally, the alternative "1-4 times a month" was chosen by 15.4%.

Table 2. Computer basic skills

Item	Never	1-4 times a month	1-3 times a week	Everyday
Use of antivirus software in my computer	13.3%	20.9%	36.9%	28.9%

Install and uninstall software in my computer	16.4%	25.2%	37.4%	21%
Use the alphanumeric keys combination and punctuation from keyboard	17.3%	15.4%	46.9%	20.4%
Browse the Internet using links or hyperlinks that provides other internet page	16%	25.5%	38.7%	19.7%
Download software using Internet	16.6%	24.5%	34.6%	24.3%
Use of the computer basic tools	15.1%	25.1%	40%	19.8%
Use of word processor	14.9%	28.5%	39.8%	16.8%
I use of power Point presentation software	13.5%	26.4%	39.7%	20.4%
Use of accessories to save information	14.3%	24.6%	39.3%	21.8%
Make online shopping	38.6%	22%	27.4%	12%
Update computer programs using Internet	19.5%	20.2%	33%	27.3%

CONCLUSIONS

Even adoption of ICT is a reality around the world, there is a lot tasks to do in Mexico. The students have a scarce use of computer resources, so is far to be a priority in their current scholar activities. At least in the Mexican literature context there is a tendency to use ICT for social and entertainment purposes and most of the students do not use ICT to study, just to do their homework. The students consider competent in basic skills related with the use of computer and internet (information search, social networks, email, etc.). In the same way, the students consider competent with software tools (word processor, spread sheets, and so on), but they also affirmed do not use for educational purposes in a very formal way. Finally, as a conclusion is advisable to mediate the use of ICT taking into account the time spent on learning activities by students this can be achieved by an appropriate instructional design by the teacher putting emphasis on student cognition.

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IDEAS OF ELECTRONIC DEMOCRACY IN EUROPEAN HIGHER EDUCATION AREA

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ABSTRACT
The issue of unified European higher education from the quality is discussed in detail in a lot of documents related to the Bologna process. Decision making processes which are implemented in present on universities are based on traditional structures without any electronic participation procedures. This paper deals with approximately 30 months long period of implementing e-participation tools to the academic community. This research has been made as a partial outcome of European project "MyUniversity". There are discussed results from published electronic initiatives on different European universities. In the conclusion are highlighted aspects of e-participation from different level – ICT point of view, sociological point of view and also from "Digital Agenda for Europe" point of view.

INTRODUCTION

One of the key aspects towards the success of the Bologna Process is the close cooperation and interaction between governments, higher education institutions, students, staff, employers and quality assurance agencies. Our team addresses this problem though e-participation platform developed in the framework of MyUniversity project.

"MyUniversity" is a project conceived by the European Commission, whose aim is to bring together in close cooperation all university members (students, staff etc.) and university stakeholders, by the means of a transparent and user friendly e-participation (and e-democracy as well) platform. Through the use of this platform, the participating universities will be able to engage their members and stakeholders on multiple issues, to get their feedback in both local and European level. (Ivanicka, 2015, p. 346)

BOLOGNA PROCESS

The Bologna declaration was signed in the year 1999 and the resulting Bologna Process was started. An important characteristic of the Bologna Process – and key to its success – is the close cooperation between governments, higher education institutions, students, staff, employers and quality assurance agencies, supported by the relevant international organizations. Contrary to most people's beliefs, the Bologna process is not a European Union initiative, but an intergovernmental process with 46 participating countries. Obviously this goes beyond the borders of the EU since it has 27 member states. Six primary objectives are included in this process (Ivanicka, 2013, p. 160):

1. adoption of the system easily understandable and comparable diplomas,
2. adoption of a system based on two cycles of study (currently has a three-stage),
3. adoption of the credit system (ECTS),
4. improvement of the mobility,
5. improvement of European cooperation in quality assurance,
6. strengthening the European dimension in higher education.

MYUNIVERSITY PROJECT

MyUniversity project equip universities with a cutting edge e-Participation platform which give them the means to reach out to all of their members and stakeholders, informing them of the issues under debate and providing them with innovative interactive tools so they can actively participate in the process. Thus providing the higher education decision making process with valuable input towards future polices and legislation. MyUniversity is the project of the EU Information and Communication Technologies (ICT) Policy Support Programme of the Competitiveness and Innovation Framework Programme (CIP)-(CIP-ICT PSP-2009-3bis) solved by consortium of European universities and institutions Duration of the project: 33 months (October 2010 - June 2013) The project has begun on October 1, 2010.

OBJECTIVES AND BENEFITS

Into the main project benefits, which have been described in the project proposal can be assigned answers to these questions: How citizens of different countries can benefit from contents, results and best practices generated by others. How issues being debated in one country can initiate a new discussion in a different one, or even a cross-border discussion on European matters. How easy is for decision makers to include e-participation initiatives as a new factor in their decision making processes.

During project evaluation phase, project team addressed these two project objectives as the important:

Project objective I: *"Enhancing the direct participation of citizens and civil society in the decision-making process itself, and improving the access to relevant content and available options, thus enabling them to interact with decision-makers in real time and with concrete contributions."*

Project objective II: *"Involving citizens in the policy-making process by enhancing social networking capacities, using new intermediation models, creating collaborative input to policymaking (e.g. Data gathering, sharing collective knowledge, Web2.0 technologies) thus enabling the provision of policy-making related services by citizens."*

RESULTS

During the final period of the project, the team led by Stockholm University prepared Final Evaluation Report on the Trials Impact and Potential Scalability (D5.3). Fulfillment of the key performance indicators (KPIs) are shown in the table 1.

KPI	OBJECTIVE	PERFORMANCE	LINK TO THE OBJECTIVE
KPI 1. Number of universities participating in the project	18	22	Objective I
KPI 2. Number of active portals	14	13	Objective I
KPI 3. Mean number of initiatives per active portals	10	11	Objective I
KPI 4. Mean number of portal visits	2 000	11 697	Objective II
KPI 5. Mean number of registered users	4%	6%	Objective II
KPI 6A. Mean number of forum replies per initiative	50	40	Objective I
KPI 6B. Mean number of eConsultation replies per initiative	50	31	Objective I
KPI 6C. Mean number of poll votes per initiative	50	189	Objective I
KPI 7. Number of cross-border initiatives	5	12	Objective I
KPI 8. Mean number of universities per cross-border initiative	4	5	Objective I
KPI 9A. Mean number of forum replies per cross-border initiative	50	32	Objective I
KPI 9B. Mean number of eConsultation replies per cross-border initiative	50	45	Objective I
KPI 10. Mean number of initiatives related to the Bologna process	6	5	Objective I

KPI 11A. Mean number of reports sent to decision makers	8	14	Objective II
KPI 11B. Mean number of replies from decision makers	15%	74%	Objective II
KPI 12. Mean number of reports sent to National Bologna Expert Groups	5	2	Objective II
KPI 13. Impact on university decision-making	4	4	Objective II
KPI 14. Impact on National Bologna Expert Groups	4	4	Objective II
KPI 15. Number of references to the project in media	18	20	Objective II
KPI 16. Number of third party events	6	29	Objective II

Table 1: Fulfillment of the project's key performance indicators

CONCLUSIONS

The electronic participation plays only a limited role in European universities at present, however it is expected that this will change in near future, at it will be more important for European policy making. European Council and Commission have presented strategy EUROPE 2020. It is the European Union's ten-year growth strategy. It is about more than just overcoming the crisis which continues to afflict many of our economies. It is about addressing the shortcomings of our growth model and creating the conditions for a different type of growth that is smarter, more sustainable and more inclusive. (European Commision, 2010) But it is necessary to take in the account these project's conclusions:

- E-participation as a phenomenon is not only dependent on the quality of ICT (WEB) instruments but especially on the ability to raise the engagement and motivation of young people.
- It is not possible to create and run a successful (high traffic) e-participatory solution / e-participatory portal without a study of methodological aspects of the civil community.
- There is a direct link between E-participation as a part of e-democracy, which is a part of the social capital. Active e-participation is a demonstration of active citizenship.

Into next research thesis should be included resolving of these five questions:

I. How to motivate people to an active E-participation?
II. How to arouse an interest in active E-participation?
III. What are the causes of participatory deficit of young people?
IV. How to increase the level of active citizenship in the post-communist countries?
V. How to examine and influence the causality of e-participation and decision-making processes?

By identifying human capital development as fundamental to smart, sustainable, and inclusive growth, the Europe 2020 strategy places education and research at the center of Europe's future economic well-being. Consequently, it opens up a wealth of opportunities for higher education institutions (HEIs), who have a key role in providing teaching, undertaking research and innovation, producing employable graduates, and developing new ideas for a changing world. (European Commision, 2010)

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SELF-MENTION AND IDENTITY CONSTRUCTION IN STATEMENT OF PURPOSE

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ABSTRACT

This exploratory study examined the role of self-expressions in graduate school application essays (i.e. statement of purpose, SoP) and the different academic identities constructed by these expressions. Using a mixed methods research design, the research analyzed both qualitatively and quantitatively a sample of 20 SoP written in English across various disciplines. The results revealed that identity construction presents a major challenge for SoP writers regardless of their English proficiency: they tended to construct themselves only as "narrator of personal experience" or "communicator of self-evaluations", rather than more desired roles such as "conveyor of general knowledge" and "evaluator or originator of knowledge". Based on the findings, the paper argues that in the case of SoP, the challenges of academic writing for advanced L1/L2 writers are mainly the difficulties associated with establishing a voice of expertise in an unfamiliar and limited discursive space, instead of the lack of literacy skills or genre knowledge. As such, the paper ends by proposing that more attention should be paid to self-representation issues in advanced EAP/ESP teaching.

Keywords: academic identity, self-mention, statement of purpose, promotional genre

INTRODUCTION

While identity is expressed or implicated in every daily interaction, identity-related expressions tend to be discouraged in scholarly writings. Style guides and textbooks, for instance, constantly portray scholarly writing as a kind of impersonal and objective discourse that aims at revealing the truth of nature and human society Commonly known as "voice" in academic writing literature, identity-related expressions have been primarily viewed from the perspective of individual or personal quality in writing (Mastuda & Tardy, 2007). In general, academic writing tends to be recognized as "voiceless" since academic publications, especially in science fields, have been primarily characterized as impersonal and objective. Ramanathan and Atkinson (1999), for instance, linked self-expressions in academic writing to what they called "the ideology of individualism", arguing that self-expressions essentially highlight the notion of "private and isolated inner selves".

Yet, over the past decade or so the notion of identity has begun to attract increasing attention from applied linguistics researchers, especially in the field of L2 writing. A growing body of research recognizes the inevitability of identity in discourse: self-expressions are not only about individualist opinions; they are also closely associated with surrounding social relations (Mastuda & Tardy, 2007). This trend essentially reflects a socio-cultural approach to "identity" (Bakhtin, 1981; Fairclough, 1992; Ivanič, 1998), which demonstrates that voice is not necessarily tied to the ideology of individualism; rather, voice reflects intentional or unintentional uses of socially available yet ever-changing linguistic repertoires for expressing social identities (Matsuda, 2001).

From a pedagogical perspective, a student's emerging mastery of a discipline is a complex process, which involves not only learning relevant knowledge, but also developing a specific disciplinary identity. An interesting research topic highlighting the complex identity construction work in academic literacy development is effective pedagogies for graduate writing. In their highly successful book, Kamler and Thomson (2014) address how doctoral writing involves complex text/identity work and many graduate students struggle with their writing not because grammatical incompetence, but due to their lack of confidence of making effective arguments without revealing their positionality

Then, how do we conceive identity? By and large, the research on identity has a long and rich tradition across many disciplines (sociology, psychology, education, etc.), which points to the centrality and complexity of this notion in

the humanities and social sciences. Briefly speaking, identity should be understood as a multifaceted concept with multiple effects on human life. It is highly complex and there is no ironclad boundary between different identities of one person. Identity has been increasingly recognized as a desire for affiliation and recognition rather than a simple phenomenon of private experience (Norton, 1997). This recognition connects identity to the practices and structures of social communities and discourses, and in this regard, are cultural resources that align us with certain values and beliefs associated with particular identities (Hyland, 2002).

The growing discussions on the necessity of voice have received criticism as well. Stapleton (2002), for example, argued that the importance of voice has been overstated and such a message may let language learners pay more attention to their identities than ideas. Admittedly, such concern highlights the pedagogical difficulty of teaching the interrelation between objectivity and subjectivity in academic writing; however, it should not deter voice-related discussions in writing classes, especially for genres that encourage arguments, discussions, and interpretations.

This exploratory study adopts the framework of genre identity roles in academic writing. This framework proposes an expanded view on voice in academic writing, viewing voice as a form of self-representation that is inevitable not only in writing, but also in all human activities (Invanič & Camps, 2001).

The study seeks to demonstrate the importance of voice in academic writing through a genre analysis of a less-studied academic genre: statement of purpose. Statements of purpose (SoP), or personal statements, are self-promotional essays written for graduate school applications in many Western countries, which serve as an important assessment tools for admission committees to evaluate potential candidates. This genre of writing is usually remarkably short (approx. 500-1,000 words), fairly open-ended, and, in most cases, exceedingly daunting. Compared with other mandatory components in a typical graduate application for a university in Western countries, SoPs tend to be the only "discursive space" that an applicant has full control of how he/she is represented. SoP, in this regard, is the initial "gatekeeper" of one discipline's discourse community and arguably the most significant piece of writing in the beginning of one's academic career. Despite SoPs' importance in one's academic career, however, the specific features of SoP as an academic genre have been scantily researched. While there have been a few studies addressing the rhetorical features of SoP and exploring what commonalities are shared by successful essays (e.g. Brown 2004; Ding, 2007; Samraj & Monk, 2008), little research has focused on the issue of identity representation in SoP. That is, how SoP writers utilize various self-expression strategies to demonstrate their academic potential.

To be specific, the purpose of the present study is to examine the role self-mention plays in SoP writing through analyzing sentences containing first person pronouns (I, me, mine, we, us, and ours) and determiners (my and our) in 20 SoP samples. The use of first person pronouns and determiners is perhaps the most prominent way of making identity roles visible in discourse. As suggested by a growing body of research on voice in academic writing (e.g. Hyland, 2002; Invanič & Camps, 2001; Mastuda & Tardy, 2007; Zareva, 2013), the use of first person pronouns and determiners is, on the one hand, discipline-specific (with the humanities having the highest frequency) and, on the other hand, a valuable rhetorical strategy that can help both text producers construct and text receivers decode, the multiple academic identities required in effective scholarly communications. Moreover, the present study also seeks to explore what potential challenges writers may experience when conducting intensive self-promotion in a relatively short and high-stake writing task.
For the above purposes, the following three research questions were formulated:

1. What are the major academic identities constructed through self-mention in SoP?
2. Are there any potential challenges writers may experience in this identity construction process?
3. Can SoP offer a valuable discursive space for pedagogical interventions that promote disciplinary identity construction and academic genre mastery?

RESEARCH METHOD

A total of 20 SoP samples were collected for the present study, including 10 SoPs written by non-native English writers from China (CEAL-SoPs) and 10 SoPs written or edited by native English writers (EL1-SoPs). These samples were randomly selected from a set of 60 SoPs samples that were collected for an earlier study on politeness strategies in SoPs (Chen & Nassaji, 2015). These SoPs were written for various disciplines (e.g. biology, engineering, linguistics, etc.). For the CEAL-SoPs, their authors were all advanced EAL writers as indicated by their

TOEFL or IELTS test results. Following the solicitation of these SoP samples, two corpora were compiled for data analysis: the CEAL-SoP corpus (9,888 tokens) and the EL1-SoP corpus (8,628 tokens).

The current study adopted a mixed-methods research design for data analysis. The corpus analysis program WordSmith Tools (Scott, 2008) was used to locate sentences containing first person pronouns and the determiner across the solicited SoP samples. Then, each sentence was coded according to a typology of academic identities that can be delivered by first-person expressions built by previous research (Ivanič, 1998; Ivanič, Camps, 2001; Sheldon, 2009; Strarfield & Ravelli, 2006; Tang & John, 1999; Zareva, 2013). Table 1 shows the details of this typology, which distinguishes different rhetorical roles of self-expressions in terms of their relative authoritative power represented on a continuum. While the first three categories ("I" as conveyor, guide, or conductor) tend to be used in descriptive expressions, the use of latter three ("I" as evaluator, originator, and reflexive) tends to be argumentative and more personal. After the coding is completed, each category's frequency is calculated and the results were compared between the CEAL-SoP corpus and the EL1-SoP corpus.

Table 1

Typological variations of academic identities constructed by first-person expressions (examples are taken from the analyzed SoPs)

1. I as conveyor of common knowledge (often realized by using plural pronouns)
Example: Progress **we** make in this field will contribute to the future of Texas, America, even the world.
2. I as guide or navigator of the text (rhetorical use)
Example: Please let me know if **I** can provide additional information in support of my application.
3. I as narrator of personal experience
Example: What was more, due to the limitation of our university curriculum, **I** had few chances to participate in practice related to usability research.
4. I as communicator of personal feelings or self-evaluations
Example: **I** was somehow terrified by the huge number of man-made rules in chemistry and almost equal number of exceptions to them.
5. I as predictor of future academic/professional paths, or direct appeal for favourable considerations
Example: I am looking forward to discussing the interesting economic topics with my preeminent and patient professors and my excellent classmates at X university.
6. I as evaluator or originator of (abstract) academic knowledge
(e.g.) Presently, **I** am engaged in a research project regarding the applications of integrated marketing communications in China service industry. **I** hope to soon have an article published based on the outcome of my research

RESULTS

To address our research questions, we first calculated the frequencies and percentages of both singular and plural self-expressions in both CEAL-SoP corpus and EL1-SoP corpus. As shown in Table 2, self-expressions were frequently used in the analyzed SoPs, with a total frequency of 7.016/100 tokens. The most frequently used lexicons to make self-expressions are "I" and "my", with frequencies of 3.57/100 tokens and 2.382/100 tokens respectively. Another observation is that the CEAL-SoPs contained more first-person expressions (7.191/100 tokens) than the EL1-SoPs (6.810/100 tokens), which was mainly caused by the two groups' difference in sentences containing "I" and "my".

Table 2

The frequencies of self-expressions in the analyzed SoPs

	Raw Freq. (CEAL-SoPs)	Freq. per 100 tokens (CEAL-SoPs)	Raw Freq. (EL1-SoPs)	Freq. per 100 tokens (EL1-SoPs)	Freq. per 100 tokens (Total)
I	379	3.830	280	3.245	3.570

me	61	0.617	64	0.742	0.675
mine	0	0	2	0.023	0.011
my	241	2.437	200	2.318	2.382
we	16	0.162	19	0.220	0.189
us	4	0.040	2	0.023	0.032
ours	0	0	0	0	0
our	10	0.101	21	0.243	0.167
Total	711	7.191	588	6.810	7.016

In order to examine what academic identities were constructed by these solicited self-expressions, concordances containing these singular and plural first-person pronouns and determiners were qualitatively coded according to the typology of academic identities introduced in Table 1. The results showed a mixed pattern, with "I (we) as narrator of personal experience" as the most frequent constructed self-identity in the text (54.18% in both CEAL-SoPs and EL1-SoPs), followed by the category "I (we) as communicator of self-evaluations" (28.35% in CEAL-SoPs and 21.74% in EL1-SoPs). Although, the dominance of both categories are somewhat expected since SoPs are primarily based on personal experience, the lack of diversity in self-identity construction as shown in the low frequencies of other categories (esp. Categories a. b. & f.), still needs further consideration since both rhetorical use of self-expression and explicit academic identity construction efforts are expected by admission committees as well as in future academic writing.

Table 3.
Different academic identities constructed by solicited self-expressions

	Academic Identities	Freq. (CEAL-SoPs) Total: 395	Freq. (EL1-SoPs) Total: 299
"I" or "we" as	a. Conveyor of common knowledge	2 (0.56%)	0 (0%)
	b. Guide of the text	4 (1.01%)	2 (0.67%)
	c. Narrator of personal experience	214 (54.18%)	162 (54.18%)
	d. Communicator of self-evaluations	112 (28.35%)	65 (21.74%)
	e. Predictor of future paths	49 (12.41%)	54 (18.06%)
	f. Evaluator or originator of knowledge	14 (3.54%)	16 (5.35%)

What key patterns of academic identity construction can be observed from the above results? Overall, the above results suggest that academic identity construction presents a major challenge for SoP writers regardless of their English proficiency. More specifically, the major challenges as shown in this study are constructing "I" as being directly involved in academic conversations and effectively using self-narrative as a rhetorical tool to guide SoP readers. In this regard, the analyzed SoPs demonstrated that, instead of lacking literacy skills or genre knowledge, the major challenge of self-promotional writing for advanced EAP writers is mainly the difficulties associated with establishing a voice of expertise in an unfamiliar and limited discursive space.

DISCUSSION AND CONCLUSION

The purpose of this study was to examine self-identity construction in a less-studied academic genre and the results clearly showed that in the case of SoP, the major challenge experienced by native and advanced EFL writers is establishing an "expert" voice in a limited space. Although SoP seems to be a less-important genre in the universe of academic literature, we argue that the issue of self-identity construction implied by this exploratory study has wider pedagogical implications for both undergraduate and graduate writing instruction. Counter to the general perception,

promotional writing is a vital component in today's increasingly competitive academia and throughout one's academic career. Thus people need to learn how to deal with promotional genres such as job application letters, grant proposals, and applications for promotion. Current writing curricula at both undergraduate and graduate levels, however, seem to be unable to accommodate the increasingly professionalized academia that requires academic writers to make more confident self-promotion. Thus, we propose that more attention should been paid to issues related to self-representation in advanced EAP/ESP teaching.

Meanwhile, from a pedagogical perspective, SoP, as a genre packed with high-stake writing tasks, offers a valuable discursive space for pedagogical interventions that promote disciplinary identity construction and academic genre mastery. This genre provides not only genre knowledge that can be conveniently applied in both academic and professional settings, but also a valuable writing scenario encouraging students' self-awareness and reflective thinking. Although developing SoP as an effective pedagogical tool for academic writing still requires further explorations, the current study implies the possibility of developing an effective genre-based approach for teaching promotional genre writing.

Admittedly, our study has limitations that need to be taken into consideration when its findings and implications are considered. Given the small-scale nature of the study, the findings are not meant to be conclusive; instead, it aims at opening further conversations regarding potential pedagogical interventions for dealing with the challenges of text/identity work at both undergraduate and graduate levels. A larger-scale study is definitely needed. In addition, future research may go beyond the SoP genre and take other promotional academic genres into consideration.

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İLKÖĞRETIM 8.SINIF MATEMATIK DERS KITABINA, ÖĞRENCI ÇALIŞMA KITABINA VE ÖĞRETMEN KILAVUZ KITABINA İLIŞKIN ÖĞRETMEN GÖRÜŞLERI

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Sınıf içinde kullanılması önerilen çeşitli geleneksel ve modern araç gereç olmakla birlikte yapılan araştırmalar günümüzde kitabın sınıf içindeki yerinin hala çok önemli olduğunu göstermektedir. Bir ders kitabının öğrenmeyi kolaylaştırma, çalışma, öğrenilenleri gözden geçirme gibi çeşitli işlevleri vardır. Diğer taraftan öğrenci kitap yoluyla, öğretmenin anlattıklarını istediği zaman, istediği yerde ve istediği tempoda tekrar etme olanağı bulur. Ders kitapları öğretici bir nitelik taşımalı ve öğrenmeye rehberlik edici olmalıdır *Ders kitapları*, ders konularına ait bilgileri, sıralı ve doğru bir biçimde, öğrencilerin kendi kendilerine öğrenmelerini sağlamak amacıyla hazırlanan ve öğrenme-öğretme sürecinin vazgeçilmez ve en çok kullanılan görsel araçlarıdır. Bunun yanısıra öğrencilerin ders kitaplarını daha verimli kullanmaları ve gerekli davranışları kazanmaları için yardımcı araçlara ihtiyaç vardır. Bunlar arasında en temel olan öğrenci *çalışma kitaplarıdır.* Öğrenci çalışma kitapları, öğrencinin öğrenme etkinliklerini kendi kendilerine yapmaları ve öğrenci davranışlarının kalıcı hale gelmesi için gereklidir. Her ders kitabının bir de öğrenci çalışma kitabının olması, ders kitabının daha kullanışlı olması ve çekici olmasını sağlar. *Öğretmen kılavuz kitabı* ise daha çok öğretmene dersi nasıl işleyeceği konusunda hazır bilgiler veren bir başvuru kitabı olup ders öncesi hazırlık ve planlama çalışmalarında ders kitabının doğru ve verimli kullanılmasına yardımcı olur.

Matematik öğretiminin temel amaçlarından biri öğrencilere matematikle ilgili bilgi ve becerileri gerekli olan durumlarda kullanabilme ve yine gerekli durumlarda yeni bilgilere uyarlayabilme becerisi kazandırmaktır. Bu temel amacı gerçekleştirebilmek kuşkusuz birçok unsurun dikkate alınmasıyla mümkündür. Bu unsurlar içinde ders kitaplarının önemli bir yeri vardır. Ders kitaplarının yeterlilik düzeyi, matematik öğretiminin amaçlarının gerçekleşmesinde oldukça etkilidir.

Bu araştırmanın amacı ilköğretim 8. sınıf matematik ders kitabına, öğrenci çalışma kitabına ve öğretmen kılavuz kitabına ilişkin öğretmen görüşlerini belirlemektir. Araştırmada betimsel araştırma yöntemlerinden tarama modeli kullanılmıştır. Araştırmanın evrenini, Eskişehir ili merkez ilçelerinde görev yapan ilköğretim matematik öğretmenleri oluşturmaktadır (n=151). Araştırma, bu evrenden rastlantısal olarak seçilen 125 ilköğretim matematik öğretmeni ile yürütülmüştür. Araştırmanın verileri öğretmenlerinMatematik dersinde kullanılan ders kitabı, öğrenci çalışma kitabı ve öğretmen kılavuz kitabına ilişkin görüşlerini belirlemek amacıyla geliştirilen ve 5'li Likert tipi 45 sorudan oluşan anket aracılığı ile elde edilmiştir. Anketin kapsam geçerliği uzman kanıları ile sağlanmış ve pilot uygulaması 25 öğretmen üzerinde yapılmış bu ön uygulamaya göre öğretmen anketinin güvenirlik katsayısı Cronbach Alpha 0,95 olarak bulunmuştur. Öğretmen görüşleri, araştırma kapsamındaki her kitap türü için "biçimsel özellikler", "içeriğin organizasyonu", "eğitim durumları" ve "ölçme-değerlendirme" olmak üzere dört boyutta araştırılmıştır. Öğretmen anketinde bulunan ilk 25 madde ders kitabı ile sonraki 10 madde öğrenci çalışma kitabı ile kalan 10 madde ise öğretmen kılavuz kitabı ile ilgilidir. Öğretmenlerin görüşlerinin cinsiyete, görev yapılan

ilçelere ve eğitim durumlarına göre istatistiksel açıdan anlamlı bir fark olup olmadığı Mann-Whitney U Testi ile, kıdemlerine göre istatistiksel açıdan anlamlı bir fark olup olmadığı ise Kruskall Wallis Testi ile analiz edilmiştir.

Araştırmada elde edilen bulguları göre öğretmenler ders kitabını "biçimsel özellikler" ve "içeriğin organizasyonu" boyutları açısından olumlu bulmaktadırlar. "Eğitim durumları" boyutu açısından ders kitabı yeterli bulunmakla birlikte, öğretmenlerin ders kitabının yeterli ücretsiz ek materyallerle desteklenmediği yönünde hem fikir oldukları görülmektedir. Ders kitabı ile ilgili son olarak "ölçme-değerlendirme" boyutu hakkındaki öğretmen görüşleri incelendiğinde, ders kitabında her konu için yeterli düzeyde alıştırma olmadığı sonucuna ulaşılmaktadır. Öğrenci çalışma kitabı için de yine bu dört boyut açısından öğretmen görüşlerine bakıldığında, genel yargının olumlu yönde olduğu görülmektedir. Son olarak öğretmen kılavuz kitabı için, öğretmenlerin genel olarak bu kitaptan memnun oldukları sonucu çıkarılabilir. Ancak öğretmen kılavuz kitabında, öğretmenlere kaynak olacak yeterli ek alıştırmanın bulunmadığı öğretmenlerin çoğunun ortak görüşü olmuştur.

Keywords: Mathematics, textbook, workbook, teacher's handbook, matematics teacher.

RELATIONSHIP OF JOB SATISFACTION OF ELEMENTARY SCHOOL MUSIC TEACHERS WITH SEVERAL VARIABLES

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ABSTRACT

The role of teaching a person is given to schools and teachers after the family. Educations of children firstly starting in the family continue with the teachers in the school. Particularly the figure of teacher is very important for the child at school age. The fact that the elementary school teacher provides qualified education can depend upon the satisfaction that he/she provides from the situation that he/she is in. It is thought that increasing the material and spiritual satisfactions that the teacher obtains from his/her job is a significant factor for raising students as healthy individuals.The objective of this study is to analyse attitudinally the job satisfactions of elementary school music teachers in Tokat in Turkey according to several variables. With this purpose, Minnesota Job Satisfaction Scale including 20 statements was used. Data were obtained between 20 March and 2 April 2015. Demographic information such as age, sex, marital status, educational background, working period and the statements intended for the assessment relating to job satisfaction are included. In the study, the scale was distributed to 60 volunteer music teachers working in elementary schools and all of these teachers responded. With data obtained, job satisfactions of the teachers were analysed attitudinally by several variables.

INTRODUCTION

In the organizational behaviour field, attitudes developed related to the individual job are considered quite important. These attitudes are related to the job satisfaction of the personnel. The satisfaction of personnel from the variables related to his/her job will affect the achievement of satisfaction in his/her job. According to the results of research made by Weaver (1977), Holdaway (1978), Schackmuth (1979), Medved (1981), the attitudes of teachers related to their job have a significant effect on job satisfaction (Tanrıöğen, 1997). The job satisfaction is general result of attitudes and means that the personnel are good physically and psychologically. It is a feeling occurring as a result of the interaction of outputs obtained from work and work values which they present for their job. (Bakan and Büyükbese, 2004). Schermerhorn (2005: 347) defines the job satisfaction as "feelings and positive or negative opinions of the personnel on their jobs". The concept described with the expressions such as job satisfaction, job contentment, and professional satisfaction is defined as relieving and calming feeling that an individual tries to obtain from job, managers, working group and working organizations (Bingöl, 2003: 270). According to Aswathappa (2010: 177-179), high job satisfaction of the personnel increases his/her efficiency, decreases lack of continuity for his/her and reduces the accidents and stress. The high level of job satisfaction of the personnel is considered important in occupational groups involved in an interaction and one-to-one communication with people. Therefore, it is observed in most of the related researches that the personnel in medical and educational field are working in a satisfied manner with their job. Focus of this research is on job satisfaction of teachers. The role of teaching a person is given to schools and teachers after the family. Educations of children firstly starting in the family continue with the teachers in the school. Particularly the figure of teacher is very important for the child at school age. The fact that the elementary school teacher provides qualified education can depend upon the satisfaction that he/she provides from the situation that he/she is in. It is thought that increasing the material and spiritual satisfactions that the teacher obtains from his/her job is a significant factor for raising students as healthy individuals. With this purpose, job satisfactions of elementary school music teachers in Tokat in Turkey were analysed attitudinally according to several variables.

THE STUDY

This research in which the job satisfaction of elementary school music teachers is analysed according to several variables has descriptive quality. The research is in survey model. Survey models are the approaches of research made on a sample group selected from a universe including large groups and aiming to examine a situation which existed in the past or exists at the present. A case, an individual or an object subject to the research are tried to be defined within its own condition and as existing (Karasar, 1994). A survey was used for collecting data. The survey consists of two sections. In the first section, a Personal Information Form including demographic information such as age, sex, marital status, educational background, and working period was used and in the second section, Minnesota Job Satisfaction Scale consisting of 20 statements intended for the assessment relating to the job satisfaction of teachers was used. Minnesota Job Satisfaction Scale (MJSS) is a 5-point likert scale consisting of 20 questions developed by Weiss et al. in 1967 for measuring the job satisfaction (1= very dissatisfied, 5= very satisfied). There are five options defining the satisfaction level of the person within each question. The translation from English to Turkish of Minnesota Job Satisfaction Scale was made by Deniz

and Güliz Gökçora from Hacettepe University. The translation was made again later and its validity was approved and its test was made on the personnel by A. F. Boycan from Bogazici University (Özyurt, 2003: 39). Data were obtained between 20 March and 2 April 2015. There are 69 elementary school music teachers working in the city centre of Tokat. In the study, the scale was distributed to 60 music teachers volunteer for participating into the study and all of these teachers made a feedback. With the two-section survey used in the study, the demographic characteristics of elementary school music teachers were obtained and it was determined whether the points of job satisfaction varied according to variables such as age, sex, marital status, educational background, seniority and wage or not.

Table 1. Demographic characteristics of teachers

Variables		n	%
Age	**21-30**	20	33.3
	31-40	39	65
	51 and above	1	1.6
Sex	**Male**	36	60
	Female	24	40
Marital status	**Married**	49	81.7
	Single	11	18.3
Educational Background	**Undergraduate**	56	93.3
	Post graduate	4	6.7
Seniority (working period)	**1-5 years**	20	33.3
	6-10	31	51.7
	11-15 years	7	11.7
	21 years or above	2	3.3
Economical satisfaction	**Little**	23	38
	Moderate	12	20
	Dissatisfied	25	41.7

Analysis of Data

Kolmogorov-Smirnov and Shapiro-Wilk test were applied in order to test whether the distributions of points obtained from Minnesota Job Satisfaction Scale are normal or not and it was understood that the observation values did not show normal distribution in both cases. Among non-parametric tests, Mann Whitney U-Test for double groups and Kruskal Wallis H-Test for three of more groups were applied for evaluating whether there is a differentiation depending upon the demographic variables of teachers or not as the distribution was not normal.

FINDINGS AND INTERPRETATION

The relationship between job satisfaction points and demographic characteristics of teachers participating into the study is given in the following table.

Table 2. Relationship between job satisfaction points and demographic characteristics of teachers

Professional	**Group**	**n**	**Mean Rank**	**Total Rank**	**U**	**p**
Sex	Male	48	32,94	1186,00	344,000	,183
	Female	12	26,83	644,00		
Marital Status	Married	49	29,67	1454,00	229,000	,438
	Single	11	34,18	376,00		
Educational Level	Undergraduate	56	29,65	1660,50	64,500	,158
	Post graduate	4	42,38	169,50		

In comparisons, Mann WhitneyTest was used *: $p<0,05$,

The relationship between job satisfaction points of elementary school music teachers and variable such as sex, marital status and educational level was analysed and the results were summarized in Table 2. According to the findings of this research, there is no significant difference between the job satisfaction points of Male and Female teachers. In other words, there is no relationship between sex and job satisfaction of teachers. When the literature is reviewed, the findings of studies that there is no relationship are observed. While Yıldız et al. (2003),

Kurçer (2005), Keser (2005), Sünter et al. (2006), Yelboğa (2008), Tözün et al. (2008), Taşdan (2008), Öztürk and Deniz (2008), Gençtürk and Memiş (2010), Yılmaz and Ceylan (2011), Telef (2011), Yılmaz (2012) did not determine a relationship between sex and job satisfaction in their researches, the relationship between sex and job satisfaction was determined in the researches made by Piyal et al. (2000), Keser (2006). According to the findings of this research, there is no significant difference between marital status (married or single) and job satisfaction points of teachers. In other words, there is no relationship between marital status and job satisfaction of teachers. When the literature is reviewed, the findings of studies that there is no similar relationship are observed. (Piyal et al. 2000; Yıldız et al. 2003; Kurçer 2005, Sünter et al. 2006; Durmuş and Günay, 2007) According to the findings of this research, there is no significant difference between educational level (undergraduate or post graduate) and job satisfaction of teachers. In other words, there is no relationship between educational level and job satisfaction of teachers. In literature, the study findings analysing the relationship between educational level and job satisfaction of the personnel can reach different results. For example; Piyal et al. (2000) and Alanyalı (2006) found a relationship between educational level and job satisfaction in their research. Öztürk and Deniz (2008), Telef (2011), Yılmaz (2012) did not observe a relationship between educational level and job satisfaction. However, it was stated that general job satisfaction of those who have high educational level is higher than those who have lower educational level (Baysal, 1981: 193). The relationship between job satisfaction points of elementary school music teachers and their satisfaction with regards to age, seniority and economical issue of elementary school music teachers was summarized in Table 3.

Table 3. Relationship between job satisfaction points of elementary school music teachers and their satisfaction with regards to age, seniority and economic issue

Job Satisfaction	Group	n	Mean Rank	Sd	X^2	p
Age	21-30	20	36,32	2	5,651	,059
	31-40	39	28,26			
	51 and above	1	1,50			
Seniority (working period)	5 years or less	21	35,68	3	3,570	,312
	6-10	31	28,71			
	11-15	7	27,64			
	21 years or above	2	16,50			
Economic satisfaction	Moderate	23	29,48	2	19,013	**,000***
	Little	12	13,17			
	Dissatisfied	25	39,76			

In comparisons, Kruksal Wallis H-Test was used *: p<0,05,

In this research, there is no significant difference between ages and job satisfaction points of teachers. According to this, for this study, it is possible to say that there is no relationship between age and job satisfaction. In literature, there are similar studies reaching the result that there is no relationship between age and job satisfaction (Yıldız et al. 2003; Kurçer 2005, Keser 2006; Sünter et al. 2006; Durmuş and Günay, 2007; Tözün et al.,2008; Taşdan and Tiryaki 2008; Öztürk and Deniz 2008; Yılmaz 2012). Charles and Titus (1999) and Mackonienė and Norvilė (2012) determined that there was a relationship between age and job satisfaction. Their studies showed that old personnel had more satisfaction than young ones. Charles and Titus stated that as the personnel gain experience and skills at work, the level of working performance and accordingly job satisfaction can increase. According to the findings of this research, there is no significant difference between seniority and job satisfaction points of teachers. According to this, for this study, it is possible to say that there is no relationship between the seniority and job satisfaction of the personnel. In literature, there are similar studies reaching the result that there is no relationship between seniority and job satisfaction (Yıldız et al., 2003; Kurçer, 2005; Sünter et al., 2006; Durmuş and Günay, 2007; Tözün et al., 2008; Taşdan and Tiryaki, 2008). Additionally, there are researches determined the relationship in this issue (Gençtürk and Memiş, 2010; Yılmaz, 2012). According to the findings, there is a relationship between economic satisfaction and job satisfaction of elementary school music teachers. This finding corresponds to the literature. Whether satisfied with job or not depends greatly on financial gain that the personnel obtain from his/her job. The personnel can meet the life and professional requirements with the financial gains that he/she obtains from his/her job. The researches show that wages are very important for the personnel and there are findings stating that there is a positive relationship between job satisfaction and level of income (Göktaş, 2007; Şahin et al. 2011). High income provides high satisfaction. According to Frank and Patrick (1988); balanced wage is more important for job satisfaction than high wage. The financial dissatisfaction of an individual reduces his/her performance, increases the possibility of resignation and lack of continuity and the dissatisfaction level from his/her job.

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İLKOKUL DÖRDÜNCÜ SINIF ÖĞRENCILERININ TIMSS MADDELERINE GÖRE MATEMATIKSEL MODELLEME SÜREÇLERININ İNCELENMESI

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Son yıllarda matematik eğitimi alanında en çok tartışılan konulardan biri matematiğin günlük yaşama aktarımını ele alan matematiksel modelleme kavramıdır (Blum ve Ferri, 2009). Genel anlamı ile model, karmaşık bir nesnenin veya sürecin basitleştirilmiş bir şekli iken modelleme, birçok aşamadan oluşan etkinlikleri kapsayan karmaşık bir süreçtir (Maull ve Berry, 2001). Matematiksel modelleme ise gerçek yaşam problemlerinin çözümü için matematiksel modelin/modellerin oluşturulmasını, bilinmeyenlerin keşfedilmesini ve matematiksel modelden elde edilen sonuçların gerçek yaşam durumuna yansıtılmasını gerektiren karmaşık bir süreç olarak ifade edilmektedir (Peter Koop, 2004). Matematik öğretim programlarının en önemli amaçlarından biri matematiksel düşünme gücü gelişmiş öğrencilerin iyi birer problem çözücü olarak yetiştirilmesidir (MEB, 2011). Bu bağlamda; bu araştırmanın amacı TIMSS 2007 ve TIMSS 2011 ilkokul dördüncü sınıflara uygulanan yayımlanmış maddlerden seçilen on madde yardımıyla öğrencilerin matematiksel modelleme süreçlerini incelemektir. Araştırmanın çalışma grubunu Kütahya il merkezinde bir ilkokulda öğrenim görmekte olan dördüncü sınıf öğrencileri oluşturacaktır. Yöntem olarak nitel araştırma yöntemi desenlerinden durum çalışması deseni kullanılacaktır. Öğrencilerin verdiği cevaplar içerik analizi yardımıyla çözümlenecek ve raporlaştırılacaktır. Elde edilecek sonuçlara göre öneriler getirilecektir.

Keywords: matamatiksel modelleme, ilkokul, TIMSS.

IMPACT OF INTERNATIONAL AWARD IN NURTURING A CULTURALLY RESPONSIVE ARCHITECTURE CASE FOR ABDULLATIF ALFOZAN AWARD FOR MOSQUE ARCHITECTURE

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Architectural education, albeit our education cannot be a hostage to the vagaries of market needs nor a victim to the traditional teaching. Humanistic goals of architectural education, especially the way architecture is taught where a total involvement of minter is required, express the highest ideals of educational ethics. Recognition and patronage of such ethics can positively influence the pedagogical and professional realm towards a culturally responsive environment. In cooperation with the colleges and universities, the 'International Award' can have a mutually beneficial discourse of far-reaching consequence. Such awards, e.g. Pritzker Award in US, Aga Khan Award for Architecture in Muslim societies, etc. have had similar goals and over years have produced rich dividend.

The paper will examine the intent and 'modus operandi' 'Abdullatif Alfozan Award for Mosque Architecture' with academic institutions in the Arabian Gulf Cooperation Council (GCC) region, sponsoring design competition for students', sponsoring fieldwork and funding faculty research.

Finally, the paper will conclude with sets of strategies and recommendations for a framework for joint effort and long-term cooperation between the Award and different colleges of Architecture and Engineering in this region.

Keywords: Education, Award, competition, GCC.

IMPACTS OF NEW SCHOOL MODELS ON REPUBLICAN ERA CURRICULUM IN TURKEY: THE CASE BETWEEN 1908 AND 1928

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By the end of the 19th century educators in various countries created “new schools” and new educational systems against the old school system. This new school replaced the old rote system with new curriculum based on learning by doing and experience and with students active in learning. Some of these schools were established by the state and some other by private initiatives, later to be under state control. With the start of republican period, "new school" in our country as well as in other countries, attracted the attention of many educators and were investigated. Some educators like İbrahim Alaattin, Niyazi Asım, Halil Fikret, Ali Haydar, Mustafa Rahmi, Münir Mazhar, Sabri Cemil, Nevzat Mahmut, Ethem Nejat, İsmail Hakkı Bey did some research and investigation had important contribution in shaping education programs in the Republican era. This study, following a historical research design, qualitatively analyzed by content analysis the texts related to new schools in the periodicals from 1908 to 1928 of Tedrisat-ı İptidaiye Mecmuası (Journal of Primary Education [Tedrisat Mecmuası]), Muallim Mecmuası (Teacher’s Journal), Muallimler Mecmuası (Teachers’ Journal), Maarif Vekâleti Mecmuası (Journal of Ministry of Education), Muallimler Birliği Mecmuası (Journal of Teachers Union) and Yeni Fikir (New Idea). It is found that, after the proclamation of the Republic in Turkey, primary and secondary curriculum development studies has origins in the pragmatist philosophical thought.

Keywords: The second constitutional era, republic, new school, curriculum

IMPLEMENTATION OF SOME MEDICAL DATA IN APRIORI ALGORITHM

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ABSTRACT
This thesis work is based on medical data mining. We collected data from medical papers and journals, and looked for around 6000 to 7000 papers/journals from these numbers we only selected 1000, and discarded the rest which were not needed or related to our work. The selected papers which we used are from years 2010 to 2015. Ourdata is, ***name or title of the paper, keywords and authors***, the focusing factor from the above data is keywords. Weperformed an implementation on the keywordsof the data. the target of the implementation is finding different relationships among these keywords. The searching keywords which we used for collecting the data are: medical data mining , medical clustering , medical classification, medical decision support system, and medical papers in fuzzy system and artificial neural network. We collected all the data manually. After we organize the data and did an implementation on data using Apriori algorithm. In the result we found two things, First onethe most occurring words (with number of occurring), second association rules among those words.

Keywords: Medical Data Mining, Association Rules, Apriori Algorithm.

INTRODUCTION

Modern medicine generates a great deal of information stored in the medical database. Extracting useful knowledge and providing scientific decision-making for the diagnosis and treatment of disease from the database increasingly becomes necessary. Data mining in medicine can deal with this problem. It can also improve the management level of hospital information and promote the development of telemedicine and community medicine. Because the medical information is characteristic of redundancy, multi-attribution, incompletion and closely related with time, medical data mining differs from other one. Medical data mining have discussed the key techniques of medical data mining involving pretreatment of medical data, fusion of different pattern and resource, fast and robust mining algorithms and reliability of mining results. The methods and applications of medical data mining based on computation intelligence such as artificial neural network, fuzzy system, decision support system, evolutionary algorithms, rough set, support vector machine have been introduced(Zhu, Wu & Cao; 1997).

Clinical databases have accumulated large quantities of information about patients and their medical conditions. Relationships and patterns within this data could provide new medical knowledge. Unfortunately, few methodologies have been developed and applied to discover this hidden knowledge. the techniques of data mining (also known as Knowledge Discovery in Databases) were used to search for relationships in a large clinical database. Many researches and studies have taken place in the field of medical data mining it is a really growing field of many future researches and at the same time one of the most important field to our life, because all these researches are based on medicine and we know when we hear the word of medicine then suddenly the word of Health is also coming to our mind, in-fact we can say these studies are related to our health and health is one of the most important factor of our life and it is an accepted fact to all. Meanwhile many researches and studies took place in medical data mining for example a survey on medical data mining was done.in this survey work data accumulated on 3,902 obstetrical patients were evaluated for factors potentially contributing to preterm birth using exploratory factor analysis. Three factors were identified by the investigators for further exploration and many more examples as well(Prather,Lobach, Goodwin, Hales, Hage & Hammond; 2011).

An important survey was done By Neil Savage on September 19, 2011 from this study we can understand the importance of medical data mining I took a small portion of his survey it says: The antidepressant Paxil was approved for sale in 1992, the cholesterol-lowering drug Pravachol in 1996. Company studies proved that each drug, on its own, works and is safe. But what about when they are taken together? By mining tens of thousands

of electronic patient records, researchers at Stanford University quickly discovered an unexpected answer: people who take both drugs have higher blood glucose levels. The effect was even greater in diabetics, for whom excess blood sugar is a health danger. The research is an example of the increasing ease with which scientists now scour digitized medical results, like glucose tests and drug prescriptions, to find hidden patterns. "You're not constrained by the need to actually get patients lined up in a clinical trial that would be incredibly expensive," says Russ Altman, director of Stanford's Biomedical Informatics Training Program, whose group published the Paxil Pravachol result in the journal Clinical Pharmacology and Therapeutics this July. "We had most of this paper done probably in a month." The spread of electronic patient records, with their computer-readable entries, is opening new possibilities for medical data mining. Instead of being limited to carefully planned studies on volunteers, scientists can increasingly carry out research virtually by sifting through troves of data collected from the unplanned experiments of real life, as preserved in medical records from scores of hospitals. Such techniques are allowing researchers to ask questions never envisioned at the time of a drug's approval, such as how a medicine might affect particular ethnicities. They are also being used to uncover evidence of economic problems, such as overbilling and unnecessary procedures. Mining of health records "is going to build advancements in research, but also efficiencies in the health delivery system," saysMargaret Anderson, executive director of Faster Cures, a think tank in Washington, D.C. Some large hospital systems that use electronic records now employ full-time database research teams. Laurence Meyer, associate chief of staff for research at the Salt Lake City Veterans Administration Medical Center, says he knows of more than 100 research projects using electronic records from the VA's six million patients, who are seen at 152 hospitals and 804 outpatient clinics across the country (Savage,2011).

From the above survey we see people were using antidepressant Paxil and cholesterol-lowering drug Pravachol for better health, but recently it was found they have dangerous side effects, so these side effects were found because of recent studies and researches in medical data mining. It is also called recent development in medical field and we know medical data mining is also from the biggest parts in medical.

THE STUDY

As we mentioned early above in the abstract that our work is based on medical data mining and we performed an implementation using Rapid Miner which is a well-known data mining tool and many people use this tool for their experiments as well.

In the first step of our work we collected data for ourexperiment the data which we collected was only and only from medical articles in data mining we wanted to find 1000 related articles in medical data mining, from year 2010 to 2015 as we collect all our data manually, looked for around 6000 to 7000 articles then we selected only 1000 medical data mining related articles which were needed to our experiment and discarded the rest. Because in the searching period for the articles, most of the search resultsused to be differentfrom what we wanted, that's why it was a time consuming and challenging work to find 1000 articles manually only and only in medical data mining, however we collected the data in an excel sheet our targeted data was name or title of the article, keywords of the article and authors of the article and the main factors on which we did the implementation were Keywords from all these selected articles/papers. In our experiment we wanted to find the relationships among these keywords and perform an implementation on these keywords in Apriori algorithm using Rapid Miner tool, after we are done with the experiment we found the expected results such as: Association rules among these keywords and also we found which keywords occur many times, in these keywords there were names of some systemswhich were used for implementation in the medical data mining field such as , artificial neural network,data mining, fuzzy system, decision support system , diagnosis, clustering, classification and so on… and in the keywords there were the names of some diesesesas well, so from the name of the mentioned system and diseases we can say the they are the systems which are used in medical data mining for implementation purposes and from the disease we can say the implementations were applied on those diseases ,so in the implementation result we found the occurring number of these systems and dieseases, and association rules for them as well.

FINDINGS

We use a data-mining tool for our experiment, which is called Rapid Miner. RapidMiner (formerly Yale) is an environment for machine learning and data mining processes. A modular operator concept allows the design of complex nested operator chains for a huge number of learning problems. The data handling is transparent to the operators. They do not have to cope with the actual data format or dierent data views - the Rapid Miner core takes care of the necessary transformations.

Today, Rapid Miner is the world-wide leading open-source data mining solution and is widely used by researchers and companies. Here we are going to show the detailed result of our implementation. To make our

results much clear we show here our resulted tables from our experiment then by looking to them we can call it, self-explanatory. We implement an experiment on Apriori algorithm using Rapid Miner before we show our results let's see how did we begin our experiment, let's see the following Figure 1:

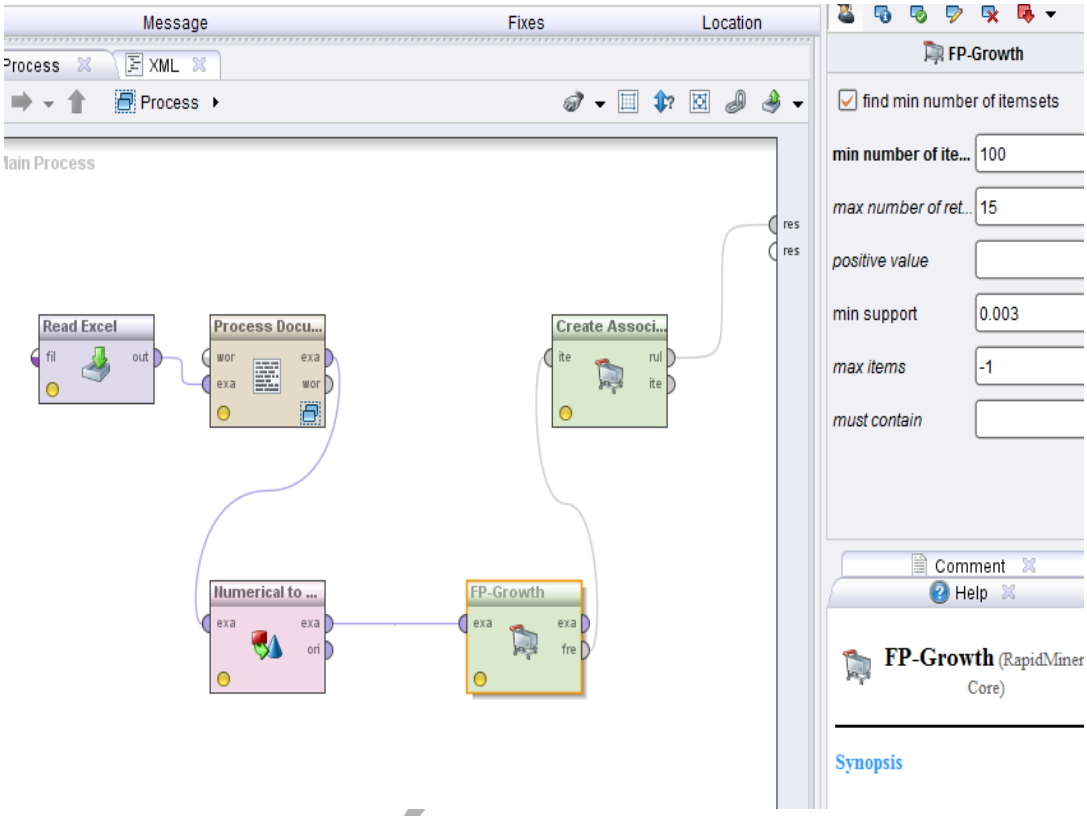


Figure 1:(FP-Growth) the box where we specify the min-sup-count

There are five boxes above in Figure 1: it is an interface of Rapid Miner from our implementation, from left to right first of all we export our excel sheet then performed a text mining process after transform Numerical data to Binominal in fourth box (step) FP-Growth we specified the minimum support count which we give 0.003. In the following Figure 2: We can see the same figure with the above one but here in Figure 2: We specify the minimum confidence= 0.08

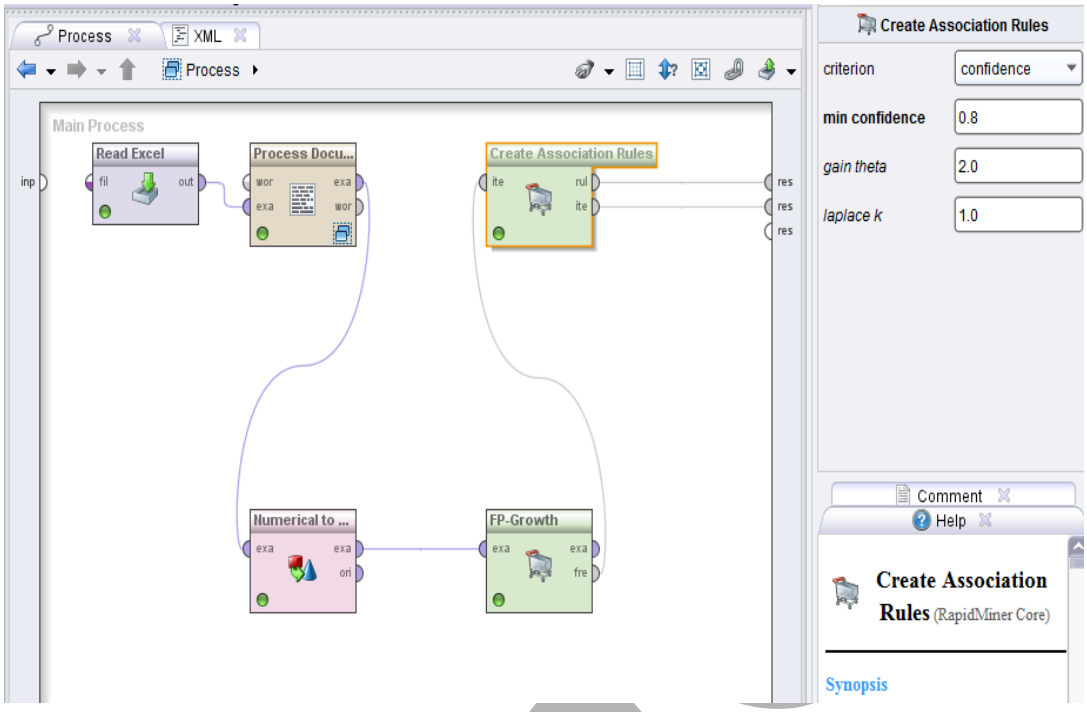


Figure 2:(Create association rules) the box where we specify the min-confidence

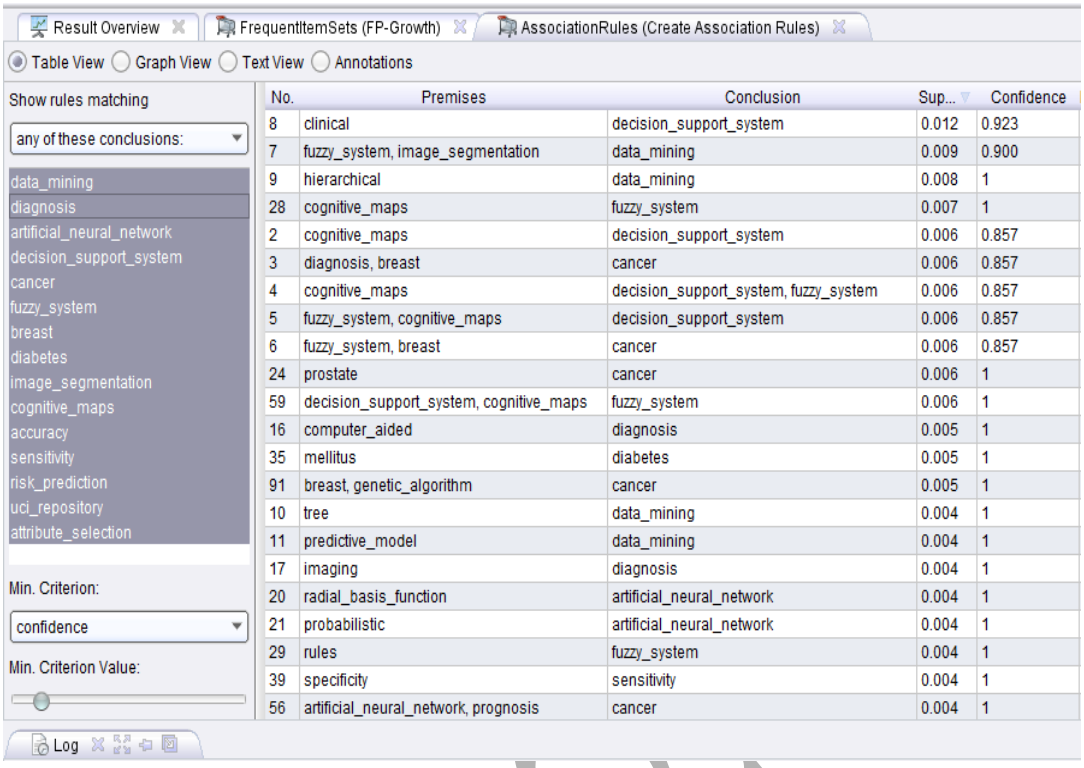
After completing the processes in above figures we run our project when the running process is finished we get the results of our experiment. As we said earlier, the focusing things from our results are finding different relationships among the given keywords such as association rules and finding the number of occurring of each keyword. To make the concept much clear let us have a look to the following Table 1: in a screen shot format

Table 1:Length of itemsets and association rules

A	B	C	D	E	F	G	H
Size	Support	item1	item2	item3	item4	item5	item6
4	0.003	fuzzy_system	accuracy	risk_prediction	attribute_selection		
4	0.003	fuzzy_system	accuracy	uci_repository	attribute_selection		
4	0.003	fuzzy_system	risk_prediction	uci_repository	attribute_selection		
4	0.003	accuracy	risk_prediction	uci_repository	attribute_selection		
5	0.003	decision_support_system	fuzzy_system	accuracy	risk_prediction	uci_repository	
5	0.003	decision_support_system	fuzzy_system	accuracy	risk_prediction	attribute_selection	
5	0.003	decision_support_system	fuzzy_system	accuracy	uci_repository	attribute_selection	
5	0.003	decision_support_system	fuzzy_system	risk_prediction	uci_repository	attribute_selection	
5	0.003	decision_support_system	accuracy	risk_prediction	uci_repository	attribute_selection	
5	0.003	fuzzy_system	accuracy	risk_prediction	uci_repository	attribute_selection	
6	0.003	decision_support_system	fuzzy_system	accuracy	risk_prediction	uci_repository	attribute_selection

In Table 1: we can see length of the item sets, there is one most longest itemsets which has six items, and six other rows which are having five, five itemsets I took them as an example they are having their own meaning and logics for example the first row says in our data these six items repeated thrice and that's true we can find it by this equation $0.003 * 1000 = 3$and same thing can be done for the other itemsets as well here 0.003 is minimum support count, 1000 is the number of our data so multiplying the min-sup-count with number of data is giving us the number of itemset in whole our data.

İn the following Figure 3: we would like to show a screen shot from the table view of our association rules



No.	Premises	Conclusion	Sup...	Confidence
8	clinical	decision_support_system	0.012	0.923
7	fuzzy_system, image_segmentation	data_mining	0.009	0.900
9	hierarchical	data_mining	0.008	1
28	cognitive_maps	fuzzy_system	0.007	1
2	cognitive_maps	decision_support_system	0.006	0.857
3	diagnosis, breast	cancer	0.006	0.857
4	cognitive_maps	decision_support_system, fuzzy_system	0.006	0.857
5	fuzzy_system, cognitive_maps	decision_support_system	0.006	0.857
6	fuzzy_system, breast	cancer	0.006	0.857
24	prostate	cancer	0.006	1
59	decision_support_system, cognitive_maps	fuzzy_system	0.006	1
16	computer_aided	diagnosis	0.005	1
35	mellitus	diabetes	0.005	1
91	breast, genetic_algorithm	cancer	0.005	1
10	tree	data_mining	0.004	1
11	predictive_model	data_mining	0.004	1
17	imaging	diagnosis	0.004	1
20	radial_basis_function	artificial_neural_network	0.004	1
21	probabilistic	artificial_neural_network	0.004	1
29	rules	fuzzy_system	0.004	1
39	specificity	sensitivity	0.004	1
56	artificial_neural_network, prognosis	cancer	0.004	1

Figure 3: Association rules table view

In above Figure 3: we can see four things at the top of the figure premises, conclusion, support and confidence as they are association rules there is a condition of IF-THEN premises stands for "IF" conclusion stands for THEN, we know support and confidence from our earlier knowledge. Let's see rule 10 (tree → data_mining) support=0.004 and confidence=1.0 it means when there is tree then the occurring probability of data mining is 100% when confidence is 1 it means the probability of happening is 100% the same thing can be explained for the other rules as well. On the left side of the Figure 3: We can see some itemsets, so if we want to see association rules for a specific itemset then we just click on any of them we will get association rules for it.

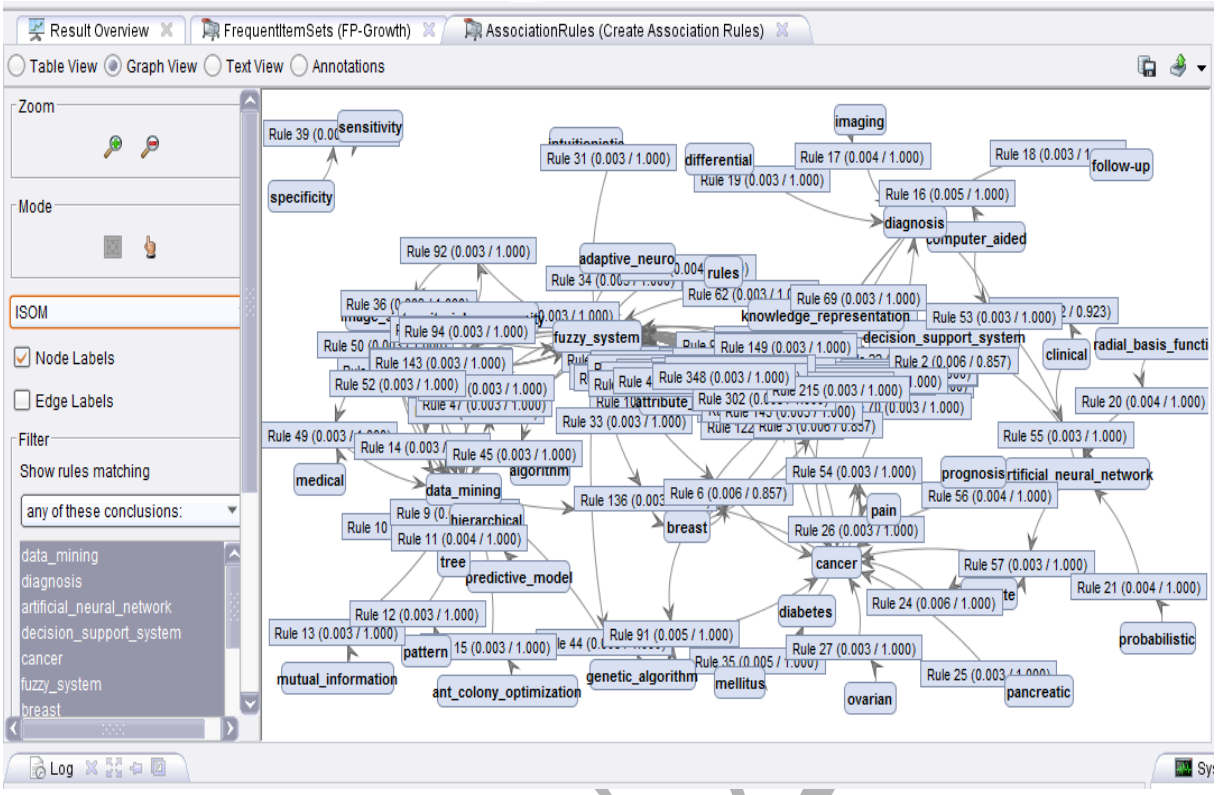


Figure 4: Association rules graph view for all itemsets

Figure 4: is graph view of the association rules for all the items this look can be different by choosing a different style. Here we select ISOM when we select another style as circle then the look will be different. In this Figure 4: Whenever we want to know an association rule indivisually for an itemset, we put the cursor on that itemset then it will give all the explanation like premises, conclusion, support, confidence, lift, gain, conviction, laplace and ps from all these explanation we just need the first four of them for the association rules and the others are not our concern. Here in graph view the concept is same as we mentioned in table view. These above table and graph views shows the resulted association rules of our experiment.

Now we will show the second resulted part of our experiment which is the occurring of the keywords and we also collected best support in a table, first let us see the most occurring keywords in the following Figure 5: So in the below figure we can see the most occurring keyword in our data is data mining , diagnosis, artifitial neural network, decision support system, cancer, fuzzy system and so on ... The name of the system means these systems used the most in medical data mining according to our data and we also found the name of some dieseases and we took here cancer as a representative for other sicknesses as well , the sicknesses in our data means the experement research was implemented considering the mentioned sickness like here we can see cancer. In the below horizontal figure we can see there are two terms one is document occurring, means number of occurring of a keyword only in a row, and another is total occorring which might be greater than the first term it means in some rows one keyword happened twice or even thrice as well.

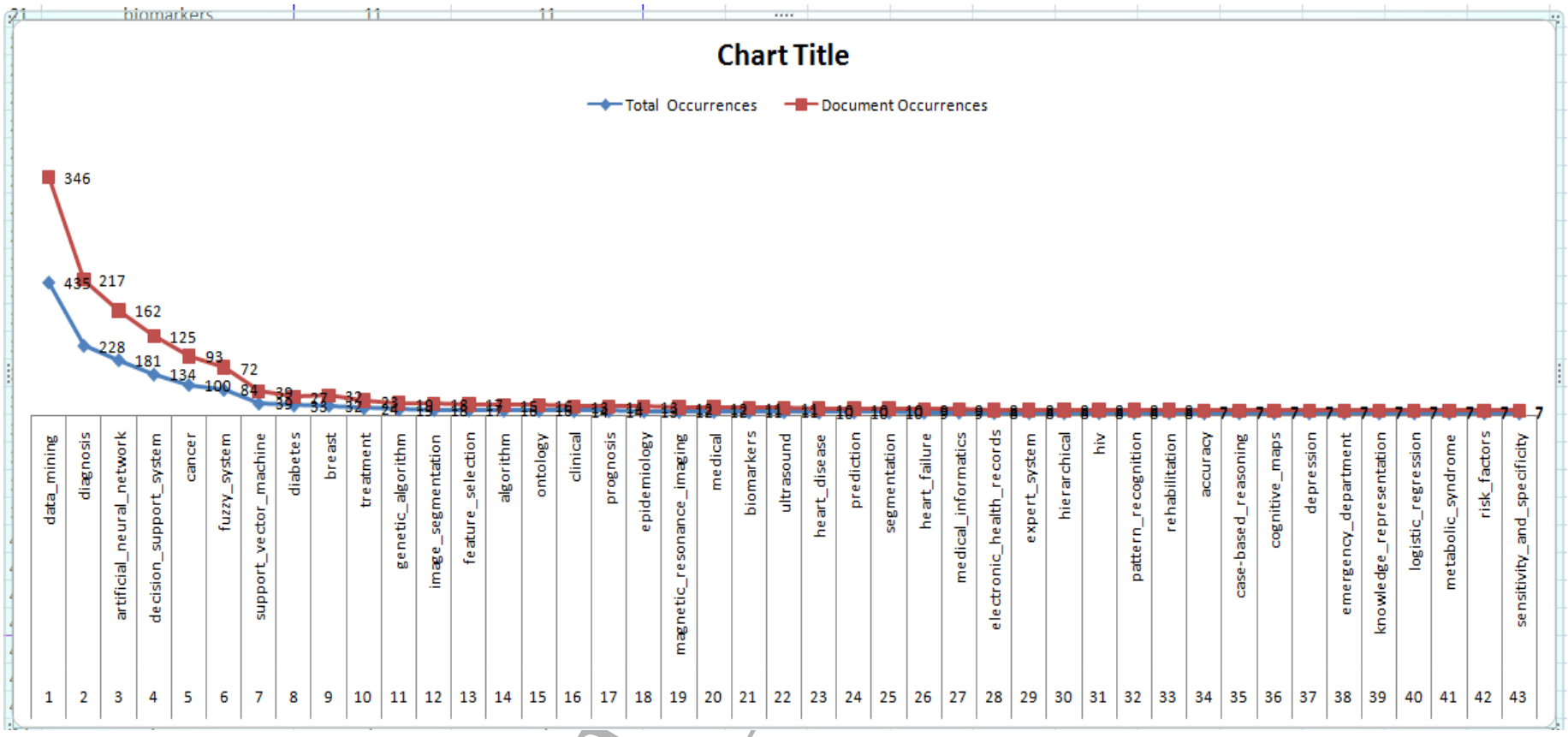


Figure 5: Occurrences of itemsets graphically shown

In our experiment all support and all confidences are considered because all of them are greater or equal with the min-support-count and min-confidence considering the condition of greater or equal to, we can take them all, but in the following Table 2: we take only the 23 best supports from 517 association rules.

Table 2: Collection of best supports

No	No	Premises	Conclusion	Support	Confidence
1	8	Clinical	decision_support_system	0.012	0.923076923
2	1	data_mining, image_segmentation	fuzzy_system	0.009	0.818181818
3	7	fuzzy_system, image_segmentation	data_mining	0.009	0.9
4	9	Hierarchical	data_mining	0.008	1
5	28	cognitive_maps	fuzzy_system	0.007	1
6	2	cognitive_maps	decision_support_system	0.006	0.857142857
7	3	diagnosis, breast	cancer	0.006	0.857142857
8	4	cognitive_maps	decision_support_system, fuzzy_system	0.006	0.857142857
9	5	fuzzy_system, cognitive_maps	decision_support_system	0.006	0.857142857
10	6	fuzzy_system, breast	cancer	0.006	0.857142857
11	24	Prostate	cancer	0.006	1
12	59	decision_support_system, cognitive_maps	fuzzy_system	0.006	1
13	16	computer_aided	diagnosis	0.005	1
14	35	Mellitus	diabetes	0.005	1
15	91	breast, genetic_algorithm	cancer	0.005	1
16	10	Tree	data_mining	0.004	1
17	11	predictive_model	data_mining	0.004	1
18	17	Imaging	diagnosis	0.004	1
19	20	radial_basis_function	artificial_neural_network	0.004	1
20	21	Probabilistic	artificial_neural_network	0.004	1
21	29	Rules	fuzzy_system	0.004	1
22	39	Specificity	sensitivity	0.004	1
23	56	artificial_neural_network, prognosis	cancer	0.004	1
24	12	Pattern	data_mining	0.003	1

In our experiment the minimum support count=0.003 so all the resulted supports are equal or greater than 0.003 in this case we can consider all the supports, but the bigger once are much better that's why we show only the greater once on the above table, from number one to number twenty three, all the supports are greater than 0.003 but from 24 to the rest (517) all supports are 0.003 and it starts from number 24 as we can see it in Table 2:above. Meanwhile except one, two, three and 6-10 confidences are not one or hundred percent, but all the rest are 100%.

CONCLUSIONS

In this experimentwe performed an implementation using a data mining tool Rapid Miner and got the expected results successfully.

As we mentioned early the aim of this work is to find different relationships among the keywords such as: Association rules for the itemsets, support and confidence for each association rule we also found the number of occurrences of each itemset finding them are also giving us a good and meaningful result.

For the future work, we will try to compare all the results obtained in these 1000 papers, in our case we just collected the names of the articles, keywords and authors of the articles and we performed our implementation on the keywords, but we are planning to look for all the results in these 1000 papers and then compare them, then we will find which system gave much better results in medical data mining.

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ÇOCUK KİTAPLARINDA ETKİLEŞİMLİ TASARIMIN ÖNEMİ

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ÖZET
Teknolojik gelişmeler, basılı çocuk kitaplarının, yeni medya araçlarıyla zenginleştirilerek etkileşimli hale gelmesine neden olmuştur. Etkileşimli kitaplar, basılı kitaplara göre, çocukların daha kolay öğrenmesini sağlayacak pek çok unsur içermektedir. Ayrıca bu kitaplar çocukların, eğlenerek öğrenmesinde önemli katkılar sağlamaktadır. Keşfederek öğrenmeyi seven çocuklar için, nitelikli tasarlanmış etkileşimli çocuk kitapları önemli bir eğitim aracıdır. Teknolojiyle birlikte doğup büyüyen günümüz çocuklarının eğitiminde etkileşimli çocuk kitaplarının kullanılması önemlidir.

Anahtar Kelimeler: Etkileşim Tasarımı, Çocuk Kitapları, Yeni Medya, Etkileşimli Çocuk Kitapları.

IMPORTANCE OF INTERACTIVE DESIGN IN CHILDREN'S BOOKS

ABSTRACT
Technological developments have added new media tools to printed children's books, and allowed those books to be more interactive. When compared to printed books, interactive books include much more factors, which help children to learn more easily. Moreover, these books provide an entertaining way to learn for children. Qualified interactive children's books are an important medium of instruction for children who love learning by discovery. Using interactive children's books play a crucial role in educating today's children born and raised in a technological world.

Keywords: Interactive Design, Children's Books, New Media, Interactive Children's Books.

GİRİŞ

Geleneksel medya araçlarıyla hazırlanan basılı kitaplar, tek taraflı iletişim sağlıyordu. Teknolojinin gelişimiyle birlikte, insanların bilgi düzeylerinin artması, iletişimin artması, beklentileri yükseltti. Genel olarak kitaplardan beklentiler de arttı. Günümüz çocukları, sokakta oynamamakta ve yeni teknoloji ürünleri ile daha çok vakit geçirmektedir. Hergün daha da gelişen teknoloji ürünleriyle birlikte çocuklar teknolojiyle iç içe doğmakta ve onları bu teknoloji ortamından uzak tutmak mümkün olmamaktadır. Bu nedenle, kitapları, çocukların daha çok vakit geçirdiği medya ortamlarında hazırlamak, dikkatlerini çekici tasarımlar yapmak, görsel, işitsel ve dokunsal materyaller geliştirmek kaçınılmaz hale gelmiştir. Çocuklar için hazırlanan eğitici materyaller, oyun mantığı içerisinde hazırlandığında eğitimlerinde daha etkili olacağı açıktır.

Eğlendirici materyaller içermesine rağmen çocuk kitaplarının asıl amacı eğitmektir. Eğitimin amacı ise, çocuklarda olumlu kalıcı davranışlar meydana getirmektir. Çocuklar, oyun oynayarak öğrenirler. Bu nedenle, oyunlar günümüz çocuklarının gelişimleri ve eğitimlerinde önemli bir etkendir (Kaytez ve Durualp, 2014, ss. 111). Çocuklar için hazırlanan kitapların, yetişkinlerden farklı olarak (Öncü, 2008, ss. 76) etkileşimli, dikkatlerini çekecek, oynayarak öğrenmelerini sağlayacak bir şekilde tasarlanması gerekmektedir. Çünkü çocukların karşılaştıkları ilk kitaplar resimli çocuk kitaplarıdır. Okul öncesi çocukların, az metin içeren, karmaşık resimli olmayan ve fazla detay içermeyen, somut resimler içeren, renkli ve resimleri tanıdıkları kitaplara ilgi duydukları yapılan araştırmalarda ortaya koyulmuştur (Gönen vd., 2014, ss. 134). Bu nedenle, çocukların daha iç içe bulunduğu medya ortamlarında tasarlanan etkileşimli kitaplar, çocukların öğrenmesini kolaylaştıracaktır.

Piaget'e (1938) göre, Eğitimde sadece anlatmak ve göstermekle yetinilmemeli, aynı zamanda uygulama ve aktif katılım sağlanmalıdır. Günümüzde, eğitimde uygulama ve aktif katılım yeni medya araçlarıyla tasarlanmış materyallerle mümkün olmaktadır. Geleneksel medya araçlarıyla hazırlanan kitaplarda ana unsur resim iken, yeni medya araçlarında, ana unsur etkileşim olmuştur. Etkileşim, aktif katılımı sağlayan en önemli unsurdur. Etkileşimli kitaplar, çocuğun aktif katılımını ve dokunma işini uygulamalı yapmasını sağladığı için, geleneksel kitaplara göre daha fazla akılda kalmasını ve kolay öğrenmesini sağlamaktadır.

GELENEKSEL MEDYA ve YENİ MEDYA ARAÇLARI

Geleneksel medya, olayların insanlara tek yönlü bilgi şeklinde duyurulduğu ve basılı gazeteler, kitaplar, dergiler ve televizyon gibi medya araçlarıyla iletişim kurulan ortamlardır. Geleneksel medyada, tek yönlü iletişimden dolayı insanlar birey olarak sadece tüketicidir. Geleneksel medya araçları tek taraflı kitlesel iletişim araçlarıdır.

Yeni medya araçları ise, iletişimin çift yönlü olduğu, bilginin üreticiler ve tüketiciler tarafından birlikte üretildiği medya ortamlarıdır. Aynı zamanda yeni medya, kullanıcıların zamandan ve mekandan bağımsız bir şekilde etkileşimli olarak iletişimde bulundukları sanal medya araçlarıdır.

Basılı çocuk kitapları, etkileşim içermeyen ve içeriğini tek yönlü olarak okuyucusuna ileten geleneksel bir medya unsurudur. Çoğunlukla da bir başkası tarafından okunarak çocuğa dolaylı aktarımı sağlanmaktadır. Bu aktarımda bilgi kaybına da neden olabilmektedir. Günümüzde çocuk kitapları kağıt türü materyallere basılmasının yanısıra yeni medya araçlarının kullanımıyla birlikte etkileşimli olarak, elektronik ortamlarda da yayınlanmaktadır. Çocuk kitaplarının bu yeni türü, doğrudan çocuğun yönetebildiği, sesli, görüntülü, etkileşimli ve eğlendirerek öğretici bir araca dönüşmüştür.

Nitelikli resimli çocuk kitaplarının çocuğa kitap sevgisi aşıladığı, çocuğun bütün gelişim alanlarını olumlu yönde etkilediği, ona yeni kavram ve deneyimler kazandırdığı, eleştirel düşünce gelişimini desteklediği (Gönen 1989; Gülpınar 2010) bilinmektedir. Basılı kitaplarda bile nitelikli resimli kitapların, çocuğun gelişimine bu derece katkı sağladığı açıkken, yüksek çözünürlüklü resimler içeren, videolu, animasyonlu, sesli, etkileşimli kitabın katkısının daha fazla olacağı açıktır.

ÇOCUK ve ÇOCUK KİTAPLARI

17. yüzyıla kadar, çocuklar da yetişkin olarak görülmekteydi. 17. yüzyılla birlikte ilk defa çocukluk kavramı ortaya çıktı. Çocukların, yetişkinlerden farklı olduğu; bu nedenle farklı ihtiyaçları olduğu anlaşıldı. Çocuklar için hazırlanan kitaplar resimlenmeye başlandı. Özellikle baskı teknolojilerindeki gelişmelerle birlikte, çocuk kitapları resimli kitaplar olarak tasarlanmaya başlanmıştır. 19. Yüzyılda fotoğrafın icadıyla birlikte çocuk kitapları önem kazanmıştır (Öncü, 2008).

Eğitim, sadece zekayı şekillendirmek veya insan beynini bilgilerle doldurmak değil, insanda kalıcı davranışlar meydana getirmektir. Çocukların eğitiminde ve gelişiminde ses, animasyon, grafik ve resimler gibi görsel materyallerin ve özellikle renklerin önemli olduğu bilinmektedir. Piaget'in (1992) Bilişsel gelişim kademelerine göre, işlem öncesi dönemden itibaren, nesnelerin özellikleri çocukların dikkatlerini çeken en önemli unsurdur.

Çocuklar için en önemli öğrenme evresi 0-3 ve 3-6 yaş arasını ifade eden okulöncesi dönemdir. Piaget'e (1938) göre her çocuk adeta bir bilim adamı gibi, keşfederek öğrenmektedir. Birçok öğrenmeyi bu dönemde gerçekleştirir. Bu bağlamda çocukların öğrenme becerilerinin, okulöncesi dönemde edinmiş oldukları öğrenme becerilerine dayandığını söylemek mümkündür (Sever, 2002, 66). Çocukların keşfederek öğrenmesi; etkileşimli tasarımlar için göz önünde tutulması gereken önemli bir faktördür. Bu da ancak sistematik düşünebilmeleri, keşif, icat ve değerlendirme yapabilmeleri için onlara imkan sağlamakla gerçekleşebilir. Amaç etkin araştırmacılar olmalarını sağlamaktır. Çocuklar öğrenirken etkin oldukları, seçim ve kararlarını bizzat kendileri yaptıkları oranda, özgüvenleri ve eleştirel düşünce gelişimleri, yorum yapabilme yetenekleri artar. Etkileşimli kitaplar, bu davranışları etkin hale getirir.

Çocukların 0-6 yaş arası çağda sahip oldukları öğrenme yeteneklerini etkin hale getirmek için, onların okulöncesi dönemden başlayarak nitelikli resimli çocuk kitaplarıyla tanışması sonucunda mümkün olacaktır. Okulöncesi dönemde çocuğu kitaba yönelten, ona kitabı sevdiren en önemli unsur ise kitabın görsel değeridir (Sever, 2008, ss. 167). Etkileşimli kitaplarda ise, görsel unsurların yanısıra etkileşimli arayüz tasarımları, çocuğun kitabı sevmesinde ve ona yönelmesinde daha önemli bir etkendir. Ses, metin, animasyon ve videolar ise tamamlayıcı etkenlerdir.

ETKİLEŞİMLİ ÇOCUK KİTAPLARI

İki veya daha fazla kişi ya da nesnenin birbiriyle iletişime geçmesi veya birbirlerine bir uyaran sonucu tepkide bulunması etkileşim olarak tanımlanır (Bozkurt ve Bozkaya, 2013). Elektronik kitaplar (e-kitaplar) basılı kitapların yeni medya araçlarına aktarılmasıyla ortaya çıkmış ürünlerdir. Teknolojinin gelişmesiyle birlikte e-kitaplarda farklılık göstermeye başlamıştır. İlk e-kitap 1997 yılında MIT Media

Laboratuvarının bir ürünü olarak ortaya çıkmıştır (Gümüş vd, 2012). İlk e-kitap sadece yazılardan oluşmaktayken, teknolojiyle birlikte bu kitaplara görseller eklenmeye başlanmış, daha sonrasında ise etkileşimli unsurlar devreye girmiştir. Etkileşimli kitaplar, görsel, metin, ses ve etkileşimli unsurların bir arada olduğu, üretici ve tüketicinin çift yönlü bir iletişimde bulunduğu yeni medya aracıdır.

E-kitapların basılı materyallerle karşılaştırıldığında daha başarılı olması bir takım sebeplere bağlıdır. Bunlar taşınabilirlik, sadelik, okunabilirlik, süreklilik, uzun ömürlülük, dikey veya yatay yönlenme, standartlaşma, kolay erişilebilirlik, güvenilirlik, güncellenebilirlik ve kişiselleştirilebilirliktir (Gümüş vd, 2012).

Yeni medyanın sunduğu bu araç, çocukların kişisel gelişimleri ve eğitimleri için kullanılabilecek yeni ve etkin bir ortamdır. Günümüz çocukları teknolojiyle iç içe doğmaktadır, bu nedenle çocukların karşılaştıkları ilk ürünlerde etkileşimli kitaplar olacaktır.

Bununla birlikte, okul öncesi çocukların gelişim evreleri vardır. Etkileşimli kitap tasarımları yapılırken bu gelişim evreleri dikkate alınmalı, ona göre temel ve yan unsurlar kullanılmalıdır.

Etkileşimli çocuk kitaplarının nitelikli olabilmesi için, tasarımlarda metinlerin sade, görsellerin dikkat çekici ve karikatürden uzak, etkileşimlerin çocukların gelişim evrelerine göre uygun yapılması, doğal pastel renklerin kullanılması, seslerin doğru ve dikkat çekici şekilde kullanılması, kullanılan dilin sade olması ve devrik yapıda olmaması, ritmik ve şiirsel ifadelere yer verilmesi önem arz etmektedir (Gönen vd., 2014).

SONUÇ

Yaşadığımız elektronik çağın bir gereği olarak, ortaya çıkan elektronik kitap ve ardından, görsel ve işitsel materyallerle zenginleştirilerek elde edilen etkileşimli kitap hiç kuşkusuz günümüz çocuklarına en uygun eğitim aracıdır. Sağladığı avantajlar göz önüne alındığında, çocukların gelişimine ve eğitimine bir çok yönden katkı sağlayacaktır. Her şeyden önemlisi oyun çağındaki çocuk eğlenerek, oynayarak ve yaparak öğrenecektir. Bu durum onun daha hızlı ve kalıcı bir şekilde öğrenmesine katkı sağlayacaktır.

Çocuk kitaplarının tasarımı, bir sanat eseri tasarımı gibi dikkat ve özen gerektirdiğinden, etkileşimli çocuk kitabı tasarımlarında tasarımcılara oldukça önemli görevler düşmektedir. Nitelikli etkileşimli çocuk kitabı geliştirmek için gerekli kuralları göz önünde bulundurarak tasarımlarını yapmaları, kitapların etkinliği açısından önemlidir.

Gelişen teknolojinin çocuklar üzerindeki olumsuz etikleri, etkileşimli kitaplar tasarlanarak, çocuklara sunulduğunda olumluya dönüştürülmüş olacaktır.

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IN SEARCH OF MODERN TIMES: AN ESSAYISTIC CULTURAL SURVEY

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ABSTRACT
With some slight exaggeration, perhaps, you could say that the focus of this essay is on examining the essence of the media, or media-imparted, present. In other words, it has to do primarily with applied philosophy. The aim is also to couch in appropriate verbal garb ideas related to both image of age and spirit of place, as well as their profound scrutiny. Quintessentially, the goal is to develop the analytic methodology of *Zeitgeist* and *topos*. Perhaps it could also be called a multi-layered consciousness of the present or a love of cultural wisdom – the uncompromising aim is, after all, to advance contemporary understanding.

ECHOES OF ERSTWHILE
Following Finland's bloody civil or national war, the young generation declared its common existential motto through the mouth of Matti Kurjensaari (1950, pp. 15–16): "Never again war!" This was also the first generation that had not grown up in the shadow of the slaughtering block stained with the blood of its fellows. It was Olavi Paavolainen, that relentless cultural observer, who gave a face to the entire period and to the collective vision of mankind's common brotherhood. He was opening the windows to Europe in Paris, and it was there that he wrote his inflammatory analyses of the age for the stylish *Aitta* magazine. The renowned essay "In Search of the Present" was published in the magazine's 7/1927 issue. It captured in words the prevailing and predominating spirit of the epoch: "And so I left on a journey *in search of the present*. In search of a new world and a new humanity. I fled "the thousand lakes" and exhilarating coniferous forests and rolling daisy-filled meadows to find petrol canisters, primeval wastelands of cranes and chimneys and asphalt roads. […] I fled the beauty and poetry of the old to find the new that our own age has created, which is unique only to that which day by day becomes more triumphant and dominant. For woebegone is he who does not understand his own time and does not love it! –" (Paavolainen, 1927, pp. 20–26).

The idea of a generation's importance is relevant in this context. It also interested the Spanish philosopher José Ortega y Gasset. In his book *The Revolt of the Masses* (1952, p. 43) he explores the meaning of the height of time and being at the historic level. Each generation considers its own modernity to be the best of all presents that have ever come about. Even so, the different generations seem not to be able to benefit from the achievements of their predecessors. Although the present moment is assumed to shape the ultimate height of the times or the pinnacle of modernity, understanding of the contemporary is very often rather meagre: somehow rootless.

Perhaps Yrjö Kokko was familiar with Ortega y Gasset's deliberations when he wrote his excellent travel book *The Islands of Good Will*, which appeared in 1953. In it, he looks at the country of his birth from a distance, from the Canary Islands, and writes movingly: "Is a man's fatherland, therefore, the period in which he is born, where he has grown up and which dies with him? Perhaps the fatherland is only the soil where he was born, a homeland which, compared to the universe, is no greater than the grave where a man is stowed out of sight when he is dead. But isn't the fatherland the people who speak his language, the people with whom he has experienced shared joys and sorrows, shared destinies? But the fact is that generations pass on. New generations don't think and feel the same. Opinions change, just like circumstances. When your own generation dies, does then your own nation also die? "(Kokko, 1953, p. 317).

SNIPPETS ABOUT THE PRESENT
Is part of living in modern civilization the incessant quest to know your own present? Then it probably also has to with updating the self: the temporal commodification of the ego. In other words, familiarizing yourself with the contents of everyday life as experienced by succeeding or younger age groups would apparently make it possible to love each present correctly. In accordance with this way of thinking teachers, for example, should probably be aware of the concrete experiential elements that constitute their students' quotidian worlds. Yet the inevitable existential necessity probably holds true even in all its tediousness: the same reality presents itself to various generations as a different reality. Each generation has a special linguistic existential catchphrase which creates a strong sense of shared understanding and belonging. It also erects an existential wall that keeps others at bay. On the other hand, now we also might well be talking about a well-worn gap or ravine which has been cut into existence and cannot be bridged. The idea of being an outsider has taken on the everlasting form of worldiness.

What is the spirit or essence, then, of this actual, twenty-tens modern age? A teacher is *cool*, and shows off his coolness by being *au fait* with body piercing. But on the other hand he is irredeemably *passé*, yesterday's man, drawing his eyebrows together in a frown of condemnation. The core idea of the teacher's professional education, the transgenerational *flair* or *je ne said quoi*, is to acquire for himself a tattoo that expresses his own uniqueness. Perhaps this hegemony of commodification and commodifying of the self also includes some esthetic or cosmetic surgery: aging is an illness that can be cured under the knife of a plastic surgeon. Then, too, the presentable, well-tended neckline, expressed by the word 'dekoltee' in Finnish, will not have been overlooked. Compare this with the word 'dekoltointi' in Finnish, which only refers to a woman's dress with an open neckline, while the French word *décolletage* means the act of cutting the neckline in a woman's dress. *Décolleté*, in turn, describes a low-cut neckline or a more revealing cleavage. Has painstaking and meticulous skin care somehow got mixed up with the garment industry, one wonders. Such suspicions are probably irrelevant anyway since updating and staying up-to-date are the key words in assessing human worth. Whether you find it all appealing or appalling only serves to reveal your out-and-out barbarism.

Ethical awareness is associated with a profound contemporary understanding. Dress is one of the most important expressions of modern humanity's physical self-image. The way people choose to be dressed demonstrates their alertness to their fellow beings. *Vintage* clothing is today's undisputed fashion choice. It lies, after all, at the very heart *of haute couture* attire. And there are places where the creations of Paris's leading fashion houses have even been called classics: unique vintage one-offs or items meant for collectors. And not a mention of recycling, flea markets or second-hand clothes. Something, of course, that has been totally unnecessary because trendiness is what really matters.

It is patently obvious that the dimensions of lived space and time include the existential positions of here (*hic*) and there (*illic*) (see e.g. Itkonen, 1999, pp. 48–50). At the same time, the concept of present has similarly acquired new meanings: one person can go unto another indirectly, mediatedly. Text messages and e-mails bring those who are close to us and almost complete strangers into the quotidian deluge. This is why, for example, a teacher in Finland has to be familiar with Microsoft Messenger, IRC galleries, Twitter, DIGG and who knows what other online material. What if someone describes himself as a digger - is he then a friendly Australian, somebody keen on making bundles of money, or merely active in his garden? Is it possible to do a kickflip while Internet surfing? Does the World Wide Web have spiders as well as bugs? And does phishing make use of a trawl rather than a net? Or would this lexical catch decked out in its new media garb then be too modest?

It seems that existential here and there positions are very closely bound up with the essential nature of the generations. Without them it is impossible to keep track and stay on the heels of present moments. The generations, however, cannot swap their existential positions with each other. This is why mutual understanding of a collective shared world may at times be problematic. Maybe this is how it has to be. Otherwise, Helvi Hämäläinen's award-winning collection of poems *Sukupolveni unta* (Dreams of My Generation) (1987) would be totally incomprehensible. Each generation sees the dreams of its own present moment, day and night. For this reason the worst attitude to take is disapproval. Our fellow beings deserve better. And a smile raises a smile in return.

CONSCIOUSNESS OF THE MODERN AGE

In 1929, Olavi Paavolainen put into words a quintessential question related to cultural research. In his classic work *In Search of the Present* (Nykyaikaa etsimässä) he wrote about the relevance of understanding the essence of a time or age. The renowned essay "In Search of the Present", already mentioned earlier, thus provided the name for the book published two years later. To see into the core of the defined present is a particularly difficult task, whatever the decade: "For us, modernity has yet to be 'invented'! No individual possessing the gifts of a soothsayer or clairvoyant has risen up to look directly into the essence of the age and, using the mighty power of words, to open up its secrets to people's gaze" (Paavolainen, 1929, p. 133).

Paavolainen's deliberations come across as being close to the philosopher Henri Bergson's famous idea of vital impetus *(élan vital*). Lauri Viljanen, Paavolainen's Torchbearer comrade, analyzes this concept of creative development central to Bergsonism in his well-known work *Militant Humanism*, which first appeared in 1936. A second and more compact edition was published in 1950. It contains the following sentence which continues to fascinate: "The leverage, or élan vital for this development, whose creation a human being participates in as the highest, conscious stage of development, is the real core of the world, itself the divine" (Viljanen, 1950, p. 261).

Consciousness of the modern age consists of two levels: it means the task where somebody endeavours on behalf of others to interpret the spirit of an epocal present. However, it can also be assumed to mean the way in which each private individual understands his or her own present. When the subject, in accordance with the latter

element, attempts to express his or her selfness and existential style, the existential interpreter of the first element may be confused. The same world really does not appear to people of different ages as an identical and uniform world. The everyday life we experience is dominated by the law, mentioned earlier, of mutual non-interchangeability of existential positions, of here and now positions. It would be possible to characterize this state of affairs such that each of us is permanently chained to our own here-position, our hereness of existential insightfulness (for consciousness of the modern age, see especially Itkonen, 2012; 2015).

The researcher can, of course, make so bold as to try and interpret the existentiality of the present moment in the year 2015. Then, using the power of the word and the vehicle of philosophical introspection, his goal becomes that of opening up the secrets of the present to his fellow humans. We are, then, not dealing with just a very modest or straightforward goal. So what is this approaching surge of life, this vital impetus, like? What are its constituent ingredients? At this point let us allow a brief cross section to serve as leverage for creative existential development.

The whole of existence would seem to be dominated by the opposing movement of antagonistic forces: in each moment there are two powers at play struggling to move away from each other. This creates an existential tension, which sets the rhythm for everyday routineness. May the following mischievous précis of observations on contemporary life enlighten us more.

If you are feeling at a loss, there's good reason to call in a taste designer. His skills will help you lay out a beautiful table setting for life. As a pick-me-up or as a mood-booster, enjoy a couple of refreshing or perhaps even reviving shots. After all, it is very non-chic to talk about sipping or swigging – or, to use more common terms, taking a nip or a wee dram. If there happens to be a winter frost in Finland, a wise choice of footwear is morning slippers, the Aino (a woman's first name, somewhat like Mabel) brand for women or the Reino (Reginald) brand for men. Jogging shoes are also suitable, and for men they can be worn with a suit. There again, in the blazing heat of the summer, winter boots are an absolutely excellent choice. If necessary, you can ride your Jopo bike (a popular Finnish brand) and the journey will pass by imperceptibly. A shirt with sufficiently short sleeves guarantees unrestricted views of your tatooings. The midday sun will make your piercings glitter with dazzling brightness. Books are completely unnecessary; tablet computers will do everything, even serving as place mats on the dining table. It's simple to use a document camera to display the essential features of your own identity. In bygone days, this device would have been called an episcope. Leggings or long johns – what does it matter! Uncompromising elegance is what really matters. A landline phone? Get away with you! It's so handy to use your mobile phone even in the cinema and theatre. Each and everybody must be allowed to be an individual. Such is the spirit of today.

When Viljanen's work describing militant humanism and Paavolainen's culturally critical travel book, a collection of essays entitled *A Guest in the Third Reich*, appeared in 1936, people did not suspect in the exciting glow of the Berlin Olympic Games that very soon the Grim Reaper would be driving his carriage across Europe with the bells of destiny ringing out death. Perhaps it is good or absolutely necessary that by nature the interpretative sense of present is a conceptual apparatus that reminds us of Søren Kierkegaard's thinking: Life is lived forwards, but understood backwards (see especially Thielst, 1999; for Kierkegaard see also Itkonen, 2009, pp. 177–205).

A further strand of this topic is found in what Peter von Bagh says about movies that are larger than life (see, e.g., von Bagh, 2007). Earlier I thought a little cynically that only death is larger than life – it ends and defeats life. Nowadays, though, I have been developing a kind of reflective framework where an existence larger than life also means something else. It signifies that a work of art, a phenomenon or idea exceeds its own limits, its own area of being. In other words, it will survive longer than merely in the thoughts of the generation alive at the time it appeared: it becomes transtemporal and transgenerational. Yet each generation in turn will formulate its own interpretation of it.

Joy contains a wisp of sadness. And vice versa: in sadness there is a hint of joy. Can I even answer the question of who I myself might be? And who, then, are these contemporaries, those other me's, who inhabit this present with me? What are their joys and sorrows made of? I am leaving on a contemplative journey into my innermost self. Perhaps my words on existence will reach out to attain the transindividual and arouse a surge of self-examination in some other human being – even in an ideal existential companion:

If I arrived now, I'd just be a picture of several yesterdays,
in content the same me that repeats itself into infinity.
You don't want a man like this – mascu without linity,

who has life at his back.

I drag myself deep into the sand of being,
where the paths, too, are softer.
The roads proceed concentrically,
from yesterday's beginnings to tomorrow's endings.
In fluid motion.

When the rhythm of many frenzied days has scorched my lifeskin,
when this body has begun to see,
I will check my trap once more:
only then am I there and here.
As chronologically unrelated me's, in a single self,
as a newly found bundle,
which you too must open.

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IN THE CONTEXT OF PREVENTING SOCIAL VIOLENCE, TELEVISION SERIES IMPACT ON THE BEHAVIOUR AND EDUCATION OF BOTH CHILDREN AND TEENAGERS

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ABSTRACT
Between students and teachers at schools a traditional teaching method is used, whilst outside of the school environment visual and audio devices are prominent. Despite efforts of prevention, children and teenagers spend a large proportion of their time outside of school watching television or using a computer. More frequently than adults, young people within these age groups appear to act like the role models they observe in TV series. Observing their role models act as bad characters and doing bad things, such as committing robbery, rape, using drugs, hurting people and committing murder may have a negative impact within these age groups and cause undesirable behaviours. As a result, the education organisation of the country needs to work in conjunction with the producers and scriptwriters of these tv series. The role models appearing in existing series or future projects need to deal with the problem using wisdom, knowledge, respect and not violence. TV series can therefore contribute to the education given at schools and contribute to the culture within society to enable important steps to be taken for a happier and safer world.

INTRODUCTION
There is no day without violence. Some people resort to violence instead of talking, empathizing and taking legal actions to solve their problems. Because of that, others are subject to both financial and emotional damage and they feel unhappy and anxious. In order to solve this problem which make people anxious, the source of violence should be retraced, at first. For this reason, all components include learnings from both current and past environment of people and watched news and films are required to be analyzed.

Psychologists usually look for the reasons of most cases in childhood period of individuals. In a family; if parents make their children disciplined by violence or dictate something to his/her spouse by resorting to violence, children might use this kind of method to solve their problems with their friends. Also, this problem solving method might continue after childhood.

Following environment of individuals is school and friends. In this context, a good education should not be limited with scientific education of schools; some other activities should be included to develop coexistence and problem solving skills. These activities can be performed in on-class or off-class places. Children and adolescents spend their out of school time mostly by using computers and watching television. Although most parents suffer from this situation, they couldn't find any solution. Children and adolescents spend long time on freely selected topics by themselves on these media tools. However, children and adolescents is not aware or they ignore the extent to which content of these tools beneficial or harmful.

HYPOTHESES OF THE STUDY:
1. In addition to scientific education of schools, additional training and social-oriented activities might make possible to prevent the violence tendency of children and adolescents.
2. By the help of media literacy lessons, not only taking advantage of media can be taught to children and adolescents, but also they can be protected from harmful content of media.

Scope and Limitations of the Study: Age range of studied children and adolescents is from schooling age to university graduation period. Because of the wide age range, it couldn't be possible to make different questionnaires for each of them. For this reason, previous questionnaire results were compared with scientific results.

Method of the study: a literature review was made and obtained data from studies in this field and questionnaire results was synthesized.

1-Functions of Television
Radio and television broadcasts have news giving, education, advertising/ propaganda, and entertainment functions (Aziz, 2002:49). The most important function of television was news giving and the least important one was entertainment in early years of television broadcasting. However, today first function and the last

function has been replaced thanks to the Internet journalism. Individuals have started to spend most part of their time in front of television especially when they are at home. Initially, television was a magic box only in living room and watched together with family members. Today, television has transformed into a device which is located nearly all rooms and family members may watch separately in their rooms. In an ordinary day, television is not turned off nearly that housewives watch discussions, brickbats, marriage and divorce issues in television programs designed for women, when the father got home, mafia serials or cinema films which include violence are started to watch. In this context, children and adolescents start to watch this kind of programs unavoidably.

The Supreme Board of Radio and Television conducted a survey with 4306 student who is 6-18 from 1 to 12th classes of public and private schools and found that 65,8% of them spend 1-3 hours in front of television in average. Watching television has the highest rate among elementary school students while it is seen that this rate is decreased by 4,4% among high school students. Importance degree of media tools in terms of students who take part in the study was questioned and rates are below: books/newspaper/magazines; 70.7%, the Internet, 60,8%, computers, 48,6%, mobile phones, 45%, televisions, %40,5. On the other hand there is an interesting finding that 39,6% of students evaluate television as “neutral”. This category refers to 39,6% of participants and if half of this category is added to participants who evaluate television as important, this category will be increased by 60%. (RTÜK, 1. Çocuk ve Medya Kongresi).
This survey results not only help to explain the meaning of television for children and adolescents, but also point out the computer and the internet environment as important tool as television. Accordingly, it is seen and understood that children and adolescents need to be informed and there is a need for research and finding solution for these issues.

2- Television Serials
Serial films, also called as soap operas, refer to films which are broadcasted episodically and have topical integrity among each of episodes (www.nedirnedemek.com). The term soap opera means soap bubbles and it is also used to understand how to produce subjects like a bubble just like how to produce bubbles from a soap.

If movies and TV serials are compared, story line of movies is nearly 1-2 hours and they are not fragmental. On the other hand, in TV serials all characters remain stable in every episodes, but different cases are handled in each episodes based on previous ones. While plot of movie is explicit, end of TV serials are unpredictable. The most characteristic side of TV serials is that each episodes of TV serials ends intriguingly and this directs audience to watch next one. Audience who wonder the next episodes become serial addicts and they may even make connection between some characters or cases from serials and themselves or their environment. Children and adolescents are identified themselves with some characters of the film and as a result of this identification, they tend to behave in similar way. If characters in the film solve problems by resorting violence, children and adolescents may also use the same method in their real lives.

3-Description and Reasons of Violence
Violence can be described as all states and acts which damage on lives, rights, freedoms, needs or health of individuals, other creatures or institutions in order to gain advantage and dominance, earn one’s love and respect (wikipedia.org).
In addition to all kind of physical attacks, some non-physical verbal behaviors are also within the scope of violence description. Also, states of action avoidance or inertia like silence or unresponsiveness, withdrawal may be accepted as a violence signal on the basis of context and nature of relationship (Mutlu, A.Ü. İletişim F. Dergisi:55).

4- TV Serial Watching Habits of Children and Adolescents and Influence Degree of TV Serials on Children and Adolescents
Television shows act of violence directly so researches about this broadcast media have begun 1950s in USA and developed in two ways. First way is content analysis to determine amount and frequency of scenes include violence in television, and second way is behavioral effect of violence on different segments of society and age factor is prioritized in this. By this way, it is researched whether there is a causal relationship between violence in media and aggressive behavior in society or not (Mutlu, A.Ü. İletişim F. Dergisi:57).

According to conducted researches, influenced degree of children and adolescents is based on their age, watched programs and daily television viewing time. Studies show that reflection of violence in television on children is also based on attitudes of family members towards violence (Tümkan, httptalimterbiye.mebnet.net).
Some studies show that television does not direct people to violence by itself, but it encourages and increases. Violence exists as a part of life in everywhere and every time from news to films, TV serials or cartoons. This situation normalizes the violence. It can even be mentioned sympathetic violence for some cartoons. Under real

violence, children may close their eyes as a shield. However, in some scenes in cartoons, characters exposed to violence can come to their feet and children laugh at them. Children, who recognize that violence can't damage, may attempt to practice this kind of harmful behaviors upon someone (http://mebk12.meb.gov.tr/meb).

News in television may be showed like a film frequently. Because of this, Hans Magnus Enzensberger describes word of war which includes news and violence as "media trance" and make a different interpretation: if results of researches about mass communication are analyzed, it is seen that violence-based stories shown in TV films might stimulate aggression. Printed or audio-visual communication tools are watched more when the violence is rewarded, shown as attractive, came true and evaluated as right and when violence creators are not criticized, aggrieved victim is shown as a normal behavior. The cheapest way to make a program watchable is using violence and sexuality, as known (Tümkan, httptalimterbiye.mebnet.net). Although all media bosses know this ugly truth, they don't see no harm to show violence in order to attract more audience, take more ads and earn more money.

Children and adolescents who watch the violence on television start to believe that their environment is fearful so they may behave more aggressively and may even resort to violence. This kind of people behave in anti-social manner and may imitate the violence which was watched on television. In addition to this, violence can be seen as a way to solve problems by children and adolescents, and their possibility of committing a crime increases in their adulthood (Karatay ve Kesgin, www.egitimsen.org).

Although, conducted researches have mentioned both positive and negative effects of television, negative effects and protection methods from them are emphasized in this study. For this purpose there are two real examples below:
First example of this study is about how pre-school children are influenced by television. When working mother gets her home, Kral TV (private music channel) is on television screen usually to entertain her child until she prepares the dinner. In time, child starts to stomp on his/her tricycle. As a result of this recurrent behavior, it is determined that the source of this behavior is a video clip on television. Ferdi Tayfur, who is an arabesque musical artist, in his video clip for "Hadi Gel Köyümüze Geri Dönelim" (Let's Return to Our Village) song, he is a poor guy and comes into İstanbul from his village to work and street gangs fight him and they break up his bike.

Second example shows how university age adolescents are influenced by television serials. Polat Alemdar is a powerful character of Kurtlar Vadisi, which has begun his broadcasting life in 2003 in Show TV as a mafia serial, and he solves his problems by resorting violence so he sets a bad example for adolescents. Especially first years of this TV serial, most adolescents have tried to look, wear, and walk like Polat Alemdar and solve their problems by resorting violence. Two familiar friends who are university student and behave like Polat Alemdar began quarreling with each other and one them stabs his friend in his 18 points of body.

Conducted researches show that scenes include violence and inappropriate content have a direct influence on children behaviors. Specially designed programs for children like cartoons or etc. include 6 times more violence elements. Children who watch this kind of programs, perceive violence as a natural part of life and they are violence insensitive.

It is said for children who watch too much television and influenced by aggression in their early ages that they show a tendency to violence and break a law and pay more penalty. In some programs women figures are shown as heroine and aggressive and it is found that female children who watch this kind of programs are more aggressive than their peers. The most determinant factor on aggressive attitude is watching television, according to studies. According to studies which were conducted in America reveal that children are exposed to 20 scenes include violence in one hour averagely and also in prime time 350 characters are seen in television and 7 of them were died. A 13 years old American child has witnessed to 8000 murder on television, in average. Even if these numbers are less in Turkey, current situation does not seem well (Karatay ve Kesgin, www.egitimsen.org).

According to study of Turkish Statistical Institute (TÜİK), 94% of children who are in their 6-10 prefer watching cartoons than other television programs. However, this rate is 50% for 11-15 year-old children. The rate of watching TV serials and films is 44% for 6-10 year-old-children while this rate is 77% for children who is in their 11-15. According to "Information Technologies Usage and Media in Children" research of TÜİK, 92, 5% of 6-15 year-old children watch television every day. At these ages, 49% of children watch 2 hours, 39% watch 3-4 hours and 11% watch 5-8 hours television. 72% of children who are 11-15 watch cartoons and 60% watch films and TV serials. The percentage of children who watch entertainment, music and reality shows is 49, who watch sport programs is 23, who watch instructional programs like documentaries is 20. (www.aktifhaber.com)

CONCLUSION

Efforts on controlling violence in television and protection of children against this violence should be evaluated in three terms. These factors are especially parents, law makers/political decision makers and the epitome of television industry. Studies can be effective by integrative cooperation of these three factors (Mutlu, A.Ü. İletişim Fakültesi Dergisi).

Spent time and proper programs for children and adolescents on television must be controlled by parents. Television shouldn't be located in their rooms in order to protect them from violence. If possible, programs which were known by parents should be watched together with children and adolescents; proper behavior manner should be taught them by talking about scenes which include violence and sexuality. It should be avoided this kind of statement "let me watch the TV serial and let him/her watch whatever s/he wants". Parents should renounce, otherwise, this will be as meaningless as prohibiting children from smoking by addicted parents. One of the most important problems is that children and adolescents of today don't want to mind their parents. On this topic, professional help should be got from teachers and pedagogues.

One of the precautions can be taken by education institutions to prevent children and adolescents from violence is adding media literacy lessons to curriculum and by this way children learn how to use media in proper and efficient manner.

In addition to legal arrangements, broadcast firms have important responsibilities. Resorting aggressive behaviors and violence in problem solving, showing violence as right, rewarding violence instead of punishing increase children and adolescents' acts of violence. By this reason, programs which include violence and obscenity should be broadcasted when children is not in front of television. Also, this kind of programs should include protective signs (Türk ve Bıyık, httpdokuman.tsadergisi).

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INCLUSIVE APPROACH AS A FIELD FOR INTEGRATING FOREIGN PUPIL INTO EDUCATION AT PRIMARY SCHOOL

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ABSTRACT
The prepard project, which is presented on the conference is in line with current trends in educational policy of the Czech Republic deals with intercultural education with a focus on disadvantaged groups of foreign pupils at Czech schools. View of the still increasing number of foreign pupils at Czech schools is the main aim of the project to reflect the current situation of the integration of foreign pupils in the education at primary school. The aim of the project is to implement the research whose results would allow to identify key problem areas and suggest measures that will lead to the improvement of primary education, the undergraduate training of teachers, with an emphasis on the development of individuals and society.

The survey design combines quantitative and qualitative approaches. The main objective of the research is to look at the issue of integration of foreign pupils from several points of view and to provide a comprehensive insight of the process of integration of foreign pupils in the education at primary school.

The research is a part of the international project – Inclusive Education no. 4401/11 – Institut for research and development at Faculty of Education - Palacký University, Olomouc, Czech Republic.

Key words: integrating foreign pupils, primary school, primary school pupil, field research, foreign pupil, intercultural education.

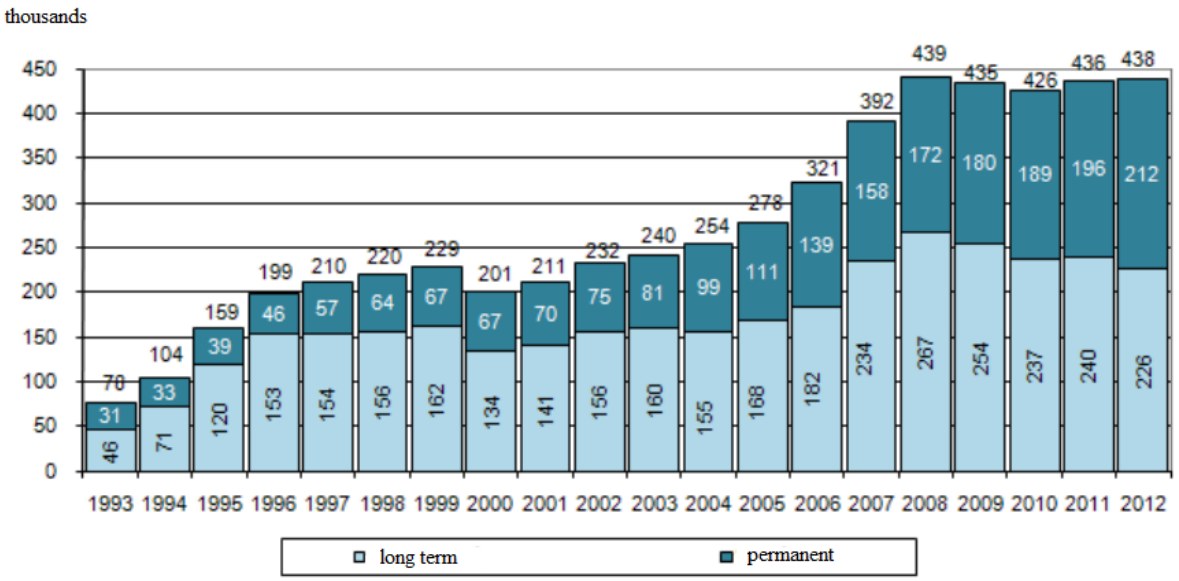
1. REFLECTION OF PROBLEM

In the last decade of the twentieth century was one of the characteristics of the Czech Republic mainly mono-cultural composition of society. In these days is the situation very different. The formation and subsequent EU membership has resulted in the political, legislative, cultural and social changes pervading the really whole of Europe. The Czech Republic became ethnically heterogeneous state in which there is a blending of cultures, values and opinions. Today, our country is one of the post-communist countries with the highest number of foreigners. Changes in composition of the population changed significantly character of Czech society, which resulted in addition of enrichment of the entire community, including misunderstanding and internal unrest.

From the perspective the current structure of population can be said that the Czech Republic along with the majority population there are so-called "traditional" minorities (Germans, Slovaks, Poles, Hungarians, Slovaks and Ukrainians) and new minorities. Besides the presence of foreigners in the Czech Republic is an important factor affecting the multicultural situation also Gypsies. On this ethnic group the project is not focused, because this solution is too specified.

Czech society and the Czech educational system has developed increased efforts to the address the situation of immigrants. Necessity of tolerance and understanding of students of different mother tongue and cultural background is emphasized more and more. The regularly published statistical data on foreign nationals show an increasing number of children who were born in the Czech Republic. According to Act no. 561 of preschool, elementary, secondary, higher and other education (*Úplné znění zákona č. 561/2004 Sb*), compulsory school attendance applies, except citizens of the Czech Republic, citizens of another EU member state, the Czech Republic who are staying longer than 90 days, as well as to other aliens who are authorized to reside in the territory permanently or temporarily for a period longer than 90 days and the parties of granting international protection.

Graph no. 1: Foreigners with permanent and long-term stays over 90 days in the Czech Republic



Source: Částková, 2014

Foreigners who complete primary schooling at primary or elementary special schools, is allowed to free tuition, as well as other citizens of the Czech Republic. The free education they are entitled only here legally residing foreigners, so foreigner's admission to primary school subject by proving his right to stay in the Czech Republic. The documents must be submitted no later than the head teacher in day of arrival to school. Children-foreigners can use all school facilities as well as Czech children (Filipová, 2006).

Graph no. 2: Foreign students by the type of school

	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
nursery school	3252	3244	3213	2811	3078	3535	3963	4233	4714	5434
basic school	12973	12113	12279	12504	12963	13583	13839	14109	14315	14551
high school	3584	4250	4940	5615	6314	7134	7900	8458	8852	9024

Source: Částková, 2014

Number of foreigners at primary schools is gradually increasing since 2002. As follows from the analysis of the Czech Statistical Office, elementary schools are a type of school with the second highest number of foreign pupils. Therefore, that situation should be actively addressed. And analyze the current state of education of foreign pupils at primary schools in the country.

Both theoretical and practical aspects of education of foreign pupils and multicultural education in educational circles have their place and cannot be ignored in research projects. The object of investigation was carried out relations between the majority and the minority, the formation and development of prejudice and the influence of different learning techniques to pupils of different population groups. Initial research in the field of intercultural education was carried out at 40 years of 20th century was focusing on the relationship between the level of education attained and cultural attitudes. Earlier studies were based on experimental methods, without any ties to theoretical foundations. Despite this lack of research laid the foundation of intercultural education. A significant shift in the field of intercultural education can be recorded in 80 years when gaining intercultural education institutional form. The greatest developer in this area was James Banks, who

developed the concept of the school as a multicultural social system (Total school environment change) (Banks, Mcgee Banks, 1989).

In education, the majority of research this time focused on general characteristics, conditions and preconditions of intercultural education. Specifically, the researchers focused attention on the relationships and attitudes (Hammer, Bennett & Wiseman (2003), Bassey (1997), Moses (1997)), teaching methods, objectives and curriculum (Anderson (2000), Hernandez (1989), Parker (2007), Milhouse (1996)). These researches, however, lack a detailed insight into the problems and do not take into account the influence of the educational reality.

The first exploration of intercultural competence has begun to emerge in the years 1950-1960 in the United States of America. Research based on the need to eliminate communication barriers acting between individuals from different cultural backgrounds. Since an increasing number of multicultural interaction between 1970-1980 and allocated research expanded into several areas (foreign trade, international studies, acculturation of immigrants, etc.). During these formative years, based on mapping studies of intercultural competence of attitudes, values, motives and individual views of individuals studied (Byram, 1997). Significant contribution in the field of intercultural competence Deardroff noted that in their work further defining intercultural competence (Deardorff, 2004).

The situation in the field of research in the Czech Republic as well as in the world is based on the current social needs. Due to historical events is not in our conditions until the nineties of the twentieth century space for the development of intercultural education. With the change of the political situation came a new wave of ideas and authorial approaches to education. During this period, the partial surveys progressively monitored demographic, sociological, psychological and economic aspects of migration and the changing cultural environment. Průcha (2000) identifies three main areas of research of intercultural education. It is the issue of prejudice (their origin and formation) against members of other races and ethnicities. With these findings are confronted by the real attitudes and opinions of young people. Indicates of the results of comparative international studies are showed a significant discrepancy between the proclaimed positive attitude towards immigrants and low interest in their cultural specificity. The last aspect is the school curriculum as a source of cultural prejudices. In these days we try to use the inclusive approach.

Czech researchers dealing with intercultural education in accordance with the above research division focused on public opinion and attitudes of the majority of the population towards minorities, the relationship between knowledge and ethno-cultural characteristics (Hirt, Jakoubek, 2005). The distinguishing feature of research is their anticipatory character based on both the current situation in society and the prognosis of the migration progress (Hladík, 2009). Research area can be set aside into several subgroups according to the focus. These include the demographically oriented research (numbers of foreigners, migration waves - Czech Statistical Office) or socially oriented research surveys (assimilation and integration of foreigners into Czech society as Drbohlav, Lukšíková; Uherek, Černík).

In terms of primary schools are research focused on the level of knowledge of students of different ethnic and cultural groups and majority pupil's attitudes towards members of these groups. Průcha (2001) presents the results of the investigation (which is confirmed by research Nekludová), according to which ethnic stereotypes created already in preschool children. These findings point to the inefficiency of existing educational "multicultural" programs. Other research investigations such as monitoring the impact of cultural differences on education and training, the relationships between teacher and student, methods of multicultural education, the inclusion of cross-cutting theme in individual subjects, etc. (Morvayová, Moree, Hajská, Bořkovcová; Svoboda, Plischke). Specific contributions in the field of research on intercultural education are non-profit organizations and multicultural centers. The most notably is profiled by People in Need, with an educational program Variants for ten years trying to assist in implementation of multicultural education into schools. With the support of European funds have already been published several analyzes on the mapping of the current situation in the field of intercultural education. Inalienable research areas are social and cultural determinants of education, which are monitored through benchmarks such as TIMSS and PISA. According to research of the school success of students are the most influenced by knowledge of the language and socio-economic status of the family (Janík, Najvarová, 2006).

Theoretical background of the project is based on the social and cognitive theory, specifically from Vygotsky's socio-historical theory (Bertrand, 1998) which places great emphasis on the social and cultural context of cognition and the role of culture in education. Particular attention is paid to social and cultural interactions that shape their ideas pedagogy and didactics. Development of the human spirit is an essential part of the social and historical process, the essence of which is acceptance of designs and imitation learning. Vygotsky's cultural-historical approach, used primarily in developmental psychology, became the basis for the development of pedagogical constructivism, social constructivism and learning by doing, without which a school for 21st century can hardly imagine.

Specifics of the primary schools in the context of intercultural education The first stage of compulsory education - primary school, carries some specifics which is necessary to observe the implementation of multicultural education. The implementations of multicultural education are mainly pupils' primary school age and associated fear of increasing the volume requirements of the curriculum.

One of the key categories of foreign pupils at primary school is working with diversity. An important goal of primary school teachers is to learn to deal appropriately and sensitively not only to the diversity of cultures, but also with the individual personality of the pupil. Handling the diversity in the school environment may demonstrate increased productivity, more creative problem solving, and cognitive development of moral reasoning, improved relationships and overall improving interactions with peers. Besides these advantages, negative impacts of culturally inhomogeneous environment are also reported. We are talking about reduced work capacity, rejection of new information, the emergence of negative relations based on selfishness, prejudice and stereotyping, which can grow up to the bullying. To maximize the benefits of cultural diversity is necessary recognition of diversity as a valuable source of progress, promoting cooperative relations in the context of a constantly forming and developing a personal identity. Before teachers therefore is to understand the principles of cognitive barriers, the dynamics of cultural conflict and social assessment, so that the students could peacefully accept democratic values, the right to life and freedom (Parekh, 2000).
Interaction between the majority and minority companies may be positive, desirable and beneficial.
General aim of intercultural education is the perception of multiplicity and diversity as positive, using inclusive approach and understanding of multiculturalism as a chance for a better world.

2. AIMS OF PROJECT

The project focuses on the development of theories related to the integration of foreign pupils in the educational process of primary schools as part of intercultural education. The actuality of the presented issue is confirmed especially the growing number of foreign pupils in Czech schools and the resulting problems of integrating individual pupils.
The main objective of the project is to enhance the theoretical foundation issues in order to further improve the integration of foreign pupils in the Czech school environment and reflections of the current situation, the integration of foreign pupils into the education at primary school. The main aim of the project will be subject to conditional upon specific objectives, which were set at both the theoretical and empirical level.

Specific aims:

Theoretical:

- Collect theoretical grounds, which are focused on the integration of foreign pupils at schools
- Theoretically analyze the different approaches and strategies for the integration of foreign pupils

Empirical:

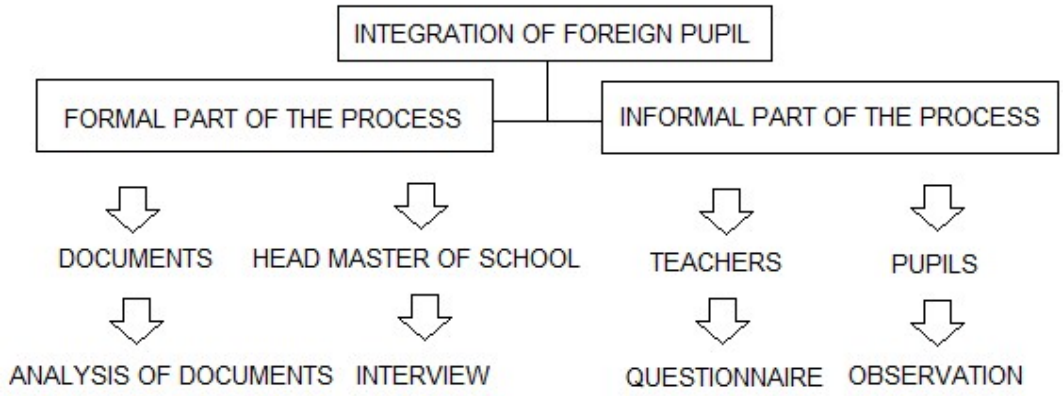
- Reflect on approaches to integration of foreign pupils at primary school practice in schools with a different approach to integration (international school, common primary schools)
    - reflect the approaches to the integration of foreign pupils at primary school practice in schools with a different approach to integration at the level of the school's documentation,
    - to reflect approaches to integration of foreign pupils in primary school practice in schools with
    - a different approach to integration in terms of the activities of the school headmaster,
    - reflect approaches to integration of foreign pupils in primary school practice in schools with a different approach to the integration of the activity of the teacher,
    - to reflect approaches to integration of foreign pupils in primary school practice in schools with
    - a different approach to integration in terms of access classmates
- Identify problematic situations in the educational process of foreign pupils at primary school,
- Suggest the possibility of solvingp roblem areas,
- Create a publication presenting a comprehensive view on the issue of integration of foreign pupils at the primary school,
- Suggest the possibilities of implementation of the conclusions of an investigation into the undergraduate training of future teachers for primary school,

We suppose that after the completion of the project will work on this issue next sequence in the form of research studies such as pupils' attitudes towards multicultural education, school climate and class in the context of the integration of foreigner's pupil, etc.

3. THE PROPOSED SOLUTION PROCEDURE AND EXPECTED OUTPUTS

Research will be mixed designed and combine quantitative and qualitative approaches. The main aim of the research is to look at the issue of integration of foreign pupils from several points of view, so that it was possible to identify problem areas. Research will be based on the diagram below.

Graph no. 3: Structure of the research



The research will examine the entire process of integrating foreign pupil as it happens in practice at primary schools. Research can be viewed on two levels; the first level is the formal aspect of the process of integration of foreign pupil (legislative and educational documents, the steps of the school). The second level is represented by page informal, under which it is possible to imagine the actions and behavior of teachers and students in the educational reality. Following this division we have dedicated four sub-steps of research.
In the first phase of the project will be an analysis of educational and legislative documents, which provide education of foreign pupils and its progress. Following the analysis of the documents will follow a structured interview with the school head, through which we get information about the formal process of inclusion a pupil at the school. According to the Director answers will be recorded on the tape recorder and transcribed, in case of disagreement will only be written to the answer sheet. The next phase of research will focus on the key factor in teacher and his knowledge and experience with integrating foreign pupils into teaching. This phase will be implemented through questionnaire investigation. Questionnaire design will reflect how the knowledge gained from the theoretical analysis and the specific pedagogical knowledge (of pedagogy, didactics, and psychology). The difference between the responses of teacher's different types of schools will be analyzed through the factor-analysis and Duncan's test. Evaluation of individual questionnaire items will be delivered using Chi-square.

CONCLUSION

The paper introduced a reflection of research on the integration of children - foreigners into the educational process, which we see based on the current events in the world as a very important issue. Furthermore, we have made a proposal of our own research, which is planned as part of the project Inclusive Education no. 4401/11 – Institut for research and development at Faculty of Education - Palacký University, Olomouc, Czech Republic.

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INCORPORATING ICTs IN MOROCCAN HIGHER EDUCATION: BENEFITS AND IMPLEMENTATION CHALLENGES

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ABSTRACT
The role of information communication technologies in enhancing the quality of education has been recognized by scholars within and across disciplines and sectors. In the field of higher education, there have been persistent calls to implement step-away policies from traditional, pen and paper-based methods. This educational claim seems to be all the more urgent for the educational systems of developing countries, namely Morocco. Taking the Moroccan official educational discourse as a locus of investigation, this paper seeks (1) to highlight some of the many benefits of this educational trend, especially in English language teaching/learning, (2) to analyze the ICT-related 2013-2016 action plan of the Moroccan ministry of higher education and (3) to pinpoint technology-bound avenues that can make the Moroccan educational system more technology-friendly.

Keywords: ICTs/Language education/EFL/Benefits/Higher education/Morocco/Action plan/Avenues

INTRODUCTION

By consensus, computer and internet-based teaching styles offer plenty of educational benefits for learners and most importantly for instructors. Several scholars, such as Kol and Shonick, 2000; Kern, 2006; James, 1996; Cameron, 1989, emphasize the pedagogical potential of Computer Assisted Language Learning as a means to boost both learners' and instructors' motivation and pro-activity. Warschauer (2000) refers to the inextricable correlation between CALL application in teaching/learning and the proliferation of globalization and technology in the world of today. Gone should be the days when instructors are the key source of information and knowledge.

Faithful to this perspective, this paper endorses the urgent need for the implementation of a technology-oriented ELT policy at the Moroccan university level. As a field practitioner, I unpack factual information about the educational prospects of the Moroccan higher educational system, especially in terms of using ICTs to stay current with the latest technology-bound educational tendency. Likewise, I put forth some technology-relevant teaching avenues that can help bridge the gap between the teaching methods and the job market needs. Within this realm, the questions remain:

1- What are some of the pedagogical, technology-based avenues that can be explored by EFL practitioners in higher education?

2- Do educational policies in Moroccan higher education capture the need for technology-related teaching strategies?

3- What are the academic and professional benefits that Moroccan university students can enjoy through the adoption of a step-away policy from traditional teaching methods?

4-

ON THE IMPORTANCE OF ICTs IN LANGUAGE EDUCATION

Given the rapid proliferation and use of information technologies in the world of today, it seems that relying on technology in language teaching/learning is becoming a viable, if not mandatory, educational alternative. Technology, more particularly computers, are practical tools for enabling language learners not only to work on various language-bound skills but also to endow them with an academic profile that can ease their integration in the modern technology-faithful job market. In tune with this perspective, many scholars, specifically Kol & Scholnik, 2000; Kern, 2006; Warschauer, 2003, specify that the rapid changes in communication technology are bound to modify the way languages along with other mainstream subjects are instructed and learned in academic contexts.

Obviously, the literature on computer-assisted language learning offers plenty of experimental evidence in favor of using a computer –based approach to English language teaching and learning. James (1996) and Warschauer (2000) point out the countless benefits of the computer as a tool that can enrich language teaching/learning experiences. In stark contrast to traditional, technology-free teaching methods, the computer offers a myriad of resources that make the teaching/learning endeavor more flexible, more enjoyable and more rewarding.

However, the use of technology as a platform for absorbing, meaningful language tasks seems to be an old/new practice, especially for EFL language tutors. There was a time when language practitioners used magnetic tapes

and modestly equipped language labs to nurture the use and practice of language in non-conventional ways. Although these pro-technology teaching methods were useful, they definitely do not elevate to the efficiency of modern multimedia labs that favor the use of highly professional computers and the worldwide web. Regardless of its numerous benefits, technology as a pedagogical resource might cause confusion in terms of what technological activity to assign for students and how to handle a computer-based language class (Stockwell, 2007). Hence, the need to take into careful consideration the context of the teaching practice before proceeding to select the appropriate technological option and/or task.

THE CONTEXT OF HIGHER EDUCATION

In a non-western higher education context, the target students are basically upper-level language learners. That is because L2 language learners at the university are supposed to go through beginning and intermediate levels in the pre-university educational stage. At the university, students face the challenge of learning and using English in specific contexts both within and across disciplines and specialties, such as medicine, management, law, political science or some other field. Commonly referred to as English for Specific Purposes (ESP), this type of English calls for students to activate their linguistic and extra-linguistic repertory of knowledge to meet future career requirements. Because of the challenging nature of this learning task, some students, especially those with less proficient linguistic capacity, may lag behind and eventually lose interest in English language learning- a status that is bound to limit their future chances of International marketability.

The challenge for university English language tutors is as persistent, if not more, as it may be for the students. Language practitioners at the university level face the continuous challenge of devising class activities that can make students more involved, more communicative and more responsive. Thus, the challenge for university English language educators is, in the words of Willis (1996: 36), "*to come up with a goal-oriented communicative activity with a specific outcome, where the emphasis is on exchanging meanings, not producing specific language forms."* Hence the suggestion for language practitioners to step away from mechanical drilling and monotonous grammar exercises along with other passive class activities. For upper-level university English classes to be more productive and meaningful, it is highly imperative to foster hands-on tasks whereby students have a better *"opportunity in the classroom to use the language for genuine communication"* (Willis, 2007, 4). In this regard, computer-based pedagogical materials seem to be a handy way to optimize teaching and involve students in the learning process.

THE COMPUTER/ THE NET: GETTING LEARNERS INVOLVED

"*Tell me and I forget, teach me and I remember, Involve me and I learn."*

(B. Franklin)

In recent years, there has been a remarkable scholarly trend that investigates the real potential of the computer and the internet as tools to ease the involvement of English language learners and ultimately make English classes more learning-rich and more learning-meaningful. While scholars, in particular Warschauer & Healey, 1998; Levy & Stockwell, 2006; Stockwell, 2007, agree on the fact that applications of technology in language teaching is beneficial for both learners and educators, they specify that the abundance of technological educational resources may also be a source of confusion in terms of what teaching materials to use, how to use them and when to use them. For example, Levy and Stockwell (2006: 218) maintain that "*advice about which technologies to use and how they may be used often come from the people around us"*. Differently put, the linguistic profiles of students as well as the learning objectives turn out to be major determinants of the applicability of computer-based educational resources. Levy & Stockwell (2006: 234) show on empirical evidence that the selection of computer-related pedagogical materials is definitely "*context-specific*" depending on learning needs and instructors' objectives.

In an attempt to facilitate the choice of computer-bound pedagogical materials, Stockwell (2007) advocates that teachers need to be clear whether they focus on language areas or on language skills- a taxonomy that I find very effective in the choice and implementation of computer-assisted language learning materials. What Stockwell (2007) intends by language areas are grammar, pronunciation and vocabulary. On a different scale, language skills are speaking, writing, listening and reading. There is a definite abundance of online, computer-specific language education pedagogical materials which target the elaboration and reinforcement of different language areas and skills. As cases in point, Cameron, 1989; Becker, 2001; Horst, Cobb & Nicolae, 2005, among several other scholars, suggest a significant amount of hands-on, computer-based activities which can be exploited to get learners involved and enhance their competencies in language areas and skills. It remains up to the individual instructor to select the tools that match learners' academic profiles and needs.

In the Moroccan context, the university officials seem to recognize the urgent need for the integration of purposeful policies which can reconsider the peripheral role of the English language in the whole educational system- a proclivity which tunes with the scholarly consideration of English as a global language (Crystal, 2003, 1). It is important herein to specify that French has always had the upper hand as a primary tool of learning. This trend finds its root in the historical background of Morocco as a country that underwent French colonization for

years. Currently, there are persistent claims to give English a pre-eminent status in the Moroccan educational system.

LANGUAGE PROSPECTS IN THE MOROCCAN UNIVERSITY

The status of English in the Moroccan educational system is getting more and more central. English is officially considered as a tool which can, in addition to rising intercultural awareness, open up new and genuine developmental and professional opportunities and horizons for all the actors in Moroccan higher education, be they students, professors or administration staff. Taking into consideration the key role of English in academic development, the Moroccan ministry of higher education has issued an official statement which puts English literacy as a pre-requisite for future candidates seeking a teaching position at the university. Congruently, the ministry has issued an ambitious action plan which targets the implementation of e-education in Moroccan universities.

THE MOROCCAN MINISTRY'S ACTION PLAN: 2013-2016

The implementation of ICTs in the Moroccan educational system seems to be a top priority for policy makers in the field of higher education. In the 2013-2016 action plan, the Moroccan ministry of higher education plainly acknowledges the key function of e-education as a stepping stone for Moroccan university graduates and the for the Moroccan educational system as a whole. While setting the objectives and the implementation measures of this action plan, the official discourse emphasizes that nothing can be achieved single-handedly. Hence, the importance of getting potential stakeholders involved.

ICTs AND STAKEHOLDERS

In its 2013-2016 action plan, the Moroccan ministry pinpoints the fact that the implementation of ICTs in Moroccan universities requires the investment of several key actors, namely the ministry, the university, media and technology-bound agencies and institutions that are not necessarily affiliated to universities. The involvement of a variety of actors should be seen as a daring step taken by the people in charge of policy-making that enforces a new, unprecedented team-oriented vision. Unlike traditional action plans, which were more monopolistic, now it seems that the involvement of actors from within and actors from without the educational sector is a beneficial, mandatory option.

The involvement of governmental institutions in charge of media technologies constitutes a strong asset for the implementation of a technology-friendly environment in Moroccan universities. Moroccan communication companies, such as Maroc Telecom, are bound to be pivotal players in providing material and immaterial back-up for the implementation of a technology-based educational vision. In addition to governmental agencies, non-governmental agencies which are not affiliated to universities are given a genuine opportunity to be asset-holders in the creation of an ICT-favorable learning environment. Accordingly, the ministry officials have put forth a set of performance indicators that can orient the different actors in this nationwide challenge.

PERFORMANCE INDICATORS AND EXPECTED RESULTS

In the ministry's action plan, the guidelines recommend using all kinds of technology resources, be they computers, internet and software applications, in the teaching and learning endeavors as well as in the managerial practices of colleges and universities**.** Reaching "*a satisfying level*" of technology-based teaching/learning practices is a primordial recommendation. While there should be a shift from teacher-oriented teaching styles, learners are called for to develop multiple skills and intelligences in processing classroom input. The learner, in tune with this action plan, is an active player, rather than a passive receiver, who contributes in the process of information acquisition and sharing.

The action plan equally accentuates the paramount importance of endowing Moroccan universities with professional multimedia centers and ICT laboratories that enjoy a wide variety of pertinent and useful pedagogical resources. As a follow-up, the number of university courses which adopt ICT-oriented pedagogical tools is to be duly reinforced. Additionally, the number and percentage of university staff members be they professors or administration staff, benefiting from technology literacy training is considered as a tangible indicator of effective and rational technology integration in Moroccan tertiary education.

By 2016, it is incumbent upon the Moroccan ministry officials to reach a set of goals which enable Moroccan universities to have a high credibility level- an outcome which will definitely boost the profile and marketability of Moroccan university graduates. The following are the ministry's expected results:

i. Generalizing the incorporation of ICTs in the teaching/learning processes.
ii. Developing a nucleus of technologically skilled human resources in every university.
iii. Installing a professional and resourceful electronic data center in every university.
iv. Providing a successful ICT platform which can serve the main users, namely students, professors and administration staff.
v. The availability of online courses nationwide.

vi. Having focal points in electronic learning.
vii. Founding a compound or national university specialized in electronic training.

Basically, the Moroccan ministry of higher education is setting a purposeful policy which ranges from enforcing ICT-bound resources through technologically empowering the teaching staff and students to equipping administration staff with the necessary technological skills and knowledge. In line with these steps, the ministry's action plan advocates the absolute necessity to take practical measures which can ease the establishment of an ICT-oriented vision.

The decision-makers in higher education have specified a set of measures which can ensure a smooth integration in the digital era. In stark contrast to traditional tendencies, the new trend is for using media and communication technologies in face-to-face learning contexts- an alternative which is bound to make the learning process more interactive, more productive and less professor-centered. Concomitantly, there is an appeal for competence-building in e-learning by offering all the actors in the educational field specific training to up-grade their e-education skills through ongoing, purposeful programs.

Lastly, the decision-makers are keen on creating virtual, e-learning-bound universities as a measure to encourage learners who are unable to take regular courses to start and carry on their academic endeavors. Thus, it seems that the Moroccan ministry's 2013-2016 action plan proposes a sound road map which aims at realizing a set of targets that are conducive to enhancing the status of Moroccan universities to a level that allows them to (*i*) ensure high quality education not only inside but also outside classrooms, (*ii*) to boost the technological literacy of the main actors in the educational sector, namely professors, students and administration staff and (*iii*) to ensure the future marketability of Moroccan university graduates. The afore-mentioned goals are certainly very promising, but their realization surely entails a lot of challenges and implications.

IMPLICATIONS OF INTEGRATING ICTs IN HIGHER EDUCATION

Definitely, the incorporation of an ICT-based environment in Moroccan higher education offers several benefits. In fact, it opens a variety of pedagogical avenues for professors and students alike. While ensuring the accessibility of academic data for both of them, this ICT-oriented policy is bound to reshape the role of professors from main information-holders and purveyors of knowledge to class facilitators and monitors. In an ICT-based context, learners tend to have a genuine opportunity to use ICTs to optimize their learning and end up as active and experiential, rather than passive, learners. ICT-bound learning is also flexible in the sense that students can choose what to learn, when to learn and how to learn things they need. Finally, the integration of technology will create a new profile for students by easing their technology-friendliness- an asset that can boost their future professional marketability both nationally and internationally.

Nevertheless, it is important to be wary about the overenthusiastic calls for the integration of media and technology in Moroccan higher education. There are a set of criteria that the decision-makers in Morocco need to account for:

i. The selection of technological resources needs to be done on sound pedagogical principles. ICTs can serve positively only if the main users, namely professors and students, know how to use valid, credible learning materials that fit their academic context and meet their pedagogical expectations.
ii. The availability of institutional factors which favor the integration of ICTs. In tune with this pre-requisite, Moroccan universities are called for to set solid ground for a technology-friendly academic context. As a case in point, the number of learners should be manageable enough to facilitate e-learning. This is remotely possible in Moroccan open-access university schools where the number of learners is so high that the implementation of face-to-face computer-based learning remains a sheer fallacy. This is not the case for limited-access schools where the number of students is low and is in favor of using technology in class. Another institutional factor relates to professors' profiles and mindsets. Some professors may not be willing to give up their computer-free teaching styles for the reason that modern technologies may not be efficient alternatives for the Moroccan higher educational system which is not fully integrated in the digital divide era- such an attitude may hinder the actualization of the ministry's action plan.
iii. The financial funding of an ICT-based educational environment is a challenging project which necessitates the allocation of huge budgets. Although no information is provided by the ministry about the eventual cost of incorporating ICTs in Moroccan higher education, it remains evident that procuring the necessary budget requires the strong will of actors from within and also from without the university milieu. Therefore, the current Moroccan government is advocated to be motivated enough to assign optimal financial resources that can ensure the realization of this nationwide project.

CONCLUSION

In the Moroccan context, information and communication technologies constitute an outlet for improving the quality of knowledge acquisition and training in tertiary education. As explained in this paper, the overall

benefits of applying ICTs are two-fold: (*i*) the enrichment of the quality of learning and teaching, and (*ii*) enhancing the learners' computer literacy and, thereby, boosting their professional marketability. The application of ICTs in Moroccan universities dovetails with the Moroccan governments' objectives to implement technology-friendly educational innovations.

The application of ICTs in the learning and teaching processes brings about countless benefits. In addition to boosting learners' motivation and interest, it can help improve their competencies in various academic fields and areas allowing them to develop efficient life skills. This target is not easy to accomplish because it requires sizeable investment in the human as well as in the material capital. In addition to enhancing the students', the professors' and administration staff's computer literacy, it is mandatory to provide the necessary technological equipment and computer laboratories.

The ultimate challenge for the teaching staff includes the absolute necessity to stay current with the latest trends in educational technology and to figure out how to apply them in fruitful, productive ways. In this respect, Stockwell (2007: 107) stresses that "*people in the field [of CALL] may find it very daunting when confronted with the ever-growing list of technology available to them, and decisions regarding appropriate technology choice are complex."*

Finally, it is safe to say that the educational decision-makers in Morocco truly capture the need for integrating ICTs in higher education. However, it is important to specify that ICTs integration is definitely not a panacea for grass-root educational reforms in tertiary education. While ICTs may improve the quality of learning and teaching different subjects, particularly English which is gaining ground as an educational tool alternative, they may hinder educational progress in case the human and material infrastructures should be poor and inefficient.

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Appendix: Developing E-Education in Moroccan Higher Education

This appendix displays the translated version of the Moroccan Ministry's Multi-phased E-education Action Plan. The official document in Arabic is accessible at the Ministry's website:
www.ensup.gov.ma

Implementation authorities	*FB	Prospects of achievement	Performance Indices	Expected results	Measures	Targets
-The Ministry -Universities -Government sectors in charge of media and communication technologies -Institutions not affiliated to universities	-	**2013-.2016**	-Multimedia available for students and professors -Satisfactory level with pedagogical ICT-related presentations	- Full integration of media and communication technologies in teaching methods	Development of the use of media and communication technologies in face-to-face education.	-Developing the use of media and communication technologies in training -Enforcing e-training and reducing face-to-face training
	-	**2013-2016**	The number and percentage of beneficiaries from trainers' training in every university	-Implementing a pre-elaborated training plan -Having well-trained human resources in e-learning in every university	Building competencies in e-education	
	-	**2013-2016**	-The number of universities having a data center in educational ICTs -The quantity and percentage of electronic pedagogical materials	-Creating an educational ICT-based data center in every university -Availability of electronic pedagogical materials	Developing university data centers in educational ICTs	

*FB: Financial Budget

Implementation authorities	FB	Prospects of achievement	Performance indices	Expected results	Measures	Targets
-The Ministry -Universities -Government sectors in charge of mediaand cummunication technologies -Institutions not affiliated to universities	-	**2012-2013**	Percentage of e-learning platforms in universities	Availability of efficient ICT platforms offering tools in each university for main users: Students Teachers Administration staff	Developing e-learning platforms	- Developing the use of ICTs in training -Enforcing training and reducing Face-to-Face training
	-	**2014-2015**	-The number of courses offered online -The number of trainings -The number of beneficiary students	-Offering online courses nationwide -Availability of focal points in e-learning	Developing pilot projects in e-learning	
	-	**2013-2016**	Percentage of the project's progress	National university specialized in e-learning	Considering the significance of founding a virtual university	

THE INFLUENCE OF NICOTINE ON THE LEVEL OF SIMPLE AND CHOICE REACTION TIME OF PHYSICAL EDUCATION STUDENTS

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ABSTRACT
The presented study is aimed at monitoring the effects of nicotine on the level of choice and simple reaction time. Measurement was attended by 15 people (9 men, 6 women) who are students of physical education at the Pedagogical University of Jan Evangelista Purkyne in Usti nad Labem. The test subjects were to perform different motion tasks based on the illumination of correspondingly colored LEDs, which increased demands for coordination of movement. The study results clearly favored Hick's law (Hick, 1952), when with increase in the number of stimuli the value of the choice reaction time increased as well. A prerequisite of this study was that the reaction time to a visual stimulus will be affected by the use of nicotine capsule. The findings suggest that nicotine has an effect on the choice reaction time ($p = 0,041$, $d = 0,528$). But the influence of nicotine on the values of simple reasponse time was not proven ($p = 0,233$, $d = 0,308$). In a number of sports disciplines (eg. Athletics, ball games) may be students' performance in meeting the credit requirements affected by the alleged lifestyle. The results of presented study suggest that nicotine may negatively affect the processing of information from the environment and thus may affect an athletic performance.

Keywords: simple reaction time, choice reaction time, visual stimulus, performance

INTRODUCTION
The level of reaction time plays an important role in human activities related to the decision process. These processes may be affected by substances that either accelerate or slow down the reaction time, which often determines the safety and human health. By these situations we can understand, for example, the decision of the driver when driving a car at a busy intersection. A level of reaction time in sport has an influence on athletic performance. In this regard importance of reaction time was found on athletic performance in combat sports (fencing, karate), ball games, athletics (start reaction of sprinters). According to Boutrel and Kobb (2004) nicotine is one of the most used psychostimulating substances in the world. In a series of studies was found an influence of nicotine on alertness and concentration. Generally speaking, the nicotine has psychostimulating effect on the central nervous system. At low doses, there is an increase in the levels of norepinephrine and dopamine in the brain (Clark, finkel, Rey, & Whalen, 2008). At higher doses, it causes an increased effect of serotonin which has a sedative effect (Silvette, Hoff, Larson, & Haag, 1962). Nicotine induces changes in the body, leading to an increase in heart rate and blood pressure (Narklewicz, van de Borne, Hausberg, Cooley, & Winniford, 1998; Walker, Collins, Rowell, Godsmith, Moffatt, & Stamford, 1999). Further causing an increase in blood flow in muscles (Usuki, Kanekura, Aradono, & Kanzaki, 1998; Weber, Anlauf, & Muller, 1989) For smokers these reactions to nicotine are not as noticeable, as in the case of non-smokers (Hindmarch, Kerr, & Sherwood, 1990). Results of the various studies, however, when monitoring the effects of nicotine on the physiological changes in the body of the human organism are different. For this reason, it is difficult to objectively compare these studies. The reason for these differences may be a way of administering the nicotine to test subjects (Usuki et al., 1998). It should be noted that the substance is administered either orally (capsule, chewing gum), where it diffuses through the mucosa into the blood stream, or is administered in a spray (or electronic cigarette), where it after inhalation passes through the alveolar membrane and alveoli further into the

bloodstream. The process of transferring nicotine to the brain, where it affects the nerve receptors only takes a few seconds. The last option for application of a nicotine substance is a nicotine patch on the body. Each of these forms of nicotine application results in a different effect of this substance in the body (rate of transmission, nicotine concentration, speed of causing an effect). Some studies report that nicotine has a positive or negative effect on the reaction time or the speed of movement (Levin, McClemon, & Rezvani, 2006; Marzilli, Willhoit, & Guadagnoli, 2006; Meier, 2006; West, 1986). Based on available research carried out on rats, it is possible to believe that the process of transferring information from the environment can be significantly affected by nicotine. Terry et al. (2012) reported that cotinine (nicotine metabolite) may have therapeutic potential for neuropsychiatric disorders due to the improvement of attention and reduce impulsive behavior.

Schmidt and Wrisberg (2008) mention that the reaction time is a suitable indicator for fast and efficient processing of information from person environment. The time required for the realization of physical acts (reaction time) is the sum of reaction time and movement time, which is measured from the start of the movement until its completion (Williams & Walmsley, 2000). Kelso (1995) defines the reaction time as the interval between the occurrence of the stimulus and the first bioelectrical activity of the muscle. Given that processing of information from the external environment occurs in the central nervous system (CNS), we expect some delay in a response to a stimulus. An example might be the reaction of runners who remain standing on the start line, while smoke from a starting pistol already rises from the point of the shot. The level of reaction time is also connected with the processing speed of the information in the CNS. The longest stretch of information processing is at the stage of identifying the initiative, where the content of information from the environment is being analyzed by sensory organs (Schmidt & Wrisberg, 2008). Causes for extension of reaction time can also be linked, for example, with the complexity of motion or with the demands for coordination of the limbs. A statistically significant difference ($p = 0.001$) between the simple reaction time and the reaction time associated with the demands for the complexity of movement found Mickevičienė, Motiejūnaitė, Skurvydas, Darbutas, and Karanauskienė (2008). In some sutudies, however, there were no significant differences in reaction time, which was associated with the different demands for the complexity of the movement (Shen & Franz, 2005). During complicated movements, reaction time is longer because the organization of the system for the initiating movement requires more time. Since the occurrence of the stimulus, perception, neurotransmission in the CNS, decision making, transmitting impulses to muscles and initiating movement lapses approximately 50-300 ms. The time delay between the transmission of stimulus and the initiation of movement causes a so-called delay in receptor receiving and conduction of nerve fibers.

METHODICS

In the presented study, the effect of nicotine on the level of simple and choice reaction time was examined on students (9 men, 6 women) of physical education at the Department of Physical Education of Faculty of Education in Usti nad Labem. In all cases the monitored subjects were non-smokers. To verify the effect of nicotine on the reaction time, measurements were carried out over two days, between which there was an interval of seven days rest. Subjects were either before the first or second measurements orally administered with a capsule of Nicotine or menthol (placebo). Each tested person thus ingested either nicotine or menthol during the first measurement and during the second measurement ingested the substance they didn't get during the first measurement. This way, when the test subjects did not know whether they were administered with a nicotine capsule or menthol, it was possible to objectively verify the effect of nicotine on the reaction time level. Measurement was held in April 2015 always in the morning. Air temperature 21 ° C. For the reaction time measurement Fitrosword system was used and SWORD software that separately identifies the reaction time and movement time. This device consists of two highly sensitive obstacles (horizontal, vertical obstacle) and the hit target. Hit target was placed to a height of ster um's xiphoid process for each test subject individually. On this target there are located three different colored LEDs and steel rings for hits. Subjects should based on the ilumination of the relevant LED respond with a movement of the arm, which was placed on a horizontal highly sensitive obstacle. In case of simple reactions only one LED generated light. In case of choice reactions three different colored LEDs generated lights that led test subjects to different motion tasks. In case the red LED generated light were tested subjects to respond by raising an arm and hitting the hit target. In case the green LED generated light tested person should hit a vertical obstacle first and consequently hit the target. Yellow LED diod did not lead to a motor response.

In case the red LED lights up when the test subject has to perform only the direct thrust, the LED lights up 20 times in a row. This protocol was the same for all tested subjects. For this reason, it was necessary to ensure that other people did not see the course of the other measurements. In the case of measuring a choice reaction time there was 10 times the occurrence of red LED, 10 times to the occurrence of the green LED and 7 times the occurrence of yellow LED. The time interval for incidence protocol of stimuli was 600 - 2000 ms. After application of the respective capsule (placebo nicotine), subjects were left to rest for 10 minutes. Then simple

and choice reaction time were measured. Between measurements of simple and choice reaction time was a 2 minute break to eliminate fatigue. This protocol was used in the second measurement after a one week break as well.

Based on the recommendations of Tanaka, Hasegawa, Kataoka, and Katz (2010) were excluded for a simple reaction time values that exceeded 1000 ms. Excluded were also values below 100 ms, which indicated by Iida, Miyazaki, & Uchida (2010) and Schneider et al. (2006) were anticipatory. For the choice reaction time were excluded values below 160 ms, which have been marked as anticipatory and values above 2000 ms, which were marked as wrong according to Arcelin, Delignieres, & Brisswalter (1998), Davranche, Audiffren, & Denjean (2006) and Deligniéres, Brisswalter, & Legros (1994). First 12 correct attempts were always used for statistical analysis. None of the study subjects were identified with a circumstance which would spoil the measurement process. All the tested individuals agreed by signing the informed consent, that they attend the measurement voluntarily, and that found data can be used for research purposes. Through Shapiro Wilks W test, it was found that the data was not normally distributed. For this reason, we utilized medians specified in milliseconds. For statistical data processing was used Wilcoxon test. Statistical significance was set at $p < 0.05$. The actual data processing was carried out in software Statistica 6.1

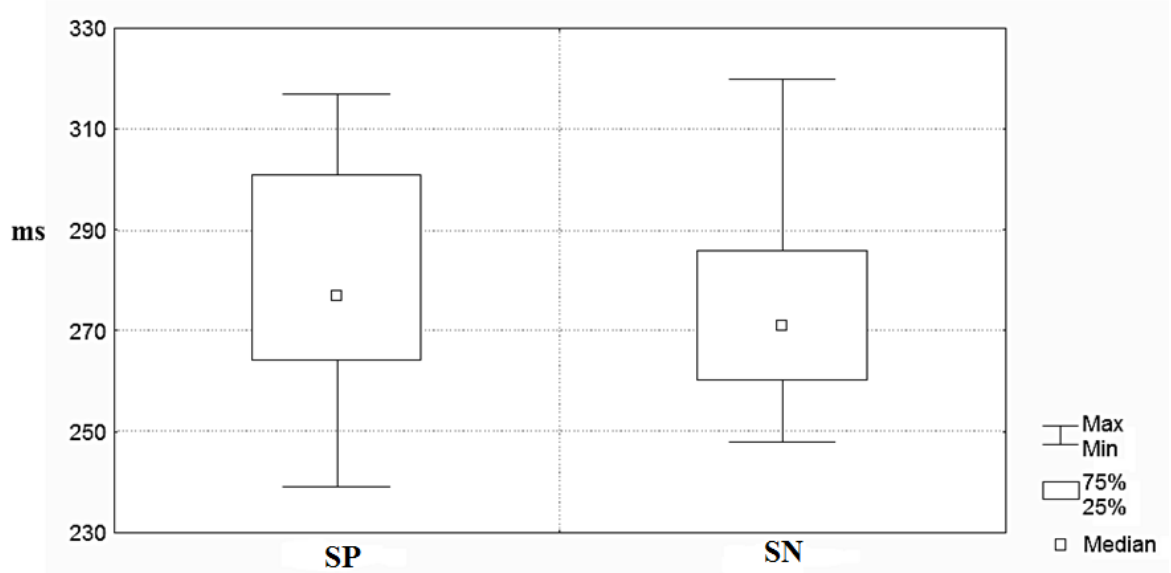
RESULTS

The study results suggest that for a simple reaction time, there were no significant differences between the values measured when the test subjects were administered with nicotine capsules and between values when capsules with menthol were used. This relationship was neither statistically ($p = 0.233$) nor substantively significant ($d = 0.308$). Unlike for a simple reaction time there is a significant difference in the choice reaction time when the test subjects used nicotine capsules and the level of reaction time when using menthol capsules. There was a statistically significant difference ($p = 0.041$) and a medium effect of substantive significance ($p = 0.528$). Overall characteristic can be seen in Table 1. A more detailed relationship between the monitored variables can be seen in Figures 1 and 2.

Table 1: Basic characteristics of simple and choice reaction time

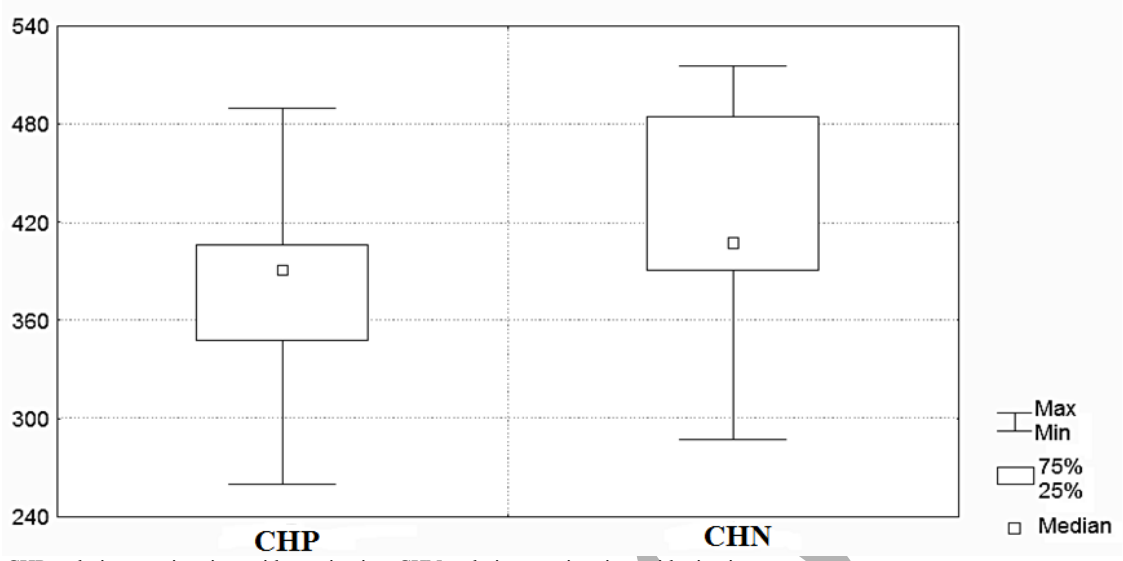
	Median	Lower Quartil	Upper Quartil	p	ES
SP	277	264	301	0,233	0,308
SN	271	260	286		
CHP	390	347	406	0,041	0,528
CHN	410	390	485		

Key: SP – simple reaction time (placebo), SN – simple reaction time (nicotine), CHP – choice RT (placebo), CHN – choice reaction time (nicotine)



Key: SP – simple reaction time without nicotine, SN – simple reaction time with nicotine

Figure 2: Values of simple reaction time with and without the use of nicotine



Key: CHP – choice reaction time without nicotine, CHN – choice reaction time with nicotine

Figure 3: Values of choice reaction time with and without the use of nicotine

DISCUSSION

Martinsen and Sundgot-Borgen (2012) suggest that nicotine may be abused by athletes for positive effect on athletic performance. In some sports, such as endurance disciplines, however, it can act according Alaranta, Alaranta, Patja, Palm Prattala, Mertelin, and Helenius (2006) rather negatively (presence of metabolites in nicotine). However we can find studies in which the effect of nicotine manifested positively. This is particularly the study focused on the monitoring of cognitive function (Levin et al., 2006). Marzilli et al. (2006) even found a positive relationship between nicotine levels and reaction time. The influence of nicotine on anaerobic performance in the Wingate test was shown in a study of Meier (2006). On the other hand, it was found in a study of West (1986) that nicotine has a positive effect on the speed of movement while tapping hand.

Existence of different measuring systems and programs for measuring these variables influences the resulting values, but also this fact limits the possibility to compare the values found in different studies. Yet fundamental patterns resulting from any of these investigations in compliance with established protocol can be drawn. Most studies focused on identifying RT use systems and devices that measure indicators of reaction abilities through the speed with which a button is pressed on the device. Pain and Hibbs (2007), however, point out that during this procedure the actual level of RT may be influenced. Differences in RT according to Pain and Hibbs (2007) in this regard arise because the reaction of the body parts providing fine motor skills is not as fast as the response of body parts intended for gross motor skills. On the basis of these recommendations were tested people during measuring exposed to real conditions that mimicked the movement of arm while driving.

In a number of sports disciplines, in which the performances are determined by the reaction rate to the appropriate stimulus, it may be crucial to reduce the values of reaction time for success. The phenomenon of choice reaction time is closely linked to Hick's law (Hick, 1952; Hyman, 1953). Validity of this law, which expresses that the relationship between the choice reaction time and the logarithm of the number of stimuli is linear, confirmed, for example, Jensen (1998) Gignac and Vernon (2004). The authors found that the level of reaction time is directly proportional to the number of processed stimuli. The cause of longer duration of reaction time for choice reactions, are the demands on the information processing in the CNS. Existence of the Hick's law can also be confirmed in the presented study. With the increase in the number of stimuli increases the reaction time.

It was also expected that the differences will be detected in the choice and simple reaction time when using nicotine capsules and without their use. After measurement, it was found that nicotine has a negative effect on the level of choice reaction time ($P = 0.041$, $d = 0.528$). These findings are in contrast with the findings in the study of Marzilli et al. (2006). In the presented study, there was not any influence of nicotine on simple reaction time ($p = 0.233$, $d = 0.308$). This fact is to be expected due to genetic determination of simple reaction time.

On the other hand, the results confirm the conclusions Contreras-Vidal, Van Den Heuvel, Teulings, and Stelmach (1999), who found that nicotine contained in tobacco has a negative impact on the coordination of movement during visuo-motor performance performance. On the basis of these results they indicate that nicotine affects brain activity. These findings are in contrast with the results of studies Harrell and Juliano (2012), who reported that smoking nicotine cigarettes caused improve performance in test focused on the speed of visual information processing

CONCLUSIONS

The results of the study may expand awareness about the impact of nicotine on the speed of information from the environment processing in the CNS. During their studies, students of the department of physical education meet with a number of sports (athletics, ball games, etc.), in which may be their athletic performance affected by the current level of reaction time. Athletic performance can then be related to success or failure in meeting the specific credit requirements. The differences observed in the choice reaction time can provide objective information about the impact of nicotine on the human body. This effect can occur both in everyday human activities, as well as in a sports environment.

It is also possible to use results of the work in the construction of similarly focused projects where the influence of other substances on the speed of processing information from the environment can be assessed. Finally, it may be a guiding stimulus that may be included in the assessment of the abuse of banned substances in sport. Limitations of the study can be seen in a limited number of test persons. At the same time it can show the different results observed for differences in the administration of nicotine. There may be different values of the reaction time when using various kinds of stimulation (tactile, visual, audio).

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INFORMAL LEARNING IN ONLINE SOCIAL NETWORK ENVIRONMENTS: AN EVIDENCE FROM AN ACADEMIC COMMUNITY ON FACEBOOK

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ABSTRACT
This work aims at deepening the informal learning patterns of conference participants in Online Social Network (OSN) communities. In particular, this study considers the interactions within a Facebook community triggered in the last 40 days by academic organizers in order to nurture a favorable context around an upcoming academic conference. This paper proposes a novel methodology together with the first application of its kind to the academic event context in order to provide tools and techniques for conference hot topics prediction and professional sub-networks identification.

INTRODUCTION

Knowledge is widely recognized as one of the key resources which are currently shaping both the social and economic facets of the globalized society (Yusuf, 2009; de Castro, Rodrigues, Esteves, da Rosa Pires, 2000; Burton-James, 2001; Iammarino, 2005; Palmieri and Giglio, 2014).

Several studies (Drucker, 1992; Sawyer, 2006; Macey-Bruges, 2001; Palmieri and Giglio, 2014) prove how knowledge sharing is a trigger of the innovation process and fosters increased levels of productivity in any organizational context. By leveraging knowledge, both firms and freelance professionals are more likely to achieve better results and competitive advantages (Di Pietro and Anoruo, 2006; Takeuchi, 2006).

In light of the importance of knowledge sharing within organizations or professional communities, learning processes keep on gaining the attention of the research community (Allen and Seaman, 2007), since they represent the way through which knowledge is transferred between people. In fact, such processes are closely related to the interactions for sharing knowledge between teachers and learners, since knowledge exists only as part of the knowers and it is filtered by learners' needs and backgrounds (Fahey and Prusak, 1998; Tuomi, 1999). Therefore, knowledge is the cognitive output of an inflow of stimuli emerging within a learning process (Alavi and Leidner, 2011).

However, some (radical) changes in learning processes and related tools have occurred overtime. This lead some scholars (Twigg, 1994) to adapt the traditional definition of learning in order to take into account emerging delivery mechanisms, technologies and tools, along with highly evolved society's expectations, attendance patterns and institutional structures. Last, but not least, (Twigg, 1994) provides also a detailed analysis of how educators changed their teaching behavior, since nowadays they know more about how people learn.

Although many studies of learning were conducted so far, research on informal learning is still in its very early stage (Aramo-Immonen, Jussila and Huhtamäki, 2014). Moreover, the emergence of online communities emphasized the lack of studies in the field of informal learning within OSNs, which has been considered to an even lesser extent. The aim of this paper is thus to focus on informal learning in OSNs communities in order to fill this gap and analyze learning patterns during pre-events online communication and activities.

In particular, this work aims at predicting hot topics discussed by conference participants, which can be identified by means of Social Network Analysis (SNA) tools and techniques before the academic event. This study is also geared to identify in advance potential sub-networks of professionals, which will likely gather around specific research topics.

In Section II, authors briefly introduce some theoretical issues and definitions of informal, non-formal, formal, intentional and accidental learning. In Section III, the methodological aspects are detailed - e. g. choice of methods and algorithms, context-dependent issues, limitations of data collection and extraction. In Section IV, results and findings are presented by means of the analysis of Facebook posts, likes and comments in the conference-related community. Section V concludes by addressing possible applications of this study in other fields, future research efforts and possible limitations.

THEORY ABOUT LEARNING AND RELATED RESEARCH

Based on the increasing relevance of knowledge resources and the way they are transferred among teachers and learners, authors aim first at presenting existing theoretical definitions of informal, non-formal, formal, intentional and accidental learning.

INFORMAL LEARNING

Informal learning concerns the cognitive processes related to specific interests and activities of individuals and communities. The learning process at hand may embrace different activities - which may vary from discussions, talks and presentations to information, advice and guidance – and is generally accomplished in flexible forms and in informal settings (Jeffs and Smith, 2005).

Informal learning is unorganized and often lacks the definition of clear learning objectives in advance. It is also defined as a learning by experience since learners are continuously exposed to potential learning opportunities (OECD, 2010).
Studies of informal learning (Conner, 2005) revealed that more than 75% of learning processes in professional contexts occur in a very informal way. Moreover, it is not rare that the most valuable learning dynamics are triggered by serendipitous phenomena.

As a matter of fact, companies tend to separate their most valuable organizational learning efforts from formal training programs. Informal activities in firms are generally not well-structured and not held by schools or freelance professionals (Conner, 2005). Nonetheless, the dichotomy between informal and formal learning can not be reduced to the valuable difference existing between what people tend to learn intentionally or accidentally.

The informal vs formal dichotomy mirrors the emerging changes in the way people learn, which is not only related to traditional educational patterns. Today's learning also depends on learning needs, knowledge path of individuals (Fahey and Prusak, 1998; Tuomi, 1999), learning environments, supporting technologies and tools, and society's expectations (Alavi and Leidner, 2011; Twigg, 1994). A challenge in common in both informal and formal learning is that of developing new learning strategies at the same pace of the technological evolution of learning tools. Otherwise, learners may experience a lack of guidance on how to adapt their learning efforts to the occurring changes in today's complex world (Mosher, 2004a; Mosher, 2004b).

However, it is important to point out that informal learning may include both forms of unconscious and unintentional learning efforts, on the one hand, and of intentional and conscious learning activities taking place in non-structured educational settings, on the other hand. Therefore, it is recognized as an experience-based form of learning lato sensu (Fahey and Prusak, 1998; Tuomi, 1999). Yet it concerns with dreams, arts, culture, concepts and other dimensions of life, recalling the even broader theories of "life-wide learning" (also known as "andragogy") and "adult learning" (Reischmann, 1986; Reischmann, 2004a; Reischmann, 2004b; Reischmann, 2011).

In light of this, professional and organizational learning tend to be included in such theoretical fields, together with intentional, unintentional, hidden, small scale and incidental learning (Reischmann, 1986).

Most learning efforts, especially adult learning activities, have a substantially incidental – i . e. "en passant" – nature, due to adults "learning in passing" (Reischmann, 1986) which play a key role in such informal dynamics.

Informal learning has a non-ordinary nature and is classified as a project-like activity. Also conference-related activities are included in such a category (Gann and Salter, 2000; Hobday, 2000). Some authors argue that a project always imply some non-routine learning processes (Davies and Brady, 2000). Nonetheless, in the field of academic conferences annually held by professional communities, the non-routine perspective is no longer sustainable, since participants tend to realize comparable studies and to re-use research methodologies on similar topics (Aramo-Immonen, Jussila and Huhtamäki, 2014). Hence, professionals generally perform research in similar directions as in the past and retrace annually the same learning patterns. On the other hand, also event organizers have an inclination to put forward again similar activities or structures (Aramo-Immonen, Jussila and Huhtamäki, 2014). In light of this, extant literature proves how studies of learning put academic conferences among project-like activities, hence including them in the informal learning sub-category (Popper and Lipshitz, 1998; Prencipe and Tell, 2001). Therefore, such a form of learning is compliant with the requirements of the research context at hand, thus making it worthy of consideration for this work.

NON-FORMAL LEARNING

The majority of authors recognizes non-formal learning as a somehow organized process which is separated from the established formal system. Moreover, it is associated with well-defined learning objectives set in advance (Conner and Clawson, 2004; Conner and Clawson, 2004; Olaniyi, 2015). Therefore, it is a more structured form of learning than the informal one. In this case, the learning output may result either from intentional efforts of individuals or as accidental outcomes of organized learning activities. It may occur apart from of the existence of learning objectives and is a mid-way learning between informal and formal processes.

It has a flexible and operational nature (OECD, 2010) and is often related to adult learning with the explicit aim of developing socioeconomic and political status of individuals (Olaniyi, 2015). Hence, it is considered as a basic tool for ensuring sustainable development worldwide. Adult learning embraces a set of different learning processes whereby adults enrich their skills and knowledge background or gear them to support the development of the society (UNESCO, 1997). Life-wide educational systems should cover the whole lifespan of individuals and foster a systemic process of knowledge generation, accumulation and upgrading (Cropley, 1979). Moreover, they should ensure the achievement of self-fulfillment of individuals by combining all the educational contributions coming from informal, non-formal and formal learning (UNESCO, 1997). Hence, adult learning is composed of any educational effort organized without legal compulsion (Okedara, 1980) and apart from formal learning activities (Radcliffe and Colleta, 1989). Adult learners are endowed with a richer knowledge background, professionalism and experience, which affect learning patterns relevantly (Fahey and Prusak, 1998; Tuomi, 1999). In non-formal contexts, adults are often equated to teaching partners (Olaniyi, 2015).

Non-formal learning is one of the learning forms associated with the idea of education as a “cafeteria system” (Nyerere, 1979). Such a system should be able to serve greedy learners, irrespective of the purpose – e. g. intellectual, vocational or recreational (Olaniyi, 2015).

Ultimately, when dealing with the analysis of learning patterns among conference participants, non-formal activities prove not to be compliant with the requirements of project-based learning typical of academic events (Aramo-Immonen, Jussila and Huhtamäki, 2014; Popper and Lipshitz, 1998; Prencipe and Tell, 2001) and should not be taken into account for the empirical study proposed in this paper.

FORMAL LEARNING

Formal learning is the most structured process among those analyzed in this paper and it is geared to provide learners with new skills, competences and knowledge (OECD, 2010). It has an intentional nature and then, learning objectives are always set in advance. The learning environment is generally composed of a hierarchical structure whereby school-like programs are organized and delivered, starting from the primary school to the higher education and professional training courses (Conner, 2005).

It includes the organization of meetings, classes and e-learning activities in formal settings and event organizers and teachers are responsible for planning, steering and control of learning (Learning Guide, 2004).
It is important to point out how formal, informal and non-formal learning are mutually exclusive. Yet they are often combined within broader mixed-learning programs (Learning Guide, 2004). According to some studies about learning programs geared to employees in multinational companies in Norway and also in the U.S. - e. g. Boeing, Motorola, Ford and Siemens -, formal learning is often associated with informal activities (EDC, 1998; Skule and Reichborn, 2002). In particular, each hour of formal activity is associated with four hours of informal learning, thus proving the “80/20 rule” developed in (Raybould, 1995; Dobbs, 2000; Lloyd, 2000; Vader, 1998) and the “70/20/10 formula” proposed in (Eichinger and Lombardo, 2010).

Formal learning is also associated with the so-called “spending-outcome paradox” (Cross, 2003a). Companies invest most learning budgets in formal learning, despite it has the least impacts in terms of organizational learning (Cross, 2003b).
Other studies show how only a quarter of the total amount of skills and knowledge required to perform ordinary job tasks is acquired under formal learning activities (Grebow, 2002), while the rest comes from informal learning (Coomey and Stephenson, 2001; CapitalWorks, 2000).

Formal learning has not been taken into consideration for the empirical study of this paper due to the unorganized learning process occurring in academic conferences and the lack of well-defined learning objectives in advance. Moreover, a conference represents only a small amount of resources compared to the average annual research budget.

INTENTIONAL LEARNING

As in the case of all the already mentioned forms of learning – i. e. informal, non-formal and formal –, intentional and accidental learning are mutually exclusive. Intentional learning is defined as the set of activities of a learner whose explicit aim is that of achieving one or more pre-defined objectives (Conner, 2005). This theoretical definition is somehow compatible with informal, formal and non-formal learning. The theoretical definition of intentional learning represents an across-the-board concept having some points in common with the above mentioned learning processes (Fahey and Prusak, 1998; Tuomi, 1999; Alavi and Leidner, 2011; Twigg, 1994; OECD, 2010; Conner and Clawson, 2004; Conner, 2004; Olaniyi, 2015) – e. g. it depends on individuals learning needs and knowledge background, context, emerging technologies and society development.

The learning objective of developing new knowledge and skills, which may result potentially useful in accomplishing job tasks, lead learners to pay attention to a variety of resources linked to different forms of learning (Reischmann, 1986; Reischmann, 2004a; Reischmann, 2004b; Reischmann, 2011). In fact, learning outcomes generally arise from combined learning efforts, but still they come from an intentional approach represented by unifying learning objectives.
However, intentional learning can not be excluded from the empirical analysis of learning patterns of conference participants, due to its potential overlapping with the informal learning theory in some learning environments.

ACCIDENTAL LEARNING

Accidental (or incidental) learning is related to unexpected or not intended acquisition of knowledge or skills (Conner, 2005). The theoretical definition highlights how accidental learning should occur within everyday activities, otherwise extraordinary efforts may lead an apparently accidental learning process to fall under non-accidental learning.

Incidental learning is defined as an additional and unexpected learning, irrespective of whether the learning setting is informal, non-formal or formal. Some authors, among which UNESCO (2005), use the term “random learning”. It is an unintentional process which potentially happens in daily life, independently of place and time.

As in the case of informal learning, it is not organized, unstructured, but differs from informal learning, which is potentially intentional (UNESCO, 2005). It is often related to accomplishing job tasks (Kerka, 2000; Cahonn, 1995; Baskett, 1993; Leroux and Lafleur, 1995) and may imply significant social interactions (Baskett, 1993; Rogers, 1997; van den Tillaart, van den Berg and Warmerdam, 1998).

Accidental learning may also concern with consolidated concepts which have never been considered under a different perspective before. This learning phenomenon goes under the name of “critical personal experience”, which is a kind of unexpected learning by experience regarding existing concepts never seen under another standpoint (Reischmann, 1986; Reischmann, 2004a; Reischmann, 2004b; Reischmann, 2011).

Non-intentional learning is intended to be a “by-product” of teacher-learner or learner-learner interactions, performed job tasks, trial and error and other similar activities related to experience-based learning (Marsick and Watkins, 2001; Gruber, Mandl and Oberholzner, 2008).

As in the case of intentional learning, incidental learning shows complementary overlapping features with the informal learning theory, thus it should not be discarded when analyzing learning behaviors of conference participants.

METHODOLOGICAL SECTION

In this section the choice of the specific research methods is briefly discussed.

In a conference setting, knowledge generation, upgrading and sharing is always triggered by intentional efforts planned by conference organizers and arising from knowledge conflicts among participants (Engeström, 2000).
However, planned triggers may fail if conference participants do not perceive the need of developing or deepening hot knowledge topics. In this case, organizers may be partially responsible for the lack of intelligent behavior of academicians, which tend to follow the non-triggering context rules of the conference (Aramo-Immonen, Jussila and Huhtamäki, 2014).

Since the learning setting affects the way people participate in the conference activities, emerging technologies and tools may help involving conference attendees and make them acting intelligently. In particular, OSNs communities allow, or better, encourage attendees to express their perceptions and thoughts more than in a real-world context (Aramo-Immonen, Jussila and Huhtamäki, 2014).

In light of the above mentioned reflections, conference organizers started leveraging OSNs communities and using social media tools and technologies. The main aim is that of fostering knowledge generation, upgrading and sharing and encouraging informal learning in project work contexts such as academic conferences (Jussila, Huhtamäki, Kärkkäinen and Still, 2013). Social media activities may also bring forward the triggering efforts, before the starting of the conference. Twitter accounts and Facebook communities, among others, allow organizers to address in advance hot knowledge topics to be further deepened during informal learning process, thus shaping the whole learning path of the conference community.

RESEARCH METHOD

Informal learning interactions among conference participants can be studied empirically by extracting data from ad hoc OSNs communities, thus assuming the existence of case studies endowed with data about professional networks (Card, Mackinlay and Shneiderman, 1999; Benbasat, Goldstein and Mead, 1987). In particular, this work is based on the visualization and analysis (Ware, 2004) of a conference-related Facebook community - i. e. RSAC 2015 - during 40 days of online communication, before the starting of the academic event. The adopted research method is compliant with the data science research approach (Hey, Tansley and Tolle, 2009) and the use of data collection and extraction methods and tools from online sources (Davenport, 2014).

CONTEXT-DEPENDENT METHODOLOGICAL ISSUES RELATED TO THE SPECIFIC CASE STUDY

The chosen case study concerns the organization of the upcoming RSA Conference 2015 (hereinafter RSAC) to be held at the Moscone Center in San Francisco (U.S.A.), 20-24 April 2015. The informal learning setting is triggered by organizers and participants on the Facebook community "RSA Conference" (Facebook ID 70343649637). The main hashtag about the conference on Facebook is #RSAC. It is an annually organized conference gathering luminaries, experts, companies and scholars interested in the information security agenda worldwide. The board organizes also other annual industry events in the U.S., Europe and Asia. RSA Conference is developed annually around the emerging and most important IT security's issues and aims at training and establishing connections among participants worldwide. Even if social media collect only a quota of overall informal learning interactions, the RSAC is attended mostly by connected people willing to share knowledge and learn new things about IT security. Therefore, the community object of the study – which counts on more than 8,000 users - and the chosen data collection and extraction method are able to ensure a huge and representative quantity of data to be analyzed.

DATA COLLECTION AND EXTRACTION

Data have been collected and extracted through the NetVizz app v1.05 (for pages and groups only) (Rieder, 2013) by logging in into Facebook with a generic user account. NetVizz extracts data from Facebook for research purposes and it is written and maintained by Professor Bernhard Rieder. NetVizz data are reliable and specifically geared to research activities. Data are compatible with most network analysis softwares (Rieder, 2013) such as Gephi (Bastian, Heymann and Jacomy, 2009), which was chosen as the open source software for data visualization and analysis. Gephi was chosen due to its full compliance with the key features of any exploration tool – e. g. the quality and quantity of implemented algorithms and filters, personalization options, flexibility, scalability, WYSIWYG and user-friendly software. Data and information reported in this section about the NetVizz query ensure transparency and reproducibility of the empirical study proposed in this paper.

RESULTS AND FINDINGS

Gephi counts 900 nodes and 1,984 directed edges in the resulting graph. First, authors measured graph density in order to understand how close the graph is to being complete. Graph density of 0.002 shows a lack of connection among the more than 8,000 users interested in the social media activity of the conference. This may reveal a failure of event organizers while attempting to trigger informal learning process on social media. Nonetheless, data related to detailed characteristics of users interactions became recently unavailable since Facebook changed its privacy policy, as detailed in Section V.

In light of this missing data, authors started seeking possible strongly and weakly connected components in the network (Tarjan, 1972). Weakly connected components are 20, while strongly connected ones are 900. Graph density and connected components analysis may suggest that many sub-networks have a strong inclination to stand separate from each other, though most of them show strongly tied intra-component relationships. This may indicate that informal learning interactions on social media tend to be restricted to well-defined sub-networks. Yet available data do not allow to understand whether such sub-networks are "virtual copies" of real-world communities of academicians or represent alternative groups of Facebook users attending the same event. However, in order to further prove the existence of sub-communities in this network, authors analyze modularity that is the community detection algorithm in order to identify the real formation of sub-communities, which

could possibly overlap some connected components. Such an analysis is conducted by adopting standard parameters and resolution values (Blondel, Guillaume, Lambiotte and Lefebvre, 2008; Lambiotte, Delvenne and Barahona, 2009). Results tend to confirm the overlapping between weakly connected components analysis and community detection, since the algorithms count 20 weakly connected components and 29 sub-communities (modularity values of 0.462).

The number of shortest paths is 73, the network diameter is 2 and the average path length is 1.1232876712328768.

Ultimately the overall analysis of the network, including also HITS (Brandes, 2001; Kleinberg, 1999) – i. e. Hubs and Authority –, PageRank distribution (Brin and Page, 1998) and centrality measures (Brandes, 2001; Kleinberg, 1999) – i. e. Betweenness, Closeness and Eccentricity –, shows that there is a number of disconnected components and a high degree of connectedness within most components.

DISCUSSION AND CONCLUSIONS

Limitations to this work are mainly related to the difficult identification of hot knowledge topics, since the NetVizz app and, hence, Gephi are not allowed to extract and manage such kind of data from Facebook. However, the research design proved to be useful and reliable since it provides field scholars with the opportunity of deepening specific users interactions characteristics and, thus of identifying in advance possible sub-networks of professionals having research interests in common. This way, event managers could use such data in order to increase attendees satisfaction by means of organizing and facilitating during the conference further (informal) meetings among the members of each sub-network.
Moreover, the adopted software solutions can identify non topic-related social media streams and conference managers may further benefit from the addition of a semantic engine layer, which could be helpful for conducting future research works in the field of education.

In light of this, the approach proposed in this work proved to get round the exogenous obstacle, that is the changes in external processes concerning Facebook privacy policy. Ultimately, the research methodology showed to strengthen its degree of reliability, since it holds true also when the expected quality of available data changes.

By a research method standpoint, this work deepens an emerging methodological approach consisting of an exploratory study in the field of informal learning conducted by using visual analysis of small data gathered from online sources. Moreover, it represents one of the possible applications of emerging studies of informal learning in OSNs communities. It helps also filling an existing gap in literature, since such a kind of works have never been realized before, and provides methods for detecting learning patterns from pre-events social media activities. In light of this, it may represent a solid basis for the development of future researches in this field and for their application to other areas. Finally, other studies may build on it in order to develop detection tools and methods for conference hot topics prediction. Future research efforts may also lead to better define in advance potential sub-communities of learners attending informal events.

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INNOVATION AS PART OF THE HUNGARIAN HIGHER EDUCATION- DUAL TRAINING SYSTEM

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The Kecskemét College with the process of forming the studies into a dual system type wishes to facilitate the transfer of knowledge fitting to the needs of the market and the expectations from industry, education and society. The dual training model in higher education is a system during which the students complete half of their practical training within their studies at a given company. With this innovative system a practice-oriented training model has appeared in Hungarian higher education.
Keywords: dual type education,innovation, transfer of knowledge

INNOVATION OF EDUCATIONAL PROCESS AS A FACTOR OF ENHANCING COMPETITIVENESS

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ABSTRACT
The article focuses on the issues of higher education and its priorities. It defines the factors affecting competitiveness of universities. The study contains findings of several conducted primary surveys, in both the target group of commercial entities and university students. The study puts into context readiness of graduates for their start in practical business, requirements for the practice with regard to professional and personal qualities of graduates, and the current issues of graduates in the managements of companies and organizations. The objective of the study is to analyze the current impact of the educational process quality in the criterion of preparing students for their start in the world of business and practice, and the requirements on university graduates. The output of the study is an evaluation model measuring the efficiency of innovative features in teaching and leading to enhancing competitiveness of educational institutions, to brand building of educational institutions, in the current competitive environment and in relation to the decline of the demographic curve seeming to become the strategically fundamental task of universities.

INTRODUCTION
Current higher education is undergoing changes reflecting in the social, economical and political development of the society. "The long-term intention of educational and scientific, research, development and innovative, artistic and other creative activities of higher education institutions for the period 2016 – 2020" understood primarily as:

- the added value for each student, ie. a comprehensive set of knowledge, skills and competences of a graduate which they would not be able to acquire, if they did not study at university,
- the relevancy of offered education, ie. the level in which the acquired study results correspond to the needs of the life in 21st century,
- the openness of a universitiy towards the internal and external environment and the ability to reflect learning needs of every student regardless of their background and with the full use of their potential,
- the compliance of education with academic values and the ability of a university to bring up individual, independent and self-confident individuals who think critically about the society and who actively contribute to its development (Marketing, Science and Inspirations, 2012)

University preparation of students for the practical business life, competitiveness of graduates, cooperation with commercial entities is thus "the mantra" of modern schooling and of modern economy. If the cooperation barriers are overcome and both sides enter into business relations, then these relations may be very effective (Juříková, 2014).

METHODOLOGY
The study presents the results of several primary surveys that were conducted at the Faculty of Multimedia Communications at Tomas Bata University in Zlín. The aim of the surveys was to find out what the real conditions and possibilities are for the cooperation of the university and commercial entities. A questionnaire survey was conducted which investigated the barriers and options for the cooperation of the university and companies in the Zlín Region. 105 companies (from different professions and of different sizes) were addressed within the survey; the survey was a questionnaire face to face survey having been carried out in the period of November 2012 to June 2013. The main objective of the questionnaire survey was to analyze the possibilities for cooperation between companies and the university, to disclose any obstacles and the potential for streamlining or enhancing the cooperation and communication.

RESEARCH OUTPUTS

The marketing research among commercial entities showed the composition of companies according to the individual professions in the region. The most respondents were from the rubber and plastics industry (16 % of the respondents), from the metal industry (13 % of the respondents) and from the electrical industry (more than 11 % of the respondents). The most frequent type of cooperation is between a company and one particular university fakulty or department (26 % of the companies). In 25 % cooperation with two faculties/departments was recorded. 26 % of the companies find their motivation for cooperation with the university in solutions of their research needs, for 14 % of the companies it is the area of student internships, assigning bachelor's or master's theses. 5 % of the responded companies are motivated for cooperation if they are addressed directly by the university or if they are in a need of solving their own employability policy. Other reasons for cooperation include social responsibility, cooperation within a cluster, regional proximity and visibility of the company.

Most companies cooperate with the university in the field of solving of their own needs by means of master's and dissertation theses (43 %), in the field of student support by means of mentoring, internships, scholarships (35 %) and as lecturers within lectures and workshops (15 %). 57 % of the companies would like to cooperate on projects receiving national or international grants and in the area of education of employees, 51 % of the companies would like to utilize expert advice in their own project-solving issues, and 42 % of the companies would like to cooperate with the university on measuring and testing of their products in the university laboratories. On the contrary, 70% of the companies have no interest in cooperation in the area of intellectual property protection, commercionalization of research findings (67 %) and of memberships in industrial, scientific and professional councils (67 % of the respondents). The following chart shows other areas of cooperation and the interest of the companies in the area of future cooperation.

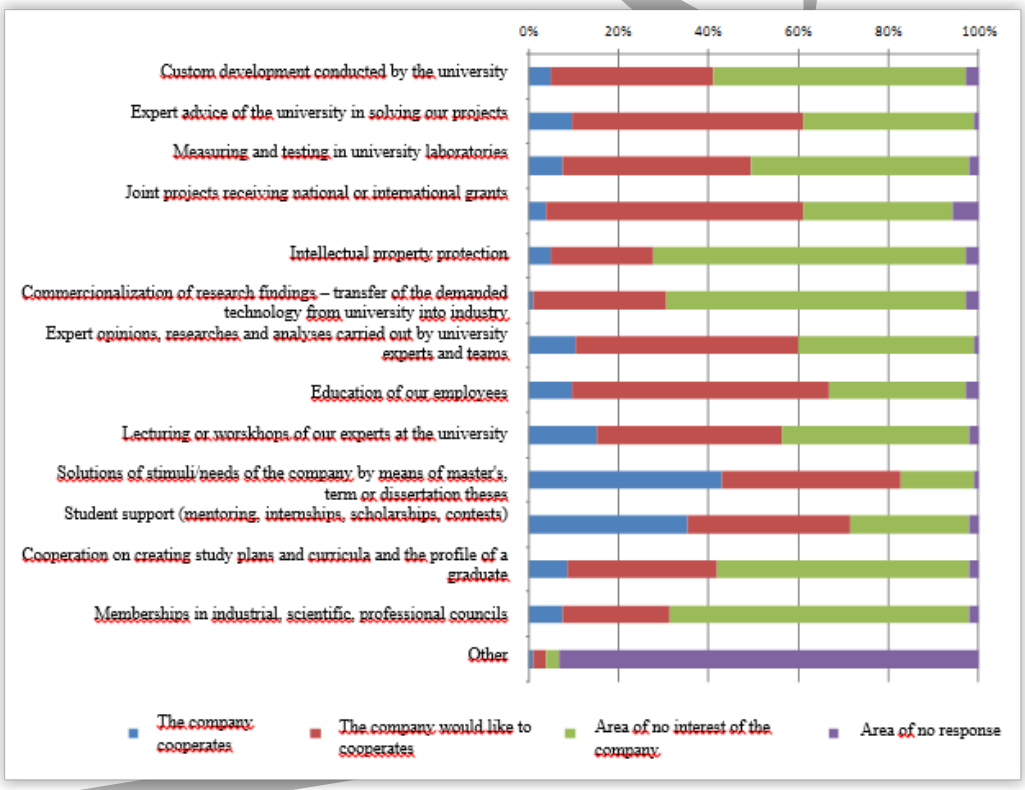

Table 1: Possible areas of cooperation of companies with the university (n=105)

The research results also showed the interest in the area in which the companies would like to start their cooperation with the university. Most of the surveyed companies have their interest in cooperation in marketing and management (59 %), marketing communicatinos (54 %) and in manufacturing engineering (44 % of the respondents).

In the current cooperation of companies and universities there are also barriers. 20 % of the companies responded that in cooperation of the company and the university there is an obstacle especially in the lack of a contact person on the side of the university who would be able and willing to initiate a cooperation with the company. On the website of the university it is often rather difficult to find a specific person suitable for cooperation. The companies experience a cooperation barrier also in the unavailability or incompleteness of information from the side of the university. Most companies (90% of the respondents) would like to be informed

on the current cooperation possibilities via e-mail, only a low priority was expressed by the companies in printed bulletins, leaflets and social networks.

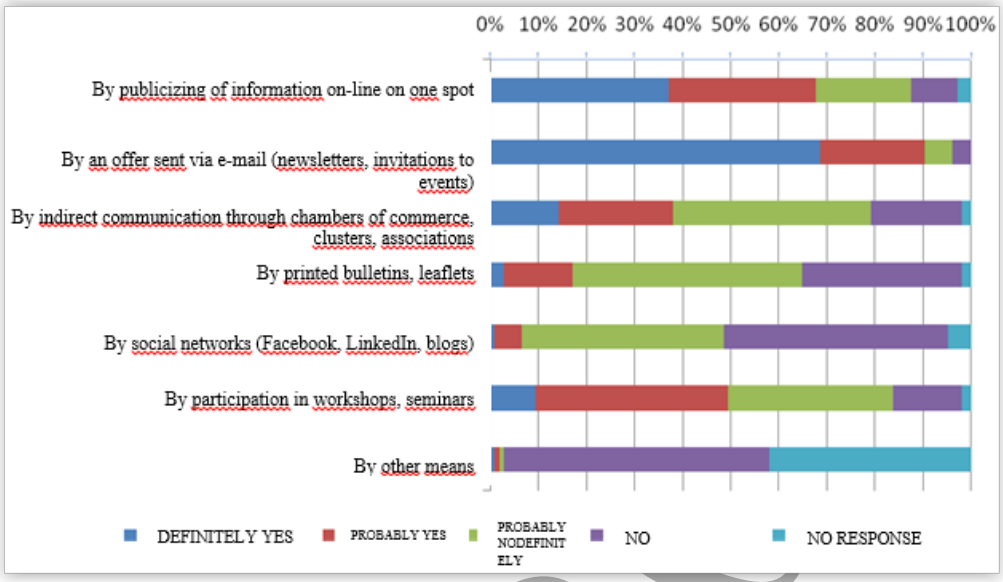

Table2: Preferred means of acquiring information on the possibilities of cooperation with the university (n=105)

The research yielded some interesting results. On both sides, ie. in the companies as well as on the side of the university, there exists some interest in cooperation. Both parties realize the significance and benefit of mutual cooperation. The most frequent cooperation barriers on the side of companies is the unawaraness of a particular person who would be in charge of mutual cooperation, companies and businesses do not know who they should address. Another barrier is the unavailable or incomplete information on the offer of cooperation, of particular projects from the university. The companies are also afraid of the tedious administrative tasks related to starting cooperation, which becomes a frequent barrier on both sides. From the university's perspective, a communication barrier are above all the administrative demands as well as the time demands for those who cooperate on a specific project. A barrier may also be seen in an uncertain financial reward for the cooperation, which is not a part of academic performance. The greatest cooperation potential is seen by the companies in marketing and marketing communications and industrial engineering.

However, there is not one ideal cooperation model. The people and their will to cooperate, their readiness, communication openness and straightforward approach are the key. People on both sides, on the side of a company as well as on the side of the university. In spite of the fact that starting cooperation may sometimes be a lengthy and demanding process, it is worth it. Trying to understand the needs of the other party, to respect their diversity and at the same time to be searching for solutions convenient for all, that is often the highest value of cooperation.

The task of universities is to educate future professionals in their field of interest, to provide students with the maximum theoretical knowledge and to interlink this knowledge with practical skills so that they would be ready for the real world of business and practice. The inclusion of workshops led by experts from practice directly into schooling is an effective way of the cohesion of the academic environment theoretical base with the practical focus of professionals from the real world of business.

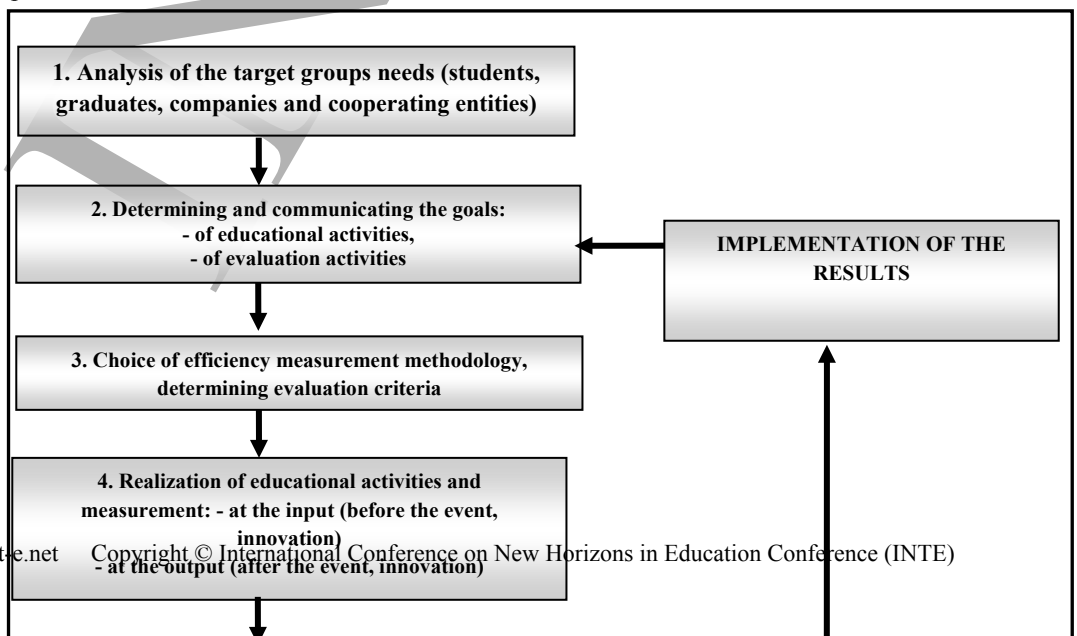

Table 3: The model of management of innovational educational activities and feedback

An advantage of this model is a high added value for students who have the option to complement their theoretical knowledge with practical skills, who have an opportunity to come to understand the particular field and profession in practice, and they will thus obtain an overview of the current trends in the field. Workshops become an opportunity to gain a comprehensive and real overview of the field and thus fulfill the requirements for education of experts in the spirit of principles of economical knowledge (Jurášková, 2011).

INNOVATION AND EVALUATION ACTIVITIES MODEL FOR INNOVATION OF THE EDUCATIONAL PROCESS

The environment of educational institutions is in many aspects comparable to corporate practice. Projects contributing to the improvement of the knowledgeable society, ie. projects with the aim to educate, should as well as in the corporate environment be subject to feedback process management, ie. the measurement of efficiency. We can learn from the theory of schooling and teaching management about the assessed criteria or indicators, research methodology, proven business practices will further complement the procedural framework of the discussed issue. After taking the practical approach to university learning into account, the following scheme of the cohesion and succession of sub-educational and evaluation activities may be created (Juříková, 2010).

The target groups of an educational process may be analyzed on the basis of the study of the secondary literature data such as of strategic documentation of institutions or professions (fields in which education will be further based), sociodemographic statistics, internal statistics (eg. of the number of applicants and graduates of a study program in relation to the market environment), prediction of experts or also of results of ad hoc conducted surveys or long-term monitorings finding the extent and possibilities for the satisfaction of educational needs (Šula, Banyár, 2014). In the case of primary "terrain" surveys, the questionnaire survey method is most frequently selected when potential target groups and cooperating subjects are addressed with the request to fill in questions relating to the focus of the project. The questionnaire survey often becomes a communication tool causing interest of the concerned parties in planned activities. By processing the analysis of educational needs, the success of education becomes significantly impacted already at the stage of choice of topics, field or forms of an educational activity. The evaluation process then allows to enhance the efficiency of implementation of the innovative features into education, allows to respond to the current situation within the particular field, the needs of the practice and at the same time immensely increases the quality of the educational process (Šramová, 2013). Within a complex perception, this is an important feature for enhancing competitiveness of an educational institution.

CONCLUSION

Like other areas of the society, also education undergoes changes that it must respond to. Universities at present do not have an easy position, they are forced to implement marketing principles for their school management, to build the university brand and perceive all students as the university's clients. At the same time they are forced to ensure a high-quality education, implement creative and innovative features into their teaching, but also to promote outputs of their creative and scientific activities by means of communication tools. To ensure meeting educational and creative goals, they must utilize opportunities of the change and transform, innovate their activities. It is necessary to focus on creating values for students, to respond to the requirements of the practical business world, to search for possibilities and opportunities for cooperation with the world of practice, to respect the demographical development and to continuously enhance competitiveness. In terms of marketing communication to connect the internal and external image of an educational institution, to involve students, graduates as well as employees into the image building process and to motivate them to a responsible approach towards the university brand they represent. For efficient managerial decisions it is necessary to measure the results of educational and creative activities, to use analytical tools and relevant measurements to improve decision-making processes within the framework of the goals and objectives of a university. To adapt the educational process to ever-changing conditions of the market, to continuously expand abilities and skills of people through education, to use modern technology and also personal growth which is often a precondition for a responsible approach to life and business.

In accordance with the Long-term intention of a university for 2016 – 2020, the universities may be recommended with the following:

- Except for the traditional academic skills to put emphasis also on language skills and other transferable skills of graduates – eg. the ability to efficient communication, problem-solving skills and to be creative, learn independently, work in a team, manage modern technology or to communicate in a foreign language.
- To involve more the relevant parties (from among the current and former students, representatives of the practical business, users of the research and creative results and findings among the general public) into the evaluation and improvements of own activities. Evaluation processes should lead to the identification of problematic issues to which further action will be directed.
- To respond with its educational, research, development, creative and other activities to the local, regional, national and international conditions and isssues.

Monitoring of the current trends and developments of the particular field, interconnection of theoretical knowledge with their practical applications, innovation of teaching through workshops, all this becomes an ultimate concept enhancing the university educational process. The role of experts from the practical life in this concept is irreplaceable. Through them students are introduced with the contemporary options for utilization of the individual marketing strategy forms, marketing communication tools in practice, their interest in the field is enhanced as well as creative processes of the teaching. Students thus become better prepared to face current issues of the field at various levels of management, they are prepared to efficiently utilize their competences, knowledge and skills, to measure their efficiency in application of thereof, to control processes by means of project management and to enhance the development of their own skills and competences in the long term.

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INNOVATION, KNOWLEDGE AND MULTICULTURAL MANAGEMENT INFLUENCE ON INTELLECTUAL CAPITAL IN INDUSTRIAL ENTERPRISES

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ABSTRACT
The article is dedicated to the continual research in the area of knowledge management and intellectual capital in Slovak industrial enterprises during the period 2005-2012. The first stage of the research was to design the research framework, based on the analysis of scholarly works, consisted of the five main areas: strategy, culture, structure, technologies and knowledge assets. This framework was lately applied in the quantitative research of the knowledge management implementation in industrial enterprises in 2007 and was repeated in 2012. Extension of the research from 2007 was carried out in 2011 in the context of research focused on knowledge management maturity in Slovak industrial enterprises. This quantitative research clearly illustrates positive tendencies for the incorporation of the knowledge management strategy into the corporate strategy, implementation of the standards for knowledge management as well as the change in the attitude of the top management to knowledge management. Involvement of companies in the knowledge management initiatives also illustrates how important is the knowledge possessed by the employees. This aspect of knowledge management, defined as knowledge continuity management was analysed in the survey carried out in 2012. The research was focused on the employees' adaptation process as well as on the release process. Differences have between identified in the case of the preferences of the knowledge assets during the employee release process between the management levels. In this survey enablers and barriers of the knowledge sharing process have also been analysed. Thus another aspect of knowledge management was analysed, defined as the influence of the multicultural/intercultural environment, specifically the influence upon innovation and competitiveness.

Keywords: knowledge management, knowledge management maturity, knowledge management continuity, multicultural/intercultural environment, innovation, competitiveness.

INTRODUCTION
The article is based on knowledge management research in Slovak industrial enterprises that was conducted during the period 2005 to 2014 at the Institute of Industrial engineering and management. The first research was an informative study, inspired by (Hujňák and Hujňák, 2002), which focused on the analysis of knowledge management maturity in Slovak industrial enterprises. The results of the research show that there is a very low awareness in industrial enterprises of the possible knowledge management influence on their innovation potential and competitiveness. The obtained results correspond with the innovation statistics whereby during the period 1999-2004 only about 25% of industrial enterprises declared to have any innovation activity (Figure 1).

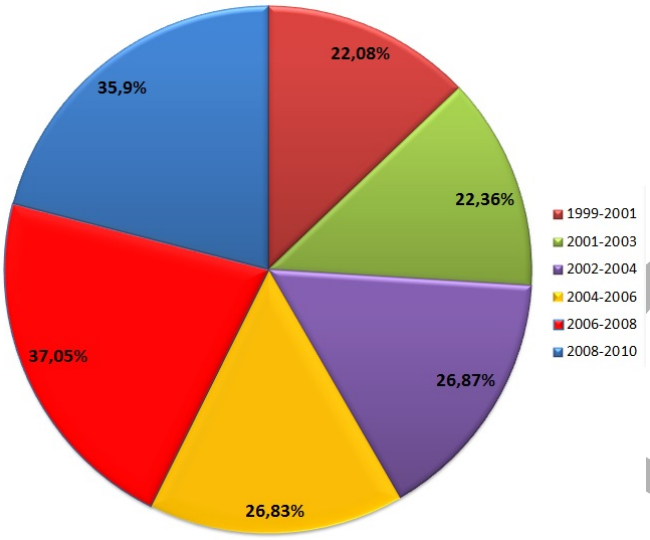

Figure 1: Enterprises with innovation activity: share of all number of enterprises in %, (Slovstat, 2014)

The concluded results subsequently provided an impulse for the further research directions in the area of knowledge management in industrial enterprises.

RESEARCH FRAMEWORK

For the purpose of the research framework design, the authors analysed knowledge management literature from different disciplines to identify the core concepts and perspectives. In this section, some key knowledge management concepts and their implications upon the applied research framework will be discussed.

As a first step in the research framework design, the Rubenstein-Montano et al. (2001) division of knowledge management frameworks was used comprising of:

- Prescriptive
- Descriptive
- Hybrids.

According to Rubenstein-Montano et al. (2001) prescriptive frameworks are often task-based and neglect other aspects of knowledge management. Hence, they do not provide a comprehensive, holistic approach to knowledge management. The frameworks include a set of activities for knowledge management where the emphasis is on the knowledge cycle. That is, they address how knowledge flows and is manipulated in the organization without consideration of factors that influence the knowledge cycle.

On the other hand, descriptive and hybrid frameworks acknowledge non-task-oriented aspects of knowledge management such as culture, linking knowledge management to strategic business objectives, and the need to include feedback loops for responding to changes in the knowledge management environment. These feedback loops address issues of adaptability and responsiveness for enhanced outcomes of knowledge management efforts (Rubenstein-Montano et al. 2001).

For the purpose of the research descriptive and hybrid frameworks were studied starting with the Nonaka and Takeuchi (1995) SECI model and also its modification described by Nonaka et al. (2000).

From this concept the structure of the knowledge assets approach was adopted (Figure 2).

Figure 2: Four categories of knowledge assets. Adapted from: (Nonaka et al, 2000)

The second concept of the knowledge management framework that was incorporated within the research framework was the BSI PAS 2001 (Kelleher and Levene, 2001) pillars of knowledge management comprised of:

- Culture
- Structure
- Technology.

Whereas for culture the framework is comprised of:

- Excellence (Innovation, Learning, Agility)
- Teamwork (Relationship, Respect, Sharing)
- Leadership (Courage, Vision, Integrity).

As for the technology framework the spectrum of knowledge management applications (Binney, 2001) was adopted, comprised of:

- Transactional
- Analytical
- Asset management
- Process based
- Developmental
- Innovation/creation knowledge management.

For the purpose of the research it was also important to analyse the perception of knowledge management by the firm top management transferred to the vision, mission and strategy. For this purpose the M. J Earl (2001) definition of knowledge management schools was applied:

- Technocratic
- Economic
- Behavioural.

The philosophy of the technocratic school is focused on codification, connectivity and capability, whereas the economic school focuses on the commercialization, and behaviour upon the connectivity, contactivity and consciousness (Earl, 2001).

Based on the above described concepts and frameworks the first research framework for the analysis of knowledge management implementation in Slovak industrial enterprises was adapted (Figure 3).

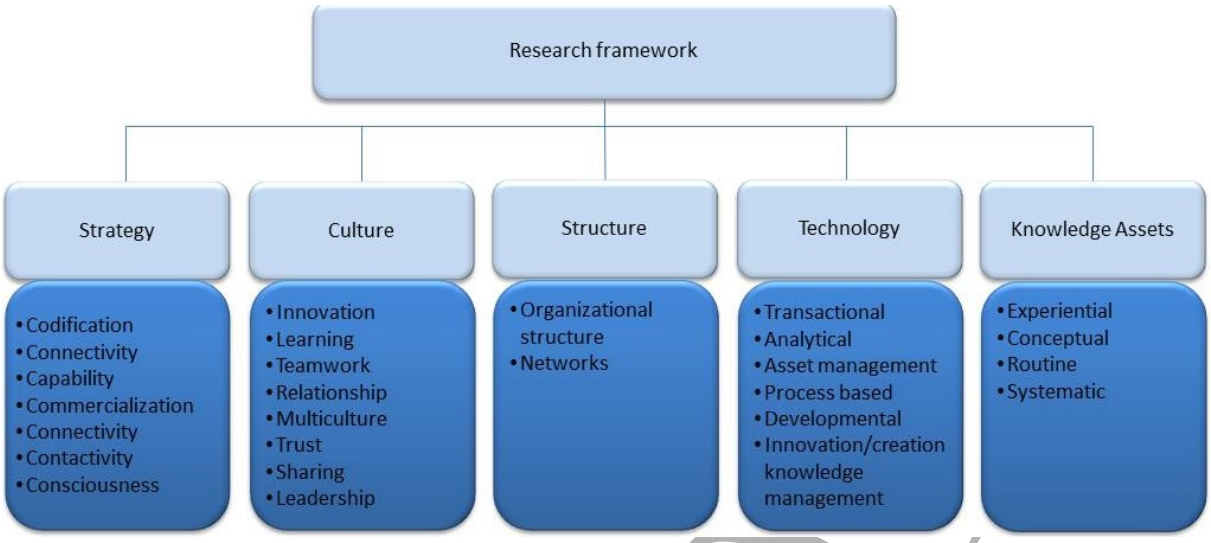

Figure 3: Research framework for the analysis of knowledge management implementation in Slovak industrial enterprises

This framework was subsequently used for the design of the questionnaires for the quantitative analysis.

QUANTITATIVE RESEARCH OF KNOWLEDGE MANAGEMENT IN SLOVAK INDUSTRIAL ENTERPRISES (2007, 2012)

The framework for the research of knowledge management in Slovak industrial enterprises was for the first time applied in 2007 and in the revised form in 2012. In both cases the conducted questionnaire were divided into 6 parts:

- Common questions
- Innovation
- Knowledge management
- Learning
- Human resources
- ICT.

In 2007, because of the range of the questions (92 multiple choice questions), an interview was used as the preferred method of the questioning. Overall 39 questionnaires for the further quantitative analysis were utilised. In 2012, after the revision of the questionnaire (a decrease in the number of the questions to 27), and an unsuccessful effort to conduct the interviews in the same enterprises as in 2007, the method of the questioning was changed to an online-administered survey. For the quantitative analysis 36 questionnaires were used. Due to differences in the questioning method, as well as in the size of the sample, the results of the comparative analysis have been regarded only as informative, nevertheless some tendencies have been clearly recognised (Table 1).

Table 1: Survey on knowledge management in Slovak industrial enterprises 2007 and 2012

Negative tendencies		
	2007	2012
Moderate profit	61%	35%
Moderate loss	5%	18%
Investment in the technology innovation	37%	21%
Positive tendencies		
KM strategy	26%	45%
ICT innovation	20%	37%
Process innovation	21%	32%

A decrease of profit levels and an increase of the financial loss in industrial enterprises can be assumed as the impact of the global financial crisis during 2007 and 2008. As a positive tendency during the crisis, the authors considered a higher level of perceived knowledge management as a benefit for the organization competitiveness.

This was reflected in the increased number of companies adopting a knowledge management strategy and the investment in innovation which was directly linked with the knowledge assets.

QUANTITATIVE RESEARCH OF KNOWLEDGE MANAGEMENT MATURITY IN SLOVAK INDUSTRIAL ENTERPRISES (2009-2011)

Results of the research from 2007 have shown that the industrial enterprises have or are starting initiatives and activities towards implementing knowledge management. One of the goals of the dissertation thesis of P. Gabriš (2011), under the supervision of J. Šujanová, was to identify and map existing knowledge management activities in Slovak industrial enterprises and compare them with the existing knowledge management maturity models. As a basis the following models were used:

- CMM (SEI, 2002)
- KMMM (K3M) (Ehms and Langen, 2002)
- KMCA (Lin, 2007)
- Lee and Kim model (Lee and Kim, 2002)
- DM-CMM (Kaner and Karni, 2004).

Shown in Table 2 is an overview of the selected models and their scope.

Table 2: Knowledge management maturity models

Model	Scope	Number of levels
CMM (SEI, 2002)	• Process mapping • Process management • Related technological, knowledge and organizational tools	6
KMMM (K3M) (Ehms and Langen, 2002)	• Knowledge processes • Knowledge workers • Knowledge ICT • Vision and strategy • Knowledge culture • Continual improvement	5
KMCA (Lin, 2007)	• Knowledge culture • Knowledge processes • Human resources • Knowledge ICT	5
Lee and Kim model (Lee and Kim, 2002)	• Knowledge processes • Innovation • Human resources • Knowledge content • Knowledge ICT	3
DM-CMM (Kaner and Karni, 2004)	• Information and knowledge environment • Multidimensional approach	5

To ensure continuity with the existing research framework the utilised questionnaire placed the emphasis on:

- Support and orientation of the knowledge management strategy
- Knowledge management aspects in the organizational culture
- Innovation activities
- Knowledge and information accessibility
- Knowledge assets and their utilisation
- Knowledge management processes and tools
- Knowledge management influence on the competitiveness.

For the analysis, questionnaires from 83 industrial enterprises were utilised and results were published in Šujanová et al. (2012). In this survey, 35% of the companies declared that they have a strategy and formal rules for knowledge management (the level of the strategy implementation was recognized as very high in 5.38% of cases and high in 22% of cases). Comparing these results with the research conducted in 2007, a higher percentage was evident, whereas in 2007 it was only 26% of companies, and less than in 2012 with 45% (Figure 4).

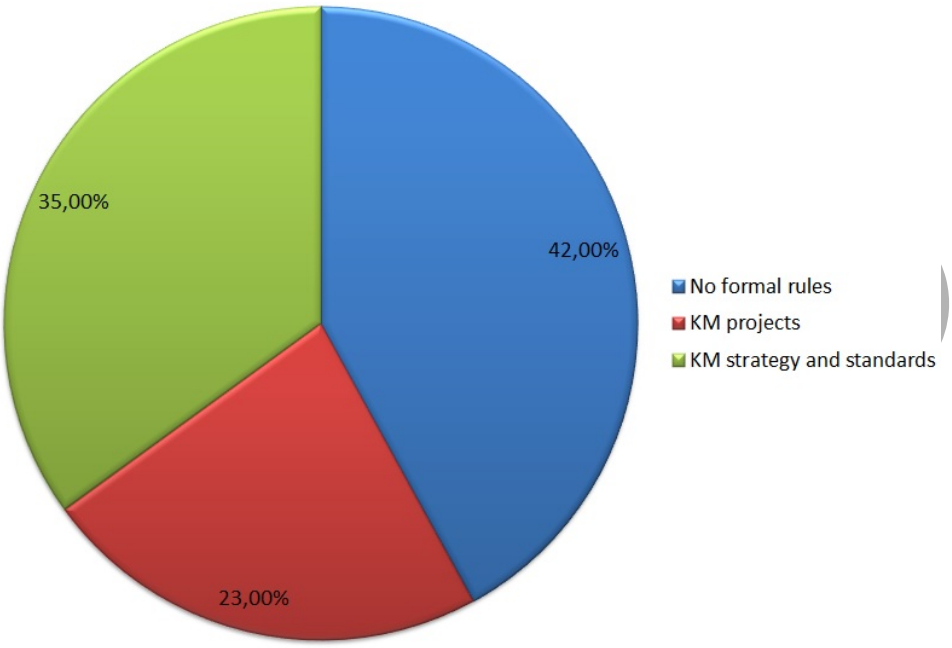

Figure 4: Knowledge management initiatives in Slovak industrial enterprises (year 2010)

In this survey, a high number of companies also stated having innovation activities whereas only 18.28% of them had no innovation activity (Figure 5).

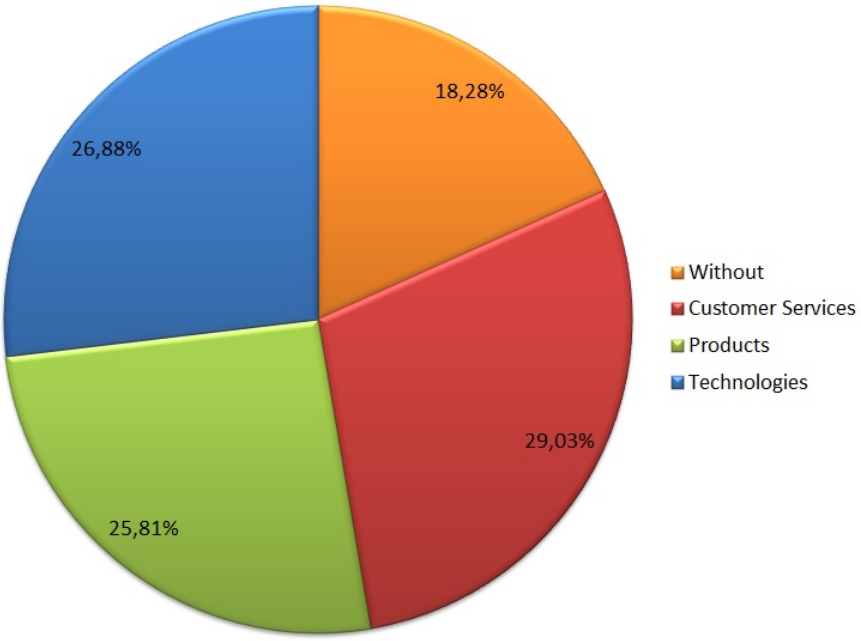

Figure 5: Innovation activities of Slovak industrial enterprises in 2010

The tendency towards more knowledge intensive innovation within customer services and products can also be observed.

QUANTITATIVE RESEARCH OF KNOWLEDGE ASSET MANAGEMENT AND HUMAN RESOURCES IN SLOVAK INDUSTRIAL ENTERPRISES (2010-2012)

An extension of the research focusing on the knowledge management maturity process was research studying the knowledge assets management from the human resources perspective with an emphasis on the knowledge management continuity. This research was conducted as a dissertation thesis by M. Bielik Marettová (2012), supervised by J. Šujanová. An organization can apply different approaches to knowledge asset management, whereas knowledge continuity management incorporates the knowledge transfer either in one generation of

employees or between different generations of employees. In the case of knowledge continuity management, the human resource department plays a crucial role (Beazley et al. 2002). In this quantitative research, 102 Slovak industrial enterprises participated. Results from the research have been published in Bielik Marettová et al. (2012). Besides the areas described in the research framework for knowledge management in Slovak industrial enterprises, the research was concentrated on the specific areas of knowledge including:

- Customer knowledge
- Product and services knowledge
- Process knowledge
- Competitor knowledge
- Professional knowledge.

The other areas of the research were the styles of organizational culture and the application of ICT in knowledge processes.

For knowledge continuity management it is important to define formal rules for the knowledge storage and transfer during the process of employee release. Information and communication technologies have been recognized in this research as important tools for knowledge management. Companies have different preferences in their selected ICT tools for knowledge processes support (Figure 7).

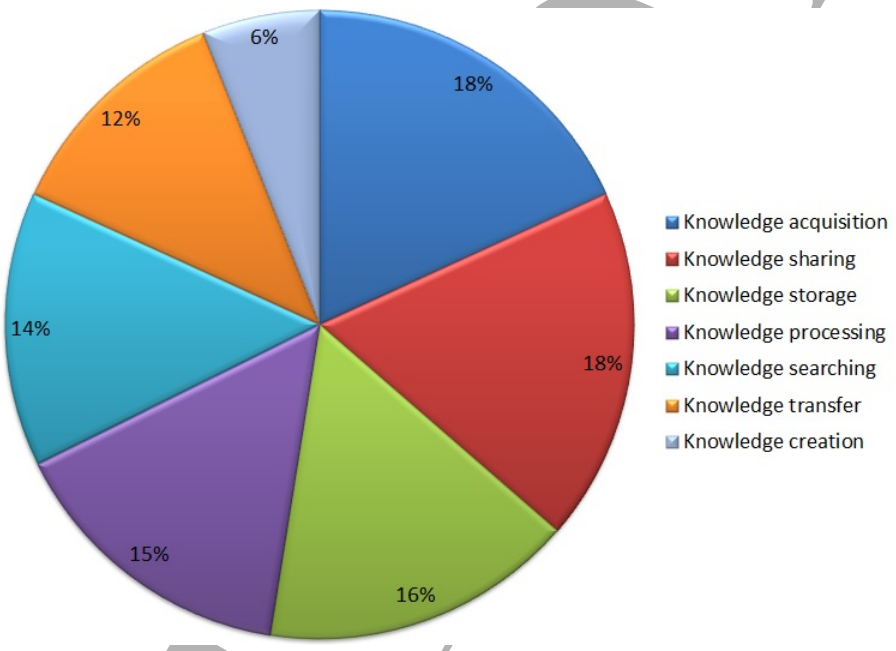

Figure 7: ICT tools application in knowledge processes

From Figure 7, it is evident that the preferences for the application of ICT tools in knowledge acquisition, sharing, storage, processing, searching and transfer are around 15% (±3%), however for knowledge creation only 6%.

Distinctions have been identified also in the knowledge transfer during the employee release process from different levels of the management. For the top management the emphasis is placed on the customer knowledge (24%), for the middle management it is the product/service knowledge (24%), process knowledge (25%) and professional knowledge (23%). In the case of lower management it is process knowledge (57%) and professional knowledge (52%) (Figure 8). Another interesting conclusion is that the knowledge of the lower management (about 50%) is more important than the knowledge possessed by the top and middle management (about 25%).

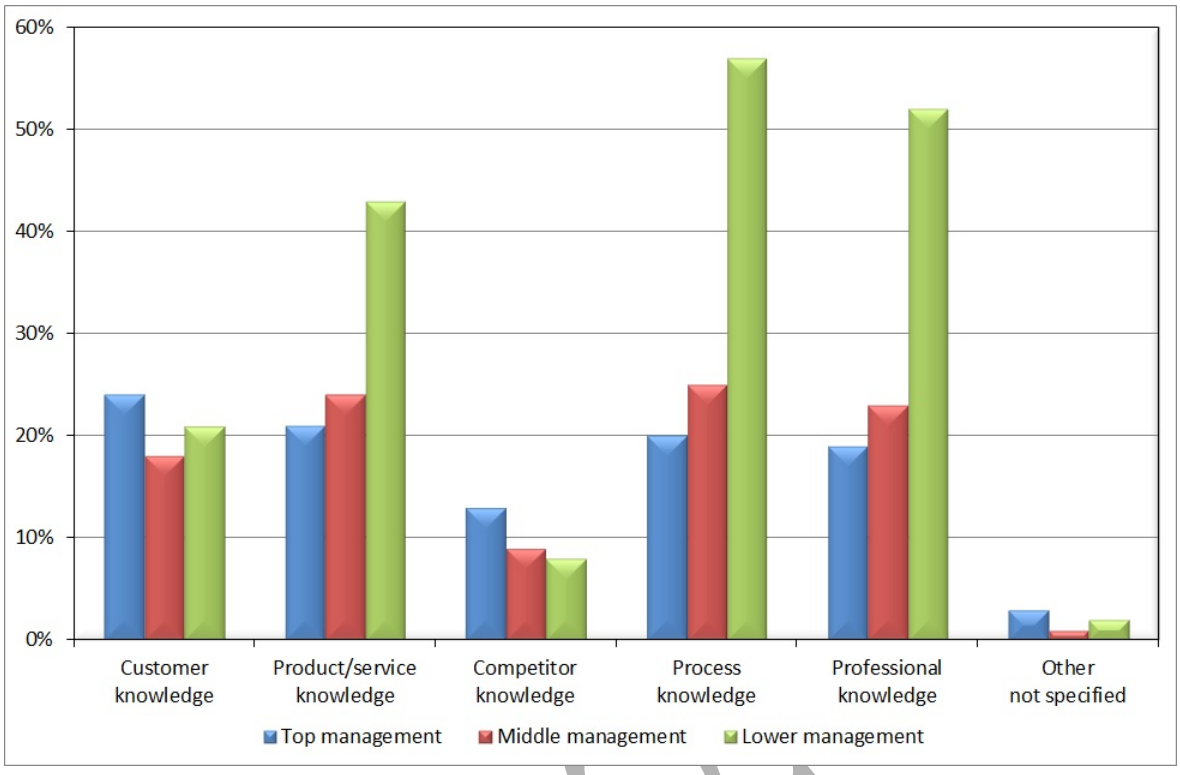

Figure 8: Preferences of the knowledge assets during the employee release process for management levels

The research also identified the problems related with organizational culture, specifically knowledge sharing barriers. As the biggest barrier, the reluctance of employees to share knowledge (42%) was indicated, however 30% of the respondents identified the problem of knowledge measurement, and 17% have identified a problem in the ICT architecture (Figure 9).

In contrast to knowledge sharing barriers, the knowledge sharing enablers were also identified as the collaboration tools (team work, informal groups and networks) and were recognised as important by 59% of respondents (Figure 10).

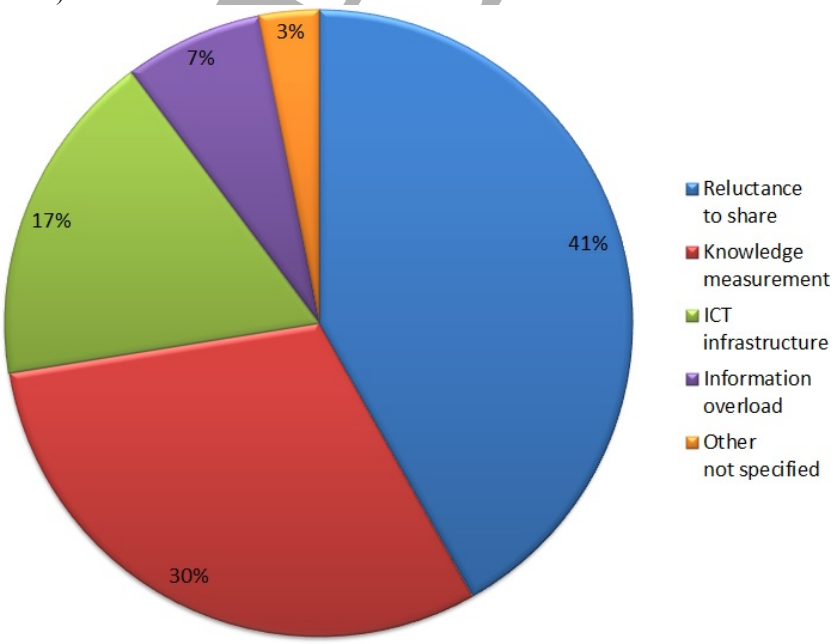

Figure 9: Knowledge sharing barriers

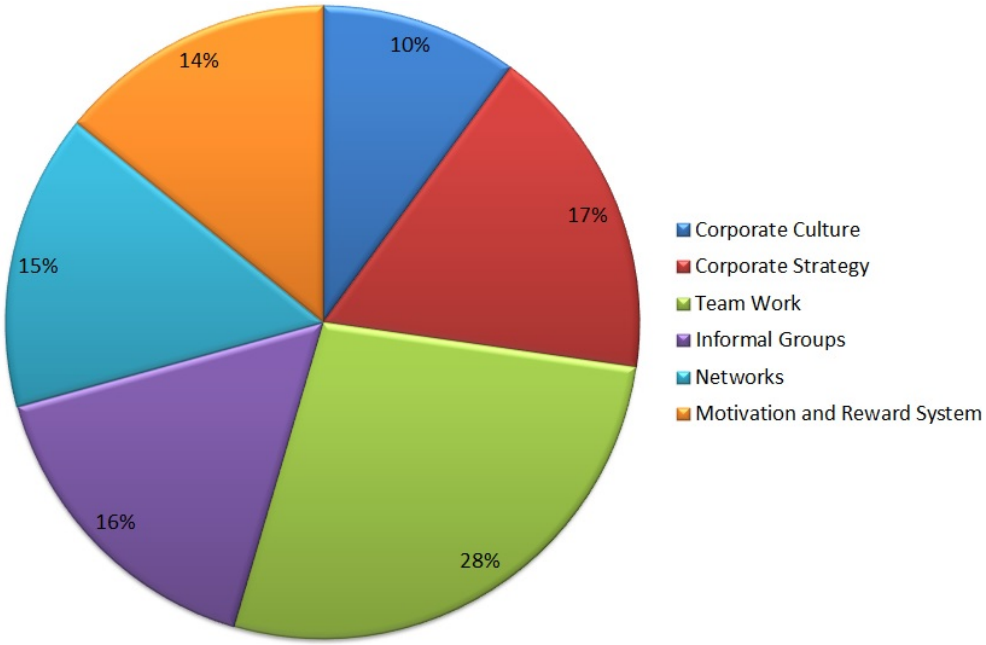

Figure 10: Knowledge sharing enablers

QUANTITATIVE RESEARCH OF MULTICULTURAL ASPECTS IN SLOVAK INDUSTRIAL ENTERPRISES (2010)

After the regime change in 1989 foreign investment and the ownership of Slovak industrial enterprises has steadily increased. Research focused on the corporate culture or managerial competencies in Slovak industrial enterprises (see e.g Čambál (2010) and Cagáňová et al. (2010)) illustrate the relationship between knowledge management and multicultural competencies. As it was stated by N. Holden (2002), cross-cultural management can no longer be seen as the management of cultural differences in popular interpretation. It must be related to managerial activity in the new geo-economy with its emphasis on global networking, organisational learning and knowledge management. This knowledge management perspective of the multicultural management has been applied in the survey carried out by D. Cagáňová (2011) from June 2010 to November 2010. The pre-test of the questionnaire was carried out in June and July, followed by the questionnaire and interview survey. After the questionnaire was conducted, quantitative and qualitative analysis was carried out based on the data obtained from employees in industrial enterprises, as well as research institutions and universities. The survey sample of 124 respondents consisted of top, middle and low management and common employees in industrial enterprises, universities and research institutions (and another 10%).

The questionnaire regarding interculturality/multiculturality had the following structure:

General information (basic information about employees, contained 13 items)

The main part consisted of 5 sections:

1. Corporate culture.
2. Practices and ideal concept of intercultural/multicultural education.
3. Interculturality/Multiculturality.
4. Diversity.
5. Gender Diversity.

The results of the questionnaire indicated that from the 124 total respondents, 115 of them were from Europe. Two respondents each came from Asia, Australasia and America. However, America was not subdivided into North and South America thus no knowledge is available where these respondents came from. In addition there was a sole respondent from Africa.

More than half of the respondents, 78 (62.90%) came from Slovakia. Following this, respondents from the UK were the next most numerous with 6 (4.84%), then Austria, 5 (4.03%) and then the Czech Republic, Germany and Poland each having 4 respondents (3.23%). There were respondents from 16 countries named on the questionnaire and 3 respondents from countries not included on the list.

The interculturality/Multiculturality part of the survey focused on the evaluation of the experiences from the multicultural environment, mainly if this issue is important for the organization, how it is displayed in the organization, managerial competencies and their importance in multicultural environment, the influence of multicultural environment on different aspects such as: economic results, innovation and competitiveness, and

the managerial abilities of intercultural managers. Respondents have observed a connection between the healthy multicultural/intercultural environment and economic performance of the company. Twenty one respondents (16.94%) reported that economic parameters had a very strong influence on a healthy multicultural/intercultural environment. Over half of respondents (64, 51.61%) replied that economic parameters had a strong influence, 35 respondents (28.23%) reported that it had an average influence and 2 respondents felt it had a weak influence. Only 1 respondent (0.81%) believed that economic parameters had no influence on a healthy multicultural/intercultural environment (Figure 11).

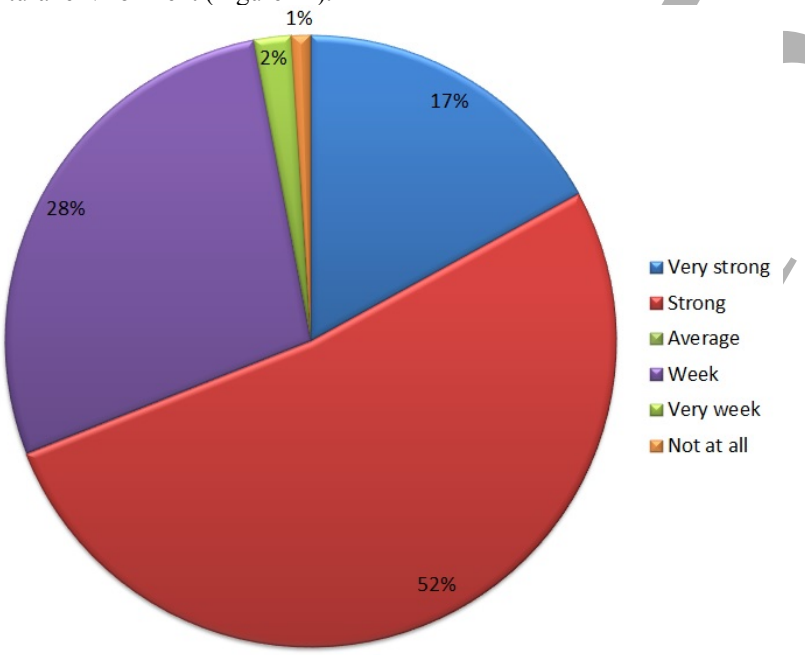

Figure 11: The influence of economic parameters on healthy intercultural/multicultural environment

In the case of the influence of the healthy multicultural/intercultural environment on innovation over a third of respondents (33.87%) reported that it had a very strong influence or strong influence (44.35%). About 19% of respondents believed that a healthy multicultural/intercultural environment has an average influence on innovation, and meanwhile 3 respondents believed that a healthy multicultural/intercultural environment had a weak effect, and 1 respondent reported that a healthy multicultural/intercultural environment had no influence at all on innovation (Figure 12).

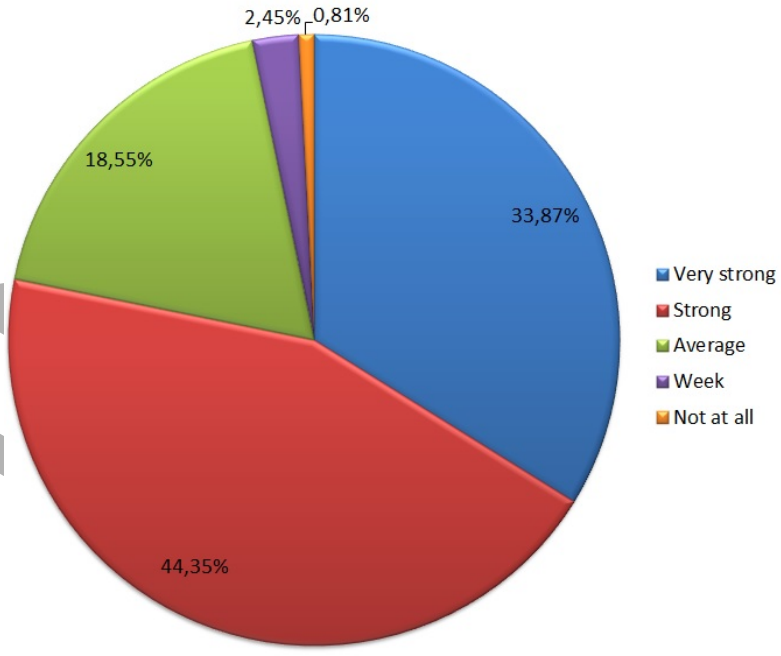

Figure 12: The influence of a healthy multicultural/intercultural environment on innovation.

Similar results have been obtained in the case of the influence of the healthy multicultural/intercultural environment on the company competitiveness where over a third of respondents (34.68%) believed that it had a very strong influence, while 45.16% believed that it had a strong influence. Therefore over three quarters of respondents valued a healthy multicultural/intercultural environment highly as a factor to competitiveness. About 16% of respondents felt a healthy multicultural/intercultural environment had an average influence and 3.23% believed it had a weak influence. Only 1 respondent (0.81%) felt a healthy multicultural/intercultural environment had no influence at all on competitiveness (Figure 13).

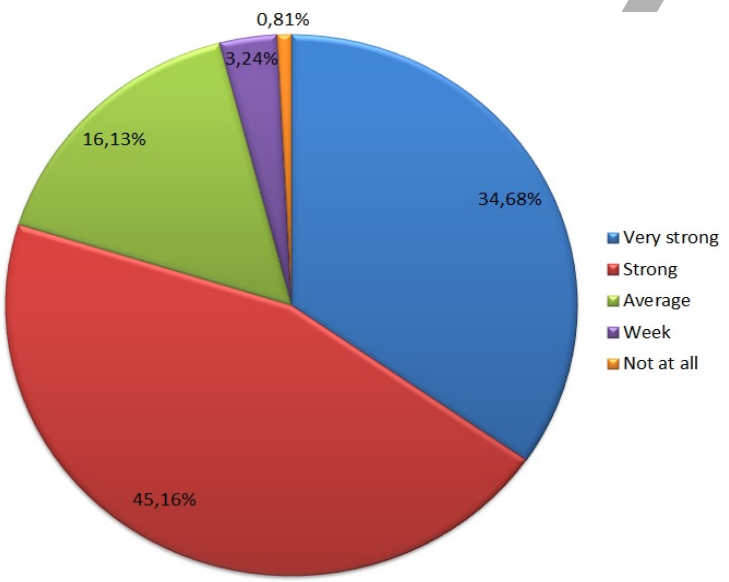

Figure 13: The influence of a healthy multicultural/intercultural environment on competitiveness

CONCLUSIONS

This article represents an overview of the research carried out at the Institute of Industrial Engineering and Management at the Faculty of Materials Science and Technology in Trnava, the Slovak University of Technology in Bratislava, Slovakia. The continuity of the research is based on the designed framework for the research of knowledge management in Slovak industrial enterprises which provided the opportunity to manage very specific and focused analysis of the very different aspects of knowledge management. Moreover, it allowed monitoring of the tendencies of the knowledge management application in industrial enterprises. At the beginning the perception of knowledge management influence on innovation and competitiveness had been very weak and knowledge management had been recognised as a tool to decrease the expenses of the company. During the period 2005-2012 this perception changed and companies started to become aware of the importance of knowledge assets, and started to concentrate on knowledge intensive processes and innovation. The results also placed an emphasis on innovation in networks and multicultural companies as well as on the knowledge management in project management.

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INNOVATIVE APPROACH IN SYSTEM OF TEACHING MANAGEMENT IN FIELD OF RAILWAY TRANSPORT

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ABSTRACT
The article deals with innovation of the teaching management in the field of study Transport, study branch Railway transport. Department of Railway Transport, University of Žilina, Slovakia, provides teaching of management, which is focused on to application of managerial methods and approaches of quality management in conditions of railway transport. For innovative methods of teaching management can regard dynamic models that allow quality monitoring throughout transport. These innovations also bring new requirements for theoretical knowledge and practical experience of graduates of the mentioned study program. Described attitudes are being designed for students and managers of transport companies who have been seeking solutions of service quality with regard to never ending and still growing demands of customers and changes in the transport market. Currently Department of Railway Transport is preparing new software solution for teaching as the result of several significant projects which were being solved in cooperation with railway companies. The users of this new software will be able to modify dynamic models for specific needs of solving quality services in selected trains, sections and transport sessions. In this comprehensive form the study material will have unequivocal innovative character and it will enable link theoretical knowledge with practice what is one of basic pillars of effective training in current time.

Keywords: Teaching management, railway transport

INTRODUCTION

Dynamic models of service quality provide an extended view on problematic of quality. These models ensure the perception of quality by customers and changes of their needs that develop over time. In the world are famous models of Staussa and Neuhaus, Liljander and Strandvik and the many others which hasn´t been used in practical operation within services of railway passenger transport (Dolinayová 2013). Therefore University of Žilina, Department of Railway transport is deals with a research of opportunities of its application and all its benefits which could lead to improvement of services in given area.

Within examining, it is about continuation of several of already implemented projects which follow on the experience from the world. In this contribution we are going to state a partial result of research in which was an effort of authors of the research about connection of model Stauss and Neuhauss with a known method FMEA (Failure Mode and Effects Analysis). FMEA has proved interesting for use in identifying deficiencies, defectiveness, elimination of bad quality already in previous projects realized by the Department of railway transport in cooperation with practice and with foreign colleagues.

Qualitative model Stauss and Neuhaus isn´t based on a general allegation that a high degree of satisfaction automatically leads to high customer loyalty, where the main reason is diversity of customers´ needs, situational factors and also the attractiveness of other alternatives. In research of qualitative model of satisfaction is not enough only rating of global (overall) satisfaction but much more is needed the detection of potential threats among the satisfied customers.

Marketing tools should be applied, particularly in places where the customer demonstrates a high potential of threat to the relationship (Hrašková 2013). Model distinguishes customers into 5 categories (Figure 1), and stresses that the perception of service quality is constantly changing. When the customer is satisfied, it does not mean that it will be forever, depends on many factors which his decision about using of railway transport may change.

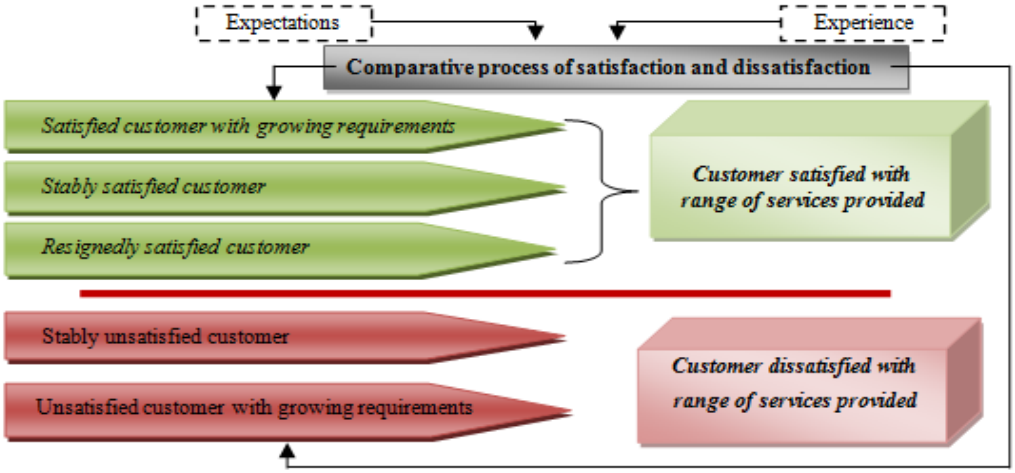

Figure 1: Graphical representation of satisfaction and dissatisfaction of passengers with the services provided

This model solves mainly dynamic aspects of quality and satisfaction in area of provided services in transportation processes of railway passenger transport from point of view evaluation of customers´ satisfaction respectively dissatisfaction.

RESEARCH AT THE SPECIFIC LINE SECTIONS

Very interesting view at quality which allows characterized model, was applied on different line sections. In the research were determined several criteria which were assessed by customers but also by the employees of railway companies. It was about criteria such as safety, convenience, customer care, availability, information, continuity of rail connections, reliable (Kubasáková 2005).

Further was determined the rate of importance of individual criteria quality services before realization of transportation. Rate of importance was established on the basis of certain information which obtained and subsequently reported the participants of research so-called "degree of recognized (perceived) quality services" which depends from their personal experience with provided services or from additional services, from information that obtained about service from provider possibly from their around (Majerčák 2010). The passengers had the opportunity to express their views on the basis of point succession from 1 to 4 where they assign a level of importance and consequently level of perceptions (recognition) quality from the most important (or most acceptable) to least important (or unacceptable).

From the research indicated that the most common quality criteria which don´t reach level of sufficient satisfaction of customers are availability, customer care, convenience and information. For the extent of this issue, we present the results of research that concern to availability which was defined for purpose of this research like an access to the system of public passenger transport including linking with the others kind of public passenger transport. This criterion was simultaneously marked within the rate of importance with degree 1, thus as one of the most important at surveyed sections.

The research involved 1930 participants at 8 different line sections in the Slovak Republic. From the point of view of referred criterion "accessibility" the most of participants till 875 reported that they are resignedly satisfied, i.e. they demonstrate some indifference in relation to the railway company when they know that they can´t expect nothing more from the railway company. The results are shown in the Figure 2.

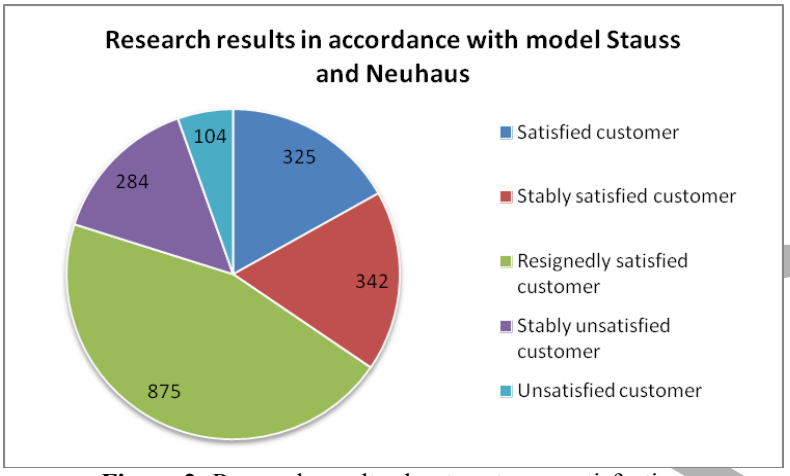

Figure 2: Research results about customer satisfaction

There is a huge scope for Railway undertaking to avert this state and improve its services, because just from this group of customers exist a big threat that they decide for another company or even another kind of transport. Customers´ requirements within the criterion of availability lead to a several facts (Nedeliaková 2013). It is a low availability of stations and halts of the railway transport from terms of distance, low frequency of train connections and with it related issue of links interference, lack of continuity of train connections, delay of the trains, lack of train connections especially to the smaller towns and villages, failure to adapt train connections in terms of time and directional non-uniformity.

LINKING OF DYNAMIC MODEL AND FMEA

To achieve more comprehensive results of research was used the method of FMEA and it was connected with the dynamic model which was presented earlier. Between the basic reasons for the introduction of FMEA may be included constantly growing customer demands on the reliability and quality services of railway passenger transport (Poliak 2009). Utilization of FMEA is recommended mainly for the problem services or when there is the assumption of improving services.

The method presents team analysis of options formation of failures and mistakes in the considered process of railway transport which is connected to risks evaluation and is a starting point for realization of measures leading to mitigate these risks. Is an important part of the review of the proposal and its application in research has been detected up to 70% mismatches in quality.

Based on theoretical principles of method FMEA were designed three specific points of evaluations.

1. Meaning (importance) of mistake, i.e. factor that assessing how serious is the potential consequence of mistake for the customer. In cases when a certain mistake can cause a number of different effects, an appropriate assessment refers to the most serious consequence of mistake. Numeric expressions indicating the severity of mistakes are shown in Table 1.

Table 1: Determination the importance of the mistake

Degree	Category	Border
1	None	0-10
2	Insignificant	11-30
3	Medium serious (moderate)	31-60
4	Serious	61-80
5	Extremely serious	90-100

2. Occurrence of the mistake, i.e. probability of mistake formation caused of a certain reason and is assessed by the same way like an importance of the mistake. There occurs to the evaluation of technical possibility of mistake formation during the time of planned life of service where mainly based on experiences with similar products and thus in our case the services. When evaluating heights of very improbable mistake is taken into account the used preventive measures. Numeric representations of the probability of the occurrence of mistakes are shown in Table 2.

Table 2: Determination the occurrence of the mistake

Degree	Category	Border
1	Very improbable mistake	0-10
2	Low probability of mistake	11-30
3	Occasionally occurring mistake	31-60
4	High probability of mistake	61-80
5	Almost certain mistake	81-100

3. Probability of revealing mistakes, i.e. probability which come out from assessment of the effectiveness of existing control procedures which are used in the assessment of service design. In the case that probability of revealing mistake or its cause is high the point of evaluation is low. Conversely, a score is high, if mistake neither its cause can´t be practically uncover by used control procedures. The numerical values which show the probability of revealing the cause of formed mistake are shown in Table 3.

Table 3: Revealing mistakes

Degree	Category	Border
1	Almost impossible revelation	0-10
2	Very low	11-30
3	Middle	31-60
4	High	61-80
5	Almost certain	81-100

We can determine the size of the risk degree based on the three referred probabilities. This rate of risk (or risk degree) is expressed like a multiplication all of three mentioned probabilities by form of so-called risk number. FMEA results were continuously recorded in the paper form. For the application in railway passenger transport were used several types of FMEA proposal, but every company determined by which paper form will be suitable for them.

By the connection of dynamic model and FMEA method can be achieved several advantages. On the one side there is opportunity of continuous monitoring of changing customer requirements of railway company. On the other side there is an opportunity to identify mistakes in the process (Sekulová 2013). The following Table 4 shows the part from implementation of FMEA for the quality criterion – availability.

Table 4: Part of the research results in the application of FMEA

PROCESS FMEA										
Element / Function / Requirements for process	**Possible mistake**	**Possible consequence of the mistake**	**Importance**	**Possible causes / mechanisms of the mistake**	**Occurrence**	**Way of control / preventive control method**	**Way of control / detection control method**	**Disclosure**	**Recommended measures**	**Risk number**
Title of process: Transportation of passengers by the railway passenger transport at the line section Žilina - Trenčín										
Analyzed process: *Ensuring the availability of train connection*										
Passengers deemed the availability of train connection as a good	Lack of continuity of train connections	Unsatisfied customers from the reason of long wait on train connection	5	An insufficient set time interval of train connections	5	Continual systemic control of making timetables	Tracking of public meaning, passengers´ feedback	2	*Recommended measures for carrying out the analysis of train connections, find shortages and then remove them when drawing up of a new timetable*	50
Passengers deemed the availability of train connection as a good	Delay of train connections	Unsatisfied passengers and unsatisfied employees, economic damages of carrier, decrease of passengers	5	unexpected defect of the train, incidents, not submitted information about the alternative transport in the event of long delays work on railway lines, weather conditions, failures of rails / railway uppers / or technical support	5	Continual watching of train delays, deducing of responsibility, compliance control	Systematic reconnaissance of management systems, eliminating of weaknesses	2	*Recommended measures to implement the preventive application of replacement of parts for excessive wear (bearings), strengthen control processes, keep to the schedule of repairs and maintenance of technical equipment, subsequent provision of information about alternative transport in the case of long train delay*	50

CONCLUSIONS

Methodic referred to in the contribution is a novelty in area of application of dynamic models in the railway passenger transport. It brings new view on the problem of service quality. Methodic builds on a number of previous researches conducted within Department of Railway Transport in cooperation with railway undertakings.

Linking the model Stauss and Neuhaus with FMEA method represents an universal methodic which serve for closer understanding of customer needs and more detailed diagnose of mistakes in railway operation. Operation of railway passenger transport is often a stochastic process and therefore the management of railway companies has to look for new ways of identification of "bottlenecks" and finding out new customer needs. Partial results of the research which are described in the article also provide a space for discussion in solved field which is in current time very actual from reason of necessity of support railway passenger transport at transport market.

Among the basic advantages which brings this methodic belongs mainly provision of documents for improving the quality plan, analysis or processing. Next from advantages is respecting of systemic approach which leads to the prevention of poor quality. Methodic also reduces the losses which are caused by non-quality of system and helps to increase customer satisfaction. Introduced methodic is also very important part of control system of quality services in railway company.

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INQUIRY BASED SCIENCE EDUCATION APPLICATION IN ORGANIC CHEMISTRY

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ABSTRACT
In the recent years, several international studies have been implemented monitoring knowledge, skills and interest of students in science subjects. It is a well-known fact that their interest in these subjects, including chemistry, is on the decline. The reason is that the students have problems with the formulation of hypotheses, with experimental activities and interpretation of data. They often learn the individual facts without understanding their substance and principles. This contribution starts by short characterization of Inquiry Based Science Education and shows the importance of its implementation in the chemistry education as one possibility of resolving these problems. Then we analyse thematic units of chemistry curriculum, which are suitable for processing by IBSE. Some selected tasks of the organic chemistry curriculum are also presented in the paper and described their implementation.

INTRODUCTION

The science education, both in Czech Republic and in Europe, has been going through a kind of crisis in the recent years, a crisis that shows itself mostly in the decline of the young people's interest in scientific subjects (Rocard et al., 2007). The development of science literacy is currently understood to be an important goal the students should aim for, even during the chemical education. The scientific literacy is defined, for example in the PISA (Programme for International Student Assessment) research, as the ability to make use of scientific knowledge, to ask questions and to derive from the given facts conclusions that lead to understanding the world of nature and help with decisions related to it and to the changes caused by the human activity. The 2006 PISA research showed that Czech students possess vast amount of scientific facts and theories but have problems with thinking about problems on their own, analysing them at an adequate mental level including hypothesis making, seeking and suggesting possible solutions, interpretation of the data gathered and formulation and argumentation of conclusions. According to the PISA 2009 research results, our students are less successful in solving science problems related to the application of scientific knowledge (Czesaná et al., 2009). It was confirmed that our students are used to remembering complete facts but if they encounter a task type where they are not told the right procedure, they prefer to skip such task. Despite relatively good average results of our students in the international PISA research it's still true that their higher level of knowledge is in contrast to the low level of their practical skills.

INQUIRY BASED SCIENCE EDUCATION

Inquiry Based Science Education (IBSE) is an educational approach based on the students' own inquiry which uses many activising methods (Čtrnáctová, Čížková, 2010). Educational approaches with names like "problem/project teaching", "cooperative teaching", "activising teaching" or "experience pedagogy" all contain elements of IBSE. Vališová defines one of the practical activity methods similar to IBSE: Heuristic laboratory work allows the students, via problem solving tasks, to discover new facts and relations, to experiment, to seek new knowledge and subsequently acquire it (2011, p. 207). Stuchlíková as well discusses the origins of the inquiry form in the pedagogical context. According to her, so-called "inquiry" has been already connected with many famous names in teaching support, listing among others J. Dewey, L. S. Vygotsky, or M. Liman. However, the primacy of its use in pedagogical context is usually ascribed to J. R. Suchman who described so-called "contrary situations" which cause the desire to get to the gist of things which is the base of inquiry (2010, p. 130).

Nezvalová (2010) compares Inquiry Based Science Education with the traditional concept of teaching. She says that the traditional education doesn't make use of the natural process of understanding the world around us by discovery, but is based on perception of finished-form facts and memorization by repetition. The students are not generally expected to ask too many questions. The students usually answer teacher's question which lead mostly to the memorization of the contents passed to them. However, memorization of facts is not an important skill in today's world. Facts and information are easily accessible to all. It's the skill to understand these facts and information that should gain prominence. In the same way, the skill to use these data and make sense of them is also important.

What advantage could therefore Inquiry Based Science Education have for the students? One of them is gathering necessary skills – we strongly focus on this – but there's also understanding of the inquiry process as such. In the relation to the teaching process, Inquiry Based Science Education is considered a form of teaching based on the students themselves asking questions and seeking the answers to them. The students research the problems they are given, they form the hypotheses, they suggest experiments to verify them, and they subsequently discuss the conclusions. An old Chinese proverb says: "*Tell me and I will forget, show me and I will remember, engage me and I will understand.*" The last part of this saying expresses, in a way, the essence of Inquiry Based Science Education. If the student is engaged in discovering new facts, it will lead to the understanding of these facts (Nezvalová 2010).

The aforementioned problem teaching or cooperative teaching have already found their place in the education process. At the moment, inclusion of Inquiry Based Science Education might be demanding for the teachers, as it requires comprehensive preparation and a slightly different and demanding approach to the students during the lessons in order to make the lesson go the way it shouls.

ROLE OF THE TEACHER IN INQUIRY BASED SCIENCE EDUCATION:

The teacher reflects the intents and plans the Inquiry Based Science Education:

- The teacher plans the methods in such way that every student actively participates in the learning process;
- The teacher has necessary skills and knowledge related to Inquiry Based Science Education;
- The teacher supports the student's growing responsibility for the learning process;
- The teacher is ready for unexpected student questions or suggestions;
- The teacher prepares the necessary materials, tools and resources for the students.

The teacher facilitates the students' learning:

- The teacher understands that the learning process is also a part of the teaching;
- The teacher asks questions that support divergent thoughts and lead to further questions;
- The teacher resolves the questions and eventual misconceptions;
- The teacher watches to see if the students have any problems with learning;
- The teacher evaluates the progress of the student's learning.

CREATION OF EDUCATIONAL MATERIAL

The gradual acquisition and exercising of student skills necessary for inquiry is one of the conditions for using the new method during lessons. It is clear that every single phase of this type of teaching requires training of the specific student skills, special preparation of the teacher, and therefore enough time. Another condition for the practical realization of this teaching process is to have suitable teaching materials. The main aim when making materials for more or less independent student work is to focus both on the independence and on the joy of learning. In practice, this means to not try assigning further new themes into the teaching contents but to work with the known ones. However, the students will, through new skills, gradually achieve certain authority independence and they will learn the best way to treat the known themes and how to conduct themselves when solving a new problem (Čtrnáctová, Mokrejšová, 2013; Čtrnáctová et al., 2013).

There are currently no textbooks created according to the principles of IBSE available in the Czech Republic, but inspiration can be found even in the current textbooks. In many cases, just a small modification of problem from textbook not created according to the principles of IBSE is enough to allow the students to develop the necessary skills.

What themes would be therefore appropriate to teach using IBSE? Currently, teaching is guided by frame educational programmes and school education programmes of the individual schools. These documents are very

brief, and so most of the teachers respect the content in the textbooks and focus mainly on making the students acknowledged with the facts, definitions or laws that can be found there. The students are then deprived of understanding and context because of the individual facts (Čtrnáctová, Mokrejšová, 2013).

To illustrate, we show teaching content of organic chemistry, including expected outputs of the students (RVP G 2007):

Expected outputs:
The student will:

- evaluate the properties of the carbon atom that are important for the structure of organic compounds
- apply rules of the organic chemistry systematic nomenclature when describing the compounds; use of trivial names is possible
- characterize the basic groups of organic compounds and their important representatives, evaluate their raw material sources, their practical use and their effect on the environment
- apply the knowledge about the course of organic reaction to specific examples
- use the knowledge of the basics of qualitative and quantitative analysis to understand their practical importance

Teaching content:

- hydrocarbons and their classification
- hydrocarbon derivates and their classification
- heterocyclic compounds
- synthetical macromolecular substances
- medicines, pesticides, colourings and detergents

Themes chosen as suitable for processing problems from the organic chemistry content via the IBSE method were those that cause problems for students in the traditional teaching or those that are current and focused on applications in everyday life. Currently, we have chosen cca 8 themes which will be gradually processed. An example of the first kind of theme is the structure of organic compounds and their isomery. The students can acknowledge themselves with various types of isomery in practice and with help of models of organic compounds. They themselves will find out how many distinct isomers of a particular organic compound can exist, how the various isomers differ spatially etc. An example of the second kind of theme are alcohols. The motivational part focuses on obtaining alcohol via sugar fermentation and on determining physical, chemical and biological properties of the most important representatives of the alcohol group.

TOMATO JUICE RAINBOW – AN EXAMPLE OF A PROBLEM

We shall show the description of students' activity during Inquiry Based Science Education with the problem *Tomato Juice Rainbow*. The structure of the problem is based on the five-stage 5E learning cycle (Čtrnáctová, Mokrejšová, 2013). It is meant for introduction of the organic chemistry content at upper secondary level and should be thematically included after teaching about alkanes. In the first phase, so-called "engagement phase", it is necessary to awaken the students' interest and curiosity and to lead them to research the set problems. The teacher motivates the students by showing them an interesting experiment. In front of the students' eyes, the teacher mixes bromine water with tomato juice, conjuring an unusual rainbow-colored solution out of these two ingredients.

During the exploration phase, the students themselves start to gather information about a given problem. They find answers to the questions they were asked through completing the tasks. As part of this particular problem, they will fill in their knowledge about alkanes, which they already know, but also about alkenes, which they are supposed to get acquainted with. They are able to derive the information, and thus fill in the solution of the given problems, with their existing knowledge about alkanes. As they are finding out the answers, they come up with further questions and ideas that push them forward in solving the problem. One of the further tasks is to create some models from each hydrocarbon groups, for example ethane and ethylene, or propane and propylene- Thanks to this step they will be able to better compare the structure of alkanes and alkenes. They will also search for the molecule of lycopene, a compound present in tomato juice, build its model and find that it belongs to the alkene group. This will allow them to derive its properties, probably including the fact that it should be susceptible to additions. Based on all acquired information, they will attempt to make a hypothesis about what happened in the motivational experiment. They will plan a procedure for confirming their hypothesis. The students should realize that they have to make the representatives of both alkanes and alkenes react with the bromine water. If they don't realize this on their own, the teacher should give them a hint to use for example

hexane and cyclohexene (available in the school lab) in the reaction. The students will carefully observe the course of the experiment and measure and record data.

In the explain phase, the students evaluate their results; they express them in a form of table etc. They shouldn't be afraid to reevaluate their original conjectures on the basis of newly acquired experience. The last-but-one step of this teaching process is the extend phase. Students shall, together with the teacher, summarize the information they learned about a new group of hydrocarbons. They use their own words to express how they understood the terms they encountered during the inquiry process. In the end, the work of the whole team is evaluated, both positive and negative parts. Because of that, they will be able to avoid some mistakes during the next inquiry and continue more effectively.

CONCLUSIONS

This contribution has described Inquiry Based Science Education as one of the possibilities to interest the students in scientific subjects and develop their chemical knowledge, skills and abilities. The inquiry based problems from organic chemistry were characterized and the students' activity with a specific alkene-related problem was described in detail. Since we are completely surrounded by nature and we see many biological, physical and chemical processes happening on a daily basis, we should aim to pull the students into the teaching process as much as possible in order to have them learn as much as possible about it. The intensifying of the interest in scientific subjects could be achieved through new creation of interesting problems and through the implementation of Inquiry Based Science Education into chemistry education at primary and secondary schools.

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BİR İMKÂN OLARAK İNSAN HAKLARI PROBLEMİ

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ÖZET
İnsan Hakları ifade özgürlüğü, güvenlik, eğitim, sağlık ve barınma gibi konulara ilişkin haklardır. Bu da hakların çok geniş bir alanda kendini gösterdiğini ve bu görünümün de sonsuz bir süreci içinde barındırdığını belirtir. Haklar yalnızca bir yükümlülük değil aynı zamanda bir dayanışma ve birliği de ifade eder.

Günümüzde insan haklarına dair karşıt kutuplu iki yol izlenmektedir. Bunlardan ilki demokrasi eleştirisine ek olarak evrensel haklardan söz etmenin imkânsızlığına vurgu yapar. Örneğin Badiou Platon'a atıfla yaptığı demokrasi eleştirisinde Batılı devletlerin kendi çıkarlarını korumak adına kutsiyet atfettikleri demokrasinin evrensellikten ve haklardan ne kadar uzak olduğunu gösterir.

Bunun karşı kutbunda yer alan görüş ise insan haklarının evrensellik iddiasını kabul eder. İnsan hakları eğitiminin yaygınlaşması gerektiği üzerinde durur. Hakların düşünsel arka planının öğretilmesiyle bir başka deyişle insan haklarının kavramsal bilgisiyle ancak hakların korunabileceğini savunur. Dolayısıyla bu da ancak insan hakları eğitimi ile mümkün olacaktır.

Bu bildiride hedeflenen insan haklarına dair eleştirileri göz önüne alarak, insan hakları etik eğitimi ve bunun felsefi arka planı hakkında bilgi sunmaktır.

Anahtar Kelimeler: İnsan Hakları, demokrasi, güvenlik, insan, evrensellik.

HUMAN RIGHTS PROBLEM AS A POSSIBILITY

ABSTRACT
Human rights include issues about freedom of expression, safety, education, health and housing. This comes to mean that rights manifest themselves in a vast area and thereby this manifestation contains an endless process in itself. Rights refer not only to obligation but also to solidarity and union.
Today, there are two competing views concerning human rights, one of which in addition to the criticism of democracy emphasizes the impossibility of speaking about universal rights. For example, Badiou in his critique of democracy with reference to Plato's writings shows that democracy to which the western states attribute a kind of holiness to protect their interests is far from the rights and by no means universal.

The second view, against the above mentioned, agrees with the the claim of universality of human rights and emphasizes the need for a widespread human rights education. In other words, it argues that rights can only be protected by teaching the conceptual knowledge of human rights —the intellectual background of them.

This paper, taking into account the criticisms about human rights aims at providing information concerning ethics education and the philosophical background of it.

Key Words: Human Rights, democracy, safety, human, universality.

GİRİŞ

İnsan Haklarına ilişkin yapılan tartışmalar, zorunlu olarak beraberinde "demokrasi" kavramını düşünmeyi gerektirir. Tarihsel olarak demokrasi deneyimi çok daha erken bir döneme ait olsa da çağdaş dünyada haklar ancak demokrasi zemininde düşünülebilir. Demokrasi, başta tanımı olmak üzere sınırları, pratiği ile üzerinde hiçbir zaman tam bir uzlaşıya varılamayandır. Günümüzde "hem iktidarın meşrulaştırma biçimini hem de iktidarın işleyiş biçimlerinin"(Agamben, 2010:11) adı olan demokrasi, alışıla gelen "çoğunluğun iktidarı" tanımının hayli ötesindedir. Bu bağlamda öncelikle kavram ile kast edilenin ne olduğu anlaşılmaya muhtaçtır.
Üstelik yalnızca demokrasi kavramının kendisi değil, Agamben'in belirttiği üzere terim üstüne inşa edilen her söylem, günümüzde, terimi kullananları yanlış anlaşılmaya mahkûm eden bir muğlaklıktan ötürü tahrif olur hemen (Agamben, 2010:11). Kuşkusuz bu tahrifat insan hakları için de geçerlidir. İnsan haklarını demokrasinin çeperinde düşünmek zorunlu ise en az demokrasi terimi kadar haklar da bünyesinde bir muğlaklık barındıracaktır. Bunu gidermek ise en temelde insan haklarını tanımlamak ile mümkün olacaktır.
Crick'in de ifade ettiği gibi bugün artık çoğumuz bir demokraside yaşadığımızdan eminiz ve terimi neredeyse istediğimiz her şeyi –parlak ve güzel her şeyi- ifade etmek için kullanırız (Click, 2012:17). Oysa tarih boyunca bu parlak ve güzel kabul edilen şeyin pek de öyle olmadığını düşünenler hep oldu. Rancière'in ifadesiyle, nefrete

varan bu eleştiri demokrasinin kendisi kadar eskidir. Ona göre, demokrasi sözcüğü, Antik Yunan'da ilk olarak, çokluğun korkutucu yöntemini, her türlü meşru düzenin mahvedilmesi olarak gören kişiler tarafından hakaret olarak icat edilmişti (Rancière, 2014:8). İktidara doğuştan sahip olduğunu düşünenler ya da iktidarın ancak kutsal bir yasa ile tesis edileceğine inanlar için demokrasi meşru bir yönetim değildir. Demokrasi eleştirisi çok farklı gerekçelerle her zaman oldu. Günümüzde türlü çeşitli sebeplerle demokrasi ile arasına mesafe koyan düşünürlerin sayısı azımsanmayacak boyutlardadır.

Nefretin kendisi, çağdaş filozoflarca çok çeşitli yollarla dile getirilse de neredeyse hepsinin referans verdiği ilk filozof Platon ve onun eşsiz eseri Devlet'tir. Platon için demokrasi çok da iyi bir şey olmasa gerek. Onun idealinde olan yönetim şekli Badiou'nun ifadesiyle "felsefe eğitimi almış askeri bir aristokrasi" (Badiou, 2010:18) düzenidir ve Platon'a göre demokrasi "düzenlerin bulunduğu bir Pazar yeri gibidir; isteyen istediğini alabilir" (Platon, 2010:461). Ve demokrasi insanı da Platon'un peşinde olduğu dört erdemden (bilgelik, cesaret, ölçülülük, adalet) oldukça uzak bir yerdedir. Demokrasinin öznesi ancak "öznenin hazzı üzerinden kurulabilir." (Badiou, 2010:18). Benzer bir yorum çağdaş demokrasi tartışmalarında da görülebilir. Demokrasinin kendisini kurduğu bu "özne" figürü modern, özgür ve ahlaklı öznedir. Dolayısıyla demokrasinin meşruiyetini tam anlamıyla tartışmasız kılmış olan, halen de kılmakta olan şey, işte bu özne figürüdür. Aynı zamanda bu öznenin beyaz, erkek ve sömürgeci yüzü, demokrasinin hiyerarşileri, dışlamaları ve boyun eğdirmeye yönelik şiddetini bütün modern varoluşuna yaymış ve idame ettirmiştir. Bu nedenle, demokrasinin tam kalbinde, demokrasiyi evrenselleştirmeye dönük emperyal hayal gerçekleşse bile bunun demokrasi kılığında olmayacağını telkin eden aleni, hatta belki de zorunlu bir özgürlüksüzlük bulunur daima (Brown, 2010:59-60). Aslında şunu ifade etmek önemli görünüyor: demokrasi ve demokrasi öznesi, -eleştiriler söz konusu olduğunda- asla birbirinden ayrılmazlar. Platon'dan başlayarak çağdaş demokrasi eleştirmenlerine dek hemen hemen hepsinde gözlemlenen demokrasi öznesinin konumunu tartışmış olmalarıdır. En az demokrasi kavramının neliği kadar önemli bir tartışma da bu demokrasi öznesi kavramıdır.

Nihayetinde demokrasi terimi basit bir biçimde politik yaşamın ve yönetimin kötü bir biçimi anlamına gelmez. Burada daha ziyade yapısal bir sorun vardır. Yalnızca bir yönetim olmayan aynı zamanda bir yaşam tarzı dayatan demokrasi, tek bir hali olmayan rejimdir. Badiou'nun ifadesiyle demokratların "dünya"sının hiçbir şekilde "herkes"in dünyası olmamasından, içinde yaşadığını sandığı ve o küçücük dünyasının keyfini sürdüğü surların simgesi ve bekçisi olan demokrasinin muhafazakâr bir oligarşiyi, tek görevi kendi hayvani hayatını sürdürdüğü toprakları, gasp ettiği "dünya" kelimesinin arkasına sığınarak korumak olan bir oligarşiyi kapsadığı anlaşılmaktadır (Badiou, 2010:16-17). Demokrasi sadece bir grubun refahı ve mutluluğu için düşünülen sistemdir. Çoğunluk bile söz konusu değildir. Bu hayat tarzının devamı için demokrasinin sınırını çizdiği dünyanın dışında kalanlar her zaman yapısal olarak olmak zorundadır. Hatta bu dışardaki dünya için de demokrasi gerekli görülürse mutlu ve refah içinde olanlar onu kendilerince, onlara rağmen tesis edebileceklerdir. Ortadoğu savaşlarında görüldüğü üzere eğer mevcut rejim yerini demokrasiye bırakacaksa bunu getiren muhakkak bir Batılı ülke olacaktır. Ya da daha somut bir ifadeyle Amerika'nın Irak işgalinde tanık olunduğu gibi silahların gölgesinde dillendirilen her zaman getirilen özgürlük ve demokrasi olmuştur.

Tüm bunlara ilaveten söylemek zorunda olduğumuz şey bütün demokrasi tartışmalarının sonuçsuzluğudur ve asla sona ermezler. Bu bağlamda insan hakları tartışmaları da bir bakıma sonuçsuzdur. Ve sürekli kendini yenileyen bir ivme ile devam ederler.

Günümüzde insan hakları, aşikâr, üzerinde tartışılması dâhi gereksiz görülen bir yerde durur. Hatta haklar "kutsal" ideolojik, siyasal bir olgudur ve bunlar "demokratik ilkelerin yerleşmesine eşlik eden dönüşümlerin özünü ifade eder" (Gauchet, 2013:153). Bu dönüşümlerin nasıl olacağına kılavuzluk ederler. Haklar evrenseldir ve Berlin'in de ifadesiyle her kültürde bu tür haklar –en azından asgari miktarda- vardır. Bu asgari hakların – Helios'lara, kölelere, Yahudilere, ateistlere, düşmanlara, komşu kabilenin mensuplarına, barbarlara, münkirlere- ne oranda uygulanacağı konusunda uzlaşmazlık olabilir, fakat böyle haklar vardır ve tüm insan hayatı sürdürebilmenin ampirik önşartlarıdır (Berlin, 2009:54). Ampirik önşart düzeyine çıkartılmış haklar konusunda Berlin kadar iyimser olamayan Rancière için haklar olsa olsa "burjuva toplumunun egoist bireylerinin haklarıdır" (Rancière, 2014: 23) ve elbette ki egoist bireyler "demokratik insanlardır" (Rancière, 2014:24). Dolayısıyla hakların kutsanması demokrasinin zaferidir.

Modern/demokratik dünyanın merkezindeki hakların tarihçesi ise bir hayli tartışmalıdır. İnsan haklarının hukuksal alandaki tarihçesi söz konusu olduğunda ilk siyasal gelişmelerin Magna Carta'ya (1215) dayandığı söylenir. Clapham, İngiliz Kralı John ile monarşinin getirdiği vergilerden tatmin olmayan baronlar arasında yapılan anlaşmanın yalnızca toprak sahibi erkeklere tanınmış, bir jüri tarafından yargılanma hakkı olduğunu belirtir. Bu anlamda Magna Carta içinde yer alan haklar insan hakları değil siyasi düzenlemelerdir. İnsan hakları ise tüm insanlara aittir ve bu nedenle de seçme bir öncelikler grubuyla sınırlandırılamaz. (Clapham, 2010:18)

Benzer biçimde İngiliz Haklar Yasası (1689) da yalnızca bir siyasal anlaşmadır. Oysa modern insan hakları kavramlarının izleri on sekizinci yüzyıl sonunda kabul görmüş fikirlere ve metinlere kadar gider. Günümüzde ise elbette en etkili metin Evrensel Bildirge'dir. Birçok dile çevrilen ve insan hakları felsefesinin yaygınlaştırılmasında temel olma özelliğini koruyan metin birçok ulusal ve uluslarası kararlarda etki sahibidir.
İnsan haklarının tarihçesi kadar temellendirilmesi de aslında bir bakıma çeşitlilik arz eder. Yani haklar, genel olarak üzerinde uzlaşılmış birkaç yöntemle temellendirilir. Platanakis'e göre klasik, doğalcı, varsayımsal sosyal/hukuksal haklar temelli ve Yeni-Aristotelesçi olmak üzere insan hakları temellendirilir. Klasik ve genel kabul gören insan hakları temellendirmesi, insan haklarını, insan türünün tüm üyelerinin esas olarak bu üyelikleri sebebiyle sahip olduğu ahlaki haklara indirgerken, doğalcı temellendirme, insan haklarını menfaatlerin doyumuna indirger. Burada menfaat kavramı; haz, doyum, başarı, refah, mutluluk gibi alt kavramları ve bunlara ilişkin kaynakları (örneğin arzular, tercihler, beceriler) içerek ölçüde geniş bir anlamda kullanılır (Platanakis, 2013:81-85). İnsan haklarını varsayısal sosyal/hukuksal haklar ile ilişkilendiren temellendirmenin temel fikri ise, evrensel bir insan hakkının mevcut olduğunu varsayabilmemizin önkoşulu olarak, bir yasanın bu hakkı koruması gerektiğine ilişkin ahlaki bir genel kanı olduğudur. Belli bir insan hakkım olduğunu öne sürmem, bu konuda hukuksal bir hakkım olması gerektiğini söylemem ile eşdeğerdir (Platanakis, 2013:86). Ve son olarak Yeni-Aristotelesçi temellendirmeye göre, insana has bir öz olduğu anlayışından bağımsız olarak insan hakları, uygunluk ve adalet bakımından üzerinde yetki/hak sahibi olunan şeylerdir (yani insan hakları, sabit bir insan doğası anlayışına mutlak suretle bağlı değildir). Öte yandan insan hakları, insan türünün tüm mensuplarına evrensel olarak uygulanabilir (Platanakis, 2013: 87). Platanakis Yeni-Aristotelesçi temellendirmeden yana bir tavır geliştirmiş görünür. Görüldüğü üzere insan hakları daha ziyade iktidar mekanizmasının işleyişine göre konumlanır. Bu mekanizmada "insan"ının yeri nasıl belirleniyorsa haklar da buna göre temellendirilir.

Hakların temellendirilmesi, tıpkı tanımı/sınırı söz konusu olduğunda nasılsa öyledir. Herkesin yaşama hakkı olduğunu (Madde 3) ve bunun en temel hak olduğunu tartışmayız bile. Yahut hiç kimsenin işkenceye, zalimce, insanlık dışı, onur kırıcı cezalara ya da muamelelere maruz bırakılamayacağını (Madde 5) biliriz. İnsan hakları, sivil ve siyasal alana dair olanlarından tutun da ekonomik, kültürel alana varana değin çok geniş bir sahaya yayılır. Hakların görünür ve yaygın olma hali işleyişinde karşılaşılan aksama ve engelleri ortadan kaldırmaz. Daha doğrusu tıpkı demokrasi kavramında olduğu gibi burada da bir büyük "evet" vardır ama işleyiş söz konusu olduğunda kişiler arasındaki ilişkilerden tutun da hukuksal alanda da ciddi bir kopuş gözlenir. Şiddet içeren ve hayatın ritmini hızlandıran/bazen donduran insan hakları ihlalleriyle dolu haberler bunun tanığıdır. Dolayısıyla da insan hakları, "kesin olarak ve yaygın bir biçimde bir siyasete dönüşmüştür, hatta bunun da ötesinde bu haklar, örtük bir biçimde her türlü siyasetin ruhu ve paydası haline gelmiştir" (Gauchet, 2013:158).

Tüm bunlardan farklı olarak Kuçuradi insan haklarını temellendirirken ve tanımlarken –sınırını çizerken de denilebilir- bu görüşün dışına çıkar. Ona göre insan hakları "insanın değerini tanıma ve koruma istemleri olarak, yani insanları yalnızca insan oldukları için koruma istemleri olarak ortaya çıkarlar" (Kuçuradi, 2011:1) ve bu haklar "her şeyden önce bir fikir, bir düşüncedir" (Kuçuradi, 2011:56). Kuçuradi için haklar, kesinlikle "felsefi"dir ve sonrasında ancak siyasal bir söylem içerisinde kendilerini hissettirir. Felsefenin içleminde yer alan haklar, bir anlamda felsefeye bağlı olarak tanımlanır. Burada olan yalnızca bir tanımlama konusu değil aynı zamanda bir temellendirme meselesidir. Dolayısıyla felsefi bir mesele olan haklar, bu çerçevede anlam kazanır. Siyasal olarak açığa çıkan görüntünün de bağlı olduğu zemin felsefidir. Haklar siyasal söylemle değil felsefi söylemle kurulurlar.

Kuçuradi'ye göre "insan hakları" denen haklar, grup haklardan ayrı olarak kişi haklarının bir kısmını, temel kişi haklarını oluştururlar. Bu haklar, bütün insanların "eşit" olduğu, her kişinin –kim olursa olsun- sırf insan olduğu için sahip olduğu haklardır. (Kuçuradi, 2011:44) İnsan hakları kişi hakları olmakla birlikte, bütün kişi hakları insan hakları da değildir. Bu bağlamda insan hakları, yalnızca iki tür talebi -kişinin güvenliğine ilişin talepler ve/veya temel özgürlükler ile insanın doğal olanaklarını korumanın genel olarak önkoşullarına ilişkin talepleri (beslenme, sağlık, eğitim, çalışma v.b. hakları)- kapsar. Oysa değişken koşullarla ilgili olan (asgari ücret, sendika kurma hakkı v.b. gibi) sosyal ve ekonomik hakları ise temel haklara dâhil edilmez (Kuçuradi, 2011:58). Temel haklar diğer hakların güvencesi konumundadır. Herhangi bir zararın engelleyicisi yasalardır. Ulusal ve uluslarası hukuk normlarında bu husus açık bir şekilde belirtilmiştir. Görüldüğü üzere Kuçuradi insan haklarını evrensel "insan" tanımından yola çıkarak temellendirir ve onun için önemli olan hakların evrenselliği meselesidir.

Hakların temelinde ne olduğu kadar önemli olan bir diğer soru da hakları korumanın koşulları ile ilgilidir. Kuçuradi bunun ilk önkoşulunun "insan haklarının ve tek tek hakların ne olduğunu açıkça –gerektirdiklerini görebilecek kadar açıkça- kavramak" (Kuçuradi, 2011:8) olduğunu belirtir. Buna ek olarak bir ikinci önkoşul, "kendimizi kendimize –herbirimiz kendisini kendisine- insan olarak ilan edecek kadar yürekli olmaktır; bu da kendimizi böyle ilan etmenin, kişi ve insanlık olarak bizim için birlikte getirdiği sorumluluğu taşımak ve gereklerini yerine getirmek" (Kuçuradi, 2011:8) demektir. Bu bağlamda da onun için insan haklarını koruma

sorunu, felsefi, etik ve siyasal bir sorun olarak görünür. Hatta etik ve siyasal bir sorun olarak insan haklarının korunması da felsefeye ve felsefe eğitimine bağlıdır. Çünkü felsefe eğitiminin ana görevlerinden biri, kişileri, insanın onurunun nerede tehlikeye düştüğünü görebilecek bir gözü kazandıracak şekilde, olabildiğince erken eğitmektir. (Kuçuradi, 2011:8) Bu eğitim ise bütün öğretim düzeylerinde yapılmalıdır. İlkokul düzeyinde, öğrencide insan kimliği bilinci uyandırması yeterli görülürken, orta eğitimde insan kimliği bilinci bilgiye dönüştürülmelidir (Kuçuradi, 2011:262). Benzer bir şekilde üniversite ve master aşamasında da bireylere uygun olarak insan hakları eğitimine devam edilmelidir. Eğitimin her aşamasında insan hakları eğitimi uygulanması zorunludur. Bu eğitimi verecek eğitmenler için de "a) insan onurunun bilgisini (insan onurunun oluşturucularını, yani tarih boyunca insan başarılarını ve bu arada etik başarıları gösteren örnekler aracılığıyla) sunmayı; b) temel (insan) haklarının bilgisini ve bu hakların kişinin yaşamı, toplumların gelişimi, insanlığın bugünü ve geleceği için öneminin bilgisini sağlamayı ve c) öğrencileri eylemleri, olayları ve durumları doğru değerlendirmede eğitmeyi amaçlayan bir dizi ders, bu amaç için uygun olur" (Kuçuradi, 2011:262). Bu yönteme Kuçuradi kısaca "Sokratik yöntem" adını verir. O, ilkokul düzeyinden başlayarak lisansüstü eğitime varana değin insan hakları eğitiminin felsefi bir eğitimle mümkün olacağını düşünür. Diğer bir değişle insan hakları eğitimi bir felsefe eğitimidir. Hem öğrenciler hem eğitmenler bu eğitimden geçerek ancak insan haklarını tesis edebilirler. İnsan haklarının ihlalinin engeli eğitimle önlenecektir. İhlaller Kuçuradi için bilmemekle ilgilidir. Dolayısıyla onun için bu demokrasinin yapısal bir sorunu değildir.

Görüldüğü üzere Kuçuradi gerek insan haklarının temellendirilmesi söz konusu olduğunda gerekse insan hakları ihlallerinin önüne geçilmesi ve işlerliği konusunda felsefi etik eğitime bağlı bir görüş ileri sürer. İnsan haklarını demokrasi tartışmalarının bünyesinde tartışmaktansa onu bir eğitim sorunu olarak görür. Bilmemekle ilgili bir duruma indirgenen insan hakları verilecek uygun bir eğitim programıyla tesis edilebilecektir.

Tanımı, sınırı bir yana insan hakları ahlaksal gücünün çekiciliği sebebiyle karar verme mekanizmalarında hâlâ oldukça etkilidir. Hakların, kişiler arasındaki ilişkilerin seyrini belirlemesinde ahlaksal gücü etkili olurken, söz konusu yönetim ve yönetilen kişiler olduğunda işin içerisine elbette hukuksal gücü girer. Diğer bir deyişle aslında, "insan hakları insanları çoğunluğun "zorbalığı"ndan korumaya hizmet edebilir" (Clapham, 2010: 12). Daha doğrusu böyle olması bir bakıma zorunludur. Çünkü hukuksal yapı yönetilen kişilerin haklarını korumakla görevlidir. Bu bakımdan hiçbir grubun diğeri üzerinde bir önceliği yoktur. Görüldüğü üzere insan hakları bir yandan kişiler arası ilişkileri, bir yandan da yöneten ve yönetilenler arasındaki ilişkilerin bir parçasıdır. Ama aynı zamanda diğer devletlerin de göz önüne alan bir sözleşmedir. Yalnızca devlet değil, devletlerarası anlaşmaların dâhilindedir. Bu sebeple birbirine zıt olduğu düşünülen her iki görüş için ortak payda daha iyi ve uygulanabilir bir yönetim şekli ve buna bağlı evrensel insan hakları kabulüdür.

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INSTRUMENTALIZATION PROCESS ANALYSIS ON THE APPROPRIATION OF A DIGITAL WORK ENVIRONMENT IN TARGET LANGUAGE BY TURKS LEARNERS IN FFL

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ABSTRACT
This study aims to analyse the strategies implemented by Turkish learners in French as a foreign language to appropriate a digital work environment in french. During the course taught in 3rd year of FFL license entitled “Integration of ICT in Education" in Uludag University, analysis of the activity will be based on the theory of instrumental genesis that will highlight the process of appropriation of digital tools by learners. The study will highlight the birth of new knowledge on the lexical level generated during the instrumentalisation process. Semi -structured interviews will list the stategies developed by learners and statistical analysis will measure lexical aquisitions.

INTRODUCTION
In the teaching of fle, under the influence of Piaget’s constructivism and more directly under CEFR’s recommendations published in 2001, according to the methodology of action-oriented approach, the teacher must lead either to transmit a knowledge vertically, but by carrying out learner’s tasks to solve situations-problems and / or to complete a project. Since 2001, many researches propose various CEFR’s interpretations. Thus Bourguignon (2007), characterizes the learning sequence, established according to the action- approach called “the action-learning scenario”, distinguishing basic points:

- The challenge, here, is to consider the learner as a “language user”. We are invited to rethink the causal logic: “I will be better learners, better user." The learning is realized through the use of language; but it is not in use through school tasks which the CEF invites us to reflect but to use through ' tasks are not only language. "
- Asking language-users to perform tasks, not only language ones, requires to include the communicative task, here considered a purpose of learning, it is necessary to carry out in the performance of an action. So, communication is at the service of the action which alone gives its meaning, which is explained in the third point.
- If the speech acts are realized in actions, they fit themselves within the social context which only gives them their full meaning. "

In the field of didactics, the analysis of a class situation through the study of relations between the teacher (E), the learner (A) and knowledge (S), is modeled by the didactical triangle (figure 1)

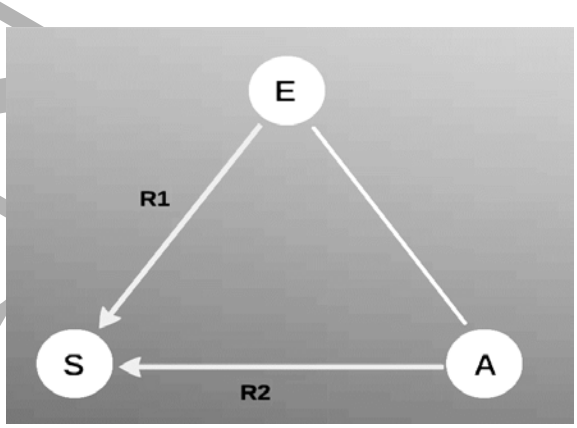


Figure 1. The didactical triangle

The relation of the learner to knowledge is, by the nature of their respective positions in the didactic situation, different from the relation to knowledge of the teacher. The instrumental genesis takes its roots in the fact that if the teacher incorporates an artefact "tool" in the teaching situation, the relationship to knowledge of the learner is changed and is correlated with the relationship of the learner to the artifact. Figure 2 shows this modification. To accommodate this phenomenon in FFLT, the reverse process can be noticed. Indeed, when a teacher asks his students to guess the meaning of a word in a text, learners use the dictionary to translate it. The tool is the intermediary between the learner and knowledge. If the teacher decides to withdraw this tool simply by forbidding it, the relationship to knowledge changes. The learner will be forced to develop new strategies to guess the meaning of the word. Considering the context, analyzing this phenomenon highlights the dual nature of the activity and Rabardel and Folcher (2005: 254) describe an activity as follows:

"The activity has two types of orientation, first, the realization of tasks: productive activity, and secondly, the development of internal and external resources (tools, skills, patterns and conceptualizations, system value ...): constructive activity where the subject produces the conditions and means for a future activity"

In the theory of instrumental genesis, during an activity, the user (learner) uses an artifact (material or symbolic: a computer, a method, a language). During this process, the user appropriates the artifact that becomes an instrument. In parallel to this appropriation, the user develops strategies of use (schemes of actions) to perform a task. This process called instrumentalisation generates itself new knowledge. Trouche (2005) schematically shows this transformation (figure2).

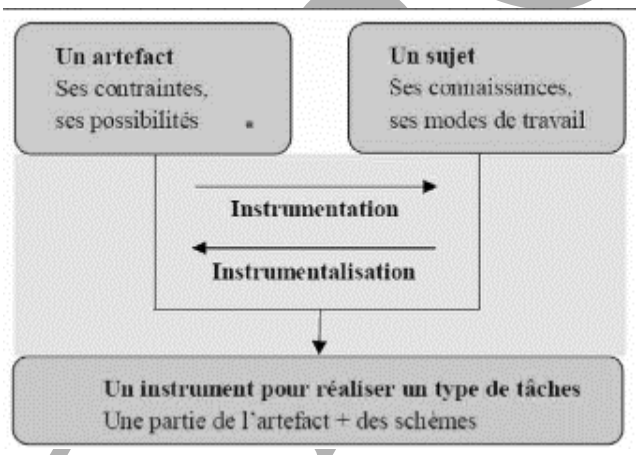


Figure 2. The instrumentalisation process

The artifact is any "object" material or symbolic, Integrated by the teacher in the didactic triangle and is according Rabardel (1995) "the thing to be used, elaborated to enroll in activities".
The instrument, is composed of the artifact to which are added the schemes of use, that is to say, the strategies developed by the user to appropriate it. Some of these strategies is invariant. Rabardel (1995b), thus expresses about the instrument "The instrument is an entity that includes on the one hand, the material or symbolic artifact and on the other hand, the schemes of use, representations which belong to the user's skill and which are needed for the use of the artifact. It is this mixed entity, which is both subject and object that is the true instrument for the user. "
"The instrument is not "given" but must be developed by the subject. The appropriation of the instrument by users results from a gradual process of instrumental genesis. (...) The instrument is not ephemeral, it is permanent and is the subject of conservation as provided for future action, though of course it will evolve in relation to the action situations with which it will be associated with the subject. "
1 - A technical object is primarily an artifact.

2- If this artifact is transformed in the activity by the user according to a purpose built by the later then it becomes instrument.

3- "Through the use gradually constitutes an invariant organization of action, a scheme"
(Rabardel, 1995).

So to simplify, we can develop what we call the "didactic square" in which the teacher as a conductor Agency its business by configuring the instruments.

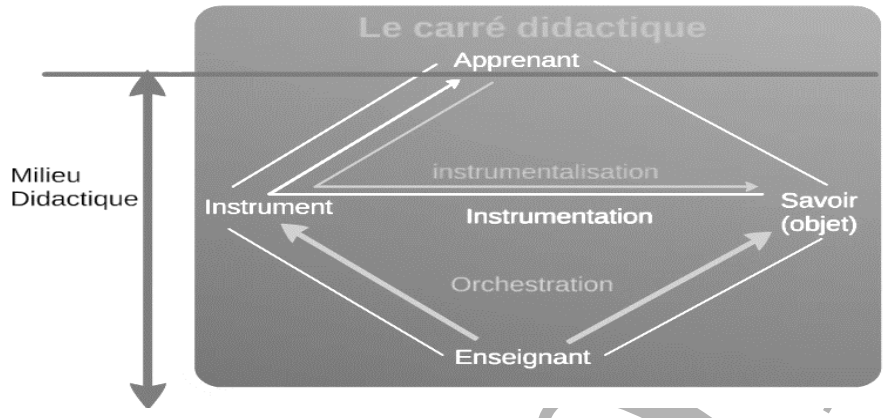


Figure 3 : the didactical square

The purpose of this study is twofold:

-Identify and analyze the appropriation strategies of a digital work environment entirely in French by Turkish learners of FFL Department at the University of Uludag

- Show that during this appropriation, (in parallel with the development of strategies) there is emergence of a new knowledge from the exploitation process. In our case it will be the acquisition of new vocabulary and techniques to find the meaning of a lexical unit without using the dictionary.

MÉTHOD

License second year learners follow three courses on the use and integration of New Information and Communication Technologies in Teaching FFL (NICT).

The first course entitled "Computer 1-2 "consists of 2 X 14 sessions 4 hours). It is spread over two semesters. The purpose of this course is to train learners on the material (components, peripherals, network architecture, internet use) and on the software (Windows 7,8,10 environment, office suite Office - Word , Excel, Power Point)

The second course entitled "Integration of NICT in teaching" concerns hardware and software specifically adapted to classroom practices.

Finally, a third course in the third year of the license entitled "didactisation of resources" mobilizing knowledge acquired in the preceding two courses in order to didactise resources and integrate them into sequences with NICT. The instrumentalisation process can be represented as below (Figure 4)

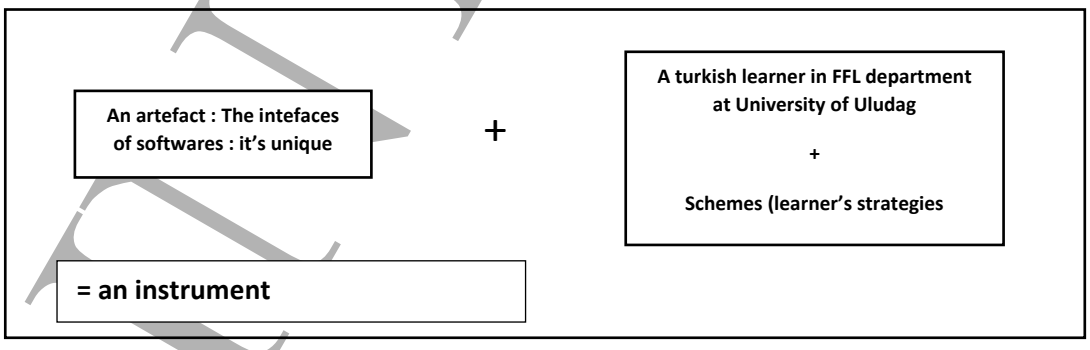


Figure 4. The instrumentalisation process in our research

We gave a sample of 100 French words, extracted from different interfaces and we gave them to be translated by learners before formation. We calculated the percentage of words correctly translated ie the percentage of words already known by the learners. Then, Semi -structured interviews were conducted with learners. We asked them

how they "guessed" the meaning of words, what strategies they have adopted .We then listed the schemes (strategies) used in order of frequency of use

FINDINGS

According to the results of the pretest and posttest, we note that learners have translated, at the end of the formation, 64% more words have been correctly translated compared with the pretest done previously. In the delta of 64 %, 55 % of the words are translated correctly with the appropriation of the instrumentalisation process. (11% would be due to external causes such as other courses or a book reading ...). The following table (table 1) is indicative as it comes from the perception of learners.

Table 1.

	Pretest	Posttest
Percentage of words translated correctly	19	83
Percentage of words translated correctly thanks to ICT lesson according to learner's perception		55

Statistical analysis is not intended to give a precise value of the lexical acquisition but to show that indeed when instrumentalisation process of the artifact "Software Interface" there is the emergence of new knowledge. This artifact (or set of artifacts as there are several software) was selected, configured (translated in french) by the teacher. This preparation phase is the orchestration performed by the teacher.

Finding of semi-structured interview

1 - *" I looked at the place of the word in the French interface and as I know the Turkish interface (or English), I found "*

The presence of transparent words strengthens the identification:

"I know that the word below "document" is the word "image"

Instead of the word, neighboring words involved in the translation of the word by learners

2 - *"I looked at the icon and colors next to the words"*

The present icons next to certain words and / or font colors enable learners to translate. The presence of shortcuts and icons can also contribute to find the mean of a word as shown in figure 5

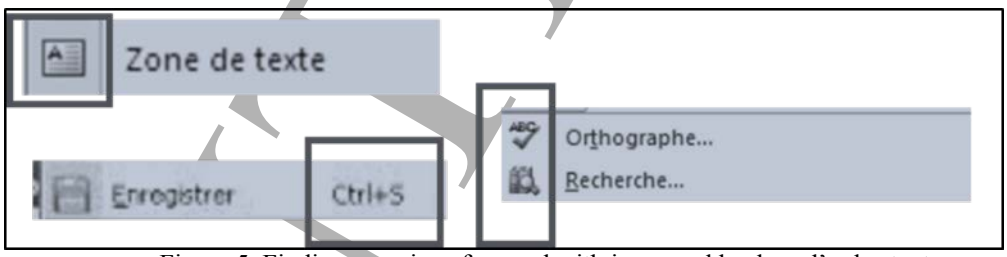
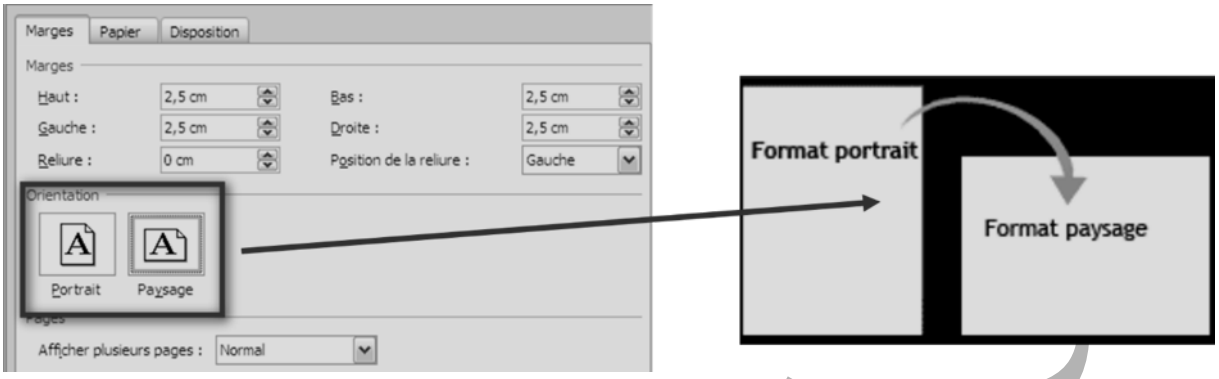


Figure 5. Finding meanins of a word with icons and keyboard's shortcuts

3 - *"I've tried by clicking"*

Software interfaces are dynamic, ie they react to user actions. Learners who didn't success to



4 - *"I asked someone*"

Communicating with another learner to find the meaning of a word is a strategy that belongs to the category of social schemes. There is here co- construction of knowledge.

CONCLUSION

This study highlighted several facts:

1 - When a teacher integrates a tool in a class situation must, firstly exploit this tool (appropriate) to conduct the orchestration so that it anticipates the knowledge that will emerge of the activities of learners and use of strategies. At their turn, learners are exploiting the tools.

2 - Transposing the theory of instrumental genesis in our study in the didactics of FFL, was particularly relevant for analyzing an activity in which we have usedNICT.

3- This theory could not only be used for tices, but also for any other artifact such as:

- Methods (FLE manuals) and didactic approaches associated.

- Information resources (movie, song ...) integrated into the didactic sequences.

In our case we would have a double instrumentalisation processes: one conducted by the teacher upstream courses that will enable it to achieve the orchestration, and the second instrumentalisation process performed by the students in the class.

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INTANGIBLE CULTURAL HERITAGE AND POSSIBILITIES OF ITS DEVELOPMENT ON THE BASIC SCHOOLS WITH ACCENT ON FOLK TRADITIONS AND CRAFTS

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ABSTRACT
The article reacts on aspects that are related to a preservation of the cultural heritage in connection to education. It focuses on the folks´ traditions and crafts, on the role of the school subjects based on practical activities and technical skills that are realised at the basic schools. It succeeded with a help of the analytical-synthetic approaches to refer on the reality that the basic education plays a significant role in the preservation of the intangible cultural heritage.

Keywords:cultural heritage

INTRODUCTION

The intangible cultural heritage represents in our cultural framework an area of the application-research field, which has not received attention sufficiently. In the field of education, the interest was oriented rather on the tangible culture – in this area, there are more valid findings available.
An emphasis on the intangible cultural heritage and its protection is obvious also in the interest of UNESCO, which established Lists of intangible cultural heritage (2014) which is now also administered by this organisation. The importance of the intangible heritage lies in the knowledge and skills that are (together with it) passed on. Despite the fact that the tangible and intangible cultural heritage are very different, they are two sides of the same coin – they both carry a meaning and engrained memory of the mankind (Bouchenaki, 2003).
The tangible cultural heritage is sometimes as the dead victims of the past, see e.g. P. Kouřil (2004) who adds that in addition to those so-called dead victims of the past, we can also find also victims pretty much alive – mainly from the area of the intangible culture and also the culture whose carrier is not a piece of paper, a stone or a parchment, but the actor themselves.

INTANGIBLE CULTURAL HERITAGE IN THE BASIC SCHOOL EDUCATION

R. Kurin (2004) is quite extensively dealing with the definition of the essence of the term intangible cultural heritage, when he states that, according to the convention from the UNESCO conference in Paris in 2003, this term includes i.a. oral traditions (fairy tales, stories), music, singing, dance, puppetry and theatre, traditional crafts, social customs, ceremonies and celebrations. The value of the intangible cultural heritage is identified and can be used, if the individual (while encountering it) may and is able to acquire a relationship that comes from the cognition of the importance of the culturally-historical heritage, its understanding and experiencing that is a part of experience (cp. Kirchner, 2009), as an individually cognized, experienced and memorable life content (cp. Pechová, 2012 and Slavík, 2001). The culturally-historical environment may potentially stimulate everybody regardless the age or a socio-cultural origin to develop their creativity, cognitive abilities and imagination, to join actively and confidently the social life, and to increase their understanding of the local, natural, regional, national and global environment (cp. Trust, 2004).
From the perspective of pedagogy, the culturally-historical heritage has basically two values: firstly, it is an object that is beneficial to be cognized, which should the young generation create the relationship with by the possibility of cognition of its value. Therefore it is not primarily the value bound to the contents of the culturally-historical heritage – those are just the beginning, accelerator or facilitator of cognition and creation of the deeper relationships that may lead to a change of attitudes. This may manifest in e.g. the interest in a place where we are living, its development or protection (cp. Pechová, 2013). Additionally, e.g. Parkan et al. (2008, p. 10) summarizes the benefits to the identity development in this context in connection to the school education – the development of the cognitive, understanding and assessment-of-cultural-phenomena-related skills or the support of one's own creativity.
It is obvious that school education plays an important role in fields of the intangible cultural heritage. In relation to this, UNESCO (2010) urges countries that accede to the convention about the facilitation of access of the society to the results of the regional research focused on the intangible cultural heritage. A significant accent lies in the given document (ibidem) on the placing of the subject matter containing information about the intangible cultural heritage to the school curricula and preparation of the school materials, teachers' education with respect to their ability to convey knowledge about the intangible cultural heritage to the young generation, preparation of the methodical materials, and application of the experiencing methods.

TRADITION AND FOLKS CRAFTS IN THE TECHNICAL SUBJECTS AND SUBJECTS FOCUSED ON PRACTICAL AND CREATIVE ACTIVITIES

The technical and practical activities subjects taught at the basic schools provide an appropriate space for the instruction about the issue of social customs, ceremonies, celebrations and traditional crafts in relation to the possibilities of their preservation and cultivation despite the fact that from this point of view is the given field looked at minimally. Currently are the topics related to the social customs, ceremonies and celebrations classified into the curricula of the particular school subjects – mainly to the classes devoted to arts civics and music. It seems as a full non-use of potential that the school educational system provides, especially in the fields of the folks crafts.

We base this paper on the knowledge about motivation and creation of the pupils´ interest. If we want them to acquire a positive relationship to the traditions and folks crafts, it is appropriate to include also the practical activities (apart the transmission of knowledge) into the education. If the pupil has a possibility to create a product related to the intangible cultural heritage, there is a big possibility that the experience of joy and success from the creative activity will become a crucial motive to realise traditions that have an intangible nature. For example, pupils create in the technical education a ratchet (a ratchet is a product making a noise that was, according to the traditions, used in order to call people for a church service from the Maundy Thursday when the bells fell silent, so-called left to Rome). It can be assumed that they will be stimulated to search for other knowledge about Easter-related traditions. The individual is closer to walking around the village itself on the Maundy Thursday with the handmade ratchet and realising of the tradition. As helpful seem to be the applications of the inquiry-related approaches, cp. publication of J. Dostál (2015).

For the production of the technical objects connected to the intangible cultural heritage, a number of materials can be used in the education, i.a. wood, metal, withe, leather, husks of the corn, etc. The materials should allow the children (regarding their age) to work with the material without using enormously raised effort. This fact has to be considered also in relation to the classes devoted to the traditional crafts, such as blacksmithing, artistic metal-processing or artistic carving. During the creation of the traditional or folk-craft-related objects, the children acquire knowledge, skills and attitudes for their everyday life. The manual skills and skills to handle tools are nowadays highly valued.

MUSEUM EDUCATION AND ITS IMPORTANCE IN THE BASIC SCHOOL EDUCATION

For keeping the intangible cultural heritage play the museum education an irreplaceable role. The importance of the museum education evidences also V. Jůva (2008) who state that from the perspective of subject content, the museums offer to their visitors scientifically, aesthetically and quite often also didactically well-founded processed elements of the cultural heritage. Those traditionally represent the basis of education and allow the acquirement, understanding and empathy into the world of the human culture. This can be appropriately used in form of educational excursions.

The educational function of a museum represents its immanent potential and real activity, which initiates specific educational processes during which is one subject learning, usually during a direct or a vicarious effect of another teaching or instructing subject (Průcha, Walterová and Mareš, 2003, p. 53). V. Jůva (2008) notices a remarkable fact typical for the educational processes in the museum, where, in contrast to schools and other educational institutions with high level of intentional learning (which is externally guided), the functional educational effect predominates (e.g. aesthetic environment, positive climate of the institution, value of the museum exhibits, the didactic-museum concept of expositions and exhibitions).

CONCLUSION

The direct link between the intangible culture, its cultivation, its transfer and education is clearly described in the article. The basic education seems to be substantial and perspective for its broader transfer. However, the educational practice does not reflect the current societal needs, which are typical of the increasing requirement on the effect in the fields of intangible culture towards the young generation

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INTEGRATION OF ICT INTO EDUCATION PROCESS: DIGITAL CLASSROOM

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Nowadays, education is influenced by information and communication technologies (ICT). The use of ICT in education has intensely reformed learning and teaching processes. Furthermore, it has expanded new opportunities for learning and accessing educational resources beyond those traditionally available. Integration of new technologies into learning process takes a significant role in modern teaching methods and extends the availability of education. This paper examines the requirements of ICT implementation for digital classroom, which automatically creates interactive presentation for e-learning and provides stream of lectures.

Keywords: digital classroom, education access, e-learning, interactive presentation, ICT

INTERACTIVE LEARNING IN SLOVAK EDUCATIONAL ENVIRONMENT

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ABSTRACT
Teacher and his pupils are the most important factors of educational process. The present contribution introduces the concept of analysis of the relationship between teacher interaction style and social climate in the classroom. The verifying of the relationship between two indicators (interaction style and social climate in the classroom) was used by regression and correlation analysis by Pearson product-moment correlation coefficient, with graphical presentation in the form of Scatterplot with line. The author states in the conclusion the positive change in the social climate in the classroom, which is based on participation of two determining factors - teacher and his students in the interaction.

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INTRODUCTION

Teacher´s typology is based on different perspectives. It may be a teacher´s educational impact, his behaviour, his temperament, his qualities, working style and so on. Therefore, the teaching profession is an important factor for the education (Pasternáková, 2009, Zahatňanská, Majerníková, 2013). The presented contribution interprets the typology of a teacher based on a style that is reflected mainly in the behaviour on the education process. The primary object of this article is to describe the teacher´s interaction style, especially in Slovak educational environment.

Interaction style for a teacher: "is characteristic by typical and relatively permanent personality that is showed in his teaching, behaviour and communication during the lesson. It influences both the didactic, organizational and communication activities" (Fenyvesiová, Tirpáková, 2005, p. 59). According to different definition, the teacher´s interaction style is relatively typical stable teacher and this fact greatly helps students to predict the teacher´s activity and prepare for it (Gavora, Mareš, Brok, 2003).

THE STUDY

What is the origin of interaction style or where does it come from? American psychiatrist Sullivan (representative of an interpersonal behaviour) introduces the concept of "interpersonal relationships", which influenced many scientist and researchers in the humanities sciences. It became a fundamental concept in the conception of many theories such as Timothy Leary´s theory. The research of Leary and his working groups was mainly based on works of Sullivan and Ericson and later, it was supported by observation and categorization of interpersonal activities on psychiatric patients. His theory was developed in the 60th of the 20th century and it was published in the work *Interpersonal diagnosis of personality.*

There is a more detailed definition in the literature of interpersonal behaviour by Mlčák. He defined the interpersonal behaviour as a "set of recorded, verbally and nonverbally, consciously or unconsciously motivated expressions of man against existing real or ideal subject. In the nature a collection of expressions are always presented as a result of dynamic interaction between external and internal situational influences, relatively stable, socially relevant personality characteristics" (Mlčák, 1996, p. 152). Timothy Leary as a psychologist and a psychotherapist developed a typology of personality, which is considered to be very inspirational always for the present teaching practise. This developed typology was based on the impact of the man to the other people which is influenced especially on his own. Leary studied the interaction on his clients and through the diagnosis of personal traits he created the theoretical model consisting of two axes which are defined by two extreme points. The horizontal dimension labelled as a *proximity* connects the two extreme points: *Cooperation* and *Opposition* and vertical dimension labelled as an *influence* connects the two extreme points: *Dominance* and *Submission*. In the other literature, there is definition of these dimensions as: *Dominance – Submission* and *Hostility – Affection*. The content of these two axes is formed by personal characteristic and because of their circular arrangement of this model; it was named as *interpersonal circle* or *circumplex model* (Brok, Brekelmans, Wubbels, 2004; Mlčák, 1996, Mareš, Gavora, 2004; Gavora, Mareš, Brok, 2003).
The Leary´s model of interpersonal behaviour became the theoretical foundation for Dutch researchers at the University of Utrecht (Wubbels, Brekelmans, Creton and others). Their research was based on the fact that the personality of the teacher in the classroom and his behaviour could not be examined separately. Therefore, they applied a system approach and teaching interaction and communication were perceived as a coherent system

which is composed of several factors: teacher, student and the whole class. They were also confident on the argument that system is characterized by cross-linking, and that "a change from a one element not only causes a change the other elements, but also feeds back to the element where turns originally started" (Mareš, Gavora, 2004, p. 103).

According to mentioned, we conclude the following:

- each teacher tends to a particular methods of interaction;
- methods of interaction prevail in various episodes of interaction;
- a teacher behaviour in the interaction with pupil behaviour in the classroom can be called as the teacher´s interaction style.

The Dutch researchers create a model of teacher interaction behaviour such as the Leary´s model on two axes. This two-dimensional model is a theoretical base for the creation eight sector classification system. Following the Leary theory and its application to the educational diagnostics became the foundation for creating the eight-dimensional typology of teacher´s interaction styles:

- *Leadership*, *Helpful*, *Understanding*, *Student Freedom*, *Uncertain*, *Dissatisfied*, *Admonishing* and *Strict*.

The typology of teacher´s interaction style is graphically represented as follows:

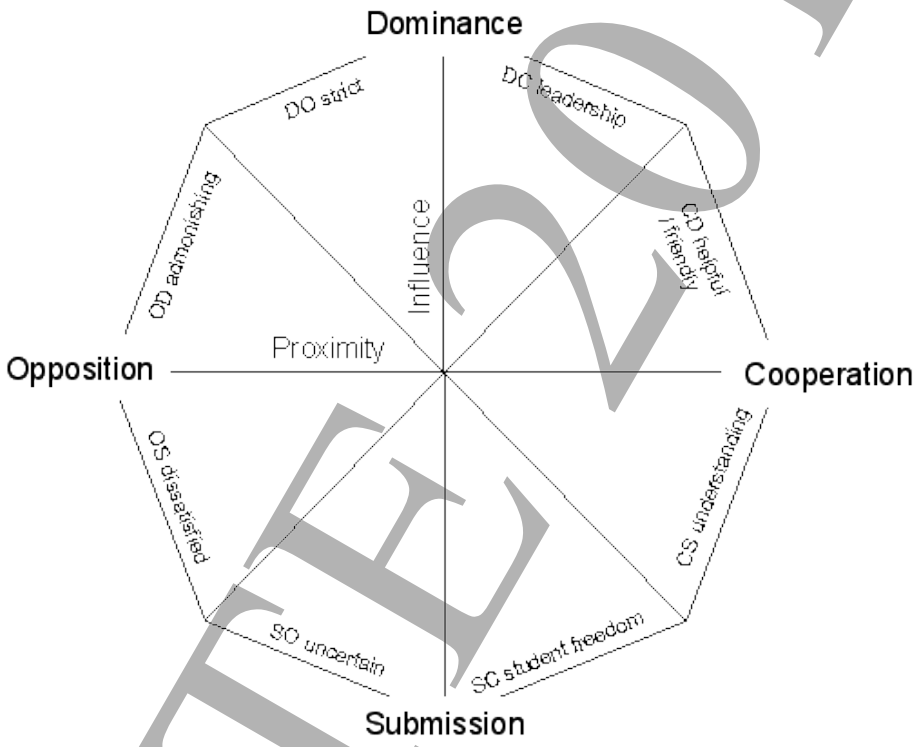

Figure 1: Teacher interaction style (Brok, Brekelmans, Wubbels, 2004)

This approach was applied into the Czech and Slovak educational environment by Gavora and Mareš (2003, 2004). The content of the variables in the model of teacher´s interaction style shows the following table:

Table 1: The dimensions of variable teacher interaction style

Teacher interaction style	**Dimension**	**Characteristic of dimension**
Leadership	*dominance, cooperation*	leadership, organization
Helping friendly	*cooperation, dominance*	friendliness, gladness
Understanding	*cooperation, submission*	empathy, patience
Student freedom	*submission, cooperation*	respects freedom
Uncertain	*submission, opposition*	apology, admission a mistake
Dissatisfied	*opposition, submission*	criticism, annoyance
Admonishing	*opposition, dominance*	forbidding, castigation
Strict	*dominance, opposition*	checking, rigorous assessment

Teaching styles are variable and typical for the teacher. There are activities which teacher uses in the education, in managing learning processes and so on. They are influenced by the specifics of the teacher's personality, his undergraduate training, his experience and conception of education (Hudáková, 2013). Teacher interaction style characterizes "typical and relatively permanent personality that shows itself in the meeting, behaviour and

communication during the lesson. It affects both the educational, organizational and communication activities" (Fenyvesiová, Tirpáková, 2005). The difference between teaching style and interaction style is based on the fact the teacher interaction style is mainly determined by pupils. There is a link between teacher interaction styles and social climate of the classroom as a relatively stable long-term educational-social indicator. The class climate could be characterized by subjective evaluation summaries and self-perceptions, experiences, emotions and the interaction of all participants (Čapek, 2010, Kosturková, 2012). The research problem is focused on the relation between teacher interaction style with eight dimensions (*Leadership*, *Helpful*, *Understanding*, *Student Freedom*, *Uncertain*, *Dissatisfied*, *Admonishing* and *Strict*) and social climate in the classroom with six dimensions (*Order and Organization, Teacher Support, Affiliation, Involvement, Rule Clarity*, *Task Orientation*).

FINDINGS

The main goal is analysis of relation between two indicators: teacher interaction style and social climate in the classroom. The research problem was formulated as: *What is the relation between the teacher interaction style and social climate in the classroom?* The research problem was investigated by two questionnaires: CES (*Classroom Environment Scale*) and QTI (*Questionnaire on Teacher Interaction*).

The research question was operationalized into the eight hypotheses. A higher number of hypotheses suggested that it was not in our power to determine in advance whether they occur in the sample all kinds of teachers who meet the criteria for inclusion in the individual categories. The hypothesis no. 1 assumed that the teacher with high scores in the dimension of interaction style *Leadership* had a higher score in the dimension of social climate in the classroom *Order and Organization*, than a teacher with a low score in the dimension of interaction styles *Leadership*.

The inclusion of teachers in high score, or low score was used by the following formula:

- teacher with a high score: mean + standard deviation
- teacher with a low score: mean – standard deviation

Table 2: The summary data for the various dimensions of interaction styles secondary schools teachers

QTI	1.	2.	3.	4.	5.	6.	7.	8.
mean	3,00	3,33	3,30	2,97	0,80	0,97	0,92	1,60
SD	0,47	0,31	0,35	0,23	0,42	0,33	0,41	0,45
mean+SD	3,47	3,61	3,65	3,20	1,22	1,30	1,33	2,05
mean+SD	2,53	3,02	2,95	2,74	0,38	0,64	0,51	1,15

According Chráska (2007), the analysis depends on two basic aspects:
- finding the regression line;
- a consideration of tightness of relationship.

There has been used the Scatterplot with line to find the relationship between the various dimensions of teacher interaction style and various dimensions of the social climate in the classroom. To assess the tightness of the relationship, there has been used a table of Critical Values of the Pearson Product-Moment Correlation Coefficient. To test the statistical significance of the correlation coefficient, there was formulated zero and alternative hypothesis:

H0: The tested value of the coefficient of correlation does not confirm the relationship between the two dimensions.

HA: The tested value of the coefficient of correlation confirms the relationship between the two dimensions.

The relation between the dimension of teacher interaction style *Leadership* and dimension of social climate in the classroom *Order and Organization* is presented by following Scatterplot with line:

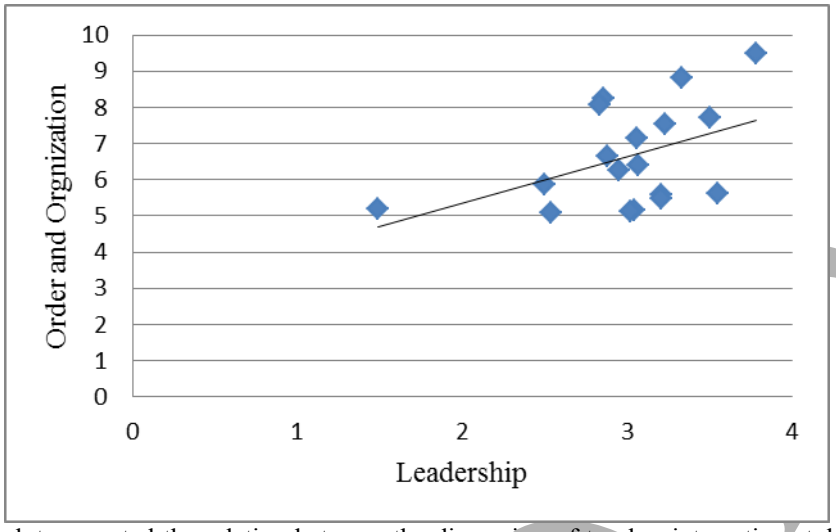

Figure 2: Scatterplot presented the relation between the dimension of teacher interaction style *Leadership* and dimension of social climate in the classroom *Order and Organization*

Due to the increasing regression line, we could assume that the coefficient of correlation is clearly positive, the slope of the line also allows us to estimate that the value of the coefficient will be neither too high nor too low. According to Rimarčík in the social sciences is "practically impossible to find two variables whose values in Scatterplot would lie on one straight line" and as he adds: "regression analysis gives us the answer to the question, how do we estimate the value of the variable Y by value variable X. However, it does not tell us how good do we estimate. The answer for this question will give us the correlation analysis by "(Rimarčík, 2006, p. 41).

The value of correlation coeficient between the dimensions *Leadership* and *Order and Organization* presents the following table:

Table 3: The correlation coeficient between the dimension *Leadership* and *Order and Organization*

	Order and Organization	Teacher Support	Affiliation	Involvement	Rule Clarity	Task Orientation
Leadership	0,458	0,331	0,273	**0,779**	**0,794**	**0,582**

If we compare the values with the table of critical values for the coefficients of correlation, it is clear that the dimension of *Leadership* shows high positive values in the dimension of *Involvement* and *Rule Clarity* at significance level $\alpha = 0.01$ and dimension *Task Orientation* at a significance level of $\alpha = 0.05$. Although, there is not statistically significant relationship between the dimension of interaction style *Leadership* and dimension of the social climate in the classroom *Order and Organization*, we can say that the values are very tightly below the level of significance $\alpha = 0.05$. We assume that the reason is our research sample.

The projected claim shows, that teacher with high scores in the dimension of interaction style *Leadership* has higher scores in the dimension of social climate in the classroom *Order and Organization*, than a teacher with a low score in the dimension of interaction style *Leadership,* and it has been confirmed. However, the found data of regression and correlation analysis showed following: if the teacher work would be better organized, the pupils will more orient to the roles, the rules in the classroom will be clear and their interests into the subject will be greater.

According to our findings, the most dominant dimensions of teacher interaction style are *Helpful* and *Leadership*. It means that if we want to raise the dimension *Order and Organization,* it is not sufficient for teachers being just facilitative or understanding to their pupils. According to our results the correlation coefficient is clearly positive in both cases (dimensions *Leadership* and *Strict*) so we can say following: if teachers would like to be rated as organized by their students, they should more organize their work and in particular, they should be strengthened.

We have verified the other hypotheses the same way. The correlation between the various dimensions of teacher interaction style and various dimensions of the social climate in the classroom are presented in following table (the critical values for Pearson Product-Moment **α =0, 01**; **α = 0, 05)**:

Table 4: The correlation between the various dimensions of teacher interaction style and various dimensions of the social climate in the classroom **α =0, 01**; **α = 0, 05**

Social climate / Teacher interaction style	Order and Organization	Teacher Support	Affiliation	Involvement	Rule Clarity	Task Orientation
Leadership	0,458	0,331	0,273	**0,779**	**0,794**	**0,582**
Helpful	0,392	**0,778**	-0,114	**0,586**	**0,564**	0,415
Understanding	0,332	**0,824**	-0,150	0,392	0,321	0,351
Student Freedom	0,080	**0,721**	-0,414	0,086	0,023	0,046
Uncertain	-0,394	-0,418	-0,228	**-0,674**	**-0,616**	**-0,499**
Dissatisfied	**-0,675**	**-0,514**	-0,116	**-0,730**	-0,391	**-0,646**
Admonishing	-0,227	-0,366	0,306	-0,060	0,107	-0,104
Strict	0,434	**-0,488**	**0,607**	0,340	**0,547**	**0,495**

According to results, we conclude the following findings:
The most dominant dimensions of various teacher interaction styles (in the relation to the social climate in the classroom) are *Leadership* and *Helpful* with positive correlation and dimensions *Uncertain*, *Dissatisfied* and *Strict* with negative correlation. The most dominant dimensions of various social climates in the classroom (in the relation to the teacher interaction style) are *Teacher Support*, *Involvement*, *Rule Clarity* and *Task Orientation*. The critical values between these dimensions are presented by α = 0, 01 and α = 0, 05. For teachers, it is important to organize the work, help their students, being certain and satisfied during teaching. If teachers will be too strict, their pupils will probably more collaborate, they will know the rule and task, but they will have no feelings for teacher support and so on.

CONCLUSION

In conclusion, the results of the present research are significantly influenced not only by the sample range, but especially by the sample content. However, we believe that these findings may be beneficial not only for teachers but also for directors of secondary schools, for teaching students, who want to be professionally applied in teaching profession, for parents who encourage their children to choose secondary school and even to those to whom teaching is close and who cares who is teaching in our schools. On the other hand, the positive change in the social climate in a school class must be based on participation of both factors - teachers and their pupils in the interaction.

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INTERCULTURAL EDUCATION OF NURSES

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ABSTRACT

As more and more immigrants settle in Poland, improving intercultural competence in the healthcare services sector is likely to contribute to facilitating the process of their integration. The healthcare system must therefore be prepared to provide services delivered by well trained professionals. In addition to being familiar with the legal regulations and procedures relevant to providing medical treatment and nursing care to people whose nationality is other than Polish, the medical personnel are required to exhibit tolerance and to show awareness of the culture-bound differences that transpire in conversation. Source literature treats migration as an extremely stressful factor. In this context developing the awareness of cultural differences related to nationality, ethnic background, and religion among prospective health care delivery professionals, including students of nursing, and incorporating the subject matter into curricula appears to be the right decision that should ensure equality and prevent potential social exclusion of patients from migrant backgrounds.

To present the methods and techniques applied while teaching intercultural communication to students of nursing. The paper is based on the authors' own experience and observations as teachers of intercultural communication to students of nursing between 2010 and 2015. In their classes the authors employ the kinaesthetic and sensory learning styles as well as the experiential learning model (accommodators). Various types of activating tasks are used in class. They are based on reflection, experience, discovery, and problem-solving. The opinions voiced by students of nursing confirm how relevant and necessary classes in intercultural communication are, as they equip the graduates with a cultural competence to work with a foreign patient.

INTRODUCTION

Intercultural education has emerged fairly recently as an area of study that focuses on practices which improve one's knowledge and skills, influence attitudes, and seek to prevent discrimination and violence by advocating equality policies. In Poland it has not yet secured a strong position in education. There are few theoretical studies available; research and academic debates are scarce.

The Schengen Agreement has led to a steady increase in the mobility of EU citizens, including students who thanks to the Erasmus programme feel more willing to study at a European university of their choice. In the past, when people used to seek employment in the place where they lived, a traditional degree was a sufficient benchmark as the job market and the education market were compatible and the graduates' qualifications predictable regardless of which school they finished. As college and university graduates ever more often decide to study or work abroad, several pressing issues that need accounting for have emerged such as how universities assist their graduates with assimilating into a culturally unfamiliar background and how they should develop cultural competences. Furthermore, students of medical sciences, including nursing, are in immediate need of intercultural communication classes, as they are bound to deal with an ever growing number of immigrant patients of culturally diverse backgrounds.

Investing in culturally competent health care services, especially since more and more immigrants decide to stay in Poland permanently, should facilitate the process of integration. The health care system should be prepared to provide services delivered by well-trained staff. Technical knowledge about medical and nursing care and familiarity with legal regulations applicable to foreign patients should go hand in hand with tolerance and the awareness of differences in communication that stem from the fact of having a different cultural backgrounds.

Source literature treats migration as an extremely stressful experience which may influence the immigrant both physically (decreased immunity) and mentally (depression). Thus boosting awareness among prospective health

care delivery professionals in the course of their studies, especially the awareness of intercultural differences, appears to be the right solution promoting equality and preventing exclusion of migrant patients. How, then, should the immigrants and the host nation prepare for intercultural contact?

OBJECTIVE

This article presents the methods, techniques and principles applied in teaching intercultural communication to students of nursing and explores how they gain intercultural competences as a result of the teaching process.

RESEARCH METHODOLOGY

This article was completed on the basis of analysing source literature and the authors' own observations as instructors teaching practical classes in intercultural communication to students of nursing between 2010 and 2015. The authors gained their expertise and experience in the field in the course of study visits and academic placements in England, Sweden, Germany, and France; they have also completed the Antidiscrimination Training Academy programme having selected cultural sensitivity as the focus of their workgroup and participated in a number of training workshops on cultural diversity. These experiences have led the authors to create a module on intercultural communication for students of MSc Nursing and to write the textbook *Pielęgniarstwotranskulturowe*(transcultural nursing) and the book *Różnorodnośćkulturowa w opiecepielęgniarskiej*(cultural diversity in nursing).

OVERVIEW

Source literature defines cultural competences in a variety of ways. Elizabeth Marx lists the following as cultural competences [1]:

- sensitivity to other cultures, i.e. a welcoming attitude to other cultures and cultural awareness;
- the ability to adapt to new circumstances; the ability to face new and ambiguous situations; flexibility of thinking, communicative skills, and the ability to make new contacts easily; and knowing foreign languages and the ability to learn them;
- person-oriented approach that combines empathy, interpersonal sensitivity, the ability to listen and work in an international team, and assertiveness;
- resistance to stress: self-confidence and the ability to face challenges.

A well-designed curriculum of intercultural communication training and education should develop three qualities [2]:

- awareness that contributes to developing an attitude of intercultural sensitivity, the eagerness to learn about other cultures, and an open outlook on differences, new information, varied perspectives, and different priorities and rules of behaviour, which in turn eliminate schematic thinking and egocentric and stereotypical view of the world;
- knowledge which equips a person with culture-specific information that replaces stereotypes and allows to understand difficult situations properly and offers facts about history and geography, family, friend and male-female relations, methods of upbringing, etc.;
- skills that bring about patterns of behaviour suitable for a given culture, such as ways to behave in a public place and among different people, verbal and non-verbal communication, and the ability to cope with ambiguous situations.

Intercultural education seeks to bridge gaps and foster integration as opposed to merely living next to each other [3]. In addition to familiarising people with differences and facilitating their comprehension, it also boosts awareness of one's own cultural heritage and its significance and enhances one's own cultural identity. For these reasons, in their teaching practice the authors focus on the following issues:

- the art of intercultural communication: identity and its role in communication; reflecting on one's own identity, identification with particular groups, and self-perception; identifying and experiencing difficulties in contacts across cultures;
- the influence of culture on perception, way of thinking, and behaviour: natural distribution and the iceberg concept of culture; typology of cultural dimensions; identifying national and professional stereotypes and applying strategies to deal with them; verbal and nonverbal communication in providing healthcare to patients of different cultures;
- mechanisms applied in intercultural contacts: stereotypisation, prejudice, and discrimination; micro-inequities and counteracting discrimination; M. Bennett's Developmental Model of Intercultural Sensitivity (stages of ethnocentrism and ethnorelativism); identifying the stages of developing intercultural sensitivity, emotions, cognitive processes, behaviours inherent to culture shock, and the behaviours characteristic of the representatives of the host culture who come across the symptoms of acculturative stress on the part of the migrants; culture shock, the acculturation curve, acculturation models and strategies among foreigners; posttraumatic stress disorder among refugees.

Preparing their classes, the authors paid particular attention to choosing the most effective methods and techniques to teach adults. They have also taken into consideration different learning styles. From the many models proposed by specialists in the field, the authors decided to stick to the four learning styles differentiated by D. Kolb [4]: the converging style, in which the learner poses questions about how something is done or happens and puts his/her ideas into practice (his/her interests are specific and he/she does not rely on emotions); the diverging learning style, in which the learner asks why something happens, relies on creativity and imagination (the learner exhibits a person-oriented approach and has varied interests); the assimilating learning style, in which the learner asks what happens, creates theoretical models, and has an idea- rather than person-oriented approach; and the accommodating learning style, in which the learner asks what if, focuses on actions and enterprises, takes risks, and prefers to solve problems intuitively (Figure 1). In their classes, the authors also rely on the learning styles advocated by A. Sitko-Lutek [5]: the kinaesthetic learner who best remembers new concepts when the learning process coincides with activity, e.g. role-play games; and the sensory learner whose knowledge retention rises when the material appeals to his/her feelings and who learns best when he/she can experiment and relate new information to his/her earlier experiences.

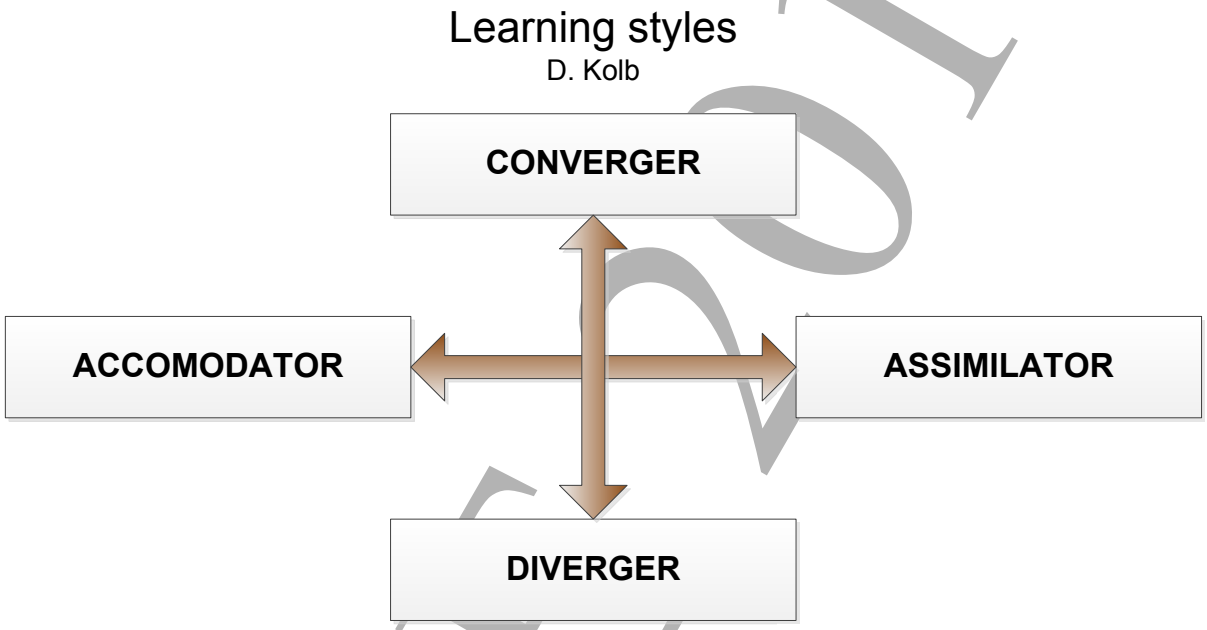

Figure1. Learning styles.

D. Kolb [4], the creator of the experiential learning model which the authors drew heavily upon while designing their intercultural communication module, stresses the fact that for learning to take place it must coincide with interaction with the environment and that knowledge is constructed through transforming experience in the course of dealing with certain situations and exchanging reactions with other participants of the education process. D. Kolb advocates the idea that the learning process should be treated as a cycle whose two primary elements include an individual's experience and its analysis. Although the model itself is quite complex, Kolb proposes four distinct stages in the experiential learning cycle (Figure 2):

- concrete experience that coincides with the learner's views is encountered; the learning process is initiated;
- reflective observation takes place; the learner analyses the new experience and looks at it from different perspectives;
- abstract conceptualisation occurs; it allows the learner to analyse the available data further and begin to draw conclusions from the new experience he/she encountered;
- active experimentation concludes the learning process; the learner transforms his/her behaviour and starts to experiment with freshly gained knowledge to check whether the newly developed theories prove to be useful in problem solving and decision making processes.

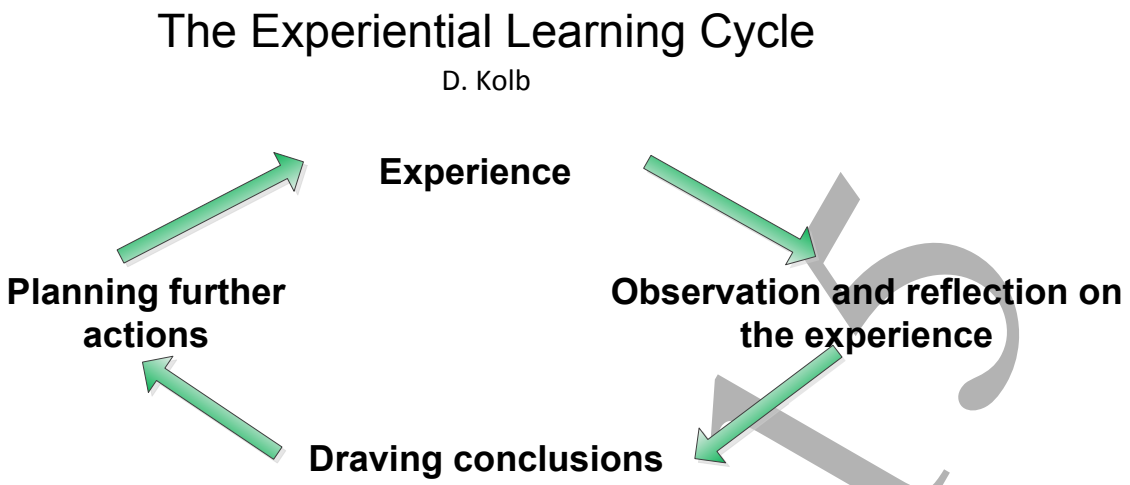

Figure 2. The Experiential Learning Cycle.

The application of Kolb's experiential learning model in class calls for abandoning the traditional approach to teaching which rests upon preceding practical training with providing the necessary theoretical background first. Kolb recommends a completely opposite course of action: the learner is encouraged to generalise the rules and principles he/she observes and apply them to different situations and relate the experience he/she encounters to wider theoretical concepts which facilitate comprehension, thus bridging the gap between theory and personal experience which makes the former more acceptable. Furthermore, every subsequent experience offers an opportunity for the learner to draw conclusions and initiate a new learning cycle. Hence presenting new concepts should begin with subjecting the learner to a certain experience which is then reflected upon, analysed, and examined in practice.

There are three basic principles that the authors seek to apply while conducting classes in intercultural communication. The first one entails developing individualised educational modules that cater for the real needs and expectations of the learners both in terms of the course content and the teaching methods and techniques used, including spatial arrangement of the classroom. The second principle involves planning the teaching process in a manner that allows the time that elapses between classes to be educationally active: the learning process initiated in class continues outside the classroom so that the learner has enough time for further reflection in the course of which he/she relives the experience he/she had encountered. To achieve this, the authors deliberately choose to leave certain matters open, so that the learner thinks about them while preparing for the following class, thus generating motivation to introduce changes. The third principle rests upon treating control and evaluation of the teaching/learning process as an integral part of the course, the evaluation of a person remaining distinctly separate from the evaluation of the course of action taken and effects achieved; a separate assessment applies to the level at which a given task is completed and the progress (change) that is made. Occurring as final stages of the educational process, control and evaluation constitute its indispensable elements. Accounting for the aspects mentioned above provides guidelines for preparing and conducting future classes. It also emphasises the significance of the stages taking place before actually meeting the learners in person, i.e. the needs analysis stage, the objective-defining stage, and the content preparation stage. M. Knowles [6] mentions the following guiding principles that should be applied while preparing classes in intercultural communication:

- adults need to know why they need to learn;
- adults want and need to learn through experience;
- adults treat learning as a problem solving task;
- adults learn best when the content presents immediate value to them;
- adults do not want to be treated as empty vessels which the teachers fill in;
- adults learn best when they are valued for who they are and when their experience matters; when they are allowed to voice their opinions without the fear of being censured; when they are allowed to make mistakes without being judged and punished; and when they are engaged in the learning process.

The authors' experience proves that the last of Knowles' rules mentioned above is crucial and needs to be observed above all others. To build the learners' sense of security the authors use various techniques [7,8]:

- the teacher and students establish rules of conduct together and accept them as a group: this offers an opportunity to present, discuss and adopt other rules that come into being during teamwork (you need to make sure that you leave some free space on the flip chart to write down the new rules);
- the instructor makes the students aware of the rules of proper communication: avoiding passing judgments, formulating concrete utterances, speaking from one's own point of view, and counteracting any divergence from the established rules;
- with time, the teacher lets the group assume a greater degree of responsibility for their work;
- the students know that they have the right to refuse to participate in a given activity without any consequences from the teacher and other participants;
- creative responses are supported and encouraged;
- interference from the outside is minimised;
- the teacher monitors the students' reactions and the processes taking place within the group.

Various types of activating tasks are used in class. They are based on reflection, experience, discovery, and problem-solving and include: didactic games such as *targowiskocech* (a market of characteristics) and *krążącekarteczki* (pass on the card); simulation (e.g. identity circle); case studies (including biographies); audio-visual aids (films); drama and role-play activities, for example *Hosts and Guests* or *Albatros* (students watch a short scene and evaluate what they have seen without any background knowledge; the activity exposes how stereotypical people's thinking is); and discussion (brainstorming and snowballing). The *Hosts and Guests* activity [8] will serve as an example of such activating techniques; it employs Kolb's experiential learning cycle and focuses on experiencing intercultural communication. The activity simulates a trip to a foreign country and meeting its inhabitants in order to get to know their culture, customs, and everyday life better. Its objective is to provide the students with the opportunity to observe and identify the most vital aspects that either boost or deteriorate the effectiveness of intercultural communication; it also serves as a good illustration of how stereotypes emerge. The awareness that the host and the guest view the world differently and think stereotypically may form a basis for either exchanging ideas and building productive relations, or triggering a conflict.

Materials and facilities required: flip charts, markers, scotch tape, scissors; two classrooms for a group of 15-16 students (45 m^2 and 20 m^2); two people: an instructor and an assistant; time: about 45-60 minutes.

1. Introduction.
   You are about to set off on a journey abroad. Half of the group assumes the role of inhabitants (*hosts*) and the other half the role of tourists (*guests*); students count to two to divide into two groups. Ones, the guests, leave the classroom with the teacher to get ready for the journey; twos, the hosts, stay in the classroom with the assistant and prepare for welcoming their guests.
   Instruction for the guests: you are tourists in a foreign country who have a passive knowledge of the language spoken there; the hosts understand your language but because of its intonation and pronunciation, they cannot articulate Polish words apart from *tak*(yes) and *nie* (no). Your task is to ask the hosts questions, preferably closed-ended ones, to find out about the country's tourist market.
   Instruction for the hosts: you are the inhabitants of X who greet their guests at an airport; you have a passive knowledge of the language they speak. Your culture stresses the importance of social harmony and warm interpersonal relations; in a conversation, the content is not important and your facial expression and tone of voice govern the manner in which you answer closed-ended questions: a smile for *yes* and a serious face for *no*. In your culture, an unknown woman (a tourist) cannot approach a man first; if she does, the man feels offended and avoids contact, turning his back on her or leaving without speaking a word. This does not apply when a female host introduces the woman tourist to the man. The hosts should avoid talking about their culture to the tourists.
2. Procedure.
   After a ten-minute preparation stage, the guests enter the room (arrive at the airport) where they are greeted by the hosts. The instructor and the assistant encourage the students to change conversation partners and try to communicate with other people; they listen to the conversations, observe nonverbal strategies, and when the degree of participation dwindles naturally after ten to twenty minutes, they finish the activity and ask the guests to go home (go to the other room).
3. Summary and analysis.
   Group work: the instructors encourage the hosts and guests to discuss their experiences and share their impressions and reflections. They have ten minutes to write down on the flip charts the answers to the following questions: what the other group are like (their behaviour); how they felt at the beginning, in the middle, and at the end of the role-play; what their expectations about the meeting were. Then the instructors ask each group to choose one representative to present their ideas, without divulging, however, the instructions they had been given at the beginning.

Whole class: the instructors invite the students to present the results of their effort: first, the hosts, then the guests; after that the hosts reveal the rules of their culture, then the guests say why they came and what guidelines they had been given by the instructors. The instructors encourage the students to reveal the guests' real intentions the actual reasons why they had behaved the way they had, as opposed to the interpretation produced by the hosts. The instructors ask the students what their thoughts are when they juxtapose the real intentions, causes and cultural significance of particular behaviours with the interpretation provided by the other group.

Summary: the instructors explain to the students that the role-play activity let them experience most processes involved in intercultural communication; these processes are then labelled on the basis of observation in the course of the activity and the group and whole class work that followed. It is important to note down on the flip chart what facilitated interpersonal contact and what hindered it as well as to record all ideas repeating and paraphrasing them at the same time.

Application: the instructors ask the students to share similar experiences they had encountered at work and encourage them to elaborate on how they had acted then and how they would act now. Discussing the role-play exposes the advantage that stems from possessing knowledge about intercultural communication and acquiring intercultural skills. It also serves to emphasise the significance of openness, patience, and thoughtfulness.

Short lecture: difficulties in intercultural communication according to L.M. Barn; ways to improve intercultural communication according to S. Ting-Toomey.

Each class should finish with the students evaluating the effectiveness of the training. The authors have employed a variety of tools to canvass the students such as an anonymous evaluation questionnaire containing questions as to how satisfied they are with the class and to what degree the class met their expectations as well as comments about the usefulness of the issues addressed, students' recommendations as to proposed changes in the curriculum and their assessment of the instructors. The technique the authors use most often, however, is simulating a situation in which the student packs for a journey. The participants are asked to note down on one slip of paper what they would take with them when the class finishes (take only the most necessary items) and on the other what they would leave behind (leave the items you do not need). They are then encouraged to put the first slip into a suitcase placed in the middle of the classroom and throw the other one away. Such a procedure serves the students to make their final reflections and sometimes to relive the difficult situation again and for the instructors to improve the teaching methods and techniques.

CONCLUSION

The opinions voiced by students of nursing confirm how vital intercultural education is and that it is necessary to teach such classes as they enable the nurse to cater for the needs of a foreign patient. These intercultural competences can be gained through activating methods of teaching based on experience.

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İNTERNET TABANLI YAPAY SİNİR AĞLARI DERSİ ÖĞRETİM SİSTEMİ

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ÖZET
Bilgi teknolojilerinin ve internetin hızlı gelişimi hayatın farklı alanlarına yenilikler sunmuştur. İnsanlar günlük hayattaki birçok işi internet ve bilgisayar yardımıyla hızlı, güvenli ve etkin bir şekilde gerçekleştirebilmektedir. Bilgisayar teknolojilerinin en çok etkilediği alanlardan birisi de eğitim ve öğretimdir. Öğretim teknolojilerinin geliştirilmesi ve öğretimin yaygınlaştırılması için farklı çalışmalar yapılmaktadır. Bu çalışmalardan en önemlilerinin birisi de internet tabanlı uzaktan eğitim sistemleridir. Ayrıca grafik ara yüz tabanlı yazılımların gelişmesi sayesinde öğrenilmesi çok güç olan konular; görsel içerikler, animasyonlar ve benzetimler yardımıyla daha kolay öğrenilir duruma gelmiştir. Bu çalışma kapsamında bilgisayar bilimleri, bilgisayar mühendisliği ve bilgisayar öğretmenliği gibi farklı bölümlerde ders olarak verilen yapay zekâ dersinin bir parçası olan yapay sinir ağlarının lisans seviyesi derslerinin internet tabanlı öğretilmesi gerçekleştirilmiştir. Ders konuları ve görsel içerikleri PHP kullanılarak web sayfası halinde tasarlanmıştır. Eğitim ve öğretim süreçlerinin önemi dikkate alındığında, bu tür çalışmalar sayesinde her tür konunun çevrimiçi ve görsel materyaller sayesinde öğrenilmesi kolaylaşacaktır.

Anahtar Kelimeler: Yapay sinir ağları, öğretim

ABSTRACT
The rapid development of the internet and information technology provides a great deal of innovations to different areas of life. People can actualize rapidly, safely and efficiently lots of everyday works by means of computer and the internet. Instructional Technologies are affected considerably by computer and internet. Nowadays, different studies for the development and dissemination of educational technology is done. One of the most important studies are web based and distance learning systems. In addition, distance learning systems can be enhanced by using visual tools, animations and simulations. For this reason, learning process can be facilitated by distance learning systems. In this study, a web based system for artificial neural network course has been implemented by PHP language. The study will provide easy to learn for artificial neural network course and other artificial intelligence subjects.

1. GİRİŞ
Uzaktan eğitim sistemleri bilgisayar teknolojilerinin maliyetinin azalmasıyla birlikte eğitim ve öğretim süreçleri için faydalı bir yenilik olmuştur. Her bilim dalında doğru bilgiye erişebilmek ve öğrenilmesi güç olan konuların öğrenilmesini kolaylaştırabilmek için uzaktan eğitim ve öğretim sistemleri geliştirilmektedir. İlk zamanlar orta öğretim ve yükseköğretime geçiş gibi merkezi sınavlara hazırlık için yaygın olarak kullanılan uzaktan öğretim günümüzde her tür konunun öğretilebileceği bir hale gelmiştir. Özellikle grafik ve animasyon tabanlı yazılımların gelişmesi gerçek hayatta uygulanması zor ve maliyetli birçok sistemin benzetiminin eğitim ve öğretime süreçlerine dâhil olmasını sağlamıştır. Bu tür uzaktan öğretim sistemlerinin kullanımının kolay ve maliyetinin düşük olması en önemli avantajlarından biri olarak bilinmektedir. Bu tür sistemler sayesinde öğrenciler belirli bir zamana ve mekâna bağlı kalmadan rahatlıkla istedikleri eğitimi alabileceklerdir.

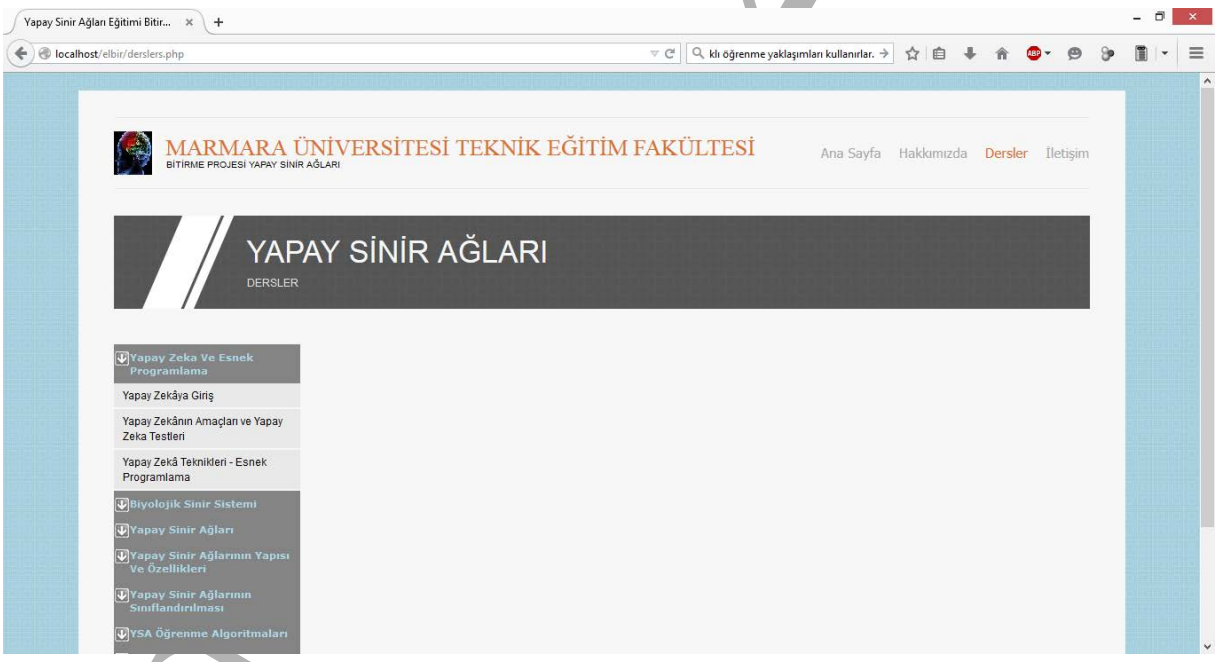
Günümüzde fen bilimleri ve mühendislik alanlarının kapsamının sürekli güncellenmesi bu alandaki öğrencilerin gelişmeleri takip etmesini güçleştirmektedir. Uzaktan öğretim sistemleri bu tür problemin çözümüne yönelik bir alternatif haline gelmiştir. Öğrenciler bu sayede yeni gelişmeleri takip edebilmekte, doğru ve bilimsel bilgi kaynaklarına erişip ihtiyaç duyduğu konuları öğrenmekte, maliyeti fazla olan bir laboratuvarın benzetimi sayesinde gerçek hayata uygun deneyler yaparak mesleki ve teknik gelişimlerini sağlayabilmektedir. Bu çalışma kapsamında bilgisayar bilimleri ile ilgili çeşitli lisans ve yüksek lisans seviyeli öğretim kurumlarında ders olarak verilen yapay sinir ağları(YSA) konusunun internet tabanlı öğretim sistemi gerçekleştirilmiştir. Konuların anlatımı, özet halinde ve görsel ögelerle desteklenerek bir web sitesi tasarlanmıştır. Bu sayede birçok kişi yapay sinir ağları konularını kolay bir şekilde öğrenebilecektir. YSA kullanarak uygulama geliştirmek birçok uzmanlık alanını ilgilendirdiği için, her alandan ilgili araştırmacıya fikir vermesi için konu içeriği basit örneklerle desteklenmiş ve bu tür çalışmaların öneminin ülkemizde yaygınlaştırılması hedeflenmiştir. Çalışmanın ikinci

kısmında PHP ortamında hazırlanan yapay sinir ağları öğretim sistemi tanıtılmıştır. Sonuç bölümünde bu tür çalışmaların ülkemizde yapılmasının önemine vurgu yapılmıştır.

2. YAPAY SİNİR AĞLARI ÖĞRETİMİ

Bilgisayar bilimleri eğitiminin çeşitli programlarının müfredatında bulunan yapay zekâ ve yapay sinir ağları dersleri günümüzde her alandan uzmanın ilgi duyduğu konulardır. Güncel hayattaki problemlerin hızlı ve etkin çözümünü sağlayan yapay zekâ canlıların bazı davranışlarının matematiksel modellerinin bilgisayar sistemlerinde gerçekleştirilmesine dayanır. Günlük hayatın farklı alanlarındaki birçok probleme yapay zekâ teknikleri ile çözüm bulabilmek için çeşitli bilim dallarından uzmanlar sürekli araştırma yapmaktadırlar. Geleneksel algoritmaların çözüm bulamadığı problemlere sürü algoritmaları ile karmaşık problemlerin çözümü, günlük hayatta kullanılan bir sistemin parametrelerinin optimizasyonu, makine öğrenmesi sayesinde günlük hayatta toplanan verilerin analiz edilerek örüntü tanıma uygulamaları yapay zekânın araştırma konusu içerisindedir. Bu araştırmalar içerisinde yaygın olarak kullanılan tekniklerden birisi de yapay sinir ağlarıdır.

Yapay sinir ağları beyin ve sinir hücrelerinin çalışma şeklinin matematiksel olarak modellenmesiyle ortaya çıkmış bir makine öğrenmesi yöntemi olarak tanımlanabilir. Temel olarak sinir hücrelerinin çalışma prensibini modelleyen yapay sinir hücrelerinden meydana gelmektedir. Bu yapay sinir hücrelerinin farklı sayıda ve şekillerde birbirleriyle bağlanması sonucu yapay sinir ağları meydana gelmektedir. Elde edilen yapay sinir ağları ile veri madenciliği ve örüntü tanımada kullanılan sınıflandırma, kümeleme gibi farklı makine öğrenmesi yöntemlerinin uygulaması yapılmaktadır. Yapay sinir ağları öğrenme algoritmaları problemin türüne, ağın bağlanma şekline göre ve uygulanacak makine öğrenmesi yöntemine göre farklılık gösterebilir. Çalışma kapsamında genel olarak kullanılan yöntemler özetlenmiş ve basit sayısal örnekler verilmiştir. Bu sayede yapay sinir ağları ile örüntü tanıma ve veri madenciliği işlemlerinin işleyişi hakkında temel bilgiler elde edilecektir. Aşağıdaki şekilde web tabanlı olarak hazırlanan ara yüz gösterilmektedir.



Şekil 1 Yapay Sinir Ağları Öğretim Sistemi Ana Ekranı

Öğrenci alt başlıklara ayrılan yapay sinir ağları konularını çalışabilecektir. Web sitesinde kullanılan bazı görseller kaynak belirtilerek eklenmiştir. Özellikle gerçek sinir hücresinin ve yapay sinir hücresinin karşılaştırılarak öğrenilmesi için kullanılan görseller öğreticiliği artırmaktadır. Bu tür çalışmalarda çevrimiçi laboratuvar sisteminin olması bilginin pratiğe dönüştürülmesi açısından son derece önemlidir. Kullanıcı elde ettiği bir veri setinden örüntü tanıma yapması için farklı yapay sinir ağı algoritmalarını çevrimiçi olarak uygulayabilmekte ve elde ettiği sonuçları gözlemleyebilmektedir. Bu sayede yapay sinir ağları konusunda uzman olmayan fakat veri analizi yapmak isteyen kullanıcılara da bir programlama dilini öğrenmesine gerek kalmadan istediği analizleri yapmasına imkân sağlanmaktadır.

3. SONUÇ

Bu çalışmada, lisans eğitimi alan öğrencilerin gereksinimleri ve becerileri dikkate alınarak Yapay Sinir Ağları dersinin öğretilmesini sağlayan uzaktan öğretim sistemi tasarlamak amaçlanmıştır. Ülkemizdeki birçok lisans eğitimi veren kurumda, yüksek lisans ve doktora müfredatında bulunan Yapay Sinir Ağları, Bulanık Mantık gibi dersler için bu tür çalışmaların varlığı eğitim ve öğretimin kalitesini artıracaktır. Ülkemizde yapay sinir ağları konusunda birçok uygulama ve proje yapılmaktadır. Temelde bilgisayar - elektronik eğitimi içeriğinde yer almasına rağmen, sağlık, ekonomi, mühendislik, eğitim bilimleri gibi birçok alanda sıklıkla kullanılan yapay sinir ağları disiplinler arası bir konumda bulunmaktadır. Birçok kişinin öğrenmeyi istemesine rağmen, kaynak, zaman gibi sınırlardan dolayı öğrenme-öğretme süreçlerine öğrencilerin aktif olarak katılması mümkün olamamaktadır. Yapay sinir ağlarının önemli konuları, bilgisayar ve internet destekli öğretim teknolojilerinden faydalanarak internet ortamında görsel sunumlar ve uygulamalar haline getirilmiştir. Böylece yapay sinir ağlarına ilgi duyan bir kimsenin konuları, kendi başına öğrenip basit uygulamalarda öğrenebileceği bir ortam oluşturulmuştur. Türkçe ve İngilizce kitaplar, yüksek lisans ve doktora tezleri incelenmiş ve bir lisans öğrencisinin seviyesine uygun konular derlenerek sunum haline getirilmiştir. Yapay Sinir Ağları ve Yapay Zekâ teknolojilerinin günümüzde birçok sistemin temelini oluşturduğu için, çalışmamızın bir bu alanda yapılan çalışmalara katkı sağlaması amaçlanmıştır. Çalışma içerisinde veri setlerinin bazı yöntemler kullanılarak analiz yapılması imkânı bulunmaktadır. Ancak konunun kapsamı çok fazla olduğu için çok sayıda yöntemin gerçeklemesi yapılamamıştır. Gelecek çalışmalarımızda çevrimiçi örüntü tanıma uygulama aracı olarak yapay sinir ağlarını ve farklı yöntemleri de bulunduracak tasarımlar yapılacaktır. Mühendisliğin uygulama ile ilişkisi göz önüne alındığında bu tür çalışmaların yapılması eğitim ve öğretimin hedeflerine ulaşılmasında katkı sağlayacaktır. Özellikle Türkçe kaynak ve uygulamaların sayısının artması ülkemize özel problemlerin hızlı ve etkili çözümünde aktif rol oynayacaktır.

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INTERSEXUAL DIFFERENCES IN ADOLESTENTS´ PERCEPTION OF SUCCESS

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ABSTRACT:
In this paper, we focus on the identification of intersexual differences in the perception of the terms „success“, „successful" person and „person with a disability“. The research group consisted of 250 respondents (121 boys and 129 girls). The results point out that the largest distance can be found between the term „disabled person" and the other term. The term „disabled person“ turned out to be the most distant from the terms „successful person“ and „success“ This indicates that the respondents of our survey do not consider a disabled person being a person capable of achieving and experiencing success. Girls differentiate the term „a person with a disability" from all the other concepts at a much lower rate than boys. It may imply higher tolerance of people with a disability among girls.

INTRODUCTION

Nowadays, we are confronted with the term success maybe too much. We hear about success and successful people from mass media every day. A lot of motivating publications about success are printed out every day. They describe success as something easy, great and self-evident, which can be reached so easily. This term has become a part of our everyday life and despite that it is very hard to define it, because everyone imagines different things when it comes to success. For someone is success to live happy family life and for other is success a good job position and financial independence. Successfulness is connected with quality of life. This quality can be divides into various spheres - physical, psychical, social, financial, sexual, functional and spiritual (Hamranová, 2013).
We think that such differences can be seen also between men and women, when it comes to a term success. It is more typical for men that success is associated with materialism, good social status and power meanwhile, women think more of family and good relationships when it comes to success. Successfulness, thus, means mainly subjective experience of success, which is connected rather with good emotions than bad ones.

THE STUDY

In English, Scottish, American and French monolingual dictionaries we can find definitions of success like: The Oxford Dictionary for the Business World (1993) and Compact Oxford English Dictionary (2003) define success as the realization of one's own goal, satisfying result, prosperity, and good reputation. The Original Roget's Dictionary says that success is about prosperity and cornucopia. Shorter Oxford English Dictionary (2002) defines success as a positive result of some action, finishing an effort and achieving the goal or at least a part of it. Collins New English Dictionary (1997) and Cambridge Dictionary of English (1995) say that success is achieving something desired. The most detailed definition of success can be found in Longman dictionary of American English (2002) which says that success is completing of something a human tried to achieve or desired for. The dictionary also says that success is a result or an effect which a human thought of or it can be a promotion in work. French dictionary Le Petit Robert (1967) defines success as an achievement of wanted positive result or it can be a situation which makes a positive result. Success is also a positive acceptance or public popularity and it could be a tool for seduction of the opposite sex.

With problems of success dealt also Sejčová (2007) who defines success as a result of activity leading to a positive assessment of a group or individuals themselves. She says that success without an actual subjective emotional success experience cannot even be a true success for the individual. According to her opinion, the term success is used in many contexts:
-Positive social evaluation in the form of admiration, fame or condemnation
-An actual result of an activity, i.e. successfully solved task
-The inner side of experience, i.e. feeling of success in form of joy or happiness
Sejčová (2007) differentiates 4 types of personality according to their reactions on success or failure:
1. Individuals motivated by success – they need success, they are active and they are discouraged by failure.

2. Individuals motivated by failure – they mobilize all their strength when they fail to achieve better results, failure does not discourage them.
3. Individuals demotivated by success – success demotivates them for many reasons: fear of the loss of favour (in classroom), prevention of negative emotional state which is a part of success.
4. Individuals demotivated by failure – failure discourages the individuals from next activity, they lose desire to work and become passive.
Besides the personality typology in connection with success, we come across with various categories which are often connected to success:
-General-output successfulness – to achieve something, to win a competition, etc.
-School successfulness – to get a good mark, to pass a placement test, to get better results, etc.
-Material successfulness – to have a house, car, to be well-situated, etc.
-Successfulness in social relationships – to have a harmonious relationship, to get on with parents, friends, to have children, etc.
Psychological differences between men and women are described in many specialised publications. Evident differences between boys and girls can be seen even from the development point of view in many areas (speech, etc.). It is undoubted that girls achieve biological, psychological and social precocity sooner than boys. Besides intersexual differences related to cognitive, emotional and social areas, we find also differences in the area of output motivation which is narrowly connected with success/failure experience. What interests us is if these differences reflect also in perception of success and successful person in the semantic field of these terms.

RESEARCH
The main goal of our research was to identify intersexual differences of perception of success and successful person in the semantic field in connection with semantic distance to related and distance terms and to find out the semantic meaning of these terms in a group of boys and girls. We were also interested in opinions of boys and girls on determinants describing a successful person. Input words of our research were terms: I, success, person with disability, wisdom, ideal, successful person.
Research group consisted of 250 respondents, high school students in Bratislava (2nd-3rd graders).

Gender	Male	Female	Together
Count	121	129	250
%	48,4	51,6	100

Table 1. Research file according to sex

After the analysis of respondents' answers we came to a conclusion that there are almost none intersexual differences in perception of term success and successful person in the semantic field of our research group. It is important to say that term *a person with disability* showed up as the most distance from the other terms, i.e. as the most distance from terms successful person and success. It indicates that our respondents suppose that even a person with disability can be a successful person who achieves success.

Results of semantic differentials of input words – boys.

	myself	success	ideal	person with a disability	wisdom	successful person
myself		7,95	7,85	10,59	8,74	8,83
success	7,95		6,64	12,17	8,24	6,83
ideal	7,85	6,64		11,6	8,07	7,18
person with a disability	10,59	12,17	11,6		10,97	12,25
wisdom	8,74	8,24	8,07	10,97		7,85
successful person	8,83	6,83	7,18	12,25	7,85	

Table 2

As we see in the table, the closest term for success is ideal. It is followed by successful person, I, and wisdom. The most distant term to success is a person with disability. Semantically closest to the term successful person are success, ideal, and wisdom. They are followed by terms I, and a person with disability.

Results of semantic differentials of input words – girls.

	myself	success	ideal	person with disability	wisdom	successful person
myself		7,79	7,94	9,23	8,29	8,59
success	7,79		6,15	11,19	7,09	5,93
ideal	7,94	6,15		10,71	7,02	6,22
person with disability	9,23	11,19	10,71		9,96	11,34
wisdom	8,29	7,09	7,02	9,96		6,77
successful person	8,59	5,93	6,22	11,34	6,77	

Table 3

In the table 3 we can see that semantically closest to term success is a successful person, followed by terms ideal, wisdom, and I. The most distant, as before, was a person with disability. Order of semantic distance to the term successful man is the same as in the boys table, i.e. success is the closest to the term. Complete order is success, deal, wisdom, and I. Successful person is the most distance from a person with disability.
Interesting is also finding that girls differentiate term person with disability from the other terms in far smaller extent than boys. We can assume that girls tolerate persons with disability more than boys, which was confirmed by the analysis of intersexual differences of the semantic meaning of person with disability. Boys, thus, judge persons with disability more negatively as girls. They consider them more impulsive, passive and slower and overall they incline to negative adjectives than to positive ones.

FINDINGS

According to the results above we can say that we did not find almost any differences in perception of success and successful person between boys and girls. This correspondence with Vernarcova' s (2010) findings who states that in most recent researches there are no more intersexual differences. For boys is a successful person one who is active, social, fast, wise, ambitious and self-confident. Girls consider a successful man one who is social, active, decisive, ambitious and self-confident. A person with disability is, according to our respondents, slow, withdrawn and passive. It means that there is a prejudice in people's mind that persons with disability are less capable and powerful.

CONCLUSIONS

We try to get rid of this stereotype in our conception of inclusive education. This was is not easy and it has to start with training of future pedagogues (Šramová, 2014). Besides that, it is a task for society to actively participate and deal with the thorniest problems of persons with disability and to enable them to present their strong points.
Šramová, Cabanová, Vačková (2012) recommend:
-To enable persons with disability access to all main politics, systems and services
-To invest into specific programs and services for persons with disability
-To accept the national strategy for persons with disability
-To invite persons with disability to problem solving
-To increase the capacity of human sources for people with disability

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INVESTIGATING LEARNING AND STUDYING APPROACHES OF STUDENTS IN UNIVERSITY ENGLISH PREPARATORY CLASSES

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ABSTRACT
The purpose of this study was to investigate the learning and studying approaches of students in university English preparatory classes in Turkey in terms of some variables via the use of survey method. The sample of the study was composed of 384 students out of 4975 from English preparatory schools in three reputable private universities. As the instrument of the study, Approaches to Learning and Studying Inventory (ALSI-short version) prepared by Hounsell et al. (2011) and adapted by Topkaya et al. (2011) was used. The findings obtained from ALSI revealed that there was a statistically significant difference in students' scores regarding deep, surface or strategic approaches.

INTRODUCTION

Learning approach can be defined as "… the ways in which students go about their academic tasks, thereby affecting the nature of the learning outcome" (Biggs, 1994). Research on approaches to learning derives much from the seminal work of Marton and Sâljö (1976) on reading from text using phenomenographic methods, where learning is studied from the perspective of the learner, based on qualitative analysis of interview data and descriptive analyses of differences between the learning behaviors of small numbers of students. Two different levels of processing of the reading materials were identified and they were labeled as deep and surface approaches to learning. The most important aspect of the distinction between the two approaches is the intention or absence of intention to understand. According to Marton and Sâljö (1976), a student with deep approach has an intention to understand and extract the meaning from the context. This student is interested in the academic task and enjoys carrying it out, searches for the meaning inside the task, tries to make it meaningful to his/her own experience and to the real world, integrates the parts of the task as a whole, sees the relationships between the task and the previous knowledge, tries to theorize about the task and form hypothesis. On the other hand, a student using surface approach sees the task as a demand to be met, or as a goal to be reached, sees the parts as discrete pieces and unrelated to each other or to other tasks, feels anxious about the time, avoids personal meanings, relies on memorization and attempts to reproduce the surface aspects of the task (Kember, 1996). Briefly, it can be stated that the concept of deep approach is associated with the intention to understand the learning material by constructing the meaning of the content. Nevertheless, the concept of surface approach is related to different forms of rote learning and the intention to learn by memorizing. This has also been reported that students' adoption of either deep or surface approach in learning is dependent on or influenced by a number of factors which can be either personal or contextual.

The following table (Table 1) compiled from the work of Entwistle (1988), Ramsden (1992) and Biggs (1999) provides some valuable characteristics of the approaches and illustrates the importance of how we manage the curriculum impacts on the learning process. To illustrate, clearly stated academic aims, opportunities to exercise some choice and well aligned assessment strategies that help students to build confidence can be found among the factors identified as encouraging a deep approach.

Table 1: Compares the characteristics and factors that encourage Deep and Surface Approaches to learning. (Compiled from Entwistle (1988), Ramsden (1992) and Biggs (1999))

	Deep Learning	Surface Learning
Definition	Examining new facts and ideas critically, and tying them into existing cognitive structures and making numerous links between ideas.	Accepting new facts and ideas uncritically and attempting to store them as isolated, unconnected items.
Characteristics	* Looking for meaning. * Focussing on the central argument or concepts needed to solve a problem. * Interacting actively. * Distinguishing between argument and evidence. * Making connections between different modules.	* Relying on rote learning. * Focussing on outwards signs and the formula needed to solve a problem. * Receiving information passively. * Failing to distinguish principles from examples. * Treating parts of modules and programmes as separate.

	* Relating new and previous knowledge. * Linking course content to real life.	* Not recognising new material as building on previous work. * Seeing course content simply as material to be learnt for the exam.
Encouraged by Students'	* Having an intrinsic curiosity in the subject. * Being determined to do well and mentally engaging when doing academic work. * Having the appropriate background knowledge for a sound foundation. * Having time to pursue interests, through good time management. * Positive experience of education leading to confidence in ability to understand and succeed.	* Studying a degree for the qualification and not being interested in the subject. * Not focussing on academic areas, but emphasising others (e.g. social, sport). * Lacking background knowledge and understanding necessary to understand material. * Not enough time / too high workload. * Cynical view of education, believing that factual recall is what is required. * High anxiety.
Encouraged by Teachers'	* Showing personal interest in the subject. * Bringing out the structure of the subject. * Concentrating on and ensuring plenty of time for key concepts. * Confronting students' misconceptions. * Engaging students in active learning. * Using assessments that require thought, and ideas to be used together. * Relating new material to what students already know and understand. * Allowing students to make mistakes without penalty and rewarding effort. * Being consistent and fair in assessing declared intended learning outcomes, and hence establishing trust.	* Conveying disinterest or even a negative attitude to the material. * Presenting material so that it can be perceived as a series of unrelated facts and ideas. * Allowing students to be passive. * Assessing for independent facts (short answer questions). * Rushing to cover too much material. * Emphasizing coverage at the expense of depth. * Creating undue anxiety or low expectations of success by discouraging statements or excessive workload. * Having a short assessment cycle.

The strategic approach to learning is also added and considered as the way in which learners approach challenging tasks and problems by choosing among tactics that they believe are best suited to the situation, and applying those tactics properly (Winne & Perry, 2005). In strategic approach the intention is to achieve the highest possible grades by using organised study methods and good time-management (Entwistle & Ramsden, 1983). This approach also involves monitoring one's study effectiveness (Entwistle, McCune & Walker, 2000) and alertness to the assessment process, aspects which are akin to metacognitive alertness and self-regulation (Vermunt, 1998; Pintrich & Garcia, 1994).

The purpose of this study was to investigate the learning and studying approaches of students in university English preparatory classes in Turkey. Thus, the curriculum was expected to be designed accordingly which, in turn, contributed to the students' achievements. Defining the learning and studying approaches of students, which was the most effective component of learning and teaching environment, and eliminating drawbacks were also attempted through this study. Increasing awareness of both students and academic staff on how to use learning and studying approaches in order to be successful was another objective in this study. Moreover, although some research has been done on students' learning approaches, there exists no principled and detailed account of the characteristics associated with learning approaches specifically in the context of language learning. The findings of this research would shed light on understanding individual differences, provide further insight into what is meant by deep, surface and strategic approaches in the specific context of language learning, and extend the understanding of students' learning approaches beyond earlier conceptualizations which were more generic.

METHODOLOGY

The setting and the participants

Learning and studying approaches of the students were investigated in terms of some variables via the use of survey method. Students at different level of proficiency that make up the target population were investigated and the proportions needed for the sample to be representative were worked out. The sample of the study contained relative percentage of students as in the target population, which was composed of 384 students out of

4975 from English preparatory schools in three reputable private universities, Izmir University of Economics in Izmir, Bilkent University in Ankara and Ozyeğin University in Istanbul. The study was conducted in 2011-2012 academic year fall term.

The instruments

The data collection instrument used in this study has two distinct parts. The first part known as the Demographical Questionnaire designed to provide information about the high schools the students graduated from, the proficiency levels (basic, independent, proficient) they study at or they repeat, and their department. The second part contains the Turkish version of Approaches to Learning and Studying Inventory (ALSI-short version) prepared by Hounsell et al. (2011) and adapted by Topkaya et al. (2011). The highest score received in each scale represented the student's level of engagement in activities intended to encourage deep, surface or strategic processing and the lowest indicated the approach that the student employed the least. In the analysis of the data, as statistical techniques, depending on the requirements of the problems of the study, multivariate analysis (MANOVA), one-way variance analysis (ANOVA) were utilized and also eta squared effect size was calculated.

FINDINGS

It can be stated that the findings obtained from ALSI indicated that there was a statistically significant difference in students' scores regarding deep, surface or strategic approach in terms of English language preparatory education taken in high school. Although there was a statistically significant difference in students'scores in surface approach [$F(1, 376)= 8.64$, $p<.05$], there were no statistically significant difference in students'scores in deep approach [$F(1, 376)= .501$, $p>.05$] and strategic approach [$F(1, 376)= .411$, $p>.05$]. Students who did not take any English language preparatory education in high school scored higher in surface approach compared to the ones who took English language education. Effect size eta-square of surface approach was found at low level ($\eta 2 = .024$). The scores got in deep approach was higher than the ones got in surface and startegic approaches indicating that students tended to use deep approach at university preparatory school as they used the same approach in high school. Depending on this finding, it can be stated that background knowledge, specifically strategy knowledge, played a strong role in comprehension as well as content learning. Therefore, students who learnt via deep and strategic approaches in high school tended to apply the similar approaches at university. When the links of students' personal life experiences were activated, they learnt better as links to an experience provided clarity and promoted retention of the learning.

In the second set of analyses, a statistically significant difference was noticed on each scale of the inventory depending on the proficiency level of the students. In spite of the statistically significant difference found in surface approach [$F(2, 381)= 8.21$, $p<.05$], no statistically significant difference was identified in deep [$F(2, 381)= .425$, $p>.05$] and strategic [$F(2, 381)= .300$, $p>.05$] approaches. Surface approach had an average level effect size eta-square ($\eta 2 = .041$). As the students at basic level scored higher compared to the ones at idependent and proficient level, it can be stated that students at basic level adopted surface approach; while the ones at independent and proficient level preferred deep and strategic approaches.

The scores of the students studying the module for the first time and the scores of those repeating the module displayed a statistically significant difference as well. Students' scores on surface approach [$F(1, 382)= 6.80$, $p<.05$] showed a statistically significant difference; on the other hand, there were no statistically significant difference in deep [$F(1, 382)= 1.81$, $p>.05$] and strategic [$F(1, 382)= .159$, $p>.05$] approaches. It was also revealed that it had low rate effect size eta-square ($\eta 2 = .018$). What can be inferred from this data is that students repeating the module learnt and studied through surface approach. It can also be synthesized that high achievers knew exactly what they needed to accomplish, thus, before they started studying they set academic goals.

In contrast, with respect to LYS (University Entrance Exam), there was no statistically significant difference in students' surface [$F(3, 380)= 1.85$, $p>.05$], deep [$F(3, 380)= 2.76$, $p<.05$] and strategic [$F(3, 380)= 1.16$, $p>.05$] approach scores. It can be stated that as exams only test the inadequate view of thinking held by most academic institutions so analysis, judgement and stating arguments are not tested. Unfortunately, this leads students to memorize and apply strategic approach.

DISCUSSION AND CONCLUSION

Research on student learning at university can be very useful for improving university teaching and learning. The distinction among deep, surface and starategic approaches to learning is particularly useful for teachers who would like to understand their students' learning and create learning environments which encourage students to achieve desired learning outcomes. How students approach a learning task will strongly influence the quality of

their learning outcomes. As surface approach leads generally to low retention and an inability to use information in new contexts, and deep and startegic approaches, when adopted together, to a better understanding, the implication is clear. Good teaching should encourage a deep approach, when used together with a strategic approach at the expense of a surface approach. Students' approaches can be influenced by the way teachers design subjects and courses, particularly the assessment. In order to encourage students to use deep approach teachers can give students opportunities to discuss, debate and compare their understandings with each other and with the teaching staff. Students can also be provided with opportunities to gain qualitative feedback, especially but not only on their assessed work, rather than just giving marks or grades.

Based on the findings of the study and the related literature review, the following suggestions can be offered, as the learning activities are planned according to the needs and learning approaches of the students, a questionnaire should be administered at the beginning of each academic year to collect data about the students' learning and studying approaches as well as informing them about their own approach. Moreover, it is generally accepted that a heavy loaded English language curriculum and overemphasizing the grades and examinations may lead students focus on rote memorization just to meet the expectations. To develop meaningful approaches while learning English, the nature of examinations both in the schools and nationwide, should be shifted from a knowledge-based to a more performance-based type. Rather than assessing only knowledge-based and lower levels of learning in the examinations, higher order thinking skills and performance of the learners should be evaluated. In order to use the newly-learnt language items or skills, extra-curricular activities should be designed for the students to utilize these in an authentic environment. Besides, teachers should be informed about the meaning and importance of learning and studying approaches. Teachers, educators, researchers, and policy makers may collaborate for this purpose organizing small workshops and meetings as a part of their in-service trainings. Teachers should plan in such a way that students are able to have divergent type of classroom activities. Finally, learning and studying approaches courses which is a vital element of learning and teaching environment should be integrated into the faculty of education curriculum. By adopting these ways, substantial contributions to our understanding of the students' learning approaches can be made.

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INVESTIGATING POSITIVE PERSONALITY TRAITS IN EARLY ADOLESCENTS: THE ROLE OF PEER NUMBERS AND SOCIODEMOGRAPHICS

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Although positive psychology emerged as a new movement aiming to stressing human strengths and virtues, research examining these traits on early adolescents in literature is relatively scarce and involves further investigation. This study examined three positive personality traits namely self-esteem, happiness and body image on Turkish early adolescents with a particular focus on peer numbers and sociodemographics. Participants comprised of 202 girls (% 53) and 182 boys (% 47) and completed the questionnaires related to self-esteem, happiness and body image. The mean age of study participants was 13.08 (.70). To test to effects of peer numbers and demographics on self-esteem, happiness and body image scores analyzed using a series of Multivariate Analysis of Variance. Study results indicate that a) early adolescent boys are more likely to be happier and have more positive body image than girls but early adolescents boys and girls have similar self-esteem levels b) Twelve years old early adolescents were less happier compared to 13 years old and 14 years old early adolescents, who did not differ from each other. Additionally, 12 years old early adolescents were significantly lower body image scores than 13 years old adolescents. Early adolescents did not differ with respect to self-esteem scores. c) Early adolescents who have two or less same-sex friends were significantly lower happiness and body image scores than early adolescents who have three to five same-sex friends or six and more, who did not vary from each other. Similarly, early adolescents who have two or less opposite-sex friends significantly lower happiness and body image scores than early adolescents who have six and more opposite-sex friends. At the same time, early adolescents who have six and more opposite-sex friends were significantly higher body image scores than early adolescents who have three to five opposite sex friends. Neither same-sex friend nor opposite sex friend number did not affect self-esteem scores. Early adolescents who have girl or boy friend also significantly higher body image scores than who have not. d) Early adolescents who have low academic achievement significantly lower self-esteem and body image scores than high achievers but not for happiness scores. e) Early adolescents who engage in regular physical activity also significantly higher happiness scores than physically inactive early adolescents. f) Lastly, early adolescents who experiences two or more stressful life events in the last six months significantly lower happiness scores than others. Given the findings of this study, ıt should be recommended that evidence-based positive psychology interventions including components of self-esteem, body image and happiness can focus on increasing the interpersonal relationships, academic achievement and physical activity in order to improve subjective wellbeing of early adolescents, at least for Turkish adolescents.

Keywords: Keywords: Early Adolescents, self-esteem, happiness, body image, Peer Numbers and Sociodemographics, Turkey.

INVESTIGATION OF SECONDARY AND VOCATIONAL HIGH SCHOOL STUDENTS' NUMBER SENSE

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INVESTIGATION OF SECONDARY AND VOCATIONAL HIGH SCHOOL STUDENTS' NUMBER SENSE

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The number sense has been identified as an important element of math classes under NCTM standards. Olkun ve Toluk-Uçar (2004) defined the whole relationship of the number as; majority- minority (quantity), the relationship between the real amounts and the ability to understand the measurements.

The first study in Turkey about number sense was carried out by Kayhan-Altay (2010). The most important result of this study is that students' number sense decreases with the grade level. This case contradicting to the results of relevant literature is an important starting point in order to carry out this work. Furthermore, when the studies were examined, it was seen that secondary school students' number sense was generally examined. There is no study examining the number sense of the high school students. Investigating the number sense in terms of different variable is expected to contribute to the relevant literature.

The purpose of the research; Secondary and High school students' number sense is examined according to the grade level and the components of number sense and also it is aimed identifying the relationship between the success in math and the number sense. The problems of the research for this purpose were determined as; What level is students' the number sense?, How does the number sense change according to the grade level and components of number sense?, What is the relationship between the success in math and the components of number sense?

This research is a descriptive research model which is aimed to describe some characteristics of the current population. The working group of the study consists of 120 students totally in a secondary school and high school in Burdur. “The number sense test” which is consisting 17 questions, developed by Kayhan-Altay was used. The analysis of variance and t-test was applied in order to determine whether mean difference of students’ number sense changed or not according to the grade level and components of number sense. The Pearson correlation coefficient was calculated in order to determine the relationship between the math in success and number sense.

It was found that secondary and high school students’ number sense were considerably low according to the results. When the solutions were examined, the students preferred standard routine calculations to the number sense. It is found that these standard calculations are the answers focusing on the exact answers such as denominator equation, multiplication and dividing, conversion the decimal into the fraction. On the other hand some students preferred flexibility in calculation, conceptual thinking in fraction using benchmark (reference points). Some students show the ability of solving problems using ½ as a benchmark. In addition some students apply estimation strategies to problems without using written computation. For example in question three which is “Whether the result of the operation 6464* 0,54 is bigger or smaller than 3232 ? why?” some students use 0,50 instead of 0,54 and they find the results without using written computation. The detailed results of the study will be shared when the presentation is carried out.

Keywords: Number Sense, Secondary School Students, Vocational High school Students

INVESTIGATION OF THE EFFECTS OF EDUCATIONAL INTERNET USE SELF-EFFICACY BELIEFS AND SELF-REGULATED LEARNING SKILLS OVER INFORMATION LITERACY

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ABSTRACT
With this study, aims the investigation of the effects of educational internet use self-efficacy beliefs and self-regulated learning skills over information literacy. This research is designed as relational scanning model. In the study, 3 scales are used as tool of data collection: "Educational Internet Use Self-efficacy Beliefs (EIUSB) Scale" developed by Şahin (2009) "Self-regulating Learning Skills (SRLS) Scale" developed by Turan (2009) and "Information Literacy (IL) Scale" developed by Adıgüzel (2011). The sample of this study is formed by 355 senior students from departments of Chemistry, Electrical-Electronics, Computer, Environmental, Geology, Mining, Mechanical Engineering and Chemical department from the Faculty of Engineering. In order to analyze the data, SPSS 16.00, Pearson correlation coefficient techniques, regression analysis techniques are used. At the end of the study, between all scales has a positive relation. Multiple linear regression analysis showed that Educational Internet Use Self-efficacy Beliefs and Self-regulating Learning Skills scales has been found to be effective on Information Literacy.

Keywords: Educational Internet Use Self-Efficacy Beliefs, Information Literacy, Self-Regulated Learning Literacy, Engineering Students, Regression Analysis

INTRODUCTION

In order to be successful in this information age we live in, it is essential to be a good information consumer, to have the skills to find and use information, in other words, to have information literacy skills. Information literacy is defined as the ability to have access to information and to use it, which is corner stone of life-long learning (Kurbanoğlu & Akkoyunlu, 2002). Constantly increasing information and in parallel with this, the fact that, what people learn loses its validity within a short time, require people to be lifelong learning individuals (Polat, 2005).

Information literacy refers to full capabilities the individual displays from the process of finding information to putting it into use (Kızılaslan, 2007). Depending on the definition of UNESCO, information literacy is expressed as "self-recognition of information requirements by the individual, definition and evaluation of quality of the information accessed, access to information and its storage, effective and ethical usage of information as well as the capacity for adaptation of the previous information to a new situation" (Hennessey, 2009). Characteristics of the information literate individual is expressed differently in various resources. Information literate individuals can find the information they need, access this information, use it effectively, restructure it and use technology effectively while doing so. Also Information literates have skills such as; critical-thinking, analysis, synthesis and the ability for co-operation with others. Information literate is the person who has learnt how to learn, how to structure information, how to find and how to use it. Such an individual is a lifelong learner as, in a new situation, this individual can find any information necessary to solve a new problem (ALA,1989;trsf.Polat,2006).

The Internet and other related instructional technologies are extremely important for individuals to reach the information they need through reliable sources. Today, individuals are faced with a wide variety of information and an abundance of information in any field. Computer and internet technology have made the realization of these processes considerably easy and shortened the process of information collection, storage, re-structuring, multiplying places, and distribution by creating the necessary infrastructure (Koç & Koşaner, 2005). Self-competence belief here is about an individual's adequacies in fulfilling a task or work. High level of self-competence belief, is an effective that increases the interest in an activity or a career (Bandura, 1997). Self-competence belief, is a significant precursor of result expectation and interest (Compeau, Higgins & Huff, 1999).

Today, within the context of information literacy, success of individuals in their educational life depend on their competence in the following issues; Besides using the library for information access, they must be able to use web research tools effectively, evaluate accessed information both in terms of quality and relevance and use information to answer research questions (Kinikin & Hench, 2012). An information literate individual must recognize right and adequate information as the basis of making logical decision, recognize information requirements, formulate questions based on information requirements, identify possible information resources, develop successful research strategies, access to information resources including computer based and other technologies, evaluate information, organize information for practical use, combine present information with new information, and use information for critical thinking and problem solving (Doyle, 1994).

In order to do these operations, it is necessary for the individual to have the effort to control and manage complex learning activities in other words, to have self-regulation skills (Kauffman, 2004). Self-regulated learning, is a self-controlled process, where students transform their mental academic skills to task-oriented skills (Zimmerman, 2001). In this process, self-regulated learners are individuals who can control their learning experience in different ways, organize knowledge and recall it, and recognize the factors that affect their learning by having a positive attitude towards their own skills (Schunk, 1994; Artino & Stephens, 2006).

In the light of all these, in this study, as they need to use information actively and contemporarily, the effects of candidate engineers' self-competence in using the internet to access information, and the effects of self-regulated learning skills at accessing to the knowledge and evaluating it, on their information literacy levels are studied.

OBJECTIVE OF THE RESEARCH

With this study, aims the investigation of the effects of educational internet use self-efficacy beliefs and self-regulated learning skills over information literacy.

SUB PROBLEMS

1. Is there a connection between information literacy levels, educational internet use self-efficacy beliefs levels and self-regulated learning skills of students?
2. Are there the effects of together educational internet use self-efficacy beliefs and self-regulated learning skills over information literacy of students?
3. Are there the separately effects of educational internet use self-efficacy beliefs and self-regulated learning skills over information literacy of students?
4. Does the effects of students' educational internet use self-efficacy beliefs and self-regulated learning skills on information literacy levels vary according to gender?

METHOD OF THE RESEARCH

In this study, quantitative research method and relational screening model has been used.

Model of the Research: Research model is relational screening. In accordance with this model the existence and the level of the relation between dependent and independent variables were attempted to be displayed (Crano & Brewer, 2002).

Sample of the Research: The sample of this study is formed by 355 senior students from departments of Chemistry, Electrical-Electronics, Computer, Environmental, Geology, Mining, Mechanical Engineering and Chemical department from the Faculty of Engineering. 38 of Students (10.7%) are from the department of Chemistry Engineering, 52 of them (14.6%) are from the department of Electrical-Electronics Engineering, 72 of them (20.3%) are from the department of Computer Engineering, 38 of them (10.7%) are from the department of Environmental Engineering, 30 of them (8.5%) are from the department of Geology Engineering, 33 of them (9.3%) are from the department of Mining Engineering, 36 of them (10.1%) are from the department of Mechanical Engineering, 56 of them (15.8%) are from the department of Chemistry, 158 of students (44.5%) are female and 197 of them (55.5%) are male.

DATA COLLECTION INSTRUMENTS

For research a three fold form has been created. In the first part includes “Educational internet use self-efficacy beliefs (EIUSB)” scale developed by Şahin (2009). In the second part “Self-regulating Learning skills (SRLS) Scale”, developed by Turan (2009) for define learning skills of students. Third part includes "Information Literacy Scale (ILS)” developed by Adıgüzel (2011) in order to determine gain and configuring information skills.

Educational Internet Use Self-efficacy Beliefs (EIUSB) Scale developed by Şahin (2009) consists of 28 items. As a result of the factor analysis made during the development of the scale, it has been stated that the scale is collected under one factor. The scale is prepared as five–point Likert type scale and the levels are shown as: Completely Competent=5, Quite Competent =4, Competent=3, Moderately Competent=2, Not Competent=1. The highest score to get from the scale is 140 and the lowest level is 28. The high scores show that the students see themselves competent in internet use for educational purposes and the low scores show that the students consider themselves inadequate in internet use for educational purposes. The Cronbach Alpha is applied to identify the internal consistency of the scale and the coefficient is found as .96 ($p<.001$).

In the study; Self-regulating Learning skills (SRLS) Scale, developed by Turan (2009) to determine university students' self regulated learning skills was used as the data collection tool. The response range of the scale is from "definitely disagree" (1), "disagree" (2), "uncertain" (3), "agree" (4) to "completely agree" (5). The minimum and the maximum score that can be taken from the scale are between 41-205. Five-point Likert type scale includes 41 items and four subscales named motivation and action to learning (7 items), planning and determining aims (8 items), strategy using and assessment (19 items), and lack of self-directedness (7 items). These subscales are in harmony with the theoretical framework of the study. Cronbach's alpha reliability coefficients for the scale and four subscales were 0.91 and 0.88, 0.91, 0.83, 0.76 respectively.

Information Literacy (IL) Scale developed by Adıgüzel (2011) is a five-point Likert type scale and is composed of 29 questions. The scale consists of the 4 sub-dimensions of "Defining Information Needs" (8 items), "Access to Information" (11 items), "Use of Information" (5 items), and "Ethical and Legal Settings in Use of Information" (5 items). As Information Literacy Scale aims at the determining the frequency in teacher candidates' information acquisition skills, the scale was designed as; always, often, sometimes, rarely and never. The reliability coefficient of the scale was calculated as .92, whereas it was calculated as .955 in this research. The highest possible score was 145 while the lowest possible score was 29.

EVALUATION OF THE DATA

In this research, whether the data obtained displays normal distribution or not is understood by looking at Kolmogrow-Simirnov and Shapiro Wilk tests. When the number of data is less than 29, Shapiro Wilk test is used and when the number of data is over 29 or larger, Kolmogrow-Simirnov (Lilliefors) test is used (Kalaycı, 2010). order to determine whether the data displays normal distribution or not, "One Group Kolmogorov- Smirnov Test" test has been applied separately to the data collected by the three scales. The values attained are; the "Information literacy (IL) scale" ($Z=1.36$, $p>.05$), "Educational Internet Use Self-efficacy Beliefs (EIUSB) Scale" ($Z=0.895$, $p>.05$) and "Self-regulating Learning skills (SRLS) Scale" ($Z=0.958$, $p>.05$). All collected data have normal distribution with regards to all variables. SPSS 16.00 is used to analyze the data. PEARSON correlation coefficient analysis technique and Linear Regression Analysis are applied in order to observe the relations between scales.

FINDINGS

The research findings are evaluated in the context of sub-problems.

Sub-Problem 1. Is there a connection between information literacy levels, educational internet use self-efficacy beliefs levels and self-regulated learning skills of students?

As a result of Pearson Multiplication Momentum Correlation Analysis, conducted to define the relations between the SRLS scale and IL scale and factors; IL scale and factor scores and SRLS scale score, Motivation and action to learning factor, Planning and determining aims factor, Strategy using and assessment factor scores have a significant positive relation ($p<.01$) (Table 1).

Table 1. Pearson Multiplication Momentum Correlation Analysis Results conducted to define relations of the SRLS scale, IL scale.

		IL Scale and Factors				
		Defining Information Needs	**Access to Information**	**Use of Information**	**Ethical and Legal Settings in Use of Information**	**IL Scale**
SRLS and Factors	**Motivation and action to learning**	r=.526(**)	r=.529(**)	r=.507(**)	r=.448(**)	r=.557(**)
	Planning and determining	r=.519(**)	r=.561(**)	r=.564(**)	r=.488(**)	r=.587(**)

	aims					
	Strategy using and assessment	r=.584(**)	r=.633(**)	r=.563(**)	r=.509(**)	r=.639(**)
	Lack of self-directedness	r=.000	r=-.026	r=.064	r=.028	r=.008
	SRLS Total	r=.596(**)	r=.628(**)	r=.613(**)	r=.536(**)	r=.656(**)

Table 2. Pearson Multiplication Momentum Correlation Analysis Results conducted to define relations of the EIUSB scale and IL scale and factors.

	IL Scale and Factors				
	Defining Information Needs	**Access to Information**	**Use of Information**	**Ethical and Legal Settings in Use of Information**	**IL Scale**
EIUSB Scale	r=.550(**)	r=.550(**)	r=.454(**)	r=.361(**)	r=.544(**)

As a result of Pearson Multiplication Momentum Correlation Analysis, conducted to define the relations between the IL scale and Factors and EIUSB scale; IL scale and Factors and EIUSB scale have a significant positive relation (p<.01) (Table 2).

Sub-Problem 2. Are there the effects of together educational internet use self-efficacy beliefs and self-regulated learning skills over information literacy of students?
In the third sub-problem of the research, prediction power of students' internet use self-efficacy and self-regulatory learning skills and factors on their information literacy levels were studied. In order to find an answer to this problem, prediction level of self-efficacy and self-regulated learning skills to information literacy was analyzed by multiple prediction analysis and the results were given in Table 3.

Table 3. Multiple Linear Regression Analysis Results relating to predict information literacy of together educational internet use and Self-regulating Learning skills

Variables	**B**	**Std Error**	**Standardized Coefficients β**	**t**
Constant	1.538	5.656		.272
SRLS Factors	.509	.039	.524	13.217**
EIUSB Scale	.285	.033	.341	8.609**
R=.728 R^2=.530	F=198.142**			
*p<0.05 **p<0.01				

The fact that, results of the variance analysis seen on table 3 is meaningful at p<0.01 level, shows that the variance the variables explain are statistically meaningful. According to the result of the analysis, when all variables are dealt with together, 53% of the total variance with regards to information literacy is explained. When parameters with regards to regression model is studied, standardized regression coefficients (β), show that, priority sequence of predictive variables on information literacy; SRLS scale (β=.319; t=7.894; p<0.01), EIUSB scale (β=.319; t=7.894; p<0.01). When all the variables are dealt with, SRLS scale and EIUSB scale are determined as meaningful precursor of information literacy.

Sub-Problem 3. Are there the separately effects of educational internet use self-efficacy beliefs and self-regulated learning skills over information literacy of students?
The objective here is not to produce an estimation model, but to examine influence of variables on each other, simple linear regression was needed.
Prediction power of each variable with regards to Students' internet use self-efficacy and self-regulatory learning skills and related factors information on literacy levels was studied. While, we were looking into this question, simple linear regression analyses were done in order to determine whether independent variables predict information literacy meaningfully or not and the results were shown in Table 4.

Table 4. Simple Linear Regression Analysis Results relating to predict information literacy of educational internet use and Self-regulating Learning skills

Variables		**B**	**Std Error$_B$**	**Standardized Coefficients β**	**R**	**R^2**	**t**	**F**
SRLS and Factors	**Motivation and action to learning**	2.371	.188	.557	.557	.310	12.602**	158.804**
	Planning and	2.139	.157	.587	.587	.344	13.619**	185.465**

	determining aims							
	Strategy using and assessment	1.072	.069	.639	.639	.408	15.608**	243.616**
	Lack of self-directedness	.024	.159	.008	.008	.000	.152	.023
EIUSB Scale Total		.454	.037	.544	.544	.296	12.186**	148.507**

When Table 4 is analyzed, it is observed that variance analysis results are meaningful at (Fmotivaston=158.804, FPlanning=185.465, FStrategy=243.616, FSRLS=266.893, FEIUSB=148.507) p<0.01 level. The fact that variance analysis results are meaningful shows that there is a linear relation between dependent and independent variables. (Ergün, 1995). ln the table it is seen that each variable of SRLS, EIUSB scale, Motivation and action to learning, Planning and determining aims, Strategy using and assessment, predicts information literacy positively meaningful (p<0.01). When the variables are analyzed individually, it is observed that, 31% of information literacy is predicted by motivation and action to learning as, 34% Planning and determining aims, 41% Strategy using and assessment, 43% SRLS 'of variables, and 30% by EIUSB scale. When predictive variables coefficients are analyzed, it is observed that Strategy using and assessment variable has the highest (.639), EIUSB scale variable has the lowest, (.544) regression coefficient A SRLS scale factor, the lack of self-directedness is not a meaningful predictive of information literacy.

Sub-Problem 4. Does the effects of students' educational internet use self-efficacy beliefs and self-regulated learning skills on information literacy levels vary according to gender?
In the last sub-problem of the research, prediction power of male and female students' internet use self-efficacy and self-regulatory learning skills and factors on their information literacy levels was studied. In order to find an answer to this problem, prediction level of self- sufficiency and self-regulatory learning skills to information literacy for each gender was analyzed by multiple regression analysis and the results were given in Table 5.

The results of multiple regression analysis seen in Table 5, with regards to prediction of information literacy in male and female students, have shown that for both genders, educational use of the Internet self-efficacy and self-regulating learning skills for both gender are meaningful prediction means of information literacy, (F =45.772, p<0.01; F=41.531, p<0.01). The power of independent variables in information literacy regression is 45.8% for female students. In male students, this ratio is a little lower than female students and the rate is 41.5%. According to the standardized regression coefficients (β) in the table, the importance sequence of regressive variables on information literacy, for girls are; EIUSB Scale, Planning and determining aims, Strategy using and assessment, motivation and action to learning and lack of self-directedness, while for men Strategy using and assessment, EIUSB Scale, motivation and action to learning, Planning and see determining aims and lack of self-directedness. Among these variables, while for female students, EIUSB Scale (t=5.324; p<0.01), Planning and determining aims (t=3.140; p<0.01) and Strategy using and assessment (t=2.314; p<0.05) are meaningful precursors; for male students the meaningful variables are; EIUSB Scale (t=5.916; p<0.01), and Strategy using and assessment (t=4.925; p<0.01) are meaningful precursors of information literacy.

Table 5. Multiple Linear Regression Analysis Results relating to predict information literacy of together educational internet use and Self-regulating Learning skills according to gender

Gender	**Variables**		**B**	**Std Error**	**Standardized Coefficients β**	**t**
Female	**Constant**		11.491	7.659	-	1.500
	SRLS Factors	**Motivation and action to learning**	.512	.341	.119	1.500
		Planning and determining aims	1.017	.324	.271	3.140**
		Strategy using and assessment	.362	.156	.221	2.314*
		Lack of self-directedness	.013	.147	.005	.089
	EIUSB Scale		.259	.049	.323	5.324**
R=.775	R^2=.601	F=45.772**				
Male	**Constant**		2.087	8.284	-	.252
	SRLS Factors	**Motivation and action to learning**	.499	.282	.120	1.770
		Planning and determining aims	.394	.264	.110	1.495
		Strategy using and assessment	.622	.126	.369	4.925**
		Lack of self-directedness	.198	.168	.062	1.176
	EIUSB Scale		.281	.048	.328	5.916**
R=.722	R^2=.521	F=41.531**				

*p<0.05 **p<0.01

RESULTS

As a result of the analysis made to identify the relations between Information Literacy (IL) Scale, Defining Information Needs, Access to Information, Use of Information, Ethical and Legal Settings in Use of Information factors and Educational Internet Use Self-Efficacy Beliefs (EIUSB) scale; the IL scale and Factors with EIUSB scale; have a significant positive relation. This result proves that students whose Educational Internet Use Self-Efficacy Beliefs is high also have a higher level of Information Literacy, Defining Information Needs, Access to Information, Use of Information, Ethical and Legal Settings in Use of Information. As a result of the analysis made to identify the relation between IL scale, Defining Information Needs, Access to Information, Use of Information, Ethical and Legal Settings in Use of Information factors with SRLSS scale and factor scores, there was found a positive correlation between IL scale and factors and Self-Regulated Learning Literacy (SRLS) Scale, Motivation and acting for the aim of learning, Planning and setting goals, Strategy use and evaluation factors. This result proves that students whose Self-Regulated Learning Literacy, Motivation and acting for the aim of learning, Planning and setting goals, Strategy use and evaluation levels is high also have a higher level of Information Literacy, Defining Information Needs, Access to Information, Use of Information, Ethical and Legal Settings in Use of Information. The results of this study are in parallel with the studies abroad. In a study conducted by Chye, Walker, Smith (1997) on university students, a high relation was indicated between self-regulation strategy use in a study, self-efficacy and academic success.

As a result of the analysis conducted in order to determine, to what degree Students' use of the internet self-efficacy and self-regulation skills and factors explain their information literacy, it was found that the variables explain %53 of the variance. This shows that students' use of the Internet self-efficacy and their self-regulatory learning skills has an impact on their information literacy. In addition to that, the results show that, self-regulation strategies have a higher share in prediction of information literacy compared to educational internet use self-efficacy. In order to analyze the distribution of the impact; as a result of the analysis to determine the individual effects of internet use self-efficacy and self-regulated learning skills and factors on students' information literacy; the most effective self-regulator among Self- Regulated Learning Literacy (SRLS) Scale; Strategy Use and Evaluation, Planning and Setting Goals, Motivation and Acting for the aim of learning and lastly, Educational Internet Use Self-Efficacy Beliefs (EIUSB). When impact percentages are analyzed, it is observed that the values are close to each other. This situation, shows that self-regulated learning has higher impacts than use of the internet self-efficacy on information literacy. As information acquisition and information access is a cognitive activity, this is an expected result. Self-regulation, is a process, during which, students create aims for learning, and determine strategies to fulfil these aims and evaluate the acquisition. According to Heo (2000), the cognitive strategies used in this process, help learners to acquire the information in a more effective way, store it and express it. Also, as Xiaodong (2001) expressed, knowledge of the individuals as to their own cognitive processes, and the information they use to control these processed are extremely effective. This is why, it is possible to say that; while the level of self-regulation strategies use, is a stronger variant in regression of student success, self- efficacy belief is a motivation for students to use their self-regulation strategies. Pintrich and De Groot (1990) Primary School seventh class in a research conducted on primary school students, they indicated that, self-efficacy and exam anxiety are important variable in predicting student performance. Similarly, Andrew and Wialle (1998) indicated in a research on nursing students, that critical-thinking and the upper cognition self-regulation have meaningful relations to academic performance. In a study conducted on students who attend to secondary school, Malpass, O'Neil, Harold, Hocevar (1999) expressed that there is a positive relation between self- regulation and success.

When student's internet use self-efficacy and self-regulated learning skills and the effect of gender on these skills are studied with regards to students' information literacy; it is determined that, educational internet use self-efficacy and self-regulated learning skills are meaning precursors of information literacy for both genders. It was found that female students have higher prediction power of information literacy of independent variables compared to male students. While, EIUSB Scale, Planning and determining aims and Strategy using and assessment is a meaningful precursor for female students; for male students EIUSB Scale and using Strategy and assessment information are meaningful precursors of information literacy. Another result of the study is that, for female students, planning and determining aims effect is higher on information literacy, while for male students, EIUSB Scale and Strategy using and assessment effect is higher in comparison to the other gender. In a study Leung and Chan (1998) conducted with Pintrich and De Groot (1990), they found out that males have higher level of self-efficacy belief compared to females. In this study, in parallel with the studies conducted abroad, it is possible to say that male students have higher self-efficacy and intrinsic value perception and have more tendency to use strategy, and this effects their success.

Information literacy, and self-efficacy self-regulation are activities that can change according the field and context (Pintrich, 2000). Students can apply different strategies in each context. Therefore, it is possible to say

that, these concepts are required to be analyzed in different contexts. The suggested studies in this field are; study of effects of self-regulation and self- efficacy on primary school first grade and second grade, and high school students, by studying these effects in various classes such as math, science and Turkish. A study of by studying with various age groups. Besides these studies, a study of the interaction between self-regulation, self-efficacy, family, teacher and success is among the suggested researchers.

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INVESTIGATION OF THE RELATIONSHIP BETWEEN CRITICAL THINKING DISPOSITION AND STUDY APPROACHES OF TEACHER CANDIDATES

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ABSTRACT

This study aims the investigating the relationship between critical thinking dispositions and study process of teacher candidates. In this study, quantitative research method and relational screening model has been used. The population of this study is formed by 325 teacher candidates from departments of science and elementary school education at Education Faculty. For research a three fold form has been created. In the first part some demogrfic data have been collected. Second part includes "The California Critical Thinking Disposition Inventory (CCTDI-R)" which is improved by Facione, Facione and Giancarlo (1998) and adapted to Turkish by Kökdemir (2003). Third part includes "Study Process Questionnaire (SPQ)" revised by Biggs, Kember, Leung (2001), adapted in Turkish by Yılmaz and Orhan (2011). In order to analyze the data, SPSS 16.00, ANOVA, independent t-test, Pearson correlation coefficient techniques are used. As a result of Pearson Multiplication Momentum Correlation Analysis, conducted to define the relations between the SPQ scale factors and CCTDI-R scale and factors; SPQ scale Profound Approach factor score and CCTDI-R scale score, Analyticity, Inquisitiveness, Self-Confidence, Truth-Seeking, Systemacity factors scores have a significant positive relation while SPQ scale Superficial Approach factor score and CCTDI-R scale and all factors have a significant negative relation.

Keywords: Critical Thinking Abilities, Study Approach, Profoundly Learning, Superficial Learning.

INTRODUCTION

In today's world, we are all bombarded with information load. We come across new situations and incidents almost every day (Browne and Keeley, 2001). What reaction today's people will give to the things they see and hear is a big problem in terms of this information overload. One of the solutions for this problem can include accepting new information and thoughts, not questioning them and receiving people's opinions as they are. Another one is to create one's own point of view and ideas by asking the right questions for the new information and ideas. This is a harder and longer process than the other for an individual as he has to struggle more. This process is "critical thinking" process.

Critical thinking is a way of thinking in which an individual uses scientific method, questions, and creates his own ideas in the end. Critical thinking includes logical reasoning. Logical reasoning ability improves throughout life and information (learning) and experience are needed for it to improve (Alloway and Weisbrodt, 1989). A person who thinks critically can ask necessary questions, collect suitable information (data), classify (separate) this information effectively (productively) and creatively, think logically under the light of that information, come to reliable and certain (dependable) results and act successfully. Critical thinking can also be taken as the application-adaptation of scientific method to daily life (Schafersman, 1991).

Goscik (1997) listed the elements of critical thinking as observation, phenomenon, drawing conclusions, guesses, opinions, inferences and critical analysis. Elder and Paul (2001) defined critical thinking as the way of thinking with notions. Critical thinking includes "asking the right questions" (Browne and Keeley, 2001). Cüceloğlu (1997) states that critical thinking is based on usual thinking processes and an individual should follow three steps to gain critical thinking ability by improving himself: 1. One should have the awareness of thinking process. 2. He should have the ability to observe other people's thinking processes. 3. He should apply what he learns in his daily life. According to Özden (2003) critical thinking is an active and organized cognitive process which aims us to understand ourselves first and then incidents, situations and opinions around us by applying

what we have learnt with an awareness of our own ideas and keeping other people's ideas in mind. Critical thinking is defined as a process of evaluating, problem solving and intellectual development. Çelikkaya (2012) defines critical thinking as a process that requires using high level cognitive skills such as analysis, synthesis and evaluation while deciding whether a statement is true or false.

Experts agree that critical thinking can be taught but methods used to teach it can vary. Programs aiming to develop critical thinking skills value students' individual ideas first and then it continues with activities that will activate high level thinking processes (Şahinel, 2002). It is stated that individuals who are inclined to think critically approach to situations with a systematic and analytical point of view, try to stay objective, has the curiosity to learn and keep being self-confident and open-minded (Facione and Facione, 1992; Tortop and Eker, 2013, op. cit. Evin Gencel, Güzel Candan, 2014).

Learning in which critical thinking process is also applied is a process of thinking. That is why, the more thinking skills there are in the learning process, the more permanent learning will be. In such a process studying is defined as using certain techniques to learn (Yıldırım, Doğanay and Türkoğlu, 2000). Students can learn to learn and learn effectively by both knowing his own characteristics of learning and using techniques used in learning (Özer, 1998). Learning to learn is learning to question truths and values around one's own and solve the problem. Teacher's use of effective teaching methods by creating suitable teaching and learning situations and student's having the habit of studying effectively are the things necessary for learning to occur (Demirezen, Akhan, 2013).

Research of the factors affecting students' academic success is highly important as it is an indicator of the quality of education and it guides changes in education policy (Alnabhan, Al-Zegoul & Harwell, 2001). Many factors can affect students' academic success in a positive or negative way (Ulusoy, Güngör & Akyol, 2004). Motivation and studying at school is very important for intended change of behavior (Eryılmaz, Ercan, 2014). One of the factors affecting students' academic success is studying skills (Erdamar Koç, 2010; Temelli & Kurt, 2010; İlhan, Çetin, Öner-Sünkür, Yılmaz, 2013).

Studying is actually a process of problem solving. If the learner plans his work, organizes and evaluates it, he will have an idea about his route and this will increase his level of performance positively in such a process (Doğanay, Özdemir, 2011). In this term, studying approaches and critical thinking are related.

Students who prefer profound learning aim to understand, are interested in the structure of learning task, link theoretic ideas to their daily experiences, construct contents in their hands to form a meaningful unit. Profound learning approach is based on student's intention to search and form meaning while dealing with learning (Ramsden, 2000). On the other hand, superficial approach is based on external motivation or fear to fail. Least time and effort is spent to meet basic needs. Learning content by heart without making sense is mostly used strategy in superficial learning approach (Ozan, Çiftçi, 2013). Definitions of profound and superficial learning approaches argues that students who prefer profound learning makes more of quality in terms of learning when compared to those who prefer superficial learning (Topkaya, Yaka, Öğretmen, 2011). Individuals who adopt critical thinking also adopt profound learning approach.

OBJECTIVE OF THE RESEARCH

This study aims the investigating the relationship between critical thinking dispositions and study process of teacher candidates.

THE PROBLEM STATEMENT

Is there a connection between critical thinking dispositions and study process of teacher candidates?

SUB PROBLEMS

1. What are teacher candidates' critical thinking dispositions? How do teacher candidates' critical thinking dispositions vary according to the varieties of gender, department, grade, and graduated secondary school?

2. What are teacher candidates' study approaches? How do teacher candidates' study approaches vary according to the varieties of gender, department, grade, and graduated secondary school?

3 Is there a connection between critical thinking dispositions and study process of teacher candidates?

METHOD OF THE RESEARCH

In this study, quantitative research method and relational screening model has been used.

Model of the Research: Research model is relational screening. In this relational screening model in order to reach certain aims, the relation between special events are tried to be explained and the existence or the level of

covariance between two or more variances are tried to be determined (Cohen, Manion and Morrison, 2000; Karasar, 2008).

Sample of the Research: The population of this study is formed by 325 teacher candidates from departments of science and elementary school education at Education Faculty. 157 of Students (48.3%) are from the department of Science, of 168 them (51.7%) are from the department of elementary school education, 271 of students (83.4%) are female and 54 of them (16.6%) are male.

DATA COLLECTION INSTRUMENTS

For research a three fold form has been created. In the first part personal data like the gender, department, grade, and graduated secondary school have been collected. Second part includes "The California Critical Thinking Disposition Inventory (CCTDI-R)" which is improved by Facione, Facione and Giancarlo (1998) and adapted to Turkish by Kökdemir (2003). Third part includes "Study Process Questionnaire (SPQ)" revised by Biggs, Kember, Leung (2001), adapted in Turkish by Yılmaz and Orhan (2011).

The California Critical Thinking Disposition Inventory (CCTDI-R)

As a data collection tool, The California Critical Thinking Disposition Inventory (CCTDI-R) was developed by Facione, Facione and Giancarlo (1998) and was translated and validated in Turkish by Kökdemir (2003) has been employed. Cronbach's alpha coefficient, which shows internal consistency for the dimensions of the CCTDI-R were calculated as .75 in analycity dimension, .75 in open-mindedness dimension, .78 in inquisitiveness dimension, .77 in self-confidence dimension, .61 in truth-seeking dimension, and .63 in systematicity dimension. Cronbach's alpha coefficient of the latest scale which was translated in Turkish by Kökdemir (2003) and has six dimensions and 51 items was calculated as .88. The scale was prepared as six – point Likert scale.Six-point Likert type scale shows "totally agree" option 6, "disagree" option 1 point. After dividing the number of questions the raw scores were multiplied by 10. In this way, the lowest value 10, and the highest value 60 standard scores are obtained.

Study Process Questionnaire (SPQ)

Study Process Questionnaire (SPQ) revised by Biggs, Kember, Leung (2001), adapted in Turkish by Yılmaz and Orhan (2011). It is developed in 1987 by Biggs, the pioneer of Study Process Questionnaire Scale which is adapted to Turkish language by Yılmaz & Orhan (2011). After that this scale was revised in 2011 and a new scale with 20 items two factors was developed. For each item, the options of 'very untrue of me or somewhat true of me (1)', 'somewhat true of me (2)', 'true of me in 50 per cent (3)', 'usually true of me (4)', 'true of me every time or almost every time (5)' were provided by using a 5 level Likert type scale for answering the questions in the scale (Biggs, Kember & Leung, 2001, quoted by Yılmaz & Orhan, 2011). In this sense, the score interval for deep and superficial approaches changes between 10 and 50. The student's learning approach changes according to which approach he gets higher point.

EVALUATION OF THE DATA

SPSS 16.00 is used to analyze the data. ANOVA, independent T-Test and Post-Hoc test techniques have been conducted to monitor the scores taken from the scales in terms of demographic varieties. PEARSON correlation coefficient analysis technique is applied in order to observe the relations between scales. In all statistical processes significance at a level of .05 has been seeked.

FINDINGS

The research findings are evaluated in the context of problems.

Problem 1. What are teacher candidates' critical thinking dispositions? How do teacher candidates' critical thinking dispositions vary according to the varieties of gender, department, grade, and graduated secondary school?

The sample of this study is formed by 325 students from science and elementary school education. In this study, the taken total The California Critical Thinking Disposition Inventory (CCTDI-R) scale score was calculated as 253.4492 (Table 1).

Table 1. Distribution of scores of students taken from CCTDI-R scale and the factors.

	Scales	X	SD	SE
CCTDI-R Scale	**Analyticity**	43.2462	5.89944	.32724
	Open-Mindedness	39.1256	5.45731	.30272
	Inquisitiveness	43.2957	5.56399	.30863
	Self-Confidence	42.6066	6.05208	.33571

Truth-Seeking	43.1341	6.81283	.37791
Systemacity	42.0410	6.18544	.34311
CCTDI-R Scale Total	253.4492	27.92744	1.54914

As in table 2, as a result of independent group T-test applied to define whether the scores taken from the CCTDI-R scale and Analyticity, Truth-Seeking, Systemacity factors differentiate according to the gender variable; for the CCTDI-R scale total score and Analyticity, Truth-Seeking, Systemacity factor scores the difference between the arithmetic average of the groups have been found statistically significant.Female students' score average is significantly higher than the Male students (p<.05).

Table 2. The results of Independent group T-test of the scores taken from CCTDI-R scale and factors according to the gender variable of students.

Scales		Group	N	X	SD	SE	T test t	df	p
CCTDI-R Scale	**Analyticity**	Female	271	43.7343	5.75000	.34929	3.396	323	,001
		Male	54	40.7963	6.08239	.82771			
	Open-Mindedness	Female	271	39.3635	5.18507	.31497	1.507	66.704	,137
		Male	54	37.9321	6.58508	.89612			
	Inquisitiveness	Female	271	43.3743	5.45574	.33141	.570	323	,569
		Male	54	42.9012	6.11794	.83255			
	Self-Confidence	Female	271	42.8202	6.00757	.36493	1.428	323	,154
		Male	54	41.5344	6.21680	.84600			
	Truth-Seeking	Female	271	43.6795	6.58923	.40027	3.282	323	,001
		Male	54	40.3968	7.30762	.99444			
	Systemacity	Female	271	42.5953	5.93939	.36079	3.689	323	,000
		Male	54	39.2593	6.68760	.91007			
CCTDI-R Scale Total		Female	271	255,5672	26.91854	1.63518	3.103	323	.002
		Male	54	242,8201	30.63497	4.16889			

As seen in table 3; as a result of independent group T-test applied to define whether the scores taken from the CCTDI-R scale and factors differentiate according to the department variable; for the CCTDI-R scale total score and all factor scores the difference between the arithmetic average of the groups have been found to be insignificant statistically.

Table 3. The results of Independent group T-test to define whether the scores taken from CCTDI-R scale and factors differentiate according to the department variable of students.

Scales		Group	N	X	SD	SE	T test t	df	p
CCTDI-R Scale	**Analyticity**	Science Education	157	43.7197	5.84175	.46622	1.401	323	,162
		Elementary School	168	42.8036	5.93605	.45798			
	Open-Mindedness	Science Education	157	38.8588	5.72494	.45690	-.852	323	,395
		Elementary School	168	39.3750	5.19957	.40116			
	Inquisitiveness	Science Education	157	43.6447	5.74855	.45878	1.093	323	,275
		Elementary School	168	42.9696	5.38253	.41527			
	Self-Confidence	Science Education	157	43.0209	5.64743	.45071	1.194	323	,233
		Elementary School	168	42.2194	6.39977	.49375			
	Truth-Seeking	Science Education	157	43.3940	6.70531	.53514	.664	323	,507
		Elementary School	168	42.8912	6.92297	.53412			
	Systemacity	Science Education	157	42.1762	6.34272	.50620	.380	323	,704
		Elementary School	168	41.9147	6.05101	.46685			
CCTDI-R Scale Total		Science Education	157	254,8144	28.10528	2.24305	.852	323	.395
		Elementary School	168	252,1734	27.78334	2.14353			

As a result of one-way analysis of variance (ANOVA) which is done in order to determine whether the scores taken from the CCTDI-R scale and factors show a significant difference according to the class variable; the difference between the arithmetic average of the group has been found to be insignificant statistically (Table 4).

Table 4. The results of one-way analysis of variance (ANOVA) applied to define whether the scores taken from CCTDI-R scale and factors differentiate according to the grade variable of students.

N, X and SD Values	ANOVA Results

Scales	Group	N	X	SD	Var. K.	SS	df	MS	F	p
Analyticity	1.Grade	103	43.5146	5.56576	Between	36.697	3	12.232	.349	.790
	2.Grade	84	43.5000	5.89568	Within	11239.611	321	35.014		
	3.Grade	65	42.6615	6.22815	Total	11276.308	324			
	4.Grade	73	43.0959	6.13769						
Open-Mindedness	1.Grade	103	39.6359	5.50879	Between	59.669	3	19.890	.666	.574
	2.Grade	84	39.2758	5.18690	Within	9589.784	321	29.875		
	3.Grade	65	38.6154	5.28748	Total	9649.453	324			
	4.Grade	73	38.6872	5.85959						
Inquisitiveness	1.Grade	103	43.7864	5.69846	Between	90.118	3	30.039	.970	.407
	2.Grade	84	42.6323	5.48084	Within	9940.286	321	30.967		
	3.Grade	65	42.8547	4.77895	Total	10030.405	324			
	4.Grade	73	43.7595	6.09321						
Self-Confidence	1.Grade	103	43.2039	6.09208	Between	75.284	3	25.095	.683	.563
	2.Grade	84	41.9388	5.43935	Within	11792.070	321	36.735		
	3.Grade	65	42.4835	5.58604	Total	11867.353	324			
	4.Grade	73	42.6419	7.02551						
Truth-Seeking	1.Grade	103	43.0652	7.32105	Between	53.444	3	17.815	.382	.766
	2.Grade	84	42.5680	6.06408	Within	14984.898	321	46.682		
	3.Grade	65	43.3407	6.44975	Total	15038.342	324			
	4.Grade	73	43.6986	7.26809						
Systemacity	1.Grade	103	42.5243	6.15196	Between	57.367	3	19.122	.497	.684
	2.Grade	84	41.6071	6.08643	Within	12338.752	321	38.438		
	3.Grade	65	42.3077	6.02867	Total	12396.120	324			
	4.Grade	73	41.6210	6.53795						
CCTDI-R Scale Total Score	1.Grade	103	255.7302	27.11442	Between	939.506	3	313.169	.399	.754
	2.Grade	84	251.5220	26.18838	Within	251761.588	321	784.304		
	3.Grade	65	252.2635	26.60578	Total	252701.094	324			
	4.Grade	73	253.5041	32.17671						

As seen in table 5 as a result of one-way analysis of variance (ANOVA) which is done in order to determine whether the CCTDI-R scale and factors show a significant difference according to the graduated secondary school variable; for scale total score and Analyticity factor score the difference between the arithmetic average of the group has been found statistically significant. Following this process Post-Hoc analysis techniques are started to be applied.

After one-way analysis of variance (ANOVA); to determine how changed in CCTDI-R scale and factors among sub-groups, considering the graduated secondary school variable, TUKEY test has been chosen from among the post-hoc analysis techniques; because of Analyticity factor and CCTDI-R Scale group variance are homogen according to the Levene's test (L=.732, L=.506, p>.05).As a result of this test it has been stated that, graduated anatolian high school students' score are significantly higher than graduated teacher high school students' score for Analyticity Factor and CCTDI-R Scale total score.

Table 5. The results of one-way analysis of variance (ANOVA) applied to define whether the scores taken from CCTDI-R scale and factors differentiate according to the graduated secondary school variable of students. Factor

	N, X and SD Values				ANOVA Results					
Scales	**Group**	**N**	**X**	**SD**	**Var. K.**	**SS**	**df**	**MS**	**F**	**p**
Analyticity	Public High School	128	43.3125	5.65094	Between	295.958	2	147.979	4.339	.014
	Anatolian High School	120	44.1833	5.87114	Within	10980.350	322	34.100		
	Teacher High School	77	41.6753	6.09452	Total	11276.308	324			
Open-Mindedness	Public High School	128	39.0299	5.59728	Between	143.996	2	71.998	2.439	.089
	Anatolian High School	120	39.8681	5.22598	Within	9505.457	322	29.520		
	Teacher High School	77	38.1277	5.47315	Total	9649.453	324			
Inquisitiveness	Public High School	128	43.1944	5.92720	Between	106.484	2	53.242	1.728	.179
	Anatolian High School	120	43.9444	5.35075	Within	9923.920	322	30.820		
	Teacher High School	77	42.4531	5.20015	Total	10030.405	324			
Self-Confidence	Public High School	128	42.6562	6.00962	Between	83.827	2	41.914	1.145	.319
	Anatolian High School	120	43.0952	5.74223	Within	11783.526	322	36.595		
	Teacher High School	77	41.7625	6.56250	Total	11867.353	324			

	Public High School	128	42.9129	7.05207	Between	170.482	2	85.241		
Truth-Seeking	Anatolian High School	120	44.0000	6.77593	Within	14867.860	322	46.173	1.846	.160
	Teacher High School	77	42.1521	6.37456	Total	15038.342	324			
	Public High School	128	42.3177	6.29625	Between	106.197	2	53.099		
Systemacity	Anatolian High School	120	42.4028	6.41615	Within	12289.923	322	38.167	1.391	.250
	Teacher High School	77	41.0173	5.56826	Total	12396.120	324			
CCTDI-R	Public High School	128	253.4234	29.04468	Between	4981.685	2	2490.843		
Scale	Anatolian High School	120	257.4953	27.50386	Within	247719.408	322	769.315	3.238	.041
Total Score	Teacher High School	77	247.1923	25.79372	Total	252701.094	324			

Problem 2. What are teacher candidates' study approaches? How do teacher candidates' study approaches vary according to the varieties of gender, department, grade and graduated secondary school?

The minimum and the maximum score that can be taken from the SPQ scale are between 10-50 for the first factor profound approach and the second superficial approach. In this study, Students' average score for the first factor which is profound approach is found as 31.7938; and average score for the second factor which is superficial approach is found as 29.3631 (Table 6).

Table 6. Distribution of scores of students taken from SPQ according to the factors.

SPQ Scale Factors	X	SD	SE
1st Factor Profound Approach	31.7938	6.56947	.36441
2nd Factor Superficial Approach	29.3631	7.08179	.39283

As in table 2, as a result of independent group T-test applied to define whether the scores taken from the SPQ factors differentiate according to the gender variable; for the second factor superficial approach score the difference between the arithmetic average of the groups have been found statistically significant.Male students' score average is significantly higher than the Female students ($p<.05$).

Table 7. The results of Independent group T-test of the scores taken from SPQ factors according to the gender variable of students.

SPQ Scale Factors	Group	N	X	SD	SE	T test		
						t	df	p
1st Factor Profound Approach	Female	271	31.5277	6.34839	.38564	-1.641	323	.102
	Male	54	33.1296	7.50609	1.02145			
2nd Factor Superficial Approach	Female	271	28.7454	7.03679	.42745	-3.586	323	.000
	Male	54	32.4630	6.52633	.88812			

As seen in table 8; as a result of independent group T-test applied to define whether the scores taken from the Profound Approach and Superficial Approach factors show a significant difference according to the department variable; for the superficial approach factor and the profound approach factor scores the difference between the arithmetic average of the group has been found statistically to be insignificant.

Table 8. The results of Independent group T-test of the scores taken from SPQ factors according to the department variable of students.

SPQ Scale Factors	Group	N	X	SD	SE	T test		
						t	df	p
1st Factor Profound Approach	Science Education	157	32.1783	6.64821	.53059	1.020	323	.308
	Elementary School	168	31.4345	6.49425	.50104			
2nd Factor Superficial Approach	Science Education	157	29.1274	7.42115	.59227	-.579	323	.563
	Elementary School	168	29.5833	6.76413	.52186			

As seen in table 9 as a result of one-way analysis of variance (ANOVA) which is done in order to determine whether the scores taken from the Profound Approach and Superficial Approach factors show a significant difference according to the grade variable; for the superficial approach factor scores and the profound approach factor scores the difference between the arithmetic average of the group has been found statistically to be insignificant.

Table 9. The results of one-way analysis of variance (ANOVA) applied to define whether the scores taken from SPQ factors differentiate according to the grade variable of students.

N. X and SD Values					ANOVA Results					
SPQ Scale Factors	**Group**	**N**	**X**	**SD**	**Var. K.**	**SS**	**df**	**MS**	**F**	**p**

1st Factor Profound Approach	1.Grade	103	32.1165	6.85322	Between	34.548	3	11.516	.265	.851
	2.Grade	84	31.6071	6.39657	Within	13948.639	321	43.454		
	3.Grade	65	31.2769	5.92797	Total	13983.188	324			
	4.Grade	73	32.0137	6.98509						
2nd Factor Superficial Approach	1.Grade	103	30.5631	7.08308	Between	355.869	3	118.623	2.396	.068
	2.Grade	84	29.5476	6.71342	Within	15893.288	321	49.512		
	3.Grade	65	27.6308	7.02355	Total	16249.157	324			
	4.Grade	73	29.0000	7.33901						

As a result of one-way analysis of variance (ANOVA) which is done in order to determine whether the scores taken from the Profound Approach and Superficial Approach factors show a significant difference according to the grade variable; for the superficial approach factor scores and the profound approach factor scores the difference between the arithmetic average of the group has been found statistically to be insignificant.

Problem 3. Is there a connection between critical thinking dispositions and study process of teacher candidates?

Table 10. Pearson Multiplication Momentum Correlation Analysis Results conducted to define relations of the SPQ factors and CCTDI-R scale and factors.

SRLS scale and Factors	**SPQ**	
	Profound Approach	**Superficial Approach**
Analyticity	r=.145 (**)	r=-.318 (**)
Open-Mindedness	r=.106	r=-.455 (**)
Inquisitiveness	r=.254 (**)	r=-.310 (**)
Self-Confidence	r=.182 (**)	r=-.246 (**)
Truth-Seeking	r=.174 (**)	r=-.386 (**)
Systemacity	r=.060	r=-.283 (**)
CCTDI-R Scale Total Score	r=.197 (**)	r=-.428 (**)

As a result of Pearson Multiplication Momentum Correlation Analysis, conducted to define the relations between the SPQ scale factors and CCTDI-R scale and factors; SPQ scale Profound Approach factor score and CCTDI-R scale score, Analyticity, Inquisitiveness, Self-Confidence, Truth-Seeking, Systemacity factors scores have a significant positive relation while SPQ scale Superficial Approach factor score and CCTDI-R scale and all factors have a significant negative relation (Table 10).

RESULTS

Critical thinking has always been an important process but it is even more important now as information and data are increasing more and more in 21st century and it is easier than ever to reach information. Students should also be taught how to gather information by thinking critically and how to use it effectively (Halpern, 1996).

Factors suggested to be affecting critical thinking can be listed as awareness of the problem, flexible thinking, having no prejudices, being eager to research and think, being knowledgeable, skeptical, curious and honest, insisting to reach conclusions, undertaking responsibility and taking risks. Apart from these characteristics, age, sex, race, intelligence, level of development, socio-economic situation, experience etc. also affect critical thinking (Kaya, 1997).

In this study it was found that critical thinking level of teacher candidates was medium. Koçak et al. (2015), Kürüm (2002), Çetin (2008), Beşoluk and Önder (2010) Türnüklü and Yeşildere (2005), Özdemir (2005), Saçlı and Demirhan (2008), Şen (2009), Korkmaz (2009) also reached the same conclusion in their studies. Çetinkaya (2011), Akar (2007) and Zayif (2008), Bulut, Ertem and Sevil (2009), Öztürk and Ulusoy (2008), Durmuş et al. (2015) found that critical thinking level of teacher candidates was low. Evin Gencel and Güzel Candan (2014) found that critical thinking level of teacher candidates was "good" and their level of reflective thinking was "medium".

As a result of this study, it is found that girls' average point is meaningfully higher than boys' in terms of their critical thinking points. Different studies have reached conclusions supporting our study. Çetinkaya (2011) found a meaningful difference in terms of sex variable. Female teacher candidates had more positive ideas than males. Kırbaşlar, Özsoy-Güneş (2014), Özsoy-Güneş et al. (2014), Özsoy-Güneş et al. (2013), Yıldırım (2005), Gülveren (2007), Zayif (2008), Beşoluk and Önder (2010) also reached the same conclusion. On the other hand, Koçak et al. (2015), Çetin (2015), Çekiç (2007) has found that there is no meaningful relationship between critical thinking level of teacher candidates and their sex. In the studies of Kürüm (2002), Özdemir (2005), Akar (2007), Saçlı and Demirhan (2008), Korkmaz (2009), Narin (2009), Şen (2009), Ekinci and Aybek (2010), sex is not a variable that makes a big difference in terms of views about critical thinking. As can be seen, the effect of

sex variable on the level of critical thinking varies in the literature. That is why making generalizations is not possible.

Aybek (2007) emphasizes that teacher is the most important factor for the students to be able to think, question, express and justify their opinions in a free classroom environment where modern approaches are applied, and there is no memorizing, fear or constraint. Teachers who think critically and reflectively will be a role model for their students. That is why, teachers should be observed to see if they have critical thinking skills or not during their undergraduate education and their education should include activities that will foster critical thinking skills (Aybek et al., 2015). It is an undeniable truth that teaching should be designed with educational tasks that will develop students' profound and sense-making learning styles.

In their study in which they research the relationship between studying skills and academic risk taking skills, İlhan et al. (2013) stated that there was a meaningful relationship between these two variables. This result supports the result of our study that says there is a positive relationship between profound thinking factor and critical thinking. It is concluded that in-class counselling applications (Avcı, 2006) and educational counselling facilities (Koruklu, 2010) are effective to improve study skills according to experimental researches done to improve students' study skills. Accordingly, we can make use of in-class counselling applications and educational counselling facilities to support students to improve their study and critical thinking skills. It is highly important for students to have study skills and critical thinking processes as separate classes at schools or as included in the other lessons to improve their study and critical thinking skills.

In our study, male students have superficial study skills at a higher level than female students. Çuhadar et al. (2013) and Batdal Karaduman et al. (2015) also reached the same conclusions. There are findings supporting the view that study approaches do not change according to sex variable (Çoban and Ergin, 2008; Ellez and Sezgin, 2002; Selçuk, Çalışkan and Erol, 2007, Batdal Karaduman, 2013). Along with this, there are different findings in the literature, too. According to the study of Miller, Finley and McKinley (1990), male students prefer profound study skills more than female students; according to the study of Beşoluk and Önder (2010) and Biggs (1987a), female students prefer profound study skills more than male students. Çoban and Ergin (2008) states that there is a difference on behalf of male students in terms of superficial motivation factor that is a sub-dimension of superficial learning and there is a difference on behalf of female students in terms of anxiety factor. This situation can be interpreted as that students' study strategies and views on the subject to be studied can vary in terms of sex variable in the sense of academic structure of the education program. Selçuk, Çalışkan and Erol (2007) have found that profound learning is preferred more than superficial learning, learning approaches do not change according to sex variable and superficial learning is preferred less and profound learning is preferred more as the grade increases.

According to our study, students' preferences about learning approaches do not change according to grade variable. Ozan and Çiftçi (2013), Ekinci (2009), Ekinci and Ekinci, (2007), Senemoğlu (2011) reached the same conclusion in their studies. However, there are some studies showing that students' grades affect their preference of learning approaches (Ellez and Sezgin, 2002; Selçuk, Çalıskan and Erol, 2007). The study done by Altun (2013) shows that teacher candidates' study approaches change according to the university they graduated from, the field they studied and according to their sex. In Olpak and Korucu's study (2014), students' study approaches do not change according to their sex, age, grade or the field they study.

It is thought that teaching study skills can help learning process of every subject of every field, and along with this, it can have a positive effect on students' academic success (Kutlu, Korkmaz, 2013). According to these results, more tasks to encourage students to prefer profound learning and critical thinking should be included in teacher candidates' education. Educational environment should be designed in a way that will support students' critical thinking and activities should be organized accordingly. Further research can be done to determine the reasons why students of faculty of education prefer profound learning less as their grade increases.

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INVESTIGATION OF THE SECONDARY SCHOOL STUDENTS TRANSITION SITUATIONS BETWEEN DIFFERENT REPRESENTATION TYPES

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ABSTRACT
Representation types of knowledge are an important case/component of learning environments. The aim of this study was to investigate student performances to make transitions between graphical representation to text, picture and table representation types. The study was conducted as a case study. An achievement test for the pressure subject, including six questions, has been applied to 348 eighth grade students who have completed their education on the pressure issue. Analysis of participant responses were made in terms of a rubric developed. The study was concluded that students were insufficient in the transition between selected representation types.

Keywords: representation types, graphic, text, picture, table

INTRODUCTION

In our age, it can be said that communication is built in a faster and more efficient way in comparison to previous centuries. Individuals are expected to use any type of communication tools, sources and the skills that communication requires. Accordingly, it is significant that individuals are information-literate, draw conclusions, take conscious decisions, apply the knowledge that they have to new situations and produce new knowledge. So, individuals, especially the young generation need to have the capabilities of reading, listening and/or watching the information given in any form/representation such as oral, pictorial, graphical, textual and to switch between different knowledge representation types in order to make sense of the knowledge, make predictions or deductions when needed.

It is known that some challenges might be faced in learning/teaching some fundamental concepts/information in science education (Akdeniz, Bektaş & Yiğit, 2000; Yağbasan & Gülçiçek, 2003). So, using different representation types according to the level of the student in concretizing the information that is difficult to teach/learn is very significant. Representation here means to make sense of and show/present/reflect the existing knowledge; that is the reality, through various approaches (Zou, 2000). The representation of knowledge presents the knowledge in different formats, which plays a key role in science education. These representations can be in various formats such as text, figure, photograph, graph, table etc.

In learning environments, the presentation of the knowledge through multiple representations facilitates learning. The presentation of knowledge in different forms and in a switch between these forms provides students with the opportunity to compare different types of presentation and helps to construct the received knowledge in a controlled way (Kurnaz, 2011, 2013; Kurnaz & Yüzbaşıoğlu, 2013). Thus, the learners' using the knowledge presentation forms is closely associated with learning. In fact, learning is about presenting what is learnt in different forms which means by transforming the received knowledge into a different presentation type (Kurnaz, 2011). Accordingly, analyzing the learner's capability to switch between different types of representation is more important than his/her performance in using a representation type (Ainsworth, 1999). The importance of learners' using different representations correctly and associating them with one another has been stressed by some researchers (e.g. Even, 1998; Ainsworth, 1999; Çelik & Sağlam Arslan, 2012), which is also noticed in science curricula.

School is one of the ideal places where individuals can acquire the above-mentioned skills. So, more attention should be paid to the use of knowledge representation types that are frequently used especially in daily life. One

of these is graphics. Graphics is a type of knowledge representation that reflects the relationship/information between two variables and is frequently encountered in different areas of daily life such as the Internet and TV programmes. For this reason, it is considered necessary that individuals do the shifts between graphical representation type and other representation types properly besides the skills related to reading and creating graphics.

In science lessons, reading, interpreting and creating graphs are very important, as in other lessons. Accordingly, it is seen in many studies (i.e. Ates & Stevens, 2003; Beichner, 1994; Berg & Smith, 1994; Kekule, 2008; McDermott, Rosenquist & van Zee, 1987; Saglam-Arslan, 2009) that the focus is on students' reading and creating graphs and thus their most common deficiencies are identified. However, it is striking that students' shift from graphics - a format of knowledge representation - to other representation types and vice versa has not been scrutinized enough in the related literature.

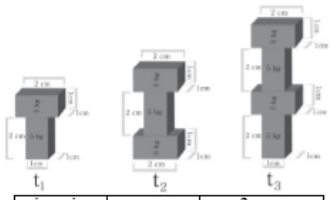
In this study, it is aimed to examine students' transition cases between graphic representation type and other text, figure and table representation types that are frequently used in learning environments (and in daily life).

METHODS

This is a case study. 348 8th grade students were asked 6 questions that requiring transition between representation types such as graph, text, figure and table related to 'pressure' subject. These representation types are frequently used in science education. The students completed the lessons on 'pressure' subject within the scope of the science course. In the questions, they were asked to create a graph based on the type of representation given in the form of text, figure or table or to show the information given in the graphic format, through text, figure or table. An example to these questions is given in Figure 1. The questions also indicate the limitations of this study.

1. According to the text, draw the graph showing change of pressure by time for the second case mentioned in the text.

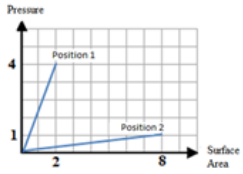
While Okan is playing with a ball on a sandy surface, his ball gets caught in the branches of a tree and he can't get it despite all his efforts. Then, he suddenly notices the rocks at the bottom of the tree. He puts one rock at the top of another but still can't reach the tree. When he puts the first rock at the bottom he realizes that it sinks in the sand more. The weights of the rocks are the same but their sizes are different. Seeing this, he decides to put the 3rd rock at the bottom, then the 2nd and finally the first one at the top and he reaches the tree. In the second situation, Okan sees that the 3rd rock has not sunk a lot in the sand.



2. The sequencing of the identical blocks at moments of t_1, t_2 and t_3 is like in the picture. According to the picture, draw the pressure-mass graph for the sequencing process of the bars.

situation	pressure	surface area
1	20	2
2	10	4
3	8	5
4	5	8
5	4	10

3. Kerem rotates a non-geometric shape clockwise. The pressure and surface area values exerted by the object are given on the table. According to the table, draw the graph showing the change of the relationship between pressure and surface area by time while the object is moving.



The values of pressure and surface area of a box in the shape of rectangular prism to the ground in two different positions have been given in the graph.

According to the graph

4. Draw separately the views of the box in the 1st and 2nd positions.

5. Draw the table giving the values of the pressure, surface area and force (weight) of the box in the 1st and 2nd positions.

6. Describe the relationship between the surface areas and the pressure.

Figure 1. Sample question

The participating students completed the lessons on pressure subject, and the analysis of the students' answers was carried out using a rubric. Accordingly, the students' answers were categorized as No Answer/Meaningless, Wrong, Partially Right Having Some Wrong Content, Partially Right with No Wrong Content, and Right (Table 1).

Table 1. *Analysis Rubric Concerning the Students' Answers*

Code	**Explanation**
Right Answer	The answer consistent with scientific knowledge
Partially right answer that doesn't have any wrong content	The answer consistent with scientific knowledge but not adequate
Partially right answer that has wrong content	The answer having some content that is consistent with scientific knowledge and some content that is inconsistent with scientific knowledge
Wrong Answer	The answer that is not consistent with scientific knowledge
No answer	No answer or the answer does not make sense.

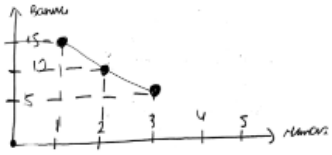
RESULTS

The distribution of student achievement within the scope of this study is given in Table 2.

Table 2. The distribution of student achievement in transition between the types of representation

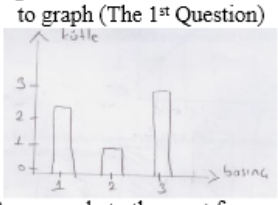
Type of Transition		Question	Right Answer		Partially Right with No Wrong Content		Partially Right Having Some Wrong Content		Wrong Answer		No Answer	
			f	%	f	%	f	%	f	%	f	%
From Text to		1	9	2.6	15	4.3	54	15.5	77	22.1	193	55.5
From Figure to	Graph	2	8	2.3	2	0.6	35	10.1	190	54.6	113	32.5
From Table to		3	36	10.3	86	24.7	82	23.6	120	34.5	24	6.9
From Graph to	Figure	4	4	1.1	43	12.4	51	14.7	149	42.8	101	29
	Table	5	42	12.1	55	15.8	21	6	92	26.4	138	39.7
	Text	6	91	26.1	25	7.2	25	7.2	79	22.7	128	36.8

As it is seen in the Table 2, more than half of the students failed while transition between the indicated representation types or left the questions unanswered. It is seen that there are very few number of students in the right answer category for switches between all indicated types of representation. It is also noteworthy that nearly 25% of the students were successful in transition from graph to text only. The examples to the students' wrong

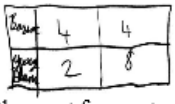


An example to the most frequent wrong answers in transition from text to graph (The 1st Question)

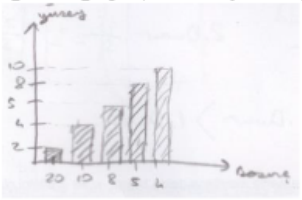
An example to the most frequent wrong answers in transition from graph to figure (The 4th Question)



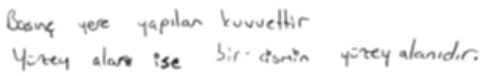
An example to the most frequent wrong answers in transition from figure to graph (The 2nd Question)



An example to the most frequent wrong answers in transition from graph to table (The 5th Question)



An example to the most frequent wrong answers in transition from table to graph (The 3rd Question)



An example to the most frequent wrong answers in transition from graph to text (The 6th Question)

answers that repeat most frequently are presented in Figure 2.
Figure 2. Examples to the Most Frequent Wrong Answers

In regard to the switch from text to graph, it is clear that students could not understand the situation right and drew graphs having wrong values. In the second question, there was a process in the switch from figure to graph, and students had problems in placing the right values on the graph. As for the third question asking the change of the values in the table by time/situation, the students could not construct 'the change of pressure-surface area' on a process basis. In the fourth question, transition from graph to figure, the students tried to draw another graph. In fact, they were expected to picture simply the box based on the graph showing the features of the box in different positions. In the fifth question, transition from graph to table, the students could not place the values given in the graphic in the table, which was the most common failure. In the sixth question, transition from graph to text, they showed a tendency to indicate the relationship between pressure and surface irrespective of the graph that was given.

DISCUSSION AND CONCLUSION

In this study, it has been concluded that students are incompetent in transition from graph to other representation types such as text, table, and figure and vice versa. The underlying reason in the failure of students in transition from graph to other representation types and vice versa is that the situations involving switch between the representation types such as text, figure, table, and graph are not sufficiently covered in the end-of-unit assessment questions and in textbooks which are parts of the learning environment. It is also striking that the students reflect the graph as a draft or figure of the reality rather than a symbolic representation of knowledge. The fact that students did not perceive graphics as a symbolic representation of knowledge, which may be one of the reasons behind the incompetency of students in the switches, is consistent with the findings of similar studies

(e.g. Berg and Smith, 1994; Kekule, 2008). In other words, students might be attaching a different meaning to representation types, which is another issue to be researched.

Being able to present the knowledge in multiple representations indicates that the learner has grasped the subject. However, this ability/competence of presenting the knowledge through multiple representation types should be supported in learning environments. For this reason, this ability/competence is one of the abilities/competences that teachers must have. Nevertheless, challenges are faced in both learning and teaching some science concepts (Sağlam Arslan & Kurnaz, 2009). Thus, the incompetence of teachers regarding the presentation of knowledge through multiple representations may have caused the participating students to fail in the present study.

Based on the result obtained in this study, it is recommended to;

- give more place to interesting / accentuating teaching practices,
- accordingly rearrange the assessment questions in the textbooks, and
- ensure that teachers give importance to questions that reflect the switches between representation types in evaluation and assessment processes

with regard to the switches from graph to representation types such as text, table, and figure and vice versa in science education.

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INVOLVEMENT LOAD HYPOTHESIS REVISITED: TASK EFFECTIVENESS ON L2 VOCABULARY LEARNING

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ABSTRACT

It is suggested that effective L2 vocabulary learning involves elaborate processing in which attention to different aspects of words is needed to enhance learning. Laufer and Hulstijn (2001) propose a framework, the Involvement Load Hypothesis (ILH), to conceptualize elaborate processing. ILH conceptualizes elaboration in terms of a cognitive and motivational framework consisting of three components (i.e., need, search, and evaluation). Each component can be measured independently and its weight ranges from weak to strong. Tasks with same involvement load, are assumed to contribute equally to L2 vocabulary learning. The purpose of this study was to investigate the effects of task-induced involvement on L2 vocabulary learning by examining the extent to which vocabulary tasks with the same and varying degrees of task-induced involvement load contribute to vocabulary learning gains. Four vocabulary learning tasks with different combinations of involvement indexes were designed for the purpose of the study. Ninety-six Taiwanese college-level participants were randomly assigned to four groups, each performing one of the tasks that involved reading a text with fourteen target words. The participants' knowledge of the words were both pre- and post-tested. The results indicated that tasks with the same involvement load did not lead to similar learning gains. Implications of the study will be discussed.

Keywords: Involvement load hypothesis, L2 vocabulary learning, reading-plus tasks, writing tasks

INTRODUCTION

L2 vocabulary development through reading is a complex process in which various components are involved and integrate with one another. In particular, learners need to allocate attentional resources to the word's orthographic and semantic properties (Schmidt, 2001). They must also attend to the connections between new lexical forms and their meanings and also associate the word with their existing knowledge sources or maintaining it in their working memory for rehearsal (Ellis, 1994; Hulstijn, 2001; Pulido, 2007; Rott, 2007).

An attempt to operationalize the construct of attention is Laufer and Hulstijn's (2001) Involvement Load Hypothesis. Involvement Load Hypothesis conceptualizes attention in terms of three major task components: need, search, and evaluation. Whereas a moderate need is externally imposed by the teacher or the task, a strong need is self-imposed by the learner, such as finding a word's meaning by looking it up in a dictionary. 'Search' is moderate when learners try to seek the meaning to match a word's form, and it is strong when the focus is on finding a word's form to match its meaning (Nation, 2001). 'Evaluation' ranges from weak to strong, including the comparison of an unfamiliar word with other words (weak), comparing the specific meaning of a word with other meanings of the same word (moderate), or assessing whether a word fits a specific linguistic context (strong). The involvement load hypothesis weights these three factors equally and assumes that the greater the involvement in a given task, the better vocabulary learning and retention.

Recently, a number of studies have examined the role of Involvement Load Hypothesis in vocabulary learning (Eckerth & Takavoli, 2012; Keating, 2008; Kim, 2008; Laufer, 2003; Laufer & Hulstijn, 2001; Laufer & Rozovski-Roitblat, 2011; Nassaji & Hu, 2012; Pulido, 2007, 2009; Peters, 2012; Peters, Hulstijn, Sercu, & Lutjeharms, 2009; Rott, 2007). For example, to investigate the effect of involvement load on the retention of ten English words by young adult ESL learners, Hulstijn and Laufer (2001) designed an

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experimental study with three tasks comprising different involvement loads (i.e., reading comprehension, comprehension plus filling in target words, and composition writing with target words). That is, these three tasks consisted of various combinations of need, search, and evaluation. The results indicated that retention was dependent on amount of task-induced involvement load: Retention was highest in the composition task, lower in reading plus fill-in, and lowest in the reading comprehension. The composition task yielded the highest retention as it consisted of higher involvement load than the other two tasks. Partially replicating Hulstijn and Laufer's (2001) study, Kim (2008) investigated whether different levels of task-induced involvement load affected the initial learning and subsequent retention of target words by L2 learners. The results proved to be consistent with the assumption that higher involvement induced by the task results in effective initial learning and better retention of new words. Nassaji and Hu (2012) investigated the effects of task-induced involvement load (Laufer & Hulstijn, 2001) on Chinese ESL learners' use of lexical inferencing strategies and vocabulary retention. Three texts, which differed from one another in terms of their degrees of learner involvement, were designed. Each of the participants was assigned to read one of the texts randomly and infer the meanings of 10 target words in the text. The quantitative data analysis provided evidence for the Involvement Load Hypothesis in lexical inferencing.

Recent research into task effectiveness has also compared the effect of specific vocabulary tasks such as reading-only tasks, reading-plus task, i.e., or reading followed by word-focused activities (Keating, 2009; Laufer & Rozovski-Roiblat, 2011; Peters, 2012; Peters et. al, 2009). Examples of word-focused activities include those such as a fill-in-the-blank task, a sentence-writing task, and a composition-writing task. Laufer (2005, 2006, 2011) has integrated word-focused activities in her recent studies, arguing that attention in the learning process should be drawn to the lexical items. The assumptions for the superiority of word-focused activities are based on the idea that "retention of new information depends on the amount and quality of attention that individuals pay to various aspects of this information…since form-focused tasks induce elaborative attention to words' formal and semantic features, they are also conducive to their retention" (p. 395, Laufer & Rozovski-Roitblat, 2011). Keating (2009) claimed that ideas from Involvement Load Hypothesis are not typically embedded into the context of form-focused instruction, but it is obvious that increased involvement load generally entails greater focus on form in the tasks that require the two cognitive components of search and evaluation. Research also lends support to the superiority of tasks with greater involvement load such as reading-plus versus reading-only tasks (Keating, 2009; Kim, 2008; Laufer & Rozovski-Roitblat, 2011; Eckerth & Tavakoli, 2012; Peters et. al, 2009; Peters, 2012). However, studies comparing the effects of reading-plus and writing tasks have shown different results. For example, Keating (2009) examined whether tasks with different involvement load leads to differential word gains. Three tasks were used: reading comprehension plus marginal glosses, reading comprehension plus fill-in, and original sentence writing. The results indicated that participants in the 3rd task performed the best in immediate recall. Keating then suggested that a word-focused task without reading may be the most beneficial for vocabulary learning. Kim (2008) also found similar results in her study. Eckerth and Tavakoli (2012) investigated the effect of word frequency and elaboration on learners' vocabulary learning. The factor of elaboration was operationalized in terms of different degrees of task-induced involvement and the three tasks used were: reading with marginal glosses, reading with a fill-in-the-blank, and reading with marginal glosses then followed by writing a related composition. Based on the findings, Eckerth and Tavakoli suggested that a task with input-and-output cycle (i.e., a task integrating reading with writing) was more conducive than the other two. Overall, the previous research has indicated that a task with greater involvement load would lead to better learning.

Another area that recent research has examined is the effectiveness of tasks with the same involvement load but with different combinations of the three involvement load factors. For example, Laufer (2003) conducted an experiment in which 90 Arabic learners of English were asked to complete three tasks with the same involvement indexes and the learners were tested on word retention after each task. The three groups differed significantly in their posttest scores, suggesting that each of the three components (i.e., need, search, and evaluation) might contribute differently to the learning tasks. Kim (2008) examined whether two tasks (i.e., writing composition and writing sentences), which were assumed to involve the same theoretical level of task-induced involvement, would have the same effects on initial learning and subsequent retention of new words. The results provided evidence that tasks with the same involvement loads were equally beneficial for vocabulary learning. However, Kim further suggested that different degrees (i.e., moderate and strong) of each individual component (i.e., need, search, and evaluation) might

not contribute to the same weights and strong evaluation might be the most influential factor for learner's initial vocabulary acquisition. Kim called for more studies to investigate the value of each individual component and also those with multiple treatments for each task.

Overall, the above studies are consistent with the assumptions in the Involvement Load Hypothesis. That is, the higher involvement in a learning task leads to better vocabulary learning. There have also been some studies on tasks with same degree of involvement load. However, few studies have compared tasks with similar and different involvement load and the degree to which they contribute to vocabulary learning. Thus the main purpose of this study was to address this question. The following research questions were investigated:

1.To what extent did vocabulary tasks with the same involvement load contribute to L2 vocabulary learning?

2. To what extent did vocabulary tasks with different types of form-focused activities contribute to L2 vocabulary learning?

3. How did the tasks with and without word-focused activities contribute to L2 vocabulary learning?

METHODOLOGY

Participants

The participants were Taiwanese college-level first-year and second-year business majors, who had at least 6~7 years of English learning experiences. They were recruited in the intermediate General English classes at the Universities of Technology in Central Taiwan, and the total number of participants was 96. Each had a CSEPT (College Student English Proficiency Test) score between 130 and 170, which was approximately equivalent to the low-intermediate level (https://www.lttc.ntu.edu.tw/CSEPT_main.htm). The participants were assigned randomly to four conditions as described below.

The texts and the target words

The text was selected from an ESP textbook used for Taiwanese college-level business majors (ESP: English for Economics by National Cheng Kung University Professional English Teaching Team), and the content of the text was about introductory economics. It was chosen because all the students, as business majors, were required to take some courses in introductory economics. The text length was 596 words, with 14 target words accounting for no more than 2% unfamiliar words to allow for the pick-up of some new vocabulary learning (Hu & Nation, 2000). The target words chosen for this study were those from the Academic Word List (Coxhead, 2000). The academic words used for this study were screened by using the AWL Highlighter (http://www.nottingham.ac.uk/~alzsh3/acvocab/awlhighlighter.htm). A pilot study with similar participants was conducted to exclude to see which of the target words were familiar to students and those words were replaced with unfamiliar words.

Research design

As noted earlier, one of purposes of this study was to examine the extent to which vocabulary tasks with same or different involvement load indexes contribute to vocabulary learning. Another purpose was to investigate how tasks with and without word-focused activities affect learners' vocabulary learning. As a result, four reading tasks were used that consisted of different types of word-focused activities: Reading a text with multiple-choice items, reading a text and choosing definitions, reading a text plus fill in the blank, and reading a text and rewording the sentences. The four tasks are described below.

1. In the first task, learners were asked to read a text in which the target words were highlighted. Upon finishing reading the text, the participants had to answer several multiple-choice questions focusing on the comprehension of a section of text containing the target word.

2. In the second task, the target words were highlighted. Upon finishing reading the text, the participants were required to choose a correct definition of each target word.

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3. In the third task, the learners had to read the text with some blanks to fill it. The target words were provided on a separate piece of paper with L1 translations and L2 explanations (or synonyms), as well as a sample sentence containing the target word. Some extra words were offered as distractors.
4. In the fourth task, the target words were highlighted. Upon finishing reading the text, the learners had to rewrite the sentences drawn from the text containing the target words.

Table 1 summarizes the four vocabulary tasks and their scores with involvement load indexes. Ranking of the four conditions are based on those criteria suggested by Laufer and Hulstijn (2001). Three of the tasks had the same task-induced involvement index of 3 but with different combinations of the three factors (i.e., tasks 1, 2, and 4), and one task had an involvement index of 2 (i.e., task 3). That is, task 3 is supposed to yield the lowest learning score based on the assumptions of Involvement Load Hypothesis.

Table 1. Involvement load indexes for the four tasks

Task types	Need	Search	Evaluation	Involvement load index
Multiple-choice items on text	1	1	1	3
Reading words and choosing definitions	1	1	1	3
Reading plus fill in the blanks	1	0	1	2
Sentence rewording	1	1	1	3

To measure learners' knowledge and performance before and after the tasks, a pre-test and post-test on word receptive knowledge were given to the participants.

RESULTS

The first analysis examined how tasks with the same involvement load contribute to vocabulary learning. To investigate this question, a one-way ANOVA was conducted on learners' pre-test scores, during-task performance, and posttest scores. Table 2 summarizes the means, standard deviations (SD), statistical significance, and p value for the current analysis. No significant effect of type of task was observed on the pre-test score at the $p < 0.05$ level, with conditions [$F(3,82) = 0.095$, $p = 0.963$]. A significant effect of type of task was observed on the during-task score at the $p < 0.05$ level for the four conditions [$F(3, 49.876) = 15.142$, $p < 0.001$], with $p = .000$.

Table 2. Results of ANOVA for the pre-test, during-task, and post-test scores

Dependent Variable	Tasks	Mean (SD)	F-Test	p-value
Pre-test score	Task 1	1.25 (1.26)	0.095	0.963
	Task 2	1.167 (1.404)		
	Task 3	1.042 (1.429)		
	Task 4	1.125 (1.424)		
During-task score	Task 1	5.25 (2.111)	9.888***a	0.000
	Task 2	7.167 (2.548)		
	Task 3	6.75 (5.277)		
	Task 4	2.417 (2.466)		
Post-test score	Task 1	2 (1.642)	0.27	0.847
	Task 2	2.375 (2.856)		
	Task 3	2.042 (2.386)		
	Task 4	2.5 (2.246)		

Note: ***$p < 0.05$.

Post hoc comparison was conducted on during-task performance scores, and task 2 showed the highest mean, which was significantly larger than task 1 and task 4. The mean of task 4 was significantly smaller

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than the mean of the other three tasks. No significant effect of type of task was observed on the post-test score at the $p < 0.05$ level for the four conditions [$F(3, 82) = 0.27$, $p = 0.847$, $\eta = 0.847$]. These results show that tasks with same degrees of task-induced involvement did not contribute similarly to learners' during-task performance but they did so to their post-test scores.

The analysis then examined how tasks with different involvement load contribute to vocabulary learning As seen in table 1, task 3 yielded the lowest involvement load with an index of 2, as compared to the other three tasks with an involvement index of 3. However, the post hoc comparison (table 3) indicated that participants in task 4 differed significantly from those doing the other three tasks, but there were no significant differences for participants doing tasks 1, 2, and 3.That is, the results did not support the hypothesis that participants did not perform differently in tasks with varying degrees of involvement load.

Table 3. Post hoc multiple comparisons across the four tasks

Task types	Between-task	Mean difference	Sig.
Task 1	task 2	-1.9167	.050
	task 3	-1.5000	.124
	task 4	2.8333*	.004
Task 2	task 1	1.9167	.050
	task 3	.4170	.124
	task 4	4.7500*	.004
Task 3	task 1	1.5000	.124
	task 2	-.4170	.668
	task 4	4.3333*	.000
Task 4	task 1	-2.8333*	.004
	task 2	-4.7500*	.000
	task 3	-4.3333*	.000

*The mean difference is significant at the 0.05 level

DISCUSSION AND CONCLUSION

This study compared to what extent vocabulary tasks with the same or different degrees of involvement load contribute to L2 vocabulary learning. The results showed significant differences across the 4 groups, suggesting that all four task types affected lexical retention. The results also indicated that there were no significant differences among tasks with different involvement load in terms of neither their during-task performance nor post-test scores. On the other hand, participants doing tasks with same involvement load did not have similar during-task scores but their post-test scores were quite similar. The results suggested that tasks with a higher involvement load did not necessarily yield better learning (tasks 1, 2, and 4), and vice versa for the task with a lower index (task 3). The findings suggested there may be differences in terms of the weight of each component, or there may be some component missing in the Involvement Load Hypothesis.

This study also examined how tasks with and without word-focused activities contribute to L2 vocabulary learning. Participants got better scores in the second and third tasks than the first task with their during-task performance, suggesting that students were more likely to learn new words when the exercises are form-focused, that is, directly related to the target words. This finding is consistent with previous research in which the reading-plus task was proven to be more effective than the reading-only one (Keating, 2009; Kim, 2008; Laufer & Rozovski-Roitblat, 2011; Eckerth & Tavakoli, 2012; Peters et. al, 2009; Peters, 2012). In the second and third tasks, participants' attention was drawn more to the target words, which could result in more elaboration of the word's semantic and orthographic features, whereas in the first task participants were required to focus on comprehending the text in general. In particular, tasks 2 and 3 offered participants opportunities to consolidate their knowledge of form-meaning connections and further enhanced the chances of words being learned at a preliminary learning stage. However, participants doing

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task 4 did not learn more words with their during-task performance. The reasons could be due the proficiency levels of the participants, who were low-intermediate EFL learners in this study. These learners are lack of adequate training in writing activities in the current curriculum design with a focus on achieving the CEF (Common European Framework) A2 and B1 proficiency level tests (e.g., TOEIC), which mainly consist of multiple-choice questions. However, a noteworthy issue in this study was that participants in task 4 (sentence rewording) had the worst during-task performance but they had the best retention score in the posttest as compared to the three other tasks, despite of no significant differences. One possibility was that the participants had to spend more time and focus on the original sentences containing the target words while being asked to rewrite the sentences. As a result, more elaborate attention was being paid to the target words and more in-depth thinking was required in task 4 as compared to the three other tasks simply asking the participants to make a decision out of the given options. The finding that participants in tasks 1, 2, and 3 retained fewer words was also consistent with some previous research in which participants forgot more given that they learned more at an earlier stage (Hulstijn, 2003; Peters et. al., 2009).

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AN INVESTIGATION OF GRADUATE DISSERTATIONS ABOUT COOPERATIVE LEARNING: THE CASE OF TURKEY

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ABSTRACT
The purpose of present research is to designate the main features and tendencies in the graduate dissertations focusing on cooperative learning method in the field of educational sciences in Turkey. Of the analyzed 308 graduate dissertations in sum, the aim has been to conduct a distribution analysis with respect to the years and grades dissertations were submitted (master's/PhD dissertation), employed research method in the dissertations (descriptive/experimental), experimental design used in experimental dissertations, data collection method (quantitative/qualitative/qualitative and qualitative mixed), features of the sampling/study group, subjects/courses into which the application was conducted, employed data collection instruments and the implemented cooperative learning technique. In this research which utilized content analysis it was ascertained that particular method was predominantly studied between years 2004-2013 and jigsaw technique was the most frequently employed technique. Of all the analyzed dissertations, 75,6% were of master's level and 24,3% were of PhD level. In addition, current researches basically focused on middle school students and Sciences Course and quantitative data collection method was employed. In a majority of dissertations prepared via experimental method, pretest-posttest control group design was implemented.

Key words: Cooperative learning, master's dissertation, PhD dissertation, graduate education, content analysis

INTRODUCTION

Cooperative learning, which relates to the general category of a teaching approach devised to strengthen cooperation and interaction amongst students, not only affirmatively boosts students' academic success but also improves students' social behaviors which in effect prepare a cooperative learning environment. In that aspect it is among the latest approaches in education and widely used by the instructors commissioned in almost all educational stages. As a consequence of rapidly multiplying amounts of knowledge, it has become even more critical for individuals to distill from this wide array of knowledge pool the most essential ones addressing to their individual needs. In that case, instead of memorizing the knowledge the ability to construct the knowledge meaningfully to put into everyday use can be viewed as one of the most desired objectives of effective learning. In relevant literature one of the teaching methods serving this objective, cooperative learning, has been described as students' meeting together during school time to achieve a common objective (Woolfolk, 2010). Another definition points out that it is a different teaching approach in which students study in groups created according to dissimilar individual talents (Slavin, 2006), or as argued in a different source it is a method in which students work in small groups to assist each one's learning towards a common objective (Açıkgöz, 2006), or it is a learning environment in classroom in which students gather around heterogeneous groups of 3-4 peers to work on their individual tasks towards a common objective (Johnson, Johnson & Holubec, 1993).

In teaching environments where constructivism is applied learning approaches such as cooperative learning is utilized and in this approach students are basically encouraged to take greater responsibility in the learning process and play active roles. In this method, the individual establishes a link with former experiences and new

learning experiences in order to reach a meaningful association. The most pivotal asset of this method is that, by studying, discussing and assisting one another, students can elevate to the highest level of their self-learning as well as the learning level of their peers. Slavin and Johnson (1990) argue that in cooperative learning it matters substantially to create heterogeneous groups with respect to task awards and individual performance in order to raise the achievement to the highest echelon. In a cooperative distribution of the tasks students should be aware of the fact that participation in activities depends upon their reciprocal assistance to learning process and partaking in discussions. Cooperative learning provides a list of benefits some of which are enabling students' active participation in learning experiences; exposing the individuals to new learning experiences as a consequence of group interactions; reasoning through social environments; refining the highest mental skills such as comprehension and critical thinking; assisting the students in forming attitudes and judgments; presenting positive social behavior models; providing alternative perspectives; boosting cooperative skills, self-respect and sense of achievement (Woolfolk, 2010: 324; Borich, 2014: 356).

Purpose and Research Questions

Analyzing scientific dissertation in any given field may render information on the depth and generality of particular subject and unveil an overall perspective on the analyzed field. In this research it was aimed to examine the dissertations focusing on cooperative learning method and to provide a perspective to educators, researchers and teachers as regards the effectiveness of these papers. This research poses significance on accounts of collectively treating all graduate dissertations prepared to analyze cooperative learning applications in Turkey. Hence it is considered that graduate dissertations focusing on cooperative learning can demonstrate the nature of the general tendency towards this method. Cooperative learning, which aims to utilize students' learning towards common objectives through learning via experimenting, has been a popular method about which researchers have conducted extensive studies in Turkey since the 1990s. In order to designate an accumulative progress of the researches it is considered crucial to exhibit in which courses, what teaching levels and through which research/data collection/data analysis methods dissertations were analyzed. It is also important to demonstrate the dimensions and features open-to-investigation to ensure an accumulative progress. In the conducted literature review any research evaluating the dissertations working on cooperative learning in Turkey hasn't been encountered. The only meta-analysis study relating to cooperative learning method was solely restricted with the effect of particular method on Mathematics course achievement and attitude towards this course (Özdemirli, 2011).

The main problem of this research has been stated such: In the field of educational sciences in Turkey, what are the basic features and tendencies of graduate dissertations related to cooperative learning method?
In the light of designated research objective, two fundamental questions have been put forth:

1. What kind of a distribution do cooperative learning method related dissertations exhibit with respect to the years and grades they were submitted (master's /PhD dissertation)?
2. What kind of a distribution do cooperative learning method related dissertations exhibit with respect to the employed research method (descriptive/experimental), experimental design used in experimental dissertations, data collection method (quantitative/qualitative/mixed), features of the sample/study group, subjects/courses into which the application was conducted, employed data collection instruments and the implemented cooperative learning technique?

METHODOLOGY

Document analysis has been used in this research. Document analysis which involves the analysis of printed and written documents on the projected topics is a component of qualitative research model. Hence this is a qualitative research model (Yıldırım and Şimşek, 2006).

Population and Sample

Population of the research entails graduate dissertations scanned on YOK (Council of Higher Education) Thesis Center to access educational dissertations that focused on cooperative learning method. Since it is possible to access PDF scanned full texts or abstracts of these dissertations, sampling was deemed unnecessary to create.

Data Collection

In order to investigate retrieved dissertations with respect to preset variables, "Dissertation Review Form" developed by the researchers, has been utilized as data collection instrument. This form involves sections such as descriptive information on the identity of dissertation (year and level), application technique, course/subject, research method, model, sampling and data collection instruments. To access relevant dissertations scanning has been conducted by entering different key terms that all referred to cooperative learning. Additionally since the applied cooperative learning technique was already present in a number of dissertation titles, cooperative learning techniques were scanned through their Turkish and English equivalents.

Data Analysis

In the analysis of data, content analysis was utilized. Content analysis is a systematic and repeatable method which allows the texts containing numerous words to be converted into content categories possessing specific rules. Content analysis enables the researchers to simplify a large-volume of data to sift through in a systematic manner (Stemler, 2001). Dissertations downloaded from YOK Thesis Center were examined through codes given by thesis review form and data were recorded. Every single dissertation was assessed via content analysis in 'Dissertation Review Form' and it was attempted to define the data. All the dissertations accessed were examined with respect to the questions stated in dissertation review form and were created parallel to the sub-problems of research. According to the existence or absence of each specified dimension and feature in every single dissertation, appropriate coding was given and data were downloaded to SPSS 16.0 program.

In the conducted analyses, the features of dissertations were registered as units and results of the analysis were presented after converting to graphics, frequency and percentage tables. So as to manifest the reliability between the different sets of coding, Krippendorff Alpha reliability coefficient was computed and found as ,95. The fact that Alpha level is above ,80 indicates a high level of consistencey between the scorers (Bıkmaz, 2011). This finding points out that there is high level of consistencey between the scorers.

FINDINGS

1. **Distribution of Dissertations with Respect to Year**

Table 1: Distribution of Dissertations with Respect to Year

Year	f	%
1993	2	0,65
1995	5	1,62
1996	4	1,30
1997	1	0,32
1998	5	1,62
1999	8	2,60
2000	2	0,65
2001	8	2,60
2002	13	4,22
2003	9	2,92
2004	16	5,19
2005	20	6,49
2006	30	9,74
2007	28	9,09
2008	22	7,14
2009	21	6,81
2010	26	8,44
2011	27	8,77
2012	27	8,77
2013	25	8,12
2014	9	2,92
Total	308	100

Table 1 demonstrates that the first two dissertations on cooperative learning method were submitted in 1993. As per-year distribution of dissertations is analyzed it surfaces that from 1993 till present date, it has remained to be a popular subject of teaching methods for the researchers pursuing master's and PhD studies. Table 1 also reveals that as of year 2004 there has been a rise in the number of dissertations dedicated to this particular teaching method. Years 2006 and 2007 are specific years that the method received the greatest interest amongst researchers.

2. **Distribution of Dissertations with Respect to Level**

Table 2: Distribution of Dissertations with Respect to Level

Type of Dissertation	f	%
Master's dissertation	233	75,65
PhD dissertation	75	24,35

Total	308	100

Of all the analyzed dissertations, 76,65% were (f:233) master's dissertations,.24,35% were (f:75) PhD dissertations which indicates that cooperative learning method was more popular among master's level studies.

3. Distribution of Dissertations with Respect to Research Methods

Table 3: Distribution of Dissertations with Respect to Research Methods

Research Method	**f**	**%**
Descriptive method	27	8,76
Experimental method	281	91,23
Total	308	100,0

As seen in Table 3, of all the dissertations related to cooperative learning, experimental research method was employed in 91,23% (f:281) and descriptive research method was implemented in 7,79% (f:27) .

4. Distribution of Dissertations conducted via Experimental Method with Respect to Experimental Design

Table 4: Distribution of Dissertations conducted via Experimental Method with Respect to Experimental Design

Types of Experimental Design	**f**	**%**
Pretest-posttest control group design	227	73,70
No data	58	18,83
Pretest-posttest design without a control group	8	2,60
Non-equivalent control group design	6	1,94
Solomon four group design	1	0,32
2 X 3 factorial design	3	0,97
One-group posttest-only design	2	0,65
Posttest-only control group design	2	0,65
Single factor between groups	1	0,32
Total	308	100

As demonstrated in Table 4, 9 different experimental designs were utilized in cooperative learning relevant dissertations. In 73,7% of dissertations(f:227) pretest-posttest control group design was used, in 18,83% (f:58) of dissertations no design was specified but it was stated that the method was experimental. Compared to pretest- posttest control group design the remaining experimental designs were less favored.

5. Distribution of Dissertations with Respect to Data Collection Method

Table 5: Distribution of Dissertations with Respect to Data Collection Method

Data collection method	**f**	**%**
Quantitative	178	57,79
Mixed	115	37,34
Qualitative	10	3,25
No data	5	1,62
Total	308	100

As witnessed in Table 5 in graduate dissertations focusing on cooperative learning, quantitative data (57.79%; f:178) are collected predominantly; however dissertations in which quantitative and qualitative data are collected together constitute 37.34% (f: 115) of all the dissertations. Scientific researches in which qualitative data only are collected constitute merely 3,25% (f:10) of all the studies in sum.

6. Distribution of Dissertations with Respect to Employed Cooperative Learning Technique

Table 6: Distribution of Dissertations with Respect to Employed Cooperative Learning Technique

Cooperative Learning Techniques	f	%
Jigsaw	63	20,45
Student-Teams-Achievement-Divisions (STAD)	51	16,56
Learning Together (LT)	47	15,26
Others (Think-Pair-Share, etc.)	30	9,74
Group Investigation	17	5,57
Cooperative Integrated Reading and Composition (CIRC)	8	2,60
Teams-Games-Tournaments (TGT)	8	2,60
Team Assisted Individualization	6	1,95
Academic Controversy	5	1,62

Table 6 manifests that in all the dissertations focusing on cooperative learning the most favored technique is "Jigsaw" (20,45%; f:63). The other dominant techniques are "Student-Teams-Achievement-Divisions (STAD)" (16,56%; f:51) and "Learning Together" (15,26%; f:47). The other techniques identified in relevant literature were less common in all the analyzed dissertations. In 106 dissertations out of 308 dissertations based on cooperative learning, it could not be identified which technique was utilized.

7. Distribution of Dissertations with Respect to the Features of Sample/ Study Group

Table 7: Distribution of Dissertations with Respect to the Features of Sample/ Study Group

Sample/Study Group	f	%
Middle school students	146	47,40
Undergraduate students	61	19,81
High school students	41	13,31
Primary school students	38	12,34
Instructors	14	4,55
No data	3	0,97
Preschool students	2	0,65
Others	2	0,65
Teachers	1	0,32
Total	308	100,0

As seen in Table 7, in almost half of the dissertations focusing on cooperative learning (47.40%; f:146) the sample or study group consists of middle school students which is followed respectively by undergraduate students, (19,81%, f:61), high school students (13,31%, f:41) and primary school students (12,34%; f: 38).

8. Distribution of Dissertations with Respect to the Applied Course

Table 8: Distribution of Dissertations with Respect to the Applied Course

Applied Course	f	%
Science	72	23,38
Others	46	14,94
Mathematics	37	12,01
No data	29	9,42
Social Sciences	28	9,09
English	22	7,14
Turkish	18	5,84
Physics	13	4,22
Chemistry	11	3,57
Visual Arts	10	3,25
Geography	9	2,92
Biology	7	2,27

Physical Education	6	1,95
Total	308	100

As the applied courses in the dissertations based on cooperative learning issue are examined, it surfaces that with a ratio of 23,38% (f:72) Sciences is the most favored course which is followed by Mathematics course with a ratio of 12,01% (f:37).

9. Distribution of Dissertations with Respect to Employed Data Collection Instrument

Table 9: Distribution of Dissertations with Respect to Employed Data Collection Instrument

Instrument	**f**	**%**
Achievement test	229	74,35
Scale	137	44,48
Questionnaire	75	24,35
Interview	67	21,75
Others	56	18,18
Observation	42	13,64
Aptitude/Personality test	32	10,39

Table 9 presents a list of employed data collection instruments. Noticing that many a number of data collection instruments can simultaneously be employed in the same dissertation, the objective in this analysis is to detect the frequency of the employment of a particular data collection instrument in all dissertations. There is no such status or objective as reaching a cumulative percentage. Out of 308 dissertations, in 229 dissertations (74,35%) achievement test was used whereas in 137 dissertations (44,48%) scale was implemented. Furthermore out of a total of 308 dissertations, interview was used in 67 dissertations and observation was utilized in 42 dissertations as a qualitative data collection instrument.

CONCLUSIONS

In present research a systematic analysis was conducted in terms of formation and content of dissertations focusing on cooperative learning method and it was aimed to provide an overall profile of the scientific studies bearing the quality of a graduate dissertation. The findings of the analyses pointed to the direction that 81,48% of the graduate dissertations related to cooperative learning method belonged to the 10–year period between 2004-2013 and the highest frequency of studies (30 dissertations in sum) belonged to the year 2006. This might be explained with the reason that due to the curriculum change in 2005 more emphasis was rendered on cooperative learning and its gravity. Johnson, Johnson and Stanne (2000) argue that the reason accounting for the abundance of studies on cooperative learning method is that this particular method provides a rich theoretical foundation and is easily applicable in classroom settings. As the distribution with respect to years is examined it becomes clear that there is an incessant interest towards the method. The fact that cooperative learning is still a popular research topic among the researchers may be construed as indicative of its status as an ever-significant and worthy topic of research. Özdemirli (2011) in his meta-analysis study conducted to investigate the effect of cooperative learning method on students' Mathematics achievement and attitude towards Mathematics course indicated that the studies focusing on this topic were particularly evident between years 2007-2009. On an international scale Johnson, Johnson and Stanne (2000) in their meta-analysis study related to 164 studies on cooperative learning between years 1970-2000 put forth that the researches that first took off in the 1960s gained further momentum in the 1980s. This finding evidences that on an international scale, studies related to cooperative learning date back to much earlier years and research tendencies in Turkey could, compared to international tendencies, occur in a delayed interval. Of all the examined dissertations 75,65% were of master's level while 24,35% were of PhD level which might be explained with the fact that there are fewer number of PhD students than master's students.

57,79% of the graduate dissertations focusing on cooperative learning method employed quantitative data collection method, 3,25% employed qualitative data collection method, 37,34% employed qualitative and quantitative data collection methods collectively. This finding reveals the urgency to place dominance to the researches in which data are collected via mixed and qualitative methods. Of all the analyzed dissertations 91,23% were experimental studies and in the studies employing this method it was identified that the most favored design was pretest-posttest control group design (73,70%). As is the case in the remaining teaching methods and approaches in a majority of scientific studies related to cooperative learning, particular emphasis was paid on the effects of the method on cognitive and affective learning outputs; hence it is safe to argue that experimental method, as the most appropriate and reliable design in modern educational system, non equivalent

control group pretest-posttest design was also utilized. In 8,76% of dissertations, the employed method was descriptive method. Echoing the findings of present research it was detected in studies analyzing the effect of a variety of teaching methods that the researches were basically woven around experimental design and quantitative method at most which was then followed by mixed method. (Saban, 2009; Alper, Öztürk and Altun, 2014). Almost half of the dissertations related to cooperative learning (47,40%) were executed among middle school students. Özdemirli (2011) in his meta-analysis study also pointed out that the most commonly selected teaching level was of elementary and middle school levels. Likewise Johnson, Johnson and Stanne (2000) in their meta-analysis presented that middle school students constitute the group which received the greatest popularity as a study group. As the distribution of dissertations is examined with respect to applied courses, the most favored course appears to be Sciences (Physical Sciences) which is then followed by Mathematics course with a ratio of 37%. A number of international studies suggest that cooperative learning applications are predominant in physical science and /natural sciences courses. (Zheng, Huang and Yu, 2014) As the tendency of dissertations is examined with respect to data collection instruments it surfaces that achievement tests and scales are the most selected data collection instruments. A similar finding was observed in Saban's study (2009) in which the researches that were based on multiple intelligence theory was assessed.

As seen in all the dissertations relevant of cooperative learning the most popular technique was "Jigsaw" as employed in 63 studies. "Learning Together" technique was utilized in 47 studies. Johnson, Johnson and Stanne (2000) in their meta-analysis study covering 164 researches ranging from years 1970-2000 on cooperative learning, a parallel finding was obtained. As also manifested by their research findings the most frequent techniques were "Learning Together" (57 studies) and "Jigsaw" (14 studies). Also "Student-Teams-Achievement-Divisions" (STAD) was employed in 51 dissertations. Echoing this finding, in the meta-analysis conducted by Özdemirli (2011), it was pointed out that of all the 26 studies examined within the scope of research the same technique (Learning Together) was employed in 12 studies and this technique was the most popular cooperative learning technique.

Another noteworthy feature in all the investigated dissertations is that as regards the name of the method there is not a conceptual consensus yet. It is rather interesting that among the dissertations submitted in the same university and even in some parts of the same dissertation, dissimilar concepts are employed. It is safe to claim that using a variety of concepts to indicate the same meaning and inleu of one another may bring conceptual ambiguities itself. Moreover such a lack of consensus is also a clear evidence of the necessity to provide a terminological unity in the field of educational sciences, as also spoken out overtly by educational scientists in a range of platforms.

Since a wide array of the scientific researches examined within the scope of current study were executed via experimental method of which effects on cognitive learning products were investigated, it became a necessity to employ achievement tests as data collection instrument. One limitation of present research is that only graduate dissertations on cooperative learning method were included in the analysis. It is considered that if findings of present research are integrated with the results of papers, articles and projects that aim to question the effectiveness of the method in Turkey, it shall assist the readers greatly in reaching a more holistic finding and be a guide map for the prospective researches who shall dwell on the same method. It was seen that investigated dissertations were basically designed on the essence of comparing cooperative learning with traditional method. In the future it is suggested to conduct studies in which cooperative learning is contrasted with different teaching methods and/or different cooperative learning techniques are compared with one another. In the stage of coding the characteristics of accessed dissertations it was noticed that some dissertations failed to provide the essential information; thus particular attention should be paid in the presentation of dissertations to comply with scientific research methods and follow a more systematic and explanatory system. This research also unveiled the demand for scientific studies geared towards combining via meta-analysis method the effects of cooperative learning (as directed to general or specific subjects) on the cognitive and affective learning products. It is claimed that creating a wider scope of research by integrating with meta-analysis method the findings obtained from independent studies related to this teaching method will most likely provide contributions to relevant literature. As a final remark it should be noted that the analyzed dissertations which are evidences of toilsome labor and effort should not be imprisoned to libraries or archive stores but put into real use whenever and wherever deemed necessary. In particular, provided that Ministry of National Education consults to these dissertations as sources in its curriculum development or (as very frequently done) "change" attempts, the curriculum development activities would gain a further positive quality.

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İŞBİRLİĞİNE DAYALI ÖĞRENME YÖNTEMİNİN MESLEK YÜKSEKOKULLARINDA KULLANILMASI

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Bu makalede, iş birliğine dayalı öğrenme yönteminin üniversitelerin meslek yüksekokullarında etkili bir öğrenme yöntemi olarak uygulanabilirliği tartışılmış, ilgili alanyazın çalışmasına bağlı olarak konu üzerinde belirlenen önemli noktalar vurgulanmıştır. Dünyada, günümüz modern eğitim anlayışının temel yaklaşımlarından birisi, öğrencilerin pasif alıcılar olarak yer aldıkları geleneksel sınıf ortamı yerine, uygun ortamlarda bilgiyi düşünerek, analiz ederek ve keşfederek yeni bilgileri üreten bireyler olarak yetiştirmektir. Bu yaklaşım, yükseköğretimin akademik kadrolarını, öğrencilerinin bilgi ve becerilerini en iyi şekilde geliştirmelerine katkı sağlama, başarılı bir mesleki eleman olarak yetişmeleri konusunda daha sorumlu bir noktaya taşımaktadır. Rekabetçi bireyler yetiştirme özelliğine sahip bu anlayış, eğitim-öğretiminde rekabetçi bir yapıya dönüşmesine sebep olmaktadır. Yükseköğretim sistemimizin bu karaktere sahip olduğu söylenebilir. Ayrıca, hızla değişen ve gelişen dünyamızda, büyük üretimlere ve başarılara kollektif çalışmayla ulaşıldığı açıkça görülmektedir. Yarının iş ve eğitim dünyasında ekip çalışmalarının ortaya çıkması, bugünden okullarımızın her kademesinde bu yöntemin etkili uygulanmasıyla sağlanabilir.

Keywords: İşbirliğine dayalı öğrenme, meslek yüksekokulu, öğretim yöntemleri

DEAF CHILDREN WITH ADDITIONAL DISABILITIES: DESCRIPTION AND RESEARCH

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ABSTRACT
This paper aims to provide information on deaf children with additional disabilities. There has been an increasing focus on deaf children with additional disabilities over the last decade, especially on cochlear implantation patients. Improvements after the cochlear implantation differ greatly. The improvement depends on the degree and the type of additional disabilities the deaf child has. In this paper, related research studies were summarized and discussed.

Keywords: deafness, additional disability, cochlear implants.

INTRODUCTION

Thanks to today's technology, hearing loss can be diagnosed within the first few hours following birth. Newborn babies that are suspected to have hearing loss are referred to a well-equipped audiology clinic for a hearing screening test and to be evaluated. If hearing loss is confirmed through diagnostic tests, early intervention is initiated and hearing aids are fitted. Current practice is that within the first three months of life, babies would receive hearing aids and start in an early intervention program before six months of age (White, 2006).
Studies (for example Etmer and Melo, 2001; Geers, Brenner and Davidson, 2003) showed that if there were no additional disability aside from the hearing loss, babies who received early diagnosis, a hearing aid fitting/cochlear implants and intervention were able to acquire spoken language normal, or near normal levels, up to school age and be able to attend normal schools. However, when there is an additional problem aside from deafness, the child's development displays significant differences despite the early diagnosis and intervention.

ADDITIONAL DISABILITIES TO DEAFNESS

The rate of other disabilities in addition to hearing loss was reported to be between 25% and 40% in some studies (Szymanski, Brice, Lam and Hotto, 2012). The highest rate was presented by a report prepared by the Gallaudet Research Institute. Regarding the situation in the U.S. it was stated that in 49% of deaf children have an additional disability (Bruce, Dinatale and Ford, 2008).
This high rate may be explained by the etiology of the deafness. It appears that the causes of the deafness may also be responsible for other disabilities. For example, factors such as meningitis and CMV (Cytomegalovirus) usually lead to other disabilities besides deafness. In genetic hearing loss, the incidences of additional disabilities are at a much lower rate (Bruce, Dinatale and Ford, 2008).
Deaf children with additional disabilities were defined as children in need of special education regardless of their hearing capabilities (Bruce, Dinatale and Ford, 2008; Edwards, 2007; McCraken and Turner, 2012). Speech and language disorders, developmental delay and mental disability, learning disability, attention deficit, visual impairment, cerebral palsy, chronic illness, emotional disorders, autism, auditory neuropathy spectrum disorders were listed as additional possible disabilities (Bruce, Dinatale and Ford 2008; Edwards, 2007).

Studies related to the language and listening skills of deaf children with additional disabilities have increased over the past 20 years. It was argued that one of the reasons for this increase was the detection of hearing loss earlier than the additional disability as a result of the hearing screening test. Thus, these children started in early intervention programs designed for deaf children and their additional needs were noticed during the later stages of these programs. Differences in their educational needs means that there is a need to develop appropriate educational programs specifically designed for these children. It is important to bear in mind that the effects of multiple disabilities have a bigger impact on the children then a single disability. Each disability does not simply add to one another. They create a compound effect on the child's entire mental development. For instance, the needs of a deaf-blind child are quite different from the needs of a child who is only blind or deaf. What is known about hearing loss and visual impairment will not provide enough information about this specific child's special needs. Being deprived of the two senses which are very crucial in the learning process causes very significant differences in the way the child perceives the world and people when it is compared to children who have only hearing or visual impairment (Bruce, Dinatale and Ford, 2008).

Therefore programs which cover both the development of speech and language skills and fulfill specific needs which arise from the other disabilities are fundamental. Zane, et.al.(2014) propose the use of functional analysis in deaf children with autism spectrum disorder. In service training for the teacher of the deaf was also seen as a tool to prepare more capable teachers in the field (Bruce, Dinatale and Ford, 2008). Yet more research is required both to establish educational programs for those children and new teacher training programs to train teachers to work in this specific field.

Another reason for the increase in research was the beginning of cochlear implantation (CI) of deaf children with additional disabilities. In fact most of the data come from the research established by various CI teams which were concentrated on speech and language development of these children to demonstrate the benefits of the implant. Large variations were reported among the research groups (Dettman et al., 2004; Edwards, 2007).

ADDITIONAL DISABILITIES AND LANGUAGE DEVELOPMENT

One of the earlier studies conducted by Pyman, Blamey, Lacy, Clark and Dowell (2000) on children who had cognitive and motor delay in addition to hearing loss, confirmed that the language skills of these children following the implant progressed at a significantly slower rate than children who only had hearing loss. However they pointed out the significant variations in their results and suggested to evaluate each child in an individual basis. Holt and Kirk's (2005) findings also supported this study. The 19 children who were monitored for two years after the implant showed measurable improvement in terms of language and speech skills. However, their level of development was significantly lower than children without additional disabilities as in the Pyman et al. (2000) study. They also reported better speech perception scores than production skills. Similar studies (Dettman et al., 2004; Edwards, Frost and Witham, 2006) also showed that children with moderate cognitive delay who were implanted at an early age tended to display significant improvements in terms of language development.

Al-Kashlan, Boerst and Telia, (2001), compared the language development two children who were deaf and blind but had normal cognition, to the language development of the children who were only deaf. They reported similar progress with deaf only children. They argued that the result of their study indicated significant benefit of early cochlear implantation in this specific group.

Looking at the results of the studies conducted on deaf children with additional disabilities it can be argued that language development was achieved to a certain extent when the additional disability was moderate or mild; whereas in cases of severe disability, language acquisition did not occur in most of the cases. Therefore, it is concluded that the level of severity of the disability may help in estimating and creating realistic expectations both for educators and families regarding the child's learning and language skills as well as the type of the disability. For example, the effects of a moderate degree of learning disability compared to a severe mental disability will be quite different on the development of a deaf child.

In case of autism spectrum disorder, the situation seems slightly different. It is well known that many children with autism spectrum disorders are unable to develop language and speech skills even with normal hearing. Therefore, the post-implant changes observed in these children were improved eye contact, awareness of their environment, reaction to music, vocalization, use of sign language, and response to requests rather than improved language skills (Donaldson, Heavner and Zwolan, 2004).

These studies, which were focused on the speech and language development of children with additional disabilities, also showed that a single program or method of evaluation was inadequate for these children because of the complexities of their needs. Therefore some writers have been suggesting that in deaf children with additional disabilities especially following a cochlear implant, it will be more meaningful to focus on the quality of life and family satisfaction than to simply concentrate on the development of their language skills to establish the benefits of the implant (McCraken and Turner, 2012; Mulla, Harrigan, Gregory and Archbold, 2013).

These authors claimed that since additional disabilities affected cognitive function, language acquisition could not be expected and argued that hearing aids and implantation improved the quality of life of the children and their families. The studies evaluated the views of the families using qualitative research methods to demonstrate the satisfaction

level of the families post-implantation. All of the families reported that even though they didn't see any language development in their child, the child showed more participation in daily family activities following implantation and that they started to communicate more easily. In addition, they expressed that they would recommend implantation to other families in the same situation (McCraken and Turner, 2012; Mulla, Harrigan, Gregory and Archbold, 2013). It is argued that the sound provided by cochlear implants connected the children to their environment and helped them to participate the family life which was an enormous contribution to the quality of life of these children and their parents.

CONCLUSION

The research related to deaf children with additional disabilities showed that cognitive factors were the most important factors in predicting language development in these children. Unfortunately, the evaluation of cognition is very difficult in young children with additional disabilities.

This difficulty can be overcome with increased clinical practice, scientific research and by sharing experiences between professionals in the field. In this way, clinical practices can be improved and the families can make better-informed decisions about the child's education or communication options (Edwards, 2007; McCraken and Turner, 2012).

In terms of cochlear implantation, it seems obvious that there is a need for the development of standards for benefits provided by cochlear implants in children with additional disabilities. Many of these children have traditionally not been implanted due to late or non-presentation, concerns about other health issues and lack of information about possible outcomes following Cl. It is apparent that a significant number of these children do get benefit from a cochlear implant but traditional measures for assessing the outcome are unlikely to accurately reflect the actual success. There is an urgent need for new outcome measures for these children (Robinson and Boyd, 2013). New measures should also consider the social and psychological gains rather than simply measuring speech and language outcomes. However these concepts should be defined clearly. Parents and children themselves should be more included in definition of terms like “success” or “benefits” in cochlear implant use (Edwards, 2007; McCraken and Turner, 2012; Mulla, Harrigan, Gregory and Archbold, 2013). It seems vital to increase and verify research conducted on this group in order to develop appropriate educational programs for these children and their teachers.

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ANALYSES OF DISTANCE EDUCATION PERFORMANCE BASED ON QUANTILE REGRESSION METHOD

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ABSTRACT
The method of student observation, which is common in conventional education, may not be possible in distance education. In this study we propose a method to solve this problem. In distance education the data regarding the monitoring of student performance is stored in the logs of education management system. Logs include information such as how much time the student studied the instructional materials, how long he/she was active in the system, the student's success and failure percentages in quizzes, how active the student was in forums opened on various subjects, and how many messages the student wrote and read on those forums. Logs can be analyzed and the student's performance can be predicted before the final exam. Such information can provide the institution and the instructors with many benefits. If this prediction is done in the middle of the academic year it can help to take early measures in prevention of unintended consequences, especially in at-risk students. The objective of this study was to predict the student's academic performance weeks before the end of the semester and to provide the instructors, teaching institutions and content providers with contributions related to the improvements and updates. The students' six-week logs were used in the study. The most important factor that separates our study, which used a hybrid of fuzzy logic and clustering methods, from other studies was that we applied quantile regression method along with least squares method in determining the parameters and compared the results. The quantile regression method makes it possible to use even the data contrary to the generated prediction model, thus, improving the model's prediction performance. This distance education performance analysis approach based on the quantile regression was tested in Basic Computer Science courses and successful results were obtained.

INTRODUCTION
In computer-aided learning environment, the student behavior is an issue that needs to be addressed. In the traditional learning environment, such as a classroom, teachers can monitor student behavior during the class. The observation of student behavior can help to determine the students' needs. Moreover, these observations are utilized in the regulation of the educational environment, and determining the course content and teaching methods. The observation of student behavior is also a method used in student assessment and evaluation. Various methods are needed to evaluate the student behavior in distance education. Web-based learning environment makes it difficult for teachers to evaluate students' behavior. Teachers cannot observe students while they are working. In distance education the information regarding the student behavior is stored in the data file as computer records and based on this data analyses is required when student behavior needs to be interpreted (Ciftci, 2003).
Distance education is usually given in the learning management system (LMS) environment. Very large amounts of data are stored in this environment. Students' every movement in the LMS environment is monitored and maintained in the database as log records. Valuable information can be obtained through the analysis of these data (Zafra & Ventura, 2009).
Prediction of the student's performance provides many benefits for instructors and teaching institutions. Moreover, predicting the students' performance at the beginning of the academic year can also help to take early measures to prevent poor results in the future for at-risk students.
In this study, we used 8-week LMS data of students involved in distance education and designed a hybrid model to predict end of the year student academic performance. This hybrid model is composed of fuzzy logic and clustering methods (Yıldız, Bal & Gulsecen, 2015). Yildiz et al. have used the least squares method for finding the parameters that fit the criteria. On the other hand, in this study, we used the quantile method, which is more sensitive to outliers in estimation of parameters and enabled us to compare the obtained results.

THE STUDY
Two methods were used to estimate parameters in this application: the least squares method and the quantile regression method. Since the least squares method is affected by outlier data, outlier analysis should be performed

on the data sets prior to the cluster analysis, and whether the data fits the normal distribution should be tested. Raw data cannot be directly used in cluster analysis and therefore the data should be normalized or standardized by using some converter tools (Gan,Ma,& Wu,2007). On the other hand, outliers rarely affect the quantile method and in this study the results were obtained from all data without the need for outlier analysis.

The Mahalanobis Distance, Cook's Distance and Leverage point methods were used for outlier data analysis (Kogar,2010; Vural,2007; Gumus,2013). The SPSS 17 software package is used for implementation of these methods. First, the outlier analysis was done on 2011-2012 academic year training and test results of 218 students. Later, the same analysis was performed on 2012-2013 data of 95 students that took the same course. Among the outliers determined by aforementioned methods 15 parameters were excluded from training and 10 parameters were excluded from validation. After removing the outliers a total of 218 training parameters and 203 test parameters left in the study. Likewise, after the outliers were removed, 85 validation parameters have remained.

Estimating Parameters by the Least Squares Method in Takagi-Sugeno Type Fuzzy Inference System

Rules for Takagi-Sugeno-type fuzzy logic system is shown in equation 1

$$y^i = a_0^i + a_1^i x_1 + \cdots + a_k^i x_k \tag{1}$$

The coefficients in the rule are found using the least squares method. Steps in finding these parameters in fuzzy logic system are shown below.

For each x_i entry

$$f(x_1) = \beta_1(a_0^1 + a_1^1 x_{11} + \cdots + a_k^1 x_{k1}) + \beta_2(a_0^2 + a_1^2 x_{12} + \cdots + a_k^2 x_{k2}) + \cdots + \beta_n(a_0^n + a_1^n x_{1n} + \cdots + a_k^n x_{kn})$$

In the equation above m is defined as

$$\boldsymbol{\beta_m} = \frac{\mu_m(x_0)}{\sum Mx_m} \tag{2}$$

$$\sum \boldsymbol{Mx_m} = \sum_{j=1}^{n} \boldsymbol{\mu_{jm}(x_0)} \tag{3}$$

When the same procedure is done for all rules

$$f_1(x_1) = \beta_{11}(a_0^1 + a_1^1 x_{11} + \cdots + a_k^1 x_{k1}) + \beta_{21}(a_0^2 + a_1^2 x_{12} + \cdots + a_k^2 x_{k2}) + \cdots + \beta_{n1}(a_0^n + a_1^n x_{1n} + \cdots + a_k^n x_{kn})$$

$$f_2(x_1) = \beta_{12}(a_0^1 + a_1^1 x_{11} + \cdots + a_k^1 x_{k1}) + \beta_{22}(a_0^2 + a_1^2 x_{12} + \cdots + a_k^2 x_{k2}) + \cdots + \beta_{n2}(a_0^n + a_1^n x_{1n} + \cdots + a_k^n x_{kn})$$

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$$f_w(x_1) = \beta_{1w}(a_0^1 + a_1^1 x_{11} + \cdots + a_k^1 x_{k1}) + \beta_{2w}(a_0^2 + a_1^2 x_{12} + \cdots + a_k^2 x_{k2}) + \cdots + \beta_{nw}(a_0^n + a_1^n x_{1n} + \cdots + a_k^n x_{kn})$$

$$\begin{bmatrix} f_1 \\ \vdots \\ f_n \end{bmatrix} = \begin{bmatrix} \beta_{11}\mu_{11} \; \beta_{11}\mu_{12} \cdots \beta_{11}\mu_{n1} \; \beta_{11} & \cdots & \beta_{m1}\mu_{11} \; \beta_{m1}\mu_{12} \cdots \beta_{m1}\mu_{n1} \; \beta_{m1} \\ & \ddots & \\ \beta_{1w}\mu_{11} \; \beta_{1w}\mu_{12} \cdots \beta_{1w}\mu_{n1} \; \beta_{1w} & \cdots & \beta_{mw}\mu_{1m} \; \beta_{11}\mu_{2m} \cdots \beta_{11}\mu_{nm} \; \beta_{mw} \end{bmatrix} \begin{bmatrix} a_0^1 \\ a_1^1 \\ \vdots \\ a_n^1 \\ \vdots \\ a_0^m \\ a_1^m \\ \vdots \\ a_n^m \end{bmatrix} \tag{4}$$

Here, in β_{ik} parameter i is factor and k is set center and for x_k

$$\beta_{ik} = \frac{\mu_{ik}(x_0)}{\sum Mx_{ik}} \quad (5)$$

$$\sum Mx_{ik} = \sum_{i=1}^{w} \mu_i(x_0) \quad (6)$$

If we define the above matrix multiplication as B=AX, A matrix describes fixed numbers, B matrix describes outputs and X matrix shows parameter values to be estimated. The least squares method is used to solve this problem (Ren, 2006).

$$X = (A^T A)^{-1} A^T B \quad (7)$$

After the parameters are found by using the least squares method equations for the rules are generated.

Estimating Parameters by the Quantile Method in Takagi-Sugeno Type Fuzzy Inference System

Alma and Vupa compared the efficiencies of least squares method and other different methods in parameter estimation of regression equations. It has been determined that when there are multiple outliers in the data, these values may mask each other and may cause reliable data to be seen as outlier data (Alma and Vupa, 2008). Therefore, it is stated that in the regression model for small samples the least squares method is affected more than other methods when the error terms are not normally distributed or when dependent variables include outlier data. In our study we used the quantile method, which is not affected by the presence of outlier data, as an alternative method when estimating parameters.

When observation values of this series are sorted from small to large, the total frequency of the series were divided into two, four, ten or a hundred equal parts that are generally defined as quantile (Keskin,2012). In the classical linear regression, regression curve passes through the middle of the observation point or center of gravity. Meanwhile the quantile regression curves pass through the quantile. The path of the quantile regression curve can be determined as asymmetric. For example, when the quantile value is determined as 0.10 it means that 10% of observations are under the quantile regression curve. Thus, a more detailed view of the cumulative distribution of the data can be obtained. So, when the quantile value is 0.10 the vast majority of the points will pass above the quantile regression curves. There are important reasons for using quantile instead of averages in quantile regression. These reasons are listed as follows:

- Provides the ability to analyze any point in the distribution.
- Provides robust estimates.
- More useful in the analysis of outlier data.
- The right approach when interested in representative values.
- Must be used when dealing with the tail of distribution.
- Provides the ability to analyze the effects of estimator variables in terms of both the location and scale parameters.
- Has a semi-parametric approach that avoids assumptions about the parametric distribution of the error terms. This enables the use of quantile regression in varying variance samples.

Quantile regression equation is expressed as in equation 8

$$Y_i = X_i'\beta(\tau) + u_i(\tau) \quad (8)$$

$$Q_\tau(Y_i|X_i) = X_i'\beta(\tau) \quad (9)$$

Here;

Y_i: Dependent variable;

X_i: Independent variable;

$u_i(\tau)$: Error terms;

$\beta(\tau)$: Parameter vector changing with zones;

$\tau \in (0,1)$: Analyzed zone;

$Q_\tau(.)$: Y_i Zone function defined as inverse function of the cumulative conditional distribution function F (.).

Estimation of parameters requires the solution of the following minimization problem.

$$Min_{\beta \in \Re^k}\left[\sum_{i \in \{i:Y_i < X_i\beta\}} \tau|Y_i - X_i\beta| + \sum_{i \in \{i:Y_i \geq X_i\beta\}}(1-\tau)|Y_i - X_i\beta|\right] \quad (10)$$

Y_i's conditional zone τ is $Q_\tau(Y_i|X_i) = X_i'\beta(\tau)$, and its estimation is derived by $\widehat{Q_\tau}(Y_i|X_i) = X_i'\beta(\tau)$. In the equation 10, $\tau = \frac{1}{2}$ gives the median regression of equally weighted error data. The zone regression parameter for independent J variable can be calculated by using equation 11 (Colak, Ozturkler and Tokatlioglu, 2008):

$$\frac{\partial Q_\tau(Y_i|X_i)}{\partial x_{ij}} = \beta_j \quad (11)$$

FINDINGS

The accuracy percentages of training and test data determined by using all available methods are given in the table 1. The comparisons were done based on least squares and quantile method without performing outlier analysis. In determining academic performance clustering methods such as k-means clustering method (KMCM), fuzzy c-means clustering method (FCCM) and subtractive clustering method (SCM) were used to generate Takagi-Sugeno Type Fuzzy Logic model.

Table 1: The accuracy rate of academic performance based on numerical prediction.

	Least Squares Method			**Quantile Method**		
Data type	KMCM	FCMCM	SCM	KMCM	FCMCM	SCM
Training	0.90	0.91	0.90	0.90	0.90	0.90
Test	0.87	0.87	0.85	0.87	0.85	0.84
Validation	0.71	0.62	0.75	0.69	0.76	0.77
Mean	0.83	0.80	0.83	0.82	0.84	0.84

When the results were evaluated we found that the accuracy rates for numeric estimation of academic performance has been shown to be better in the quantile method. The accuracy rates based on students that were classified categorically as passed or failed are given in Table 2.

Table 2: The accuracy rates based on "passed"-"failed" academic performance

	Least Squares Method			**Quantile Method**		
Data type	KMCM	FCMCM	SCM	KMCM	FCMCM	SCM
Training	0.90	0.91	0.91	0.92	0.90	0.93
Test	0.84	0.84	0.79	0.83	0.86	0.78
Validation	0.94	0.93	0.95	0.96	0.95	0.95
Mean	0.89	0.89	0.88	0.90	0.90	0.89

When the students' academic performance was predicted categorically based on least squares and quantile method, the accuracy rate results were found to be better with the quantile method.

CONCLUSIONS

The rapid development of technology not only creates new areas that did not exist before, but also provides positive contributions to advancements of existing fields. One of these areas is undoubtedly the education/training. With the advancement of technology the traditional education has gained a tendency to move towards distance education and the acceleration of this tendency is increasing with each passing day. However, along with the advantages of distance learning there are also some disadvantages. One of those disadvantages is that in distance education the student performance cannot be observed as in traditional education. In this study, we generated mathematical observational models to measure student performance by using logs kept in learning management system (LMS). We believe that this study will make significant contributions to science education and especially to educators and administrations in distance education.

In the application to determine the parameters by using least squares method first the data was analyzed by outlier analysis then various converter tools were used to provide the normal distribution of the data. Clustering methods

such as k-means, fuzzy c-means and subtractive clustering method were used for clustering. The model consisted of three different types of data including training data, test data and validation data. The highest mean accuracy rate (87.7%) was found with fuzzy c-means clustering method. This means that there was about 12% margin of error is numerically estimating the end of the year academic performance of students in distance education. An 8-week data was used to make this prediction. Along with numerical estimation a categorical prediction of "pass" or "fail" was performed. The best result (92.28%) was determined with subtraction clustering method.

In quantile method the data was analyzed without prior outlier analyses and then was compared to results obtained by using least squares method also performed without outlier analysis. The numerical prediction of academic performance of distance education students determined by quantile method was 1-4% higher on average. Meanwhile, in categorical estimations this ratio was approximately 1% higher. Overall, the rate of errors in estimations performed with outlier analyses is lower than estimations performed without outlier analyses.

This study was conducted based on the data of students enrolled in Basic Computer Science online courses. In the future, relevant data can be collected with different courses and results can be compared. In this study, the demographic characteristics of the students were not included in the model. In future studies, the model can be generated including those characteristics and the results can be compared with current results. In addition, in future studies methods other than quantile method can be used as an alternative to the least squares method in estimation of the parameters used in the fuzzy model rules and therefore improve the results even more.

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KNOWLEDGE MANAGEMENT OF LOCAL WISDOM MODEL FOR TOURISM ALONG THE ROUTE OF LOWER CENTRAL PROVINCES OF THAILAND

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ABSTRACT
The objectives of this research were to: 1) collect, analyze, and synthesize the local wisdom along the route of lower central provinces tourism using knowledge management processes; 2) study and organize the local wisdom along the route of lower central provinces tourism to support the local tourism business sector; 3) develop a website database and a video for the local wisdom on the route of lower central provinces tourism to enhance sustainable local tourism; and 4) evaluate the website database and the video of the local wisdom on the route of lower central provinces tourism followed by target groups of tourism. The research samples were selected using multi-stage sampling technique. These included 18 owners representatives for the local wisdom survey, 4 experts for the focus group discussion, 22 local community representatives for the academic forum, media try out with 224 tourists; and purposively selected 6 people for public hearing both in the public and private sectors. Findings showed that almost of 18 local wisdoms in this region have a high potential to support and promote tourism in the lower central provinces. The 54 tourist attractions were located near the local wisdom on the route of lower central provinces tourism. The results of the experts' focus group discussion showed that: the local wisdom included recommended product, souvenir, food, and consumer product; tourists should be slow tourism which include 2-3 overnight stays, media promotion should be explored to make it more accessible and disseminate information rapidly especially in social media. The expert's evaluation on the quality of the website and video were found at an excellent level, results of tourist's opinion on website, videos, and printed media were at a good level.

INTRODUCTION
Tourism plays a vital role in the economic systems of Thailand. It does not only contribute immensely to the overall income of Thailand, but it also creates a lot of opportunities such as in business enterprises like hotels, restaurants, souvenir shops , and transportation. This brings investment, employment, and contribution to local income. In 2013, the tourism receipts in Thailand were reported to reach US$ 146,410.70 (Ministry of Tourism and Sport, 2014). Ecotourism created activities that were compatible with the cultural status and local culture. Tourism promotion should tap the potentials of the community to participate and develop sustainable tourism by studying the knowledge of Thai wisdom, such as finding the Thai local wisdom and studying its identity in order to realize and appreciate the importance of their local wisdom. In addition, it is important to study the key products and tourist demand adaptation to have value added in their cultural products. Findings of this research could be significant in managing the local wisdom in the region. This could engage various stakeholders in managing the tourism route and involved them in which knowledge management processes such as classifying knowledge, learning exchange, application, transfer, sharing and restore knowledge among the people in the community. Ultimately, local wisdom would be disseminated and circulated in the community and organization involvement. The knowledge management, therefore, is the working system to be used for community development which could be reinforce and strengthen the lifelong learning and top up the local wisdom to create the innovation and value added in tourism. Results of this study could support the current social and economic systems on knowledge-based society to match with the social contexts and situation.

In Thailand, government policies were implemented to increase and improve the tourist places all over the country. The central region was one of the most popular tourist destinations because it is near Bangkok, a capital city of Thailand and is very convenient for transportation and communication. The lower central region composed of 8 provinces which are rich in both modern and traditional cultural aspects. Natural resource environments were also abundant for tourism development to show local wisdom in their communities.

Therefore, this study sought to 1) collect, analyze, and synthesize the local wisdom along the route of lower central provinces tourism using knowledge management processes; 2) to study and organize the local wisdom along the route of lower central provinces to support the local tourism had been explored; 3) develop a website database and a video for the local wisdom on the route of lower central provinces tourism to enhance sustainable local tourism; and 4) evaluate the website database and the video of the local wisdom on the route of lower central provinces tourism followed by target groups of tourism.

THE STUDY

The scope of this study encompassed the local area of the lower central region of Thailand. Overall, the study composed of 8 provinces, namely Nakhon Pathom, Ratchaburi, Suphanburi, Kanchanaburi, Samut Sakhon, Samut Songkhram, Phetchaburi, and Prachuap Khiri Khan. From the preliminary survey, the study area could be divided into 4 routes of local wisdom tourism depending on their location and main mode of transportation. Analysis of preliminary results showed that 54 tourist attractions were located along the route of lower central region tourism.

In this study, research samples included respondents in 8 lower central provinces in Thailand who were selected using multi-stage sampling techniques. The first phase involved a survey to investigate the local wisdom where 18 representatives of local wisdom were selected using purposive sampling based on the potential for tourism development. The second phase involved the focus group method with 4 experts in tourism and knowledge management. Finally, the third stage conducted an academic forum with 22 purposively selected local representatives comprised of experts, government officers, and private sectors on local wisdom in tourism and knowledge management. **academic forum** that purposively selected 22 local representative experts, government and private officers on local wisdom in tourism and knowledge management; evaluated all **media try out** with 224 tourists collected by the accidental sampling technique; and **public hearing** with 6 representative persons that purposively selected both in the public and private sectors in lower central provinces. The research tools included a survey form of the local wisdom and product in lower central provinces, an expert's opinion evaluation form, and an academic forum brainstorming form. Data gathered were analyzed using percentage, mean, and standard deviation. Qualitative content analysis using photographs and audio-video recordings were also conducted.

The knowledge management model used in this study modified the KM for Local Wisdom Study Model which composed of 5 steps (Sompong and Rampai, 2015) as shown below in figure 1. In this model shown that the KM process on local wisdom composed of 5 steps to manipulate, there were **Step 1 -** Explore & Capture; **Step 2 -** Identify & Organize; and **Step 3 –** Exchange & Apply **Step 4** - Transfer and Share **and Step 5** - Collect and Store. In transforming the knowledge from Tacit Knowledge to the Explicit Knowledge for Local Wisdom Tourism, it required to manage the local wisdom into 5 activities which will create the sustainable tourism at the central point of the model.

Figure 1 A model on Local Wisdom Study
Source: Sompong and Rampai (2015)

In the first phase of this study (Figure 2), the researchers applied the first 3 steps. In **Step 1 -** (Explore & Capture), there was the activities in community survey and knowledge synthesize from 18 representatives of local wisdom in the selected communities. **Step 2 (**Identify & Organize), focus group method with 4 experts in

tourism and knowledge management **was employed, then** the explicit knowledge of local wisdom was classified and restored in the database by the researchers. **Step 3 (** Exchange & Apply), academic forum and sharing were organize with 22 selected local representatives. Finally, the explicit knowledge had been verified at this stage and could be prepared 18 local wisdom into the tourism package. The researcher would apply knowledge package to the media development and disseminate to the target audiences in the second phrase.

In the second phrase of this model (Figure 3) showed **Step 4** (Explore & Capture) which were the Website and video production and media try out with the tourist attractions at the remote areas. The process end up with **Step 5** (Explore & Capture) which the researcher organized the public hearing and information dissemination to the people and government officials in the local area.

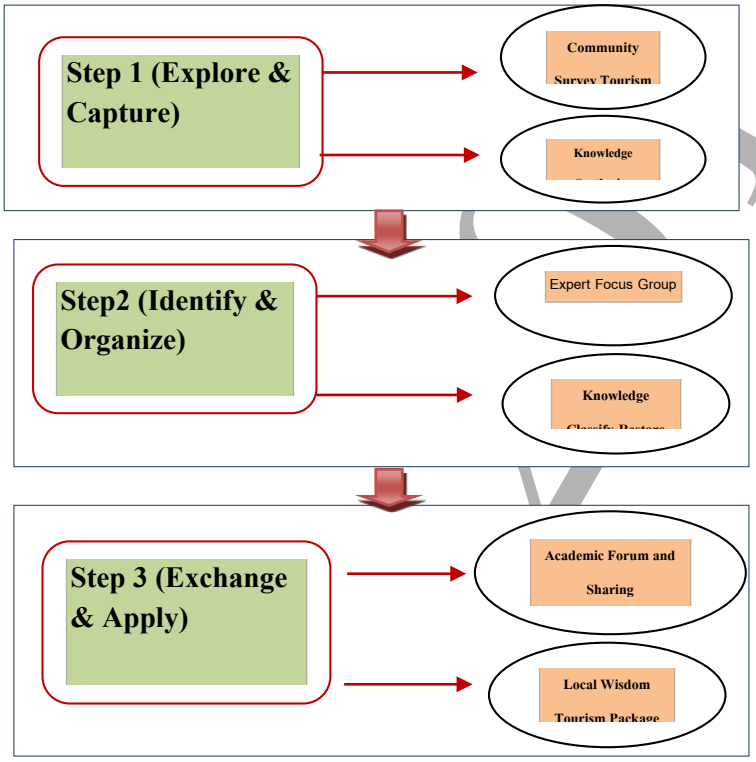

Figure 2 Steps and Activities in Knowledge Management on Local Wisdom Study (Phase I)

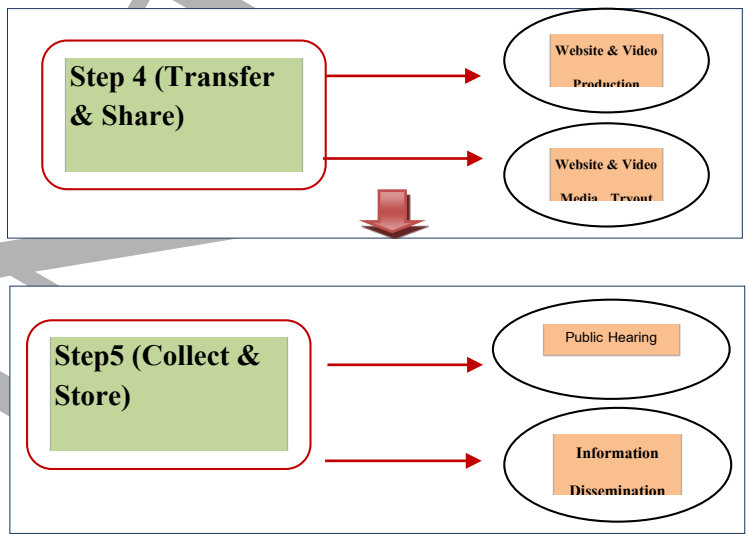

Figure 3 Steps and Activities in Knowledge Management on Local Wisdom Study (Phase II)

FINDINGS

The results of document study and preliminary survey showed that Thai local wisdom in 8 provinces in the lower central region (Nakhon Pathom, Ratchaburi, Suphanburi, Kanchanaburi, Samut Sakhon, Samut Songkhram, Phetchaburi, and Prachuap Khiri khan province) had attributes and identities with a high potential for tourism development. This could be divided into 4 tourism routes: a) **Route 1** Nakhon Pathom - Ratchaburi provinces; **Route 2** Suphanburi - Kanchanaburi provinces; c) **Route 3** with Samut Sakhon - Samut Songkhram provinces; and d) **Route 4** Phetchaburi - Prachuap Khiri Khan provinces. The results of tourist attractions survey along the routes showed that the 54 tourist attractions were located near the local wisdom along the route of lower central provinces tourism.

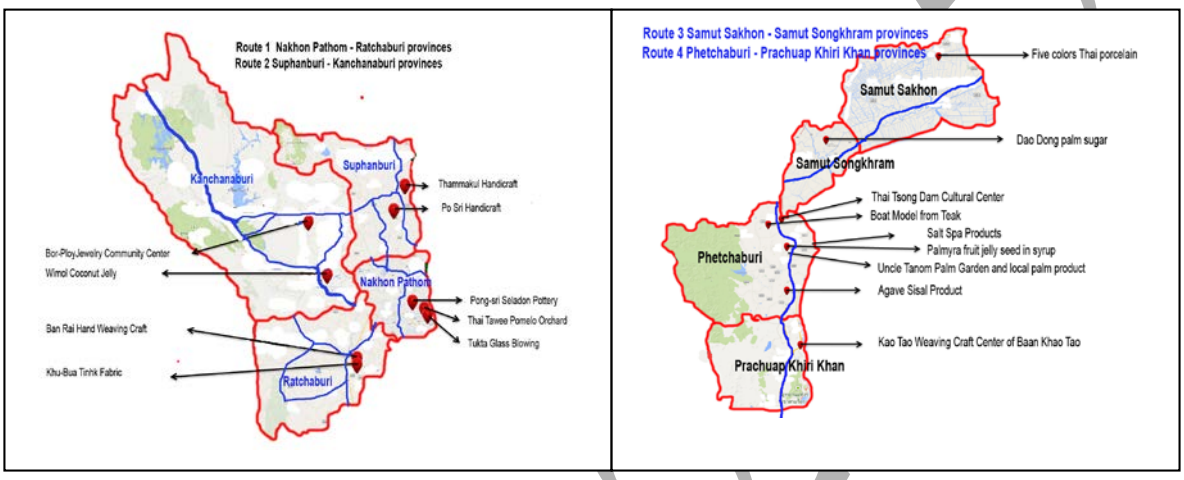

Figure4 Maps of the 4 routes in the lower central provinces of Thailand.

Local Wisdom in the Lower Central Provinces in Thailand

Findings showed that there were 18 wisdoms with a high potential for tourism in the lower central provinces in Thailand. Each route showed unique differences in wisdom. These were classified according to the identities and dominances such as local handicraft product (also known as OTOP or One Tambon,One Product), traditional local food and drinks, decorations, traditional garments, and cultural performances, among others (Table 1).

Table 1 The list and identities of local wisdom in 8 lower central provinces in Thailand

Local Wisdom	Identities	Strengths	Tourist Opportunities
1) Thammakul Handicraft	Decorative Product with Thai literature	OTOP; supported by the local government	High
2) Po Sri Handicraft	Bamboo and rattan product with local styles	Local product with low cost and easy to find	High
3) Wimol Coconut Jelly	Authentic product from fresh coconut	Good taste without chemical preservatives	High
4) Bor-PloyJewelry Community Center	Local source of blue sapphire and yellow sapphire	Skillful community and well-known for localized gemstone mining	High
5) Khu-Bua Tinhk Fabric	Well-known for foot of the glass cloth (Teen Jok)	Transform from the north region, the old ancestor	High
6) Tukta Glass Blowing	Glass blowing to many form such as barge swan,animal, fruit, and tricycle (Tuk-tuk)	Domestic and Export products	Moderate
7) Thai Tawee Pomelo Orchard	The technology in growing pomelo and fruit packaging	Known for sweet pomelo	Moderate
8) Pong-sri Seladon Pottery	Thai pottery style for house decoration and porcelain ceramics from beginnings 700 years ago	The style is interesting for the foreigners and high class society ware	Moderate
9) Five colors Thai	Name of Thai porcelain	Strong community to	High

Local Wisdom	Identities	Strengths	Tourist Opportunities
porcelain 10) Porcelain of Don Kai Dee Village	with designs in five colors(white, black, green, red and yellow)	learn local wisdom with homestay services	
10) Dao Dong palm sugar	Good pakaging for sale.	100 percentage of palm sugar products	High
11) Thai Tsong Dam Cultural Center	Indigenous culture: cultural dance, costumes, local food, cotton weave, and handicrafts.	Special cultural performances	High
12) Salt Spa Products	Local products from salt for healthy spa	Value-added for natural salt in the community	High
Local Wisdom	Identities	Strengths	Tourist Opportunities
13) Boat Model from Teak	Boat model - making from Teak (the Queen of Timbers)	The art of making boat model from teak engaged with the belief and faith in boat styles in the past.	Moderate
14) Palmyra fruit jelly seed in syrup	The local food product from Palmyra fruit jelly seed in syrup	High quality local food products	Moderate
15) Uncle Tanom Palm Garden and local palm product	Local wisdom learning resource on palm garden and products	Learning for both Thai and foreigners with support from the government	High
16) Agave Sisal Product	Handicrafts from Agave Sisal Leaf	Local handicrafts which originated from the Royal Project	High
17) Kao Tao Weaving Craft Center of Baan Khao Tao	Cotton weaving craft center at Khao Tao Village	Handicrafts which originated from the Royal Project with support from the Queen of Thailand	High
18) Ban Rai Hand Weaving Craft	Local cotton weave products of the Ban Rai Village	Local style of bathing cloth and Thai traditional costume	Moderate

Academic Forum on the Local Wisdom

Output of the 22 participants from "Academic Forum" on the local wisdom tourism along the route of lower central provinces had many factors to supporting for sustainable tourism. The owners of local wisdom should have the readiness and willing to share their knowledge as well as the community and government officers and private sector. They should also realize about the importance of local wisdom and participate in management and practice systems in order to work with high efficiency and sustainable. They should be able to offer the activities for tourist in trailing their local wisdom with the real practice so they would be appreciated and learning so much. The owners should work through the cooperation as the committee members and have meeting to develop the local knowledge for tourism. Finally, the communication strategies as well as the quality development of the local product under the standard should be employed. Development the tourism program within 2-3 days traveling namely slow tourism could be used for this purpose.

Evaluation of the Website and Video

The experts' evaluation on the quality of the website and video were found at an excellent level (mean=4.67). In the process of website and video tryout in the knowledge management process at the tourist attraction, most of the tourists opinions' on website, videos, and printed media on the route of lower central provinces tourism were found to be at a good level (mean=4.28), and the usefulness at the good level (4.25) as well as the local wisdom knowledge management in four routes tourism, the content quality and design, easy and convenient were at the high level.

CONCLUSIONS

Results of the expert's focus group discussion showed that: 1) local wisdom could be divided into 4 groups which included recommended products, souvenirs, food, and consumer products; 2) tourists should include 2-3 overnight

stays in their itinerary; and 3) media promotion should be explored to make the wisdom more accessible and rapidly diffused especially in social media. The experts' evaluation on the quality of the website and video were found at an excellent level. Meanwhile, results of tourists' opinions on website, videos, and printed media on the route of lower central provinces tourism were found to be at a good level. The academic forum conducted with representatives and experts found that the integrated factors or keys to success along the route of lower central provinces tourism included the following. Local wisdom owners must have the readiness and service in mind to disseminate the local wisdom both in the public and private sectors. The villagers had to participate in local wisdom management. Moreover, in the development of local wisdom for tourist attractions, the owner should design activities for tourists using the "learning by trailing" approach, use slow tourism strategy and should integrate local wisdom into the local curriculum in schools. The government and private tourism sectors should be encouraged participation in local wisdom management along the route of lower central provinces tourism. Local authorities representatives of the government organization should encourage people to work and perform their functions.

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KNOWLEDGE OF PEOPLE WITH TYPE 2 DIABETES ABOUT THEIR DISEASE AND THEIR INFLUENCE IN TREATMENT ADHERENCE

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ABSTRACT

Background: Diabetes Mellitus is a chronic disease in fast expansion, reaching even the characteristics of a pandemic set. A significant percentage of diabetics have little knowledge about their disease and few skills to put into practice. This lack of knowledge results in a low adherence to treatment and poor metabolic control. The education, the provision of information and empowerment are essential to making conscious decision, adherence to treatment and good metabolic control. **Objectives**: Identify the levels of knowledge that people with type 2 diabetes have about their disease. **Methods**: Quantitative, cross-sectional, non-experimental, descriptive, correlational study, with a sample of 102 people with diabetes type 2, aged 40 to 85 years, mostly male (51.96%). The evaluation protocol includes: social-demographic and clinical questionnaire, Questionnaire about the knowledge of Diabetes, also resorted to HbA1c to directly assess adherence. **Results**: The sample presents enough knowledge on diabetes (41.2%), with men showing more knowledge on it. Analyzing the relationship between the adherence to treatment and disease knowledge, there is an association slightly significant ($p < 0.05$). **Conclusion**: The lack of knowledge of diabetic patients have shown a great impact on their health and quality of life, the provision of information is essential for the person to make informed decisions about their health / disease. Therapeutic education thus assumes a central role in the treatment of diabetes, because the individual must be capable of skills and knowledge to adhere to treatment plan and so help control daily symptoms and limitations that the disease can cause it.

Keywords: Diabetes type 2 insulin-dependent, knowledge, adherence to therapeutic regimen, therapeutic education.

INTRODUCTION

Diabetes Mellitus (DM) is a chronic disease in fast expansion, being even able to reach the characteristics of a pandemic set. It is one of the major public health issues, not only in terms of the growing number of individuals affected but also in terms of disability and premature mortality associated thereto, taking into account expenses for treatment and prevention thereof, and is related to relevant physical, psychological, socio-familial and economic implications. The World Health Organization (WHO, 2011) supports that diabetes and its complications have a significant economic impact not only on patients but also on their families and on the national healthcare systems, pointing out to the existence of approximately 346 million people with diabetes across the world and foreseeing that death due to diabetes can even double between 2015 and 2030. This reality is also a cause for

concern in Portugal, and this pathology is increasingly common and mainly associated to age increase. In 2013, the prevalence of diabetes in the Portuguese population, based on both genders and age groups between 20 and 79 years, was 13.0%, which corresponds to a total number of about 1 million individuals, a fact which is truly alarming (Boavida et al., 2014).

It is consistently described as one of the most demanding and complex chronic diseases from a behavioural and psychological point of view. Therefore, treatment compliance is a crucial aspect to control the disease, and lack thereof creates significant complications related to an incidence and prevalence increase. According to the WHO (2003), in the so-called developed countries, 50% of chronic patients do not comply with the treatment. This rate increases exponentially when it pertains to developing countries, where resource shortage and the lack of equity of access to healthcare services turn low compliance into a problem. The notion of compliance, used more recently, refers to the active participation of the patient and the existence of collaboration and interaction in the healthcare relationship. It requires the patient's agreement to obey to the recommendations of the healthcare professional, in a context where both parties are active partners in the treatment plan (WHO, 2003; Bugalho & Carneiro, 2004), involving active and voluntary participation of the patient, who shares the responsibility of the treatment with the team of healthcare professionals, understands the existence of an agreement between the parties, respecting beliefs and desires (Bugalho & Carneiro, 2004). In the eyes of Haynes, Acklooe, Sahota, McDonald and Yoo (2008), as well as of the WHO (2003), compliance only exists when an individual's behaviour regarding medication taking, dietary compliance and/or lifestyle changes coincides with the recommendations of a healthcare professional, that is, it is regarded as the level of conformity between the recommendations and the behaviour of the individual regarding the proposed therapy program. From this perspective, a good compliance with the treatment involves not only a process of commitment to the decision of the therapeutic regimen but also the adoption of therapeutic attitudes and the continuation thereof. According to Telles-Correia, Barbosa, Mega and Monteiro (2008), lack of compliance occurs when the patient's behaviour does not match the recommendations of the healthcare professional, not being strictly limited to deviations in the implementation of the therapy program, taking into account the fact that the patient did not follow indications regarding changes in lifestyle and health-related routines in order to adopt healthy practices. Non-compliant behaviour must therefore be understood as patients' reaction to the mismatch between their ideas and those of the healthcare professional on their disease and/or problems. According to Christensen (2004, qtd. in Levensky, 2006), non-compliance rates vary, depending on whether they refer to treatment in the acute stage, between 20 and 40%, treatment of chronic disease - 30 to 60% - and 50 to 80% in treatment for preventive purposes.

Non-compliance is thus a significant barrier to the success of the treatment and may result in worsening of the health status of the patient, possibly creating errors in future treatments. This deterioration in the clinical condition can require the prescription of more medication, involving the need to carry out more diagnostic tests and more expensive and complex therapies, consult a doctor more often, use emergency services and an increase in hospital admissions (Cabral & Silva, 2010). This idea is validated by Levensky (2006), Bugalho and Carneiro (2004), and Osterberg and Blaschke (2005), who confirm not only that non-compliance to therapy has adverse effects on healthcare quality but also that it is a significant obstacle to the success of treatments, involving higher costs in medical and social terms.

A low compliance to diabetes self-care arises from the mixture of several characteristics of the disease and its treatment. For Wagner, et al. (1998), the fact that diabetes is a chronic disease without immediate discomfort, without a clear risk, the therapeutic regimen requires changes in one's lifestyle, the treatment is complex, intrusive and undesirable, there is no direct monitoring of behaviour and the treatment's goal is prevention rather than cure are factors which predict a low compliance. Malerbi (2011) stresses that factors related to non- compliance to diabetes treatment can be classified into three groups: treatment features, patient behaviour and social factors.

Glycated haemoglobin values are often used to assess compliance to treatment, as they will reflect the control level and appear to be presently the best indicator of the patient's health status. Patients with a good metabolic control are presumably compliant (Johnson, 1994). A low amount of HbA1c indicates a good health status and a presumed good compliance to the treatment, whereas a high amount thereof reflects a poor health status, suggesting that there is a problem in compliance to the treatment, but not specifying in which compliance aspect the patient is failing (Johnson, 1994). Compliance to treatment among patients with type 2 DM is highly influenced by the patient's level of knowledge, which includes not only what they know and do not know but also mistakes, beliefs and unclear assumptions (Campbell, 2012).

Knowledge of the disease is essential, since all aspects of the therapeutic regimen are interconnected; for example, food, exercise and medication jointly influence glycemic indexes. Hence, the modification of one parameter requires the adaptation of the remaining parameters. It can be easily understood that the level of information on diabetes is regarded as a basic coping strategy for therapeutic compliance.

Structured and targeted educational programs play a crucial role in terms of compliance rate. Kalogianni (2012) believes that it is vital to educate patients on and convince them of the benefits of the treatment, as well as maintain a therapeutic relationship based on communication, trust and motivation. A structured education enables not only significant improvements in metabolic control but also the adjustment to a new disease status and development of the abilities the patient is required to have, so that the latter is the main manager of his/her disease, thus reducing long-term costs for the patient and society. Assal (2000) mentions therapeutic education as a continual and systematic process, included in healthcare and aimed at empowering individuals to participate in their health process, thus improving their quality of life, enabling people to obtain therapeutic skills for personal use. The International Diabetes Federation (IDF, 2011) mentions that education is essential to individuals suffering from diabetes, so that they are able to make informed decisions, handle the daily routines of a complex chronic disease and change their behaviour in the face of the daily control of their disease. Therapeutic education must be perceived as an integral part of the treatment and a tool to help the diabetic patient adopt a new behaviour and change existing attitudes to maximize his/her health. Blair (2010) highlights that the education of the diabetic patient must empower and grant him/her the basic abilities and knowledge essential to monitor his/her blood sugar and understand how medication, food and sport affect his/her glucose levels, thus not depending so much on healthcare professionals during the management of the disease.

PURPOSE OF THE STUDY

Identify the levels of knowledge that people with insulin-dependent type 2 diabetes have about their disease and understand to what extent depictions of the disease and knowledge can influence the compliance behaviour to the therapeutic regimen prescribed.

RESEARCH METHODS

Quantitative, cross-sectional, non-experimental, descriptive, correlational study, with a non-probability sample of 102 people with type 2 diabetes who attend the metabolism consultation of the Diabetes Department of the Centro Hospitalar Tondela Viseu - Portugal. The inclusion criteria were: type 2 diabetes, with an effective clinical diagnosis for over 1 year, administrating insulin for over 1 year and attending metabolism consultations at the Diabetes Department. A self-applied questionnaire was chosen, given the specific language of the scales combined with a low educational level and literacy of the sample and the user's difficulties in reading and writing. The socio-demographic characterization of the diabetic patient was performed using different types of questions (open-ended and closed). The patient's clinical characterization includes collection of anthropometric data, such as: weight, height, body mass index, abdominal perimeter; and clinical: blood pressure and HbA1c.

Using the Questionnaire of Knowledge on Diabetes (Bastos, 2004), we aimed at assessing the level of knowledge on DM. This questionnaire includes 24 items, with the following answer possibilities to each item are: "Yes", "No", "Do not know", and revealed internal consistency with a Cronbach alpha of 0.76. Items include questions on DM knowledge and aspects related to the cause, insulin production and hyperglycaemia, disease duration and heredity, questions associated to the therapeutic regimen and its effect on metabolic control, erroneous notions, consequences of hypoglycaemia and hyperglycaemia. This was followed by stratification in cohorts according to the mean ± 1 standard deviation (Pestana & Gageiro, 2003), where the higher the score in the questionnaire, the more knowledge individuals have. It is worth noting that the clinical parameter used to directly assess compliance to treatment was HbA1c.

FINDINGS

Socio-demographic characterization

The sample was composed of 102 individuals with insulin-dependent type 2 diabetes, with 51.96% being male, with a mean age of 63.24 ± 10.47 years. The mean age of men, 62.77 years, is lower than that of women, 66.73 years. Most diabetics are married (75.5%), although the group of widowers (18.7%) is also significant. Most individuals live in rural areas (66.7%), and the remaining individuals live in urban areas (33.3%). The implementation of the chi-square test allows the conclusion that there is no statistically significant connection between the area of residence and gender variables (x^2= 0.079; p= 0.779). Out of the total number of individuals, 50.0% live with their spouse/domestic partner and 1.0% in institutions. Primary education (52.9%) is the main educational level diabetics hold, followed by 6th grade (18.7%) and 8.8% without schooling. As for the professional status, the majority reported that they were retired (56.9%), and out of 24.5% professionally active individuals, 36.0% perform duties in the area of trade.

Clinical characterization

In terms of the sample's clinical profile, it is worth mentioning a mean of 15.73 years of disease evolution time, in which women have the highest mean, 16.39 years. Women also have a higher mean (6.74 years) of insulin administration time, the mean of the sample being 6.03 years. The sample as a whole has acute complications and, among chronic complications, retinopathy is the most prevalent (30.06%), with 33.75% females and 26.51% males. Cardiovascular disease was mentioned by 24.54% of the individuals, being more common in women (27.50%). Amputation is the least reported complication, 1.23%.

Taking into account the outcomes related to sample characterization according to the values of clinical parameter HbA1c, out of the 102 respondents, 42.2% had an appropriate glycemic control (HbA1c between 0.5 and 7.9%), in which females, 44.9%, had better glycemic control, although the expression of the value of the chi-square test does not show significant statistical differences (x^2= 0.291; p= 0.590). The average of HbA1c is 8.29%, the maximum value of the sample being 11.9% and the minimum being 6.2%, in which the highest mean corresponds to men 8.31%.

KNOWLEDGE CHARACTERIZATION

Most individuals sampled have extensive knowledge (41.2%), followed by individuals with little knowledge (40.2%), out of which 18% have satisfactory knowledge. Male individuals are those who have more information on diabetes, since the majority of female respondents (40.8%) have little knowledge on diabetes, whereas the majority of male respondents (43.4%) revealed they possessed significant knowledge. Nonetheless, there are no statistically significant differences (X^2=.302; p=.860).

Although 41.2% of the individuals sampled have extensive knowledge, we observed the existence of knowledge deficit in areas related to the disease's identity, causes, complications and treatment. Questions which were perceived by individuals as having a higher level of difficulty and which reflect

a lower rate of correct answers correspond to questions: “Eating many sweets and food with high sugar content is one of the causes of Diabetes”; “Regular exercise increases the need of insulin or of another medication for Diabetes”; “Diabetes occurs when kidneys have a poor ability to keep urine without glucose”; and “An individual with Diabetes must clean a wound with an iodine solution and alcohol”.

Eating many sweets and food with high sugar content is recognized as the cause of the disease by 84.3% of respondents, the role of endogenous insulin is unknown by most participants, 60.8%, with 15.7% of the population believing that insulin is produced in the kidneys. The way to assess diabetes is unknown to 53.9% of individuals and 4.9% of respondents is unfamiliar with the main types of diabetes. The disease’s chronicity is acknowledged by 65.7%, but 33.3% of participants have the false notion that diabetes can be cured. Approximately 3.9% do not know that children of diabetic parents are more prone to diabetes (hereditary component).

As for acute complications of diabetes, the sample has knowledge deficit, as 36.3% still do not recognize the signs of hyperglycaemia and 28.4% do not know that tremors and perspiration are signs and symptoms of hypoglycaemia. Regarding chronic complications, the population surveyed has extensive knowledge. Medication is regarded as the most important component in diabetes control and treatment by 78.4% of respondents; 53.9% do not recognize the relevant role of exercise for the disease’s treatment and 74.5% have the mistaken belief that an adequate diet consists in special foods.

Analyzing the connection between knowledge and compliance, it was found that there is a slightly significant negative association (r= -0.204; p=0.040), which indicates that a higher level of knowledge is related to lower values of HbA1c, and thus to higher adherence to the treatment (Table 1).

Table 1 – Simple linear regression: compliance to treatment according to knowledge

Compliance to treatment	r	p
Knowledge	-.204	.040

DISCUSSION

The sample surveyed has knowledge deficits in areas related to the disease’s identity, causes and treatment, and medication is considered as the most important aspect for diabetes control and treatment by 78.4% of respondents; 53.9% do not recognize the relevant role of exercise for the disease’s treatment and 74.5% have the mistaken belief that an adequate diet consists in special foods. Knowledge levels were higher in terms of chronic complications of diabetes, with 100% correct answers in most items.

Comparing our data with other findings from researches conducted in Portugal, we highlight that in Gomes’ study (2011) the “complications of diabetes” was the dimension in which respondents showed more knowledge, with 100% correct answers in most items, in the dimension of symptomatology of hypoglycaemia and hyperglycaemia the rate of correct answers surpasses 75%. The disease and its treatment were the dimensions in which participants obtained the highest rate of incorrect answers, with values equal to or higher than 50% of wrong answers. As for the research by Sousa and McIntyre (2008), diabetics are more knowledgeable in the area of treatment, whereas causes and identity are the dimensions about which diabetics have least knowledge.

International studies are in line with the findings of our research, in which people suffering from diabetes have deficits of knowledge about different dimensions of their disease. A study carried out in India (Gulabani, John & Isaac, 2008), aimed at quantifying the level of knowledge of diabetics in

different areas, such as prevention and treatment of complications associated to the disease, confirms that the diabetic's knowledge on the treatment and complications of diabetes is limited, particularly in terms of preventive aspects, showing a clear need to empower patients with the knowledge necessary to help them derive maximum benefits from their treatment. Another international research, with a view to determine the knowledge of 96 individuals with type 2 diabetes, revealed that 82% knew what diabetes is, as well as the signs, symptoms and complications associated thereto, but 75% of the individuals could not identify the main causes of diabetes. In terms of diabetes management, 88.5% and 74.0% did not know how to avoid complications and prevent/control diabetes, respectively. They also had gaps in knowledge on the treatment dimension, in which merely 4.2% recognized that adopting a healthy meal plan was an integral part of the treatment (Okolie, V., Ehiemere, O., Iheanacho, N. & Kalu-Igwe I., 2009).

Patients' knowledge on their disease and therapy are acknowledged as being the factors which can have the most influence on the compliance with the therapy program. In the current research it was found that a higher knowledge of diabetics about their disease is related to a higher compliance with treatment ($p=0.040$). These findings show that, in the face of the disease, individuals have to obtain know-how and skills enabling them to manage the disease in everyday life, as well as the symptoms and limitations associated thereto, thus increasing compliance to the therapy program in order to achieve a good metabolic control (Gulabani, John & Isaac, 2008). Our findings are in line with national and international studies analysed, which show that diabetic patients with deeper knowledge on their disease show a higher compliance to treatment and a better blood sugar control (Al- Qazar et al., 2011; Sousa & McIntyre, 2008).

The study developed by Chan & Molassiotis (1999), which analyzed the connection between knowledge on diabetes and compliance, revealed a significant gap between what patients are taught to do and what they effectively do. Most participants had a satisfactory know-how on the disease, but fail when it comes to using this know-how in their everyday life. These findings suggest that having knowledge is not enough to guarantee a behavioural change, that is to say knowledge on the disease, cannot be used on its own to predict adherence.

CONCLUSION

The lack of knowledge of diabetic patients has had a significant impact on their health and quality of life, being associated to an increase in hospitalizations and premature death (Williams, 1991). The study conducted by Norris et al. (2002) on the issue of education in diabetes and its impact on patients' health showed that 50% to 80% of individuals had knowledge deficits and that education about therapy reduced the levels of HbA1c in 0.76% on average in patients who attended educational programs for three months.

The transmission of clear and accurate information on the disease, its treatment and control, can encourage the diabetic patient to adopt self-care practices and compliance, and a shared approach between the healthcare professional and the patient contributes to suppress gaps in the area of knowledge. Nonetheless, it is essential to stress that the know-how acquired while coping with the disease throughout its course is useful not only to reproduce the information received, but also to incorporate new attitudes and living habits.

The findings of our research and of those mentioned, which show knowledge deficits in some dimensions of the disease, support the fact that, in the face of the disease, individuals must acquire skills enabling them to manage their disease, its symptoms, limitations and control in everyday life, in order to integrate it into their life and adjust their routine. For this to happen, it is fundamental that individuals have knowledge on their disease and available possibilities to ensure better control thereof, and the supply of information is essential to conscious decision making of individuals on their health/disease, enabling them to maintain maximum autonomy vis-à-vis healthcare

professionals.

Therefore, education on therapy assumes a crucial role in diabetes treatment, as in the face of the disease the individual has to be empowered with skills and know-how enabling him/her to daily manage the symptoms and limitations the disease may cause. Knowledge deficit results in a deficient control, leading to higher values of HbA1c, and thus less than half the individuals suffering from type 2 diabetes is able to achieve an optimal glycemic control. These data prove that education, supply of information and patient empowerment are basic but essential aspects for conscious decision making, compliance and suitable treatment.

The positive effects of education on diabetes control and management are undeniable, and it is fundamental to take into account that education regards a chronic disease for which acquiring health-related skills, knowledge and behaviours is necessary to live and delay complications and reduce dependence on healthcare professionals, enabling the integration of diabetes into everyday life. The individual's living background, his/her level of acceptance of the disease, abilities, know-how and skills influence his/her motivation to learn how to manage the disease. The education of the diabetic is marked by the transfer of responsibilities to the patient, with a view to increase his/her autonomy and encourage the role of the patient as a partner of the healthcare team during his/her treatment.

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M-LEARNING IN THE TRANSMISSION AND SUSTAINABILITY OF CANTONESE OPERA IN KSK ART CREW

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ABSTRACT
Yueju (Cantonese opera), which originated in Southern China, has a long history in the genre of Chinese opera. This study examines how KSK Art Crew sustains this genre in Malaysia and examinesd the changes in its transmission processes. Past literatures reveal a number of published research monographs and articles on *yueju* in mainland China and the diasporic Chinese communities in the United States. This study focuses on KSK Art Crew, led by Kam Sin Kiew, and its innovative teaching methods and continuous effort in the sustainability of Cantonese opera in Malaysia. Findings reveal how Kam, the artistic director and founder of KSK Art Crew led new approaches in the teaching of *yueju* incorporating technological advances, M-learning approach, and pre-recorded music accompaniment that led to aesthetic and pedagogical changes. In addition, how performances were re-contextualized in the form of a dinner-show to adapt to the modern Malaysian audience is discussed.

INTRODUCTION

Yuejü or Cantonese opera (粵剧) originated in *nanxi* (*namhei* in Cantonese), a form of Southern theatrical performance during the 12th century. *Yue* in Chinese refers to the city of Guangdong (Yung, 1989). It is a form of Chinese traditional performing arts that combines singing, acting, music, martial arts, acrobatic movement and elaborated costume based on historical stories or legends (Leong, Burnard, Jeanneret *et al*. 2012). *Yuejü* rose to popularity in the mid nineteenth century (Grout and Williams, 2003), while Chen (1991) claims that its peak was around the 1930s in China. *Yuejü* was a male-dominated profession until the twentieth century, when around the mid-1920s female cross-dressers became popular (Stokes, 2009). Famous artists in Cantonese opera were labelled as *sida tianwang* (four super stars, 四大天王) or *pinghou sidatianwang* (four great male vocalists, 平喉四大天王). Characterization and roles in *yuejü* such as *sang* (male role), *dan* (female role) *zing* (heroic role) and *cau* (clown figure) are similar to other form of Chinese opera. The essence of acting in a *yuejü* requires *cheong* (singing), *nin* (dialogue), *zok* (movement) and *da* (martial arts). The colour signifiers of its costume and make-up are red (loyalty and bravery), black (virtuous), white (crafty and sinister), blue (violence) and yellow (intelligence).

Reviewing literature concerning *yuejü*, scholar Yung published a few pieces in English. Yung examines the creativity process and *yuejü* performance practice. Four music styles are used in Cantonese opera: 1) speech-type, 2) aria-type, 3) fixed tune, and 4) narrative songs. His other published articles (Yung 1983a; 1983b; 1983c) describe the linguistic tones used in Cantonese opera, the method of *t'ien tz'u* (text-setting) and the method of padding syllables. The text of *bong wong* (aria type) in Cantonese opera was explained in Yung (1983a). Yung identified the historical background of *yuejü* and explained the nature of pre-existing tunes which a singer must know by heart, and notes that a scriptwriter would later mark only the titles of tunes to be sung by the singers based on the text (1989).

Another scholar, Su (2010) provided a detailed introduction to this art form in the Chinese diasporic community, its origin, role and its music, and defined three types of performance common in New York: 1) *Yuequ* (or *yutkuk*粤曲, Cantonese operatic songs), 2) *Ze zi xi* (*jit ji hei*, 折子戏, extracted scenes or acts from a full opera) and 3) *Yue jü* (full-scale opera, 粤剧). Su (*ibid.*) explains that Cantonese opera is very adaptive in nature and can easily be fused with Western, popular or commercial genres. Some changes have taken place, such as in instrumentation. In *yuejü*, the *erhu* leads the ensemble while percussion has a role in keeping the pace of the performance. Yee (1998) explained that its original instrumentation consisted of the *erxian* (two-stringed fiddle), *zhutiqin* (bamboo fiddle), *yueqin* (moon-shaped plucked lute), *xiao* (vertical flute), *luo* (gong), and *gu* (drum). From the 1940s onwards it was orchestrated with instruments from the West such as violin, saxophone and steel

guitar, along with expanded Chinese instruments: *yangqin* (dulcimer), *pipa* (four-stringed plucked lute), *dizi* (bamboo flute), and *suona* (double-reed instrument). Other scholars such as Leong *et al*. (2012) and Leung (2014) discussed its pedagogical approach via oral transmission and apprenticeship.

In Malaysia, *yuejü* may be generalized by laymen as *daxi*, which it can refer to other forms of Chinese opera. In the early days, such as the authors' grandparents' time, the older generation had a common saying of '*qu kan daxi* [go and watch Chinese opera]' and *yuejü* was performed on a simple temporary stage in *kampong* (villages). In contemporary Malaysian society, the decline of *yuejü* as education, performance and entertainment is obvious. Therefore, the KSK Art Crew led by Kam Sin Kiew, based in the national capital Kuala Lumpur, revived the art in various ways. This study reports on Kam and her efforts, including changes in the context of *yuejü* via her transmission approaches and performances.

Founder Kam Sin Kiew, after whom KSK Art Crew is named, is not Malaysian but came from Hong Kong and was born in 1948. Kam's father was a professional *yuejü* artist who led a troupe in Guanzhou, China, and fled to Hong Kong during the Cultural Revolution. Kam along with her siblings continued their father's legacy in *yuejü* training. An accomplished performer, she had performed in Hong Kong and abroad in countries such as the United States, United Kingdom, Australia, Canada, Switzerland, Singapore, Indonesia and so forth. Kam arrived in Malaysia in 1983, married her (now ex-) husband and has remained in this country since then. She started out as a fashion designer but soon found that did not prosper well and returned to her passion, *yuejü*. Kam became a member of local Chinese associations and was soon invited to teach *yuejü*. It was then that she decided that *yuejü* was her fate and it became a catalyst for her playing a role in developing *yuejü* in Malaysia.

Kam founded Kam Sin Kiew Art Crew (KSK) and became the producer and artistic director for their performances. Another important figure is music director Ronald Poon Kong Kam, an accountant who is a *yuejü* aficionado and had training since childhood. Along with Kam are resident performers Lee Mei Wan, Lee Yuen Lin, Sam Yip, Yap Qiu Peng, See Wan and Jimmy Cheah. Lee is a school principal who joined KSK after she retired and became a resident performer and apprentice with Kam as her mentor. Lee Yuen Lin is an accountant turned house wife who began to learn *yuejü* in 2009 and also acts as the finance officer for KSK. Sam joined Kam in 2009 and Yap became a resident performer a year later. Cheah joined in 2012, introduced by Lee Yuen Lin, and See Wan, Kam's daughter, began her training when she was nineteen years old.

THE STUDY

Technological advancement, globalization and westernization perhaps are always factors in the decline of traditional and folk arts. However, in Malaysia, the *yuejü* positioned in a country where Chinese remain the minority population, faces further challenges to its survival. Studies such as those by Loo and Loo (2012) and Loo and Loo (2014) reveal how Chinese folk music and *shidaiqu* went through re-contextualization in meeting contemporary Malaysian audience needs and KSK Art Crew is not an exception to this phenomenon. In this research, an ethnographic approach was carried out, along with interview in examining how Kam Sin Kiew, the artistic director of KSK Art Crew experimented with different ways of sustaining the *yuejü* in Malaysia, and in addition, how transmission methods changed in adapting to the contemporary practice of *yuejü* in Malaysia. This section discusses KSK Art Crew's transmission methods. Thirty rehearsals and training sessions at Kam's residence were observed. How Kam incorporated a M-learning approach in transmitting Cantonese opera is described, and how technology plays a role in its performances is discussed.

FINDINGS

A lesson at KSK costs RM40 (USD10) for a two-hour session. As most of the performers are still under apprenticeship, each pays a RM500 (USD135) fee to perform for KSK. Kam then makes up for costume, make-up and stage setting. Therefore, performance is a part of the training for KSK's apprentices. Preparation for performances such as *Chingay* festival at Johor Bahru YEAR YEAR YEAR , *A Night of Cantonese Opera*, and *Empress Wu* was carried out at Kam's house. Three months of rehearsals took place at 8pm in the evenings since most of the performers have day-time jobs; more flexible time can be allocated during weekends. As Leung (2014) explains, up to the present oral transmission has been the main method of learning *yuejü*. At KSK Art Crew, oral transmission was employed in the absence of notation, and this makes rote learning and imitation the two main approaches in Kam's training structure that consists of: 1) basic warming up exercise, 2) steps with music and 3) body and hand gesture with music.

In addition, Kam employs a mobile phone as an M-learning device to make a video recording of her students' movements during class, which is not part of *yuejü* traditional pedagogy and performance practice. Playback is used to show a student which part he or she managed well or where mistakes were made. A student is able to watch his or her singing and movement. A collection of video clips becomes a resource that serves as a reference or guided learning after leaving class. A video clip captured by Kam's mobile phone also serves as a reflexive

way of training in which Kam and student continue to discuss and correct posture, movement, singing and so forth. In this way, it is observed that students grasp their mistakes faster than with verbal instruction alone. Since the conventional pedagogical method involves oral transmission, a mobile device with video capturing singing and movement then changes its context and forms a documented instruction, personalized to each student's progress.

Another technological input is the use of a karaoke system, not a new technological approach but one which differs from conventional *yuejü* pedagogy. This changes the context of oral transmission in its traditional practice. Performers learn a particular *yuequ* through karaoke playback where the highlighted cues of text on screen mark the entry for the singer. Students no longer need to memorize from Kam demonstration, and with the ease of karaoke, the same song can be repeated. At the same time, students can watch the performers' expressions. In addition, music accompaniment comes with the karaoke and this has eliminated the challenge of finding musicians who can play *yuejü* who are hard rare these days.

Observation of a few performances by KSK Art Crew shows that live music accompaniment with musicians experienced in *yuejü* is now rarely found in Malaysia. The only performance KSK Art Crew performed with live musicians during the course of this study's fieldwork was for Chingay Festival at Johor Bahru in 2013. The troupe performed on a temporary stage near a temple and functioned as a performance for the deities. However, based on the first author's experience, there was a difficulty, a mismatch because the performers were trained using the key of the karaoke recording, while the musicians played in a different key familiar to themselves.

Other productions such as *A Night of Cantonese Opera* (2012), *Empress Wu* (2013) and a restaurant performance (2014) employed minus-one as its music accompaniment. *A Night of Cantonese Opera* was a *ze zi xi* performed at The Actor's Studio in Kuala Lumpur where *Romance of the Red Pear Flower* and *Legend of the Moon Fairy* were among the *yuejü* selection. Tickets were not expensive and cost RM23 and RM32. *Empress Wu* was performed at Kuala Lumpur Performing Arts Centre on a *t'ien t'zu* basis where familiar *yuequ* was used with new text. In these performances, pre-recorded music was used for accompaniment. Therefore, the minus-one music accompaniment acts as a mobile-orchestra. The absence of live musicians eliminates the cost of hiring professional musicians, and performers found that this lessens the risk of key change compared to the performance with live musicians at *Chingay Festival*.

Due to the low demand for *yuejü*, in 2014, KSK Art Crew came up with a new context of performance in the form of a dinner show at a local restaurant with presentation of selected *yuequ*. A ten-course Chinese dinner was part of a ticket costing RM120. This attracted a larger audience and Kam managed to receive ten tables of booking. Various *bong wong* and *siu kuk* was selected. This too employed minus-one music as accompaniment and the absence of a musicians' platform saved space for a restaurant performance. All performances using minus-one music accompaniment were amplified and thus the traditional acoustic aesthetic of *yuejü* faces changes in a modern theatre setting.

CONCLUSIONS

In a summary, this study shows Kam and KSK Art Crew involves an integration of 1) teacher's verbal instructions, 2) video recording of student's performances, 3) teacher and students' reflexive accounts, 4) karaoke, and 5) minus-one music accompaniment that act as a mobile orchestra in the transmission of Cantonese opera learning and its performance. A few drawbacks of these changes are inevitable. Firstly, the absence of *yuejü* traditional aesthetic is due to the replacement of musicians and live music accompaniment by minus one pre-recorded music accompaniment. This technological advance also becomes another crucial factor in the dying tradition of musicians trained for *yuejü* since they are being replaced with recordings. Secondly, due to the low interest in this traditional art form, most KSK Art Crew participants are senior citizens. It is difficult to employ youth to become apprentices to develop as professional artists. Furthermore, a *yuejü* is supposed to be learned from youth, starting at an older age sacrifices important acrobatic components in *yuejü* such as martial arts movements.

On the other hand, the pros of M-devices in the form of minus-one music accompaniment enable a lower production cost, and music and singing amplified via head-held microphone and sound system adapts to a modern theatre with a larger capacity seated audience. Furthermore, teaching using a mobile device as a video recorder for an immediate reflexive discussion and as a reference in the form of a guided learning away from the classroom forms another improvement in the course of learning. Files of video recordings saved and documented on to smart phone provide an M-learning delivery method in the transmission of *yuejü*. Thus technological advancement has perhaps helped in a certain way in the transmission and sustainability of *yuejü* albeit with the loss of some of its traditional aesthetic.

Acknowledgement
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L'ŒIL EST REGARD (THE EYE IS THE LOOK)

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ABSTRACT
According to the famous quote *'L'œil est regard'* (*The eye is the look*) of André Malraux, French novelist and minister of cultural affairs, the eye, is not only an organ but it is the way we see ; what we want to see; what we want to do ; what we want to live. It means that each eye has different point of view of not only the happened event, but also the life. Each and every point of view of everyone is different while the events can be lived the same. All of us, we have the same created eyes, however, the way we look at to the things and understand them is changeable and different according to what we want to understand.
This quote of Malraux is used to show that architecture has place in itself for different point of views on its creation process to the students of architecture on history of architecture lessons. It is a common definition that architecture has the results of space need and necessities of humanbeing since the first construction of dwellings. However, there is not one and only answer of each space need and necessity on architecture. There are always different results according to the each and every point view of each and every architect. Thus, the space variety has been happened inside a city, different architectural styles thus can be seen even during the same century. Every architect has his own way of practicing the architectural *praxis*.
In this point of view, to show and to prove this great quote of Malraux in history of architecture lessons one short movie has been shoot by an international architectural research group with the same title, *L'œil est regard*, and is used to define *what the architecture is*, how it can be different from one point of view to the other. Architecture can be defined as the way we *look* at things, we *look* at to the life, but there are so many ways to do so.
In the short movie taken by the international architectural group, the historic Ottoman pier building of Besiktas in Istanbul was used as the platoon. This pier building is still used as the station of vapurs of Besiktas- Uskudar line.

On the movie there are different architects, looking to the same building but can see and imagine different point of views, thus, live different memories related with the building.
Thus, the paper will not only have the shooting process of this international short movie, but also will discuss how it is used in the history of architecture lessons at the architecture faculty.

Keywords: history, past, historicity, historicism, architecture

INTRODUCTION

On the architectural education, it is always hard to show students, especially from the first and second year, that there are different point of views on architectural design. And it was thought that to show a movie inside the classroom can be the most effective way of describing that each and every architects have different point of view during the design process, as the cinema has developed it: the same space is going to be shot in an entire different way, according to the director. The architectural *praxis* cannot be created without the thought at the background, thus, the thought at the background has a direct relation with arts and arts have a strong link with philosophy. Thus this study has a philosophical background as the beginning point on its' creation process.

The feeling one has about a space is the same in architecture and in cinema; each and every person is going to focus on different aspects of a space, or on a different way to look at it.

PHILOSOPHICAL BACKGROUND

Here there are two basic questions are needed to be asked to define how the process has been begun; Why would it be necessary to talk about a philosophical background for an architecture study? What is the link between Architecture and philosophy?

Philosophy is how people think, how people learn to think. So basically, it can be said that *Philosophy* is the base of the *Society*. Without ideas, without thoughts, people are just people/ living creatures having any link between them; neither the senses nor the touch on hearths. With thought, with ideas (which mean with philosophy) several people can became together and thus the Society, as well.

Architecture has always been about constructing ideas, or moreover than this about constructing the "living"idea on the background of the society life. Every architectural movement, through the ages, has been the physical interpretation of an idea, an ideal, of Society ; which evolved from Antiquity to XXI'th Century, through Middle-Age, Renaissance, Industrial Revolution, & etc…

Philosophy is how people become society

Architecture is the physical environment of Society; it can be also defined as the "Theatre of the Society".
Thus, one of the quotation of André Malraux was selected specifically because the quotation of « the eye is look »is overlapped on the idea which is at the background of this study.
Malraux also said that "*no-one knows the color of the eyes of their closest friends, because the eye is look*". For him, the eye is not only an organic part of a human body; this is essentially the way one sees things, how one will look at his environment.

By this short sentence, Malraux introduces the idea of the relativity of one's look over the world; which is the center of any architectural design process.

Each and every person would have a different vision of an architectural project because everyone has a different vision of the « ideal ». Each & every architect can find different solutions, even the architectural problematic is the same in the beginning of the project process. Different materials, different colours, different definition of the spaces can be used; can be given as the solution of the same basic problematic.

Purpose and The Goal Of The Video:

The main aim of this project was to show to architecture students that just after the « dogmatic » years of highschool, they are allowed, and even asked, to start to think for themselves, to express their ideas and to defend them, to welcome their creativity.

An architectural design project can be seen as a mathematic problem: one is given a specific program and a specific site and all one have to do is to solve the equation. The need and necessities can be the same while the result(s) can be totally different than eachother according to the creativity of the every architect. But on the contrary to mathematic, every architectural equation can have different answers, all of them good. The only thing, which is needed, is to give the answer that suit best with your ideas, to find the right solution among the several possible answers.

Thus, it can be said that the architectural special organization is designed according to the architect's background of history, memories, and experiences. As we are formalizing spaces, spaces are formalizing us.
The purpose of this video project is to show and to formalize the fact that everyone is seeing, feeling, and apprehending a given space in a different way.

The Process:

As this video project was meant for architectural students, it was wanted to show the several aspects of a building. It was decided to focus on three different perspective of *seeing, feeling,* and *experiencing a building*. On one hand, the physical part of a building; on another hand, the « living » part of a building, how it is used; and finally on the poetic dimension of the selected building.

The physical part of a building can be interpreted in different ways. Obviously, it means how the building is organized; it's structure, the details of ornamentation or the brutalism of the shapes.
But for an architect, it can mean much more. Every building is seen in a different way through architect's eyes. As it has been said above, an architect's eye is "built/ constructed images" according to his personal "backpack" of memories, personal history and experiences. However, any building would bring architects to « another world », full of past references, ideas, future projects. Each and every building would remind him of buildings he

has already experienced, of concept he has been interested in, of specific details of structure or ornamentation; but also make him think about all that's left to be done: using this specific building, and all this memories as references for building the future, to build his own idea of an « ideal ».

The social life is one of the other essential aspects of a building. Architects, while designing, should always think about the « life »of the project, how it is going to be used, by who, during which time of the day. That is why it was essential to illustrate this perspective in this movie. Showing how a building is used, is showing how the architects decided what his building would be, the choices he made during the design process, and in a way, his own image of Society.

And finally, each and every building should be a *« theatre for imagination »*. This is what could be called as the poetic dimension of Architecture. How a physical construction can take people to the land of dreams, possibilities, fantasy, and myths.

But Architecture is not only a Physical construction; it is also, and before everything, a construction of the *Mind*. That is why every building, depending on its architect, would be connected to a poetic dimension, linked to the history of the place, the mythology of the culture, etc… But any building can also be a door, a bridge to a all different area of dreams and legend: architecture is not only meant for protecting people from the bad weather or from the « Wild Nature » ; Architecture should always "Mean Something".

This is to say that showing all these aspects of an existent building, is also showing to Architecture student the process of designing a building, taking account of all these different perspectives. The Besiktas -Üsküdar Pier, located in Besiktas Meydani on the shores of the Bosphorus was selected as the center of this movie project, because it was seen that it could illustrate all the related aspects, which have been seen above.

It is a remarkable that Ottoman architecture, one of the last remaining examples of the First National Style (*Birinci Ulusal Üslup*) in Istanbul, with a profusion of original mosaics, coloured glasses, paintings and ornamentation. Moreover than this as a pier, it is making the link between the European and the Asian side of Istanbul, it is a central place of Besiktas ; in which people are passing by all day long, travelling from one continent to another, waiting inside for the *vapur*, or just chilling on the square near-by. But above everything, a pier has a Poetic Meaning. It can be seen as a bridge to a new destination, a door to several possibilities. Even if it is just linking Besiktas to Üsküdar, it can bring to the area of dreams, of travelling to any places over the world, the destination doesn't mean anything anymore, and is getting blurrier with the time, the goal is the *voyage* itself.

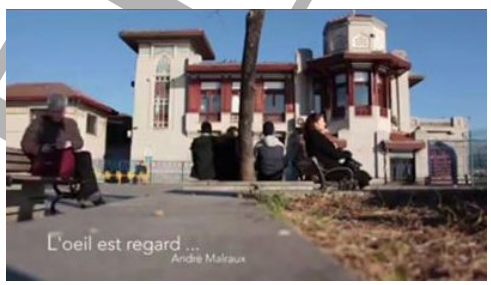

Fig.1.: Besiktas Vapur Station

Fig.2.Three architects watching the vapor station of Besiktas

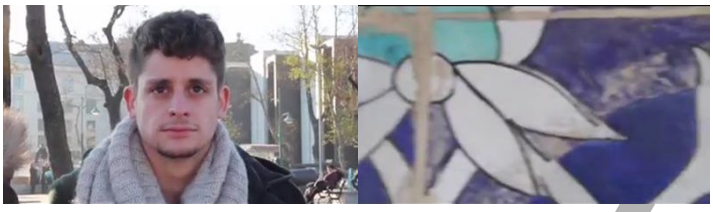

Fig.3.First one focuses on the ceramics and ornamentations of the vapor station.

Fig.4.Second one focuses on the interior quality of the space organization.

Fig.5.Third one focuses on the link between the vapor station and the life outside of the station.

Fig.6.The life around the Besiktas vapor station.

5. CINEMATOGRAPHIC REFERENCES

Architectural design is a personal process, it can be formalized according to different point of views. Shooting a video is probably the best way to show it because of the similarities between two fields : architecture and cinema, regarding to the way one experiment and feel a given space

Just as architects would give different answers to the same architectural problem, directors would shoot a given space from totally different angles and frames.

Here, one question is needed to be asked. How we can represent different point of views on the screen. Two different ways were possible:

First, the use of a split screen, which allows to show different frames, different point of views of the same scene at the same time on the screen (as we can see in « 500 days of Summer », by Mark Webb). But this suppose, in order to fully understand all that is told, to look at it several time or to have a « trained » eye.
Secondly, using successive sequences, showing the point of views, one after another (as we can see in « Les Amours Imaginaires », by Xavier Dolan).

The movie should be fast, the movie should be clear, and the movie should definitely be understandable at first sight, because it's meant for unprofessional eyes of architecture students.
That's why it was decided to work on several successive « chapters », each one dedicated to one of the point of views. To focus on one particular point of view during the movie, it was chosen to work with close frame in order to « isolate » the subject of each part, and to use wide angles to show the entire scene between chapters.

6. CONCLUSION

There is not any rigid solution for any architectural work; each and every architectural question can have different architectural solution according to its' designer.

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LAND ART AND CONTRIBUTION TO EDUCATION OF CONTEMPORARY ART: NEW STYLE IN NATURE AND SPACE INTEGRATION

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ABSTRACT
Land Art concept is developed in United States of America at the end of 1960's and inspired by other western countries in 1970's. Land Art movement is a new style which is intervention on nature by artists to integrate nature and space. In this movement, artists who use rock, soil and several natural materials, protest against galleries, museums and art markets.
In this research; Literature about Land Art and Artists of this movement, artworks and other art movements of this period, education of art, space concept are studied. This research is designed by descriptive scanning model. Researches about subject, indications and results are compared to build results and discussions part.
Keywords: Contemporary art, Land Art, space, art, artist.

INTRODUCTION

Art has undergone some change with artists' use of different techniques, approaches, and tools with the improvements in technology since 20th century. This change process in the field of art has led to change in the thinking way of artists. Aesthetic worries on the field in the past have resulted in new searches with the developments in technology. As a result of the new search, Land Art, which has a new perspective on nature and environment, has impacted many art movements as well as being impacted by them. Land Art, which is influenced by pre-historic works and local ecology, brings the relationships between people-nature, nature-space, and nature-art into the forefront. Land Art consists of artists that use the most up-to-date technology in their works. It is now linked to other forms of art such as Conceptual Art, Happening, Performance Art, Body Art, Arte Povera, and Minimalizm. Land Art and other art movements related to it have influenced many contemporary artists in the field of art. Artists following this art movement have expanded space that is the implementation field of art. Artists have displayed their works in galleries after video recording or taking a photo to be permanent.

Problem Statement

In the contemporary art education process, the field of art that includes new and different experiences should be analyzed by considering its change and development in each period. Individuals try to keep themselves up-to-date on the novelties and conditions of each period in the field of art with the education they receive. Şahin (1993) states that "The purpose of art education is not only to educate future artists, but also to grow individuals who follow the new technology to search and use, and as a result to benefit more from art" (Şahin, 1993). In today's approach to art education, unique design is quite significant in that teaching the use of materials as constructive and productive in different implementations is considered as crucial, and it is proposed that especially contemporary approaches towards art products should be emphasized besides old art values and traditions (San, 1984). When contemporary art products are considered for a contemporary art education, analyzing interventions to nature and environment by Land Art artists contributes individuals to have a new perspective towards nature and space and to perceive and evaluate them by thinking thoroughly. In addition, it is expected that individuals will be directed towards research, because these works are based on projects that have been designed previously. Land Art samples presented to individuals through art education and the new approach that is brought by the movement will help individuals to try new things by getting beyond the limits of canvas surface. It is also expected that contemporary art works, which value thought before product and given message, and which are open to different techniques and materials, will increase the sensitivity of the individuals, enhance their creativity, and change their perspectives with the given art education. Individuals, who will be artists or art educators, should be knowledgeable about contemporary art perceptions as well as traditional ones. Understanding changes in art as a result of contemporary art education will contribute individuals to improve themselves. At this point, Land Art appears to be a new approach in the assimilation of nature to space.

LAND ART

Land has always been of secondary importance, as it is presented as a space for things that represent and are represented. Space is sometimes presented with a sense of emptiness while at other times it consists of figures and

objects as a place to live or as a county or prairie image. For Land Art artists, the one which represents and is represented is itself. The artist, who works on rocks or trees in a specific place on land, refers to the whole land with the help of these materials and suggests protecting it. However, "protecting" actually means "respecting" it (Yılmaz, 2006). The concept of Land Art first appeared in the United States towards the end of 1960s and expanded into Europe in 1970s. This movement, which aims to expand the application field of art and consisted of natural spaces instead of indoor spaces such as gallery or museum, is also interested in local ecology and rediscovery of archaic cultures (Germaner, 1997). Artists reorganize spaces that comprise of big parts of the land in these kinds of works of art. They limit the infinite gap or area to their works and expand the space. Some of the artists limit spaces that are comprised of frozen lake surfaces to various designs while other artists leave traces in the spaces by using rocks, sand, or similar materials over soil. Artists use spaces of both rural and urban settlements (Lynton, 2004). Artists have been intervening to these landscapes reflecting nature by transforming their spaces to real spaces since 1960s. Land Art, which emphasizes the negative effects of industrial development and technology, is a movement that aims to raise awareness and values nature over technology (Antmen, 2010). This movement values nature over everything and expands space on land as much as possible. Artists, who value nature, have brought a novel approach to the concept of space with their works of art. Space is similar to the nature in terms of quality in Land Art. Robert Smithson, Michael Heizer, Robert Morris, Walter De Maria, Nancy Holt, Alice Aycock, Mary Miss, Dennis Oppenheim, Jan Dibbets, Richard Long, Hamish Fulton, Andy Goldsworthy, Christo and Jeanne Claude are among the representatives of Land Art that assimilate space to nature.

LAND ART ARTISTS AND SAMPLES OF THEIR WORKS

According to Robert Smithson, who is a significant representative of the Land Art movement, mind and land are under the process of continuous wear and transfer. Mental rivers drag abstract coasts by wearing them, and thought breaks into pieces in ambiguous rocks. The language of art should not just be an isolated image, but should always be in a structure open to developments (Yılmaz, 2006). Artists always make references to mind and thought with the materials they use peculiar to nature such as rock, sand, salt, and water by designing large spaces. Artists present unusual works to the viewers with these spaces.

Figure 1. *Spiral Jetty* by Robert Smithson, 1970, mud, precipitated salt crystals, rocks, water coil. 1500' long and 15' wide Great Salt Lake, Utah, ABD[1]

Figure 2. *Broken Circle and Spiral Hill* by Smithson, 1971, green water, white and yellow sand diameter 140', canal approximately 12' wide, depth quarry lake 10 to 15' Emmen, Holland[2]

Figure 1 displays a spiral-shaped space that was designed by Smithson by using rocks, sand, and soil that come to the center of the lake from mainland. There are changes in water color as a result of depth with the fluctuating water in the space. The artist found out that there are microorganisms that make the big salty lake in Utah, which was a place to drill oil in the past, pink and worked on that work of art to draw attention to it (Turani, 2012). The spiral shape of jetty refers to the legendary vortex that is believed to be in the center of the lake. In his work, Smithson used approximately seven thousand ton soil by renting some garbage trucks. The artist wanted to grab attention to the relationship between human and nature by designing the jetty, which has a length of 1, 45 km, specifically in an industrial region. He emphasized natural life-death circle in his works. He separated samples of Land Art as "space and out of space" (Antmen, 2010). This work of the artist based on space was valued only after a while it was done. The artist worked on space that expanded to a large area.

[1] http://imgkid.com/robert-smithson-spiral-jetty-film.shtml accessed at 05. 02. 2015.
[2] R. Cumming, (2006). Görsel rehberler sanat. İstanbul: İnkılap Kitabevi, s. 462

Figure 2 displays another work of the artist who designed a circle, part of which consists of green water with white and yellow sand planes. Some part of the circle is surrounded with water while some part of it is filled with water. The artist aims to react to the unprincipled urban development and its insensitivity to the environment with his works (Cumming, 2008). The artist began his dialogues between inner space and outer space with his thought of "No Land" in 1967. The artist hung the air photos he took from a specific place next to the trapezoid shaped boxes, in which soil, stone, or pebble existed. The artist used spaces that he transformed into an object that won't be sold or is too big to display in a gallery as art material (Atakan, 2008).

Figure 3. Directed Seeding by Dennis Oppenheim, 1969, The route from Finsterwolde(location of wheat field) to Niece Schnapps (location of storage silo) was reduced by a factor of 6X and plotted on a 154 X 267 meter field Holland[3]

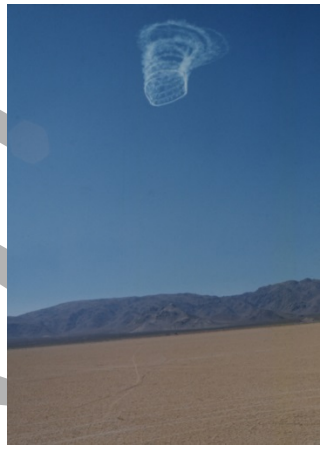

Figure 4. Whirlpool(Eye of the Storm) by Oppenheim, 1973 3/4 mile by 4 mile schemata of tornado, traced in the sky using standard white smoke discharged by an aircraft El Mirage Dry Lake, Southern California[4]

Figure 3 displays the "Directed Seeding" work by Dennis Oppenheim, who shaped the field by the help of a dredge. The artist first formed straight lines, then created waves parallel to each other in the field. He limited a specific area of an infinite space in his work. He intervened to the space itself and used only the natural space in his work.

Oppenheim is one of the American artists looking for empty spaces to object to be confined to gallery. Figure 4 displays one of his works, in which he rented a plane in order to create a tornado spiral in the clear sky over Mojave Desert and video recorded the event. Later, the tornado spiral was hung in a series of photographs on a gallery wall. The artist targeted for an art that produces thoughts on how to copy over a system or event (Bell, 2009). He created instantaneous images by using sky as a space in this work while he used land as a space in other works. He narrowed the space which is an endless gap in his work and filled the gap by creating a tornado spiral.

Figure 5. Sun Tunnels by Nancy Holt, 1973-76, Length of one diagonal: 26 m

Figure 6. Rock Rings, *Stone Enclosure by* Nancy Holt, 1977-78, brown mountain stone outside 12 m,

[3] http://www.dennis-oppenheim.com/works/1969/144 accessed at 26.02.2015.
[4] http://www.dennis-oppenheim.com/early-work/155 accessed at 26.02.2015.

Diameters: outside: 3,72 m, inside: 2,44 m
Great Basin Desert, Utah, ABD[6]

Western Washington Universty Bellingham[5].

As one of the Holt's astronomic art pieces, Sun Tunnels that is represented in Figure 5 consists of four large tunnels that are ordered crosswise in the Great Basin Desert in Utah, US. Tunnels are located in a way that they are aligned with the sun at the time of sunrise and sunset (Dempsey, 2012). Tunnels do not provide an artistic perspective during the day, but during the sunrise and the sunset. Viewers are taken to another space with the view that can be watched right in the center of the tunnels during the sunrise and the sunset.

Figure 6 represents another artwork of Holt, Rock Rings, which engages viewers into it deeply. When viewers are at the inside of the structure, they feel that they are in a cage. Rock Rings consist of two nested stone rings. Holt designed doors and windows on the stones to relate outer-space and inner-space perceptions of viewers.

Christo Javacheff, a Bulgarian artist, worked with his wife, Jean Claude, to design artworks that wrap-up structures and terrains. At the beginning, Christo wrapped-up simple objects such as beer bottles and barrels. Then he thought that if he increased the size of the wrapped objects, he would also increase the impact. For this reason, he manipulated the photos of famous buildings and gave them a wrapped look. These art-pieces, which include materials used in painting, sculpture, and architecture for centuries, were temporarily at the beginning. Being temporary brings death to mind and encourages people to think about nature, love, and value of sharing (Yılmaz, 2005). In addition, this process becomes an event when artists involved local people into the project development process. Because of the relationship between physical beauty of the nature and art project, artists changed perspectives of local people towards nature and art by involving them into the process (Üstüner, 1996).

Figure 7. *Surrounded Islands* by Christo and Jeanne-Claude, 1980-83, Biscayne Bay Greater Miami, Florida[7]

Figure 8. *Wrapped Trees* by Christo and Jeanne-Claude, Fondation Beyeler and Berower Park, Riehen, Switzerland, 1997-98, Photo: Wolfgang Volz[8]

Figure 7 displays eleven of the islands situated in Biscayne Bay, Greater Miami, which were surrounded with 6.5 million square feet (603,870 square meters) of floating pink woven polypropylene fabric covering the surface of the water and extending out from each island into the bay in 1983 (http://christojeanneclaude.net/). In this project, Christo and Jeanne covered the beach and part of the water and left plant cover and inner-space of the islands visible. They created various small inner-spaces inside the general work space, and because of the volunteer participants, art and life became intertwined.

Figure 8 displays the work of Christo and Jeanne-Claude, who have worked with trees for many years. The project originated in the 1960s, when the artists first proposed to wrap live trees. The Wrapped Trees in Riehen were the outcome of 32 years of effort (http://christojeanneclaude.net/). Under the scope of the project, the artists developed various designs before wrapping-up the consecutively-located trees. Because of the wrapped-trees, space gained an impressive perspective.

[5] www.studyblue.com accessed at 20.02.2015.
[6] www.tumblr.com accessed at 19.03.2015.
[7] http://christojeanneclaude.net/ accessed at 10.04.2015.
[8] http://christojeanneclaude.net/projects/wrapped-trees#.VUvyn7xrPIU accessed at 26.02.2015.

Figure 9. A Line in the Himalayas by Richard Long,
Date1975, printed 2004
Medium Digital print on paper mounted onto aluminium
Collection Tate[10]

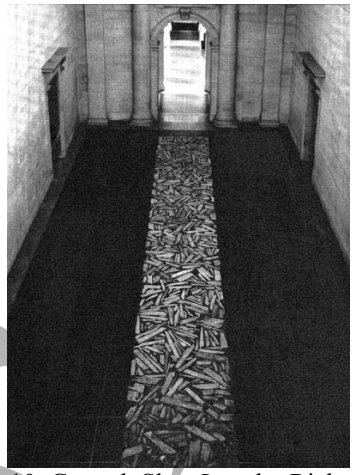

Figure 10. Cornısh Slate Lıne by Richard Long,
1990, w230 x h2540 cm,
Anthony d'Offay Gallery, London[9]

Land-Art artists have also used photograph, graph, and text. Artists such as Dibbets, Goldworthy, LeWitt, and Long tried to record temporary modifications, natural events, and time flow in nature while trekking. As it is presented in Figure 9, Long designed installation art works by collecting mud, stones, and other materials while walking, and held exhibits to present pictures of his works (Dempsey, 2012). As Antment (2010) states, Long described his installation art works by saying:

> *"Walking is the expression of space and freedom, and its consciousness can live in everyone's imagination which is also another space… Road is the space of travels. Hence, the space of a walk is its before and after." (Antmen, 2010, p. 260).*

The linear statue displayed in Figure 10 was designed by slate stones collected during a walk in Kelt meadows. Each stone was selected arbitrarily, but reorganized to design a linear art piece (Kollektif, 1997). The artist exhibits the places where he collected the stones in galleria space because Long considers the impression of details of the place where he found the stones rather than the stone itself and carries overtones of the terrain by interpreting his own perspective (Hizmetli, 2009).

Figure 11. Storm King Wall by Andy Goldsworthy,
1997-98, fieldstone, Approx. 5 x 2,278 feet
Storm King Art Center,

Figure 12. Yellow Elm Leaves Low Water 1991
by Andy Goldsworthy,
Scaur Water, Dumfriesshire, Scotland[11]

[9] Anonim (1997). *Sanat kitabı: 500 sanatçı 500 sanat eseri.* İstanbul: Yem Yayın, s. 282.
[10] http://www.tate.org.uk/art/artworks/long-a-line-in-the-himalayas-t12035 accessed at 12.02.2015.

In Figure 11, Goldsworthy built the stone wall that wriggle between the trees and stones he encountered. The artist built the 695-meters-long wall with the help of British masons by using 1579 tons unprocessed stones. The wiggly stone wall passes through a lake and continues on ground till reaching a highway with the inclusion of a farm wall that was already there. As a result, art and nature was intertwined (Dempsey, 2012).

Goldsworthy is one of several artists who work mainly with their bodies rather than using tools or technology. He engages intimately with the environments in which he works, using materials from the sites themselves. Working in conjunction with a site's particular qualities – complexity, simplicity, delicacy, strength, changeability, varying shapes and textures – he brings out the dynamic possibilities of art and nature through space and time. Natural processes impede and support his artistic actions (Brady, 2007).

Under the scope of 4th "World Art Day" celebrations, 4th of which took place this year in Konyaaltı Beach in Antalya, Turkey, "Art Umbrellas" project was displayed as Land Art with the help of Berrin İlhan, who is the owner and curator of the project. Land-Art artists not only from Turkey, but also from overseas were invited to the organization to enrich universal language of art and to develop an international perspective. İlhan (2015) summarizes the goals and scope of the Land Art project as:

> *"Today, people have become distanced from art, which is the universal language, because of socioeconomic problems. We want to touch the heart of such disadvantaged group by meeting around similar interests, being under the umbrella that represents art, and using the comprehensive and connective language of art. Our main goal is to introduce national and international artists with our community to create a common ground for different imaginations and to create an awareness by speaking the universal language of art in addition to present April 15 World Art Day as a conceptual festival by accepting that creative action as a phase of interaction between human and nature."*

Artists participated in a project, which was announced at schools, rural areas, playgrounds, and even at women's prison with a slogan "Bring an Umbrella," starting from April 15 as groups. Throughout the project, artists and people who become distanced from art and art excitement painted on umbrellas and 10-meter fabrics. Art and life became intertwined with the involvement of volunteer participants. The first phase of the project was started with mailing the umbrellas designed by participating artists to predetermined addresses as it can be seen in Figure 14.

Figure 13. "Art Umbrellas," which was organized by Berrin İlhan, 2015, oil painting and acrylic on umbrella, acrylic on fabric, Antalya, Turkey.

As it is presented in Figure 13 and Figure 15, approximately 200 umbrellas were used along with 4 pieces 10 meters long canvas fabric to create two land-art projects on a 1000 square meter field in April 19th. By combining umbrellas with sand, sun, and sea, the artists tried to show that nature can be beautified again with the help of human, despite all the pollution caused by human. The purpose of the second land-art project is to form an S to show the artistic perspective of the land-art by combining letter "S" and canvas fabric to create a rhythm. At the final stage of the project, a mortar-iron construction scrap located on the beach was covered with umbrellas to deliver the message "ugliness created by human can also be beautified and repaired by human".

[11] http://www.abbeville.com/interiors.asp?ISBN=0789208814&CaptionNumber=03>, accessed at 19.02.2015.

Figure 14. Aylin Beyoğlu, “Art Umbrella”, 2015, oil painting on umbrella.

Figure 15. “Art Umbrellas”, 2015, Antalya, Türkiye

This land-art project emphasized that art cannot be separated from nature. It can take inspiration from nature and can be constructive and instaurative. It is foreseen that the project, which was organized in Konyaalti Beach in Antalya on April 19th, will be repeated in appropriate art spaces. It is also planned that a different application of the project will be organized in New York in near future.

METHODOLOGY

This study was investigated by doing a literature review of the images and texts that present the Land Art movement, the artists of the movement, and the space in their works, because the Land Art movement was created by considering contemporary art education and space concept in works of art. In this study, sources such as articles, journals, books, dissertations, etc. and visual documents were compared by analyzing them in detail through a descriptive survey model. Mostly, art books that focus on 20th century art, and dissertations on that topic were used in this study. Data out of these sources was interpreted. Data was found by doing an analysis of the documents in this qualitative study. Discussion and conclusion sections were written by considering the searches and findings.

DISCUSSION AND CONCLUSION

For a contemporary art education, it is important to include the developments in the field of art as well as in other fields into the education process by considering contemporary approaches and to give opportunity to the use of new knowledge, thought, applications, and approaches, one of which is Land Art, in an effort to support each other. In a study in 2006, Süsoy Şimşek emphasized the importance of the issue by stating, "Changing needs of artistic productivity and consumption requires cognitive work of art to be freed from all kinds of dogmas, to be liberally criticized, designed and shaped, not to be limited by certain wording and grouping with an individualistic and conscious attitude”. Some of the artists tended towards nonpermanent production in their works of art. Because art is integrated into life. Therefore, it should be temporary and changeable just like life. As a result, it is thought to exceed the limits based on traditional techniques and understanding" (Şimşek, 2006). Land Art, which gives an opportunity to assimilate art into life, art into nature, and nature into space by getting out of traditional understanding and techniques, can be considered as a process to contribute to exceed the limits with regard to individual and art in contemporary art education. In another study on contemporary art education in 2008, Tanyolaç shares his thoughts on how to educate individuals open to novelties by stating, "Students should be provided with the freedom opportunity in such a broad perspective that they can choose the best way among a variety of options. It is significant to have a structure that is open to novelties constantly rather than having a set system in art education" (Tanyolaç, 2008). In his book, "Art From Modernism to Postmodernism", Yilmaz comments on the subject by stating "In art, 'embracing nature' instead of 'overcoming nature' means to exceed the limits of modernism. However, it is clear that this is something different from the tradition of old scenery. Because this is the transformation of scenery into nature and nature into art. This also means that everything that exists in nature becomes artistic indicators" (Yilmaz, 2006). Land Art, which is one of the movements that gives the opportunity to nature to transform into life, brings a new understanding to the nature, and as a result to the space. The contribution of the movement to the contemporary art education was analyzed with the use of samples presented through this study and obtained data.

As a result, Land-Art artists expand the space through their art works that consubstantiate nature and space. Artists reevaluate the natural layout and reinterpret with the help of technology. Generally, land-art artists spend individual efforts to convert their own pre-designed works of art to projects. By using natural materials, land-art artists

transform nature to an art space and work of art through various projects in different settings. Artists take photos or record videos of their temporary works of art, and present those at art exhibits and by doing that, the intended message is delivered to target viewers. Multi-dimensional thinking can be promoted when works of land-art designed by artists are used in modern art education. The contributions of this approach which includes existence of pattern, fact of projects, and application in practice, cannot be ignored in modern art education.

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LANGUAGE ACTS

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ABSTRACT
In this paper the basic question is how language expresses the world and things and, consequently, what vision of the world is expressed by language and what relationship it creates with the real.
The language appears as an inner dimension that is incarnated in expression giving shape to the unrepresentable; it is not merely a sum of positive elements added to each other, but a series of diachronic relations; the linguistic sign cannot be seen as having one definite, univocal meaning, but it is in the gaps and in the opposition between signs that all language becomes meaningful. Language is a constant work-in-progress, which cannot be schematized and viewed in static form. It is an equilibrium in incessant movement between signs and signs, living and dynamic, and is continually being renewed. It is about what is said: talking does not finish in what is said, but in what is said the talking is captured and held. As far as language is concerned, if it is the relation between signs that gives each sign meaning, then meaning arises from their overlapping as well as from the gaps between words; meaning lies in the verbal chain since it stands against other signs; its sense is an integral part of language; words always operate on a background of words, and it is never anything but a fold in the vast fabric of speaking. In the light of contemporary philosophical thinking, language is to be seen as a set of margins between signs and meanings, in a process of continual revelation, in a transformation of contents that generate other contents. The assumption is that in language there is something problematic, the coexistence of the logical level with the pragmatic one, in a continuous movement that cannot be stopped in signs. In this sense, it is right to call it the *unsayable, the ungraspable.* Language lives precisely *due to* and *on* this constant *aspiration* to say the unsayable, to take into oneself the ungraspable.
This is the communicative dimension in which meaning is always a *process*.
It is the situation of *a co-feeling* between subjects, in which understanding is achieved. In this paper there is the report of research about *Effects of communication* played in some schools in Lecce, that reflects these issues on plan methodological – operational.
This work is divided in three parts:
I:Reflections about language within a phenomenological approach
II. Analysis about communication in the class
III Report of research about *Effects of communication in the educational relationship.*

INTRODUCTION

The significant, like the intelligible, entails a coming to awareness which gives expression to the significations passively preconstituted in the real work carried out in the life world.
In the perspective of this argument, the communicative dimension needs to start from relations and dialogue to be able to construct the interlocutory space that leads to mutual understanding and possible agreement.
The constant presence of the relation between a communicative way of acting and the context can be seen when observing communication at school.
Communication in class is connected to asymmetric interaction, and often adopts the pedagogic aim of reducing this asymmetry. Research has shown that the teacher's communicative style can affect the pupils' behavior and their school results, which makes us think about the passage from a strictly asymmetrical interaction framework to a less rigid communicative style in which the teacher takes the role of moderator rather than director, or where there are the features of an educational relationship centred on dialogue and on processes of co-construction of knowledge. In interacting with the pupils, the teacher must offer them behavioural models on how to elaborate knowledge and how to be receptive and critical of others' ideas. The strategy of *mirroring* underpins the repetition/reformulation of questions, already expressed by some members of the group, in whom the teacher sees the potential to reopen the discussion.
The activity of mediation typical of teaching makes the child's cognitive action explicit and conscious, giving the child access to conscience and control, which will be mastered little by little. The teacher's role therefore consists of planning and coordinating the activities, encouraging exchanges, discussion, making the class into *a learning community* that can be open to the outside world.

LANGUAGE: RELATION BETWEEN ACTIVITY AND PASSIVITY

What does speaking mean? General opinion will certainly respond that speaking is the activity of the organs of speech and hearing. Speaking means phonetically expressing and communicating the impulses of the human soul. These are guided by thoughts. Using this definition of language, three things are taken for granted as being true: firstly, speaking is expressing. The idea of language as expression is the most common one. It presupposes

an inner state that is being expressed. Viewing language as expression means seeing it in its external guise, precisely in the act that explains expression as stemming from an inner state. Secondly, language is considered an activity of man. Therefore we cannot say *language speaks*, since this would equate to stating that it is language that gives man being. Seen in this light, man would be a premise of language. Lastly, the expressing done by man consists of giving the real and the unreal a presence and an image.

We talk in our sleep and when we are awake, we are always talking, even when we don't utter a word, but simply listen or read, even when we are not listening or reading, but engaged in a task or relaxing in idleness. We talk because talking is part of us (Heidegger, 1956). Speaking means expressing and communicating the impulses of the human soul, which are guided by thoughts. The word that expresses thought is already an initial intrinsic deformation of that thought, which in its unexpressed purity, would be nothing. What is expressed does not exist either, outside what expresses it, but expressing is still different from what is expressed, and cannot be confused with it. Between the word and the thought there is therefore no priority of one over the other, but mutual presupposition and a perpetual overlapping: it is at this level that the link between word and thought is actually affected by creativity. Between thought and word there has always implicitly been an original complicity that makes it impossible to separate the two dimensions, thought and expression: thought and word anticipate each other, they constantly replace each other. Every thought comes from the word and returns to it, every word is born in thoughts and finishes there. Among men, and in each of them there is an incredible flourishing of words, of which thoughts are the framework (Merleau-Ponty, 1945). If the word presupposed the thought, if speaking meant first of all accessing the object through an intention of knowledge or a representation, one would not understand why thought seeks expression as its goal, because the most familiar object seems indefinite until we find a name for it, because even the thinking subject is in a sort of ignorance of his own thoughts until he has formulated them for himself or written or said them, as is shown by the example of many writers who start a book without knowing exactly what they are going to narrate. A thought that was content to live for itself beyond the difficulties of words and communication, would fall into unconsciousness as soon as it appeared, so it would not exist even for itself.

On the basis of this definition of language three things are considered certain: speaking is expressing, language is regarded as an activity of man, and man's expressing consists of giving presence and form to the real and the unreal.

Therefore language appears as an inner dimension that is incarnated in expression giving shape to the unrepresentable; it is not merely a sum of positive elements added to each other, but a series of diachronic relations; the linguistic sign cannot be seen as having one definite, univocal meaning, but it is in the gaps and in the opposition between signs that all language becomes meaningful. Language is a constant work-in-progress, which cannot be schematized and viewed in static form. It is an equilibrium in incessant movement between signs and signs, living and dynamic, and is continually being renewed. It is about what is said: talking does not finish in what is said, but in what is said the talking is captured and held. As far as language is concerned, if it is the relation between signs that gives each sign meaning, then meaning arises from their overlapping as well as from the gaps between words; meaning lies in the verbal chain since it stands against other signs; its sense is an integral part of language; words always operate on a background of words, and it is never anything but a fold in the vast fabric of speaking.

To understand language we cannot look up some internal lexicon that will give us, for the words and the forms, the pure thoughts they should correspond to: all we need is to give ourselves to its life, to its movement of differentiation and articulation, to its eloquent gesticulation. There is therefore opacity in language: it is never interrupted to leave space for pure meaning, it is never limited unless it be by another language and its meaning is always set in words. Like a charade, it can only be understood by the interaction of signs, each of which, taken in isolation, is either unclear or banal: only together do they make sense.

The opacity of language enables us to have a language that is really able to communicate: what makes language opaque and clouds its transparency, is not a limitation of language but is in fact what makes it alive and inexhaustible. Meaning is, in a way, coextensive to language in its entirety; it is not distinguished from language but is there, totally immersed in it. At this level, there occurs something similar to what happens in painting, where rather than being *expressed* by the picture, the meaning impregnates the picture.

Language does not express a meaning, but it is actually the meaning that permeates and impregnates language, and the original dimension is a kind of huge fabric from which, like endless folds, can emerge the multiplicity of direct speech.

Construing the communicative universe therefore means giving voice to the lines that shape language from within, pushing the limits of language without completely breaking the structural constraints, to try in vain to create a kind of foreign language within one's own language. Language does not subside into a static state, being constantly pushed beyond its limits by the inner forces that give life to it. Beneath the conceptual meaning of words there is an existential meaning. Meaning is a dynamic object created intersubjectively and having a phenomenological dimension that is involved in every encounter. This is in contrast to the classical cognitive approaches that see meaning as an intrinsic property of certain language forms. Language evolves on the basis of

the transformations of the natural and social context in which they happen to live. These modifications are perceived and expressed in language, which is not a reality complete unto itself, a sort of absolute subject of forms of life and of tradition, but something closely connected to the context in which it is determined and which, thanks to its typical symbolic elaboration, it helps to determine.

We need to add another interpretative category to the three sided communication situation analyzed by Davidson, Peirce and Wittgenstein.

This is the category of common feeling. In the constitution of language as process, we can identify the space of common feeling, which is the space where one is with others in the world. But while this theoretical orientation adds to the debate the important idea of the constitution of the language process and of its situated in communicative relations, the context of analyzing the language process must be broadened and not restricted to the subjectivity of sender and receiver, since if language were locked between these two, the process itself would be objectified and limited to the relational exchange.

In the light of contemporary philosophical thinking, language is to be seen as a set of margins between signs and meanings, in a process of continual revelation, in a transformation of contents that generate other contents. The assumption is that in language there is something problematic, the coexistence of the logical level with the pragmatic one, in a continuous movement that cannot be stopped in signs. In this sense, it is right to call it the *unswayable, the ungraspable.* Language lives precisely *due to* and *on* this constant *aspiration* to say the unswayable, to take into oneself the ungraspable.

But if we move one step at a time, in language there is on the one hand its logical form and on the other hand the construction of a set of relations between the language expressions and the entities that help to make up the semantic contents of utterances. And it is in this second phase that semantics takes up what was bequeathed by ontology. In the concrete determinations inherent to the discourse, we see the inadequacy of a vision of the phenomenon of language seen as a mere system, and the need to go beyond the structuralism approach in a perspective that can account for the capacity, typical of discourse, to transcend the system in order to refer to the world.

The semantic approach therefore finds confirmation on the level of reflection where by interpreting the symbols encountered in existence, the self-interpreting subject will no longer be the Husserlian and Cartesian *cogito*, but in the words of Ricœur, an existent being that discovers (Ricœur, 1969). And this is the phenomenological dimension in which language is placed. In this phenomenological perspective we find a field of signification that is prior to any objectivity; meaning is found to originate in the phenomenological dimension of the intersubjective space.

This opens the way to going beyond idealism, beyond the subject locked in his system of signification, in order to affirm the *worldliness of man* as a living being, the boundaries of whose intentionality are the whole world. And it is precisely because using a phenomenological approach in our reasoning makes us reflect on the world and on our way of being with others, that it is useful to reflect on the world that is being referred to, in which every*thing* is not locked in on itself but is part of a context which brings many relations together into a single figure.

At the centre is the concept of *relation*, no longer in the sense of a closed circle, but seen as a movement that stays inexorably open and cannot be completed.

This is the relation between activity and passivity based on which there is a rethinking of the ontology of the Whole as *hollow fullness*, a plurality made up of finite sharing/dividing. This brings into question the clear separation between the perceiving subject and the perceived object, between the subject's activity and at the same time its passivity.

And this is the complex path leading straight back to the investigation of the world's inner relational modalities, in order to discover their interweaving with the sensitive substratum, the sediment of the world, and thus reveal the latter as a *system of equivalences* which is *already there*, prior to any explicit ideation. In other words this investigation concerns identities that are no longer the finished product, namely the clearly defined integral forms of a relation between elements that are *already given* and are confined within the borders of a pre-established, separate individuality, but identities that arise *due to* and *out of* the relation with all others. Moreover, meaning is not only experience of the world, but experience with others. This leads us to recognize the fact that every being is for the others that surround it and look at it and that its existence means communicating with others, *being-with*. This *being-with* explains why, rather than being a synthetically organized objective grouping, or a multiplicity of objects beside each other, the world is in fact a system of concordances and of inherent concordances, i.e. a network of relational exchanges all referring to each other.

The ontological inclination of this argument leads to the following analogy: just as the body also sees itself and in so doing becomes *light* revealing to the visible what is within it and achieving the segregation of the internal and external, so the word, supported by language's many ideal relations, is a certain region of the universe of meanings it is both the organ and resonator of all the others and, due to this, is coextensive to the thinkable. The word is a total part of the significations like the flesh of the visible, as it is in relation to Being through a being,

and lastly, as it is narcissistic, eroticized, endowed with a natural magic that lures other significations into its net in the same way as the body feels the world by feeling itself (Merleau-Ponty 1960).
Therefore, although it is seen as a dynamic object, what is investigated is no longer the word, but the *region* of the word. The word expands into the invisible and with it the body's belonging to being and the bodily relevance of every being are extended to semantic operations.
So in this new ontology, the linguistic process is interwoven with the interlocutor's process of consciousness. But how does language express this movement? How can the *really existing* be brought into language?
Language represents the subject's *taking* a stance in the world of its meanings and in itself holds an inner dimension, but this is not a closed and self-conscious thought. Language tries to express the drives of the real through allusions and inter weavings, multiplying the relational threads of meaning. For example for the speaking subject and for those listening to him, the making of sounds brings about a certain structuring of experience, a certain modulation of existence. The system of sounds and definite words is decentred in the discourse, breaks down and is reorganized according to a pattern that is revealed to the speaker and the listener at the very moment the communication is underway. This is the j*ourney towards language*, in which every change taking place in the language's essential words determines at the same time, the change in the way things and the world reveal themselves to man. Corresponding to the system of words, of signs forming the visible side of language, there is the invisible side, the hidden framework. Language lives of the impossibility of saying what one would like to say, it revolves around a *deep cavity* without which language itself would not exist, and having retrieved the pragmatic nature of meaning, it becomes language *in action*. And this is shown even more clearly in the *figurative sense* accompanying language: a frown, a gulp, a sigh,….give meaning to the language outside of ourselves, and transcend its rigid patterns of words. This is *visual sound*, conveyed from the sender to the receiver, in which the word becomes: the echo of the bare figure resounding in the open depths (Nancy, 2000). The word region, as an echo, is not confined to a single sound that resonates in the depths of the individual, not closed but open to receiving and recreating.
If we follow these arguments we come upon perspectives to make us reflect, leading to the redefining of the process of construing meaning through the lens of phenomenology: the symbol cannot be interpreted or reduced to a mere sign, but rather it must be acknowledged that its interpretation is unending. It is a point in the construction and development of the hermeneutical circle. Language is not exclusively an operation of the intelligence, or an exclusive motor phenomenon; it is wholly motor and wholly intelligence; it holds a very broad, complex meaning and is not reduced to the operations and systems of signification.
To paraphrase Heidegger: everything is language, insofar as it is the *abode of Being, the essence of Being;* however our relation with language is uncertain, obscure, almost impossible to express; in various ways, speaking arises from the unspoken, whether this be something not yet expressed or something that must remain unexpressed in that it is a *reality that eludes words*.
Following these thoughts we can see the interconnection between the spoken and something that eludes words: not only something that has not yet come to words, but perhaps will never be able to reach them.
The conceptual level of language, composed of figures, purely ideal conventional signs, therefore falls in a *communicative* dimension in a *network of shared actions*, which involves all the subjects participating in the conversation, and *expresses* their reciprocal *acting*, their relating to each other and *moving–towards-each-other*. In this communicative dimension meaning is always a *process*. It is the *co-feeling* situation among the subjects, in which understanding is achieved. The communicative approach has contributed to the development of the concept of language and communication. The communicative relation is an exchange not only of contents but also of semantic, grammatical or pragmatic categories or of language functions. This complex perspective takes on a relational power, in that it presupposes and suggests the relation, creating space for reflection and for the interlocutors' co-responsibility within the *place* where it is carried out.
Communication is achieved in a sliding of meanings between the interlocutors, in filigree there emerges the importance of the pragmatic side of language: to have real understanding one needs to immerse oneself in the concrete use of language, in the meaningful slipping that the interlocutors impose on terms. Consequently the origins of meaning are not to be found in a cognitive system, or in a socially isolated subject, but in an intersubjective space. We might add that the process is continuous; it is the revelation and plurality of sense, and the unswayable in the relating of experiences. Getting down to the substance of the question, there is the attempt to give meaning back to *the depth of existence.* The critical reflection that opens up tries to bring meaning down from the pedestal of individual creation to involve it in the tormented adventure of existence, in communicative intersubjectivity influenced by the context, as internalized social resources.
And it is precisely by bringing into play this type of problems that the need arises to rethink the *chiasm* between context and language in a *new way*. And this is the path outlined as an alternative to the classical cognitive approaches that conceive of meaning as the intrinsic property of certain language forms. In the light of the analysis made so far, in this system of relations, in this *relational key* – or in a system of relations in which we ourselves are held, insofar as we are made up of them - in this pre-objective framework, meaning turns out to be not a mere construct, though formed in the phenomenological experience, but in constant transformation. The

hermeneutics of the symbol is opened up, keeping phenomenology engaged in dialogue with the philosophy of thought generated by the Cartesian *cogito.* In other words, reflection and interpretation are two complementary moments in a hermeneutical journey that integrates *cogito* with the awareness that man's concrete situation is not just that of being the centre of his existence, but also of being in the world of others.
These are the philosophical implications of the conception of situated meaning.
The words, the vowels, the phonemes from an analysis that considers not just the meaning of words as concepts and terms, but also the *emotional sense* as *ways of singing the world*.
This is a communicative dimension in which signs are already themselves the meaning, and the latter is entirely absorbed in the concrete gestural-expression situated in the sender-receiver relationship. It is not the complete achievement of language that one must seek, it is not towards the determination of the weight of words, but the thought of these *fields of thought*.
The way sign systems work conveys a particular relationship with reality.
The relationship of signs finds an objective *underpinning* in the social relations between individuals and the world around them. Generally speaking, casting light on the laws of language means comparing the structural conditions of expression with the settings where it develops, with the reasons and rules of its genesis, with the multiple settings in which experience gains meaning. Once it has been verified that this deep need of semiotics matches and melds with Husserl's legitimate demand to investigate the way the life world acts as an underpinning, we have the solution to the riddle which says for man there is constantly a pre-scientific world which is pre-linguistic and pre-meaning. It is then easy to realize that this attempt at a radical foundation exhausts itself in the blind alleys of an idealistic approach, which entrusts absolute subjectivity with the extreme task of construing the meaning of the world. One achieves however an effective explanatory capacity when semiotic observation, which holds that the basis of generalization and idealization finds its roots in the typical relations that objectively take place in social life showing the articulation of language and real action. This calls into play, in other words, the real configuration of the actual work of language, making up *language acts*. Basically one can talk about producing sense only when one takes man's production into concrete consideration; man starts to make sense of reality, he places between himself and reality the intelligible-significant realm, when he triggers the dialectics of his own production. The significant, like the intelligible, entails a coming to awareness which gives expression to the significations passively pre constituted in the real work carried out in the life world. In the perspective of this argument, the communicative dimension needs to start from relations and dialogue to be able to construct the interlocutory space that leads to mutual understanding and possible agreement.

COMMUNICATION DIMENSION IN THE CLASS CONTEXT

The constant presence of the relation between a communicative way of acting and the context can be seen when observing communication at school.
The initial assumption is that interaction in teaching-learning is a construction of a shared space within which an agreement can be negotiated as the outcome of the participants' capacity to dialogue and relate (Coppola, 2008).
In this space of interlocutory co-responsibility, communication is not just competence and language event, but it is the construction of a shared meaning and *communicative action* (Habermas, 1981).
The dialogic perspective tends to give depth to things, to make them more complex. It presupposes and suggests exchange through relating. Placing dialogue at the basis of the teaching/learning process means creating, within lessons, spaces for reflection and interlocutory co-responsibility. In this context communicative competence is required in every kind of language event, in order to consider the teaching/learning process an active construction of theoretical-practical knowledge (knowing and knowing how to), of tools, values and ways of being, all the outcome of the negotiation of meanings and a reflection of the ways of being and complex dynamics that are not only personal but also socio-cultural (Coppola, 2008). The teacher's communicative style is also reflected in the choice of linguistic-cultural models. This choice should be oriented towards a plurinormative didactics; in other words it should pay attention to linguistic-cultural diversification and to the development of the ability to use the language in different contexts. In short, all behavior is communication and all communication influences behavior (Watzlawick, Helmick, Jackson, 1971).
Overall, the conversational network is characterized by a way of acting in which the actors are systematically led to: - identify the shared aims to be achieved, - understand and justify the various actions performed, - understand and influence the communicative strategies in a cooperative direction, - assimilate the most common kinds of discourse that act as constraints on the speaker's subsequent choice, - negotiate and re-negotiate purposes and aims in view of the communicative exchange, - coordinate the reciprocal actions to maintain the stability of the system of interactions, - produce a change in the initial situation by changing entrenched interpretative patterns, - elaborate new shared meanings. The teacher asks how the communicative actions expressed can be applied to school education. There is no doubt that promoting this communicative attitude must become an aim for the teacher to pursue systematically and coherently in his/her role in charge of the managing the class group. In the communicative perspective put forward here, this management becomes essentially a real task of animating the

class, where the style adopted by the teacher in relating to students or to the group is essential if certain aims are to be achieved.
The school as an institution visibly and practically takes cognitive socialization as its primary aim.
The life of the class involves a series of decisions. The teacher's intervention, which has the task of leading the group to achieve its objectives, can be placed on the level of action or of behavior to be promoted. For instance, the subject or the group is told what it must and can do: here 'can' and 'must' are functions of a hierarchically higher position, the communication network is usually one-way and is limited to situations where precise information or instructions are given, decision-making is reserved for the leader, in virtue of the expertise that characterizes him/her concerning the aim to be achieved. It therefore becomes very likely that the communication network is expressed through the participants' passivity, adaptation or opposition to this behavior. Communication in class is connected to asymmetric interaction, and often adopts the pedagogic aim of reducing this asymmetry. Research has shown that the teacher's communicative style can affect the pupils' behavior and their school results, which makes us think about the passage from a strictly asymmetrical interaction framework to a less rigid communicative style in which the teacher takes the role of moderator rather than director, or where there are the features of an educational relationship centered on dialogue and on processes of co-construction of knowledge (Titone, 1988; Orletti, 2005). The capacity to establish relations, to interact with the class group, to consciously and effectively communicate one's needs, are not only all elements at the basis of a good educational relationship, but also a competence that the educational relationship must be able to promote so that it is acquired, since it constitutes the premise for the pupils' successful participation in the training and educational contexts they will encounter in the future. The class-group is the basic structure through which the school organization pursues the institutional objectives of the "systematic, planned acquisition of knowledge, but also constitutes the domain in which individual needs are displayed, differing from institutional ones (for instance the need to have friendships, to gain prestige or to give vent to aggressiveness)" (Carli, Mosca, 1980, p. 69). The latter aspect, defined as a sub-institutional level, is a profound feature of the process of socialization and is often considered by teachers to be the area where problems are manifested in relations between teaching staff and students. On the other hand the teacher cannot always correctly understand the quantity and quality of the interpersonal relations that are set up within a class. In the gap between the perception of the teacher and the real social status of the pupils, we can identify one of the factors that has a negative effect on the construction of adequate, gratifying teacher-pupil relations. So the failure to recognize needs and the inadequate expression of needs emerging at this level can lead to a difficult, dysfunctional integration of the class-group, and consequently have a negative effect on the primary learning process. There is a vast literature that underlines the fact that the quality of the educational relationship is the indispensable seedbed for the acquisition of capacities and competences in the various areas of knowledge. This is a widely held belief among teachers, but these same teachers are not always placed in a position to gain the tools for monitoring, managing, verifying, and developing the quality of the educational relationship. While teachers on the one hand are able to perceive, often in advance, situations of uneasiness amongst pupils and with pupils, they often do not have the professional know-how to deal successfully with problems and critical aspects. Scholars seem almost totally in agreement in assigning the role of *discourse management* to teachers at all levels of schooling from nursery to secondary school, and also in underlining the essentially phonological nature of much academic teaching, not only in lectures, but also in seminar work. In the observation of a *typical* school lesson, what emerges are rigidly asymmetrical, predictable exchanges and pre-established situations, with stereotyped roles (Cilberti, Pugliese, Anderson, 2006). On the other hand it must be pointed out that interest in relating and in the communication of the class group is not usually part of the teacher's training and at any rate it is too ambitious an aim to be dealt with without an adequate documentation on these dynamics. The problem is that, more and more often, teachers today find themselves facing modes of communicating and relating that are incompatible with the structure that teachers try to give their teaching practice; there is a significant mismatch between the expected behaviors and the actual behaviors, which express apathy, disinterest, closure and at times an attitude of defiance, of intolerance, lack of respect even inside the classroom. Now, when in a strictly structured social context like that of the class we see a progressive deterioration of the relational fabric, when communication becomes ineffective, when there is the systematic defiance and criticism of the delicate relationship between the teacher's authority and the pupil's freedom, the overall balance of the fundamental teaching-learning relationship tips inevitably towards the negative side. All this is generally associated with a situation of great stress for the teachers, who find it hard to see a way out, in professional and personal terms, in their teaching practice. The pupil's distress is therefore accompanied by that of the teacher, whose function appears, not only to the teacher but also to society, to have been suddenly stripped of its usefulness and meaning. We see that when the behavior of the class group or of single pupils differs significantly from what can be called with some precision the acceptability threshold, and becomes repetitive and structured, it is the symptom of an uneasiness in the pupil/teacher relationship which must be dealt with using methods appropriate to the difficulty of the task. Essentially, we need to rely on the resources typical of the teacher's role which until now has always been played out on a mainly (if not exclusively) disciplinary plane and which today must also rely on the field of

the educational relationship. The cognitive and social aspects of learning are closely tied to the various forms of communication and cooperation existing in every class between teachers and students. Each class is a specific community, in which, while relating, the individuals construct their own linguistic and communicative tools; though they share the same language, the use to which it is put depends largely on the rules they share for producing and interpreting every communicative event. For this reason each class is the unit of analysis in which one expresses oneself and communication is studied. The role of language cannot be seen simply as a way of exchanging information: since communication actualizes a particular situation whose structure is created in the time and space shared with the other interlocutors, this time/space structure is the underpinning of intersubjectivity, which in the decentralization of viewpoints, enables a communicative universe to be constructed. Individual differences are fundamental to the processes of co-constructing knowledge but in a discussion, if they are not commented on and emphasized, they may not be noticed by the pupils. This essential task is the teacher's responsibility. Listening to and getting to know the pupils' way of reasoning is fundamental for coping with it. In interacting with the pupils, the teacher must offer them behavioral models on how to elaborate knowledge and how to be receptive and critical of others' ideas. The strategy of *mirroring* underpins the repetition/reformulation of questions, already expressed by some members of the group, in whom the teacher sees the potential to reopen the discussion.

The activity of mediation typical of teaching makes the child's cognitive action explicit and conscious, giving the child access to conscience and control, which will be mastered little by little. The teacher's role therefore consists of planning and coordinating the activities, encouraging exchanges, discussion, making the class into "a learning community" that can be open to the outside world.

The main support for this idea is to be found in Ricœur's philosophy, which holds that the symbol in written texts and speech acts *gives one something to think about* (Ricœur, 1969), since it connects the subject not only to his/her own unconscious, but ontologically to the relational universe. Every communicative exchange comes about in a frame, which, while indicating the specific rules, also allows for a constant control on the progress of the conversation, since the frames can be recognized and repeated over time, and some of them may even become actual rituals, or lead to actual constants, that is, to routines. In the specific school context, the latter are found in all kinds of classes - for instance, communication during the oral test, the giving of instructions – others are specific to the single class and make up a major part of the culture shared by teachers and pupils, regulated by the classroom contract. Discourse frames, the short sequences made up of "a single type of adjacent pairs (Do you understand?/I understand), are used systematically during the conversation. They serve to fill in over-long pauses, to gain time to think, to manage one's participation without interrupting the thematic coherence of the conversation […]. *Discourse routines* are in fact called the main organizers of teaching activity, since they direct the development and reduce margins of ambiguity; they are also shared by participants and socially acquired" (Selleri, 2004, pp. 64-65). In this picture, speech acts and behaviors have a *performative* value "by the very fact that they are used, they establish the framework of meaning underlying them as the given reality. In proposing certain teaching contents, in the act of presenting it in a certain way, the teacher is declaring what it is useful to transmit/learn, what is secondary and what needs to be explained; the teacher essentially attributes the status of event of importance to certain facts, and rejects others; in so doing he/she defines the area of semiotic reference orienting the process of interpretation (that is, of identifying as relevant, of selecting, of categorizing) which qualifies the pupil's fruition of the message, and therefore the domain of signification within which he/she is to work" (Venuleo, Salvatore, Grassi, Mossi, 2008, p.226).

Language acts are considered actions, as is shown by the theoretical work present in the examination of the philosophy of language from Wittgenstein to Habermas. Speech belongs to practical and technical actions, and is characterized by a communicative purpose. This first characterization (speaking equals acting, language equals a technique) justifies and specifies what the action must consist of from the pragmatic point of view. Though not wholly, this idea largely shares the viewpoint of Austin: using the terminology he introduced, we can call specific language acts *locutions* and call language acts locutive acts. All locutive acts have the effect of leading the agents taking part in them to irreversible compromise. The analysis of the concepts brings out the character of the network of concepts – like intention, motive, agent – called upon by action, showing that each of them draws the diversity of its significations from its uses in definite contexts and that the different contexts in turn relate them to each other, so one should speak as much about inter-signification as about signification. The analysis of propositions consists of thinking about the logical form of the utterances concerning action. We have three different senses or dimensions of the use of an utterance, or in general the use of language. Locutionary act: approximately equivalent to making a certain utterance with a certain meaning and reference, which still equates to the meaning in the traditional sense. Illocutionary act such as informing, ordering, warning, making a commitment to do something, etc., that is, utterances that have a certain force (conventional). Perlocutionary act: what we obtain or manage to do by saying something, like convincing, persuading, detaining, and even surprising and deceiving. All three of these kinds of actions are subject, clearly simply as actions, to the usual difficulties and reservations about the attempt as opposed to success, to being intentional rather than not being so, and so on. In other words the locutionary act has *meaning*, the illocutionary act has a certain *force* in saying

something, the perlocutionary act is the *obtaining* of certain *effects* by saying something. The analysis of the speech act (authors like Austin, Strawson and Searle provide the theory of *speech acts*) addresses the propositional structure, and at this level the analysis does not merely examine the reference and the meaning, but *saying which is itself doing*, that is, the illocutionary act. The unit of discourse is the utterance, which has a meaning, or an intent, and the intent is what the speaker wants to say. The sign has the function of signifying, but only discourse has the function of communicating. In other words, every discourse is performed as an event, but understood as meaning. This is possible insofar as language is the place where logic rises above psychology, and the place where logic shrinks before the postulation of a reality that makes up the ontological implication of the discourse.

The typical feature of discourse is to depict its speaker through the indicators of subjectivity. It therefore becomes possible to state that this very self-referential character of discourse admits the speaker's intention along with the force of the discourse in the field of communicability.

The intentional element comes into play when we move from what language does to what the speaker does.

Austin too stresses the speaker's self-reference. In the last lessons of *How to do things with words*, he comments that constative utterances also have a performative effect.

"The performative is not so clearly distinguished from the constative – the first successful or unsuccessful, the second true or false […]. When undertaking the task of finding a list of explicit performative verbs, it seemed that it would not always be so easy to distinguish performative from constative utterances, and so it seems useful to go back to the basic principles – to consider, starting from the bottom, in how many ways by saying something one *is* doing something, or *in* saying something one is doing something, and also *with* saying something one is doing something. And we started to distinguish a whole meaning group of "doing something" which are all included when we say, as is obvious, that saying something is in its full normal sense, doing something – which includes making certain sounds, uttering certain words in a particular construction, and uttering them with a certain "meaning" in the favored philosophical sense of these words, namely with a certain sense and a certain reference. The name I give the act of "saying something" in this full normal sense is a locutionary act, and the study of the utterances in this area and from this point of view, I call the study of locutions, or of full speech units" (Austin, 1955, p. 52).

In constatation, I make a commitment in a different way from a promise, like that of belief: *I believe in what I say*. With a constative utterance, we make an abstraction from the illocutionary aspects of the language act, and we concentrate on the locutionary ones . With a performative utterance, we pay the greatest attention to the illocutionary force of the utterance, and we make an abstraction of the dimension corresponding to facts.

In general the locutionary act, like the illocutionary act, is just an abstraction: every authentic speech act is both one and the other. It can therefore be seen that the act of locution allows the fixing in language of elements considered to be psychological: belief, desire, feeling and in general a corresponding *mental act*. This comment is important for the reference to the speaker. The idea of the speaker's intention is thus reintroduced.

It is the role of desire and belief to articulate the various meanings of *intention to*. On this line Ricœur arrives at a third sense of intention. I cannot promise without intending to produce in the other person the recognition that my utterance has the meaning of subjecting me to an obligation to do what I say.

The content of the communication therefore depends on the speakers' intentions so when a speaker makes a certain utterance, he does so with the intention of having a certain effect on the listeners through their recognition of his intention. This discourse, in the area of linguistic communication, re-establishes the connection between meaning and intention. It results in the equivalence between *meaning* and *intending*. As Ricœur argued, language is intentionally open to being because, at the constitutive level, it is a *way of being in being.* That is not to say that there is identity between language and being. Language distinguishes itself from being, since it presupposes it; in other words, there is a non linguistic basis (the non semantic) that precedes language and in which language itself is rooted.

Precisely insofar as it presupposes the ontological dimension, language can refer to the human experience in general. Or rather, it can be configured and modeled on the latter so as to reproduce it, since there is *structural identity* between the two levels. Language and the ontological plane conform in the sense that they are based on language and that on this basis there is a circular relation between experience and language. Phenomenology shows that it is being itself that gives the foundation and structure to language utterances, which incorporate this structure, and it is precisely because there is structural identity that language can refer to experience. This does not mean separating the central theme of phenomenology – all consciousness is consciousness of – from the method of phenomenology, that is, from the fact that it is an eidetic science describing experience. Experience is structured, has a sense and is therefore sayable, because it is intentional and it is always possible to explain the sense of an experience through the objectivity at which it aims.

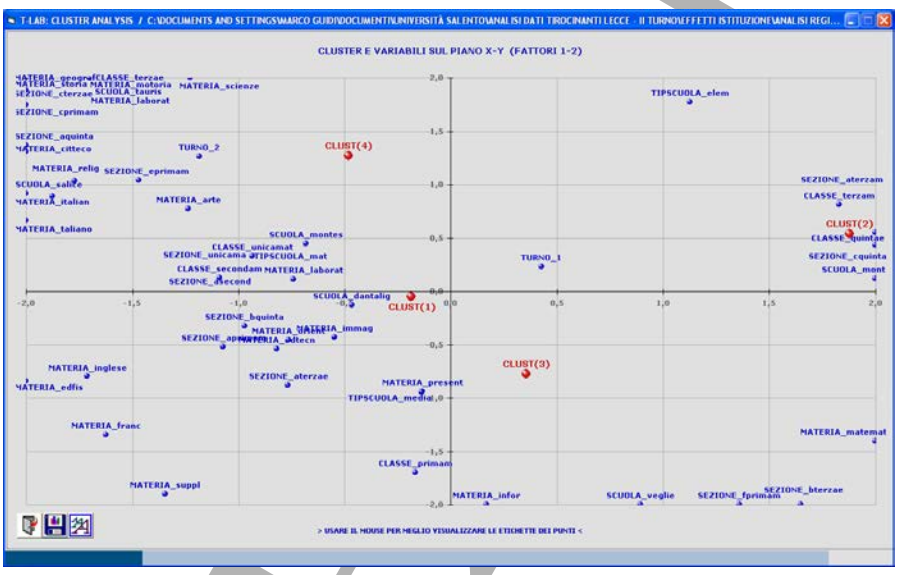
Phenomenology operates at the level of experience while linguistic analysis operates at the level of utterances. The former establishes the level of constitution, the latter the level of expression. But the two methodologies converge insofar as the work of phenomenology is based on linguistic analysis and from the latter we can discover the former.

The object perceived is already a sense unit presumed liable to be annulled during the further appearances of the object.
The following project reflects these issues on plan methodological – operational.

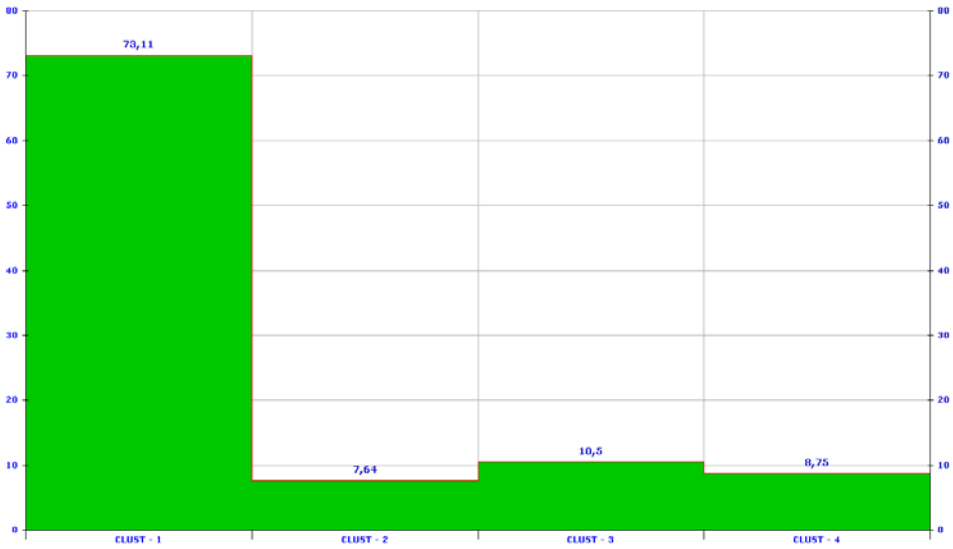
EFFECTS OF COMMUNICATION IN THE EDUCATIONAL RELATIONSHIP

Action Lines
- Registration lessons
- The sample: 19 classes (kindergarten, primary school, secondary school) for 320 hours of registration

The Analysis of emotional text (AET) highlighted the culture present in the class contexts.
The AET was conducted with the support of the T-Lab software, and allowed the evidence of four Cluster - Cultural Repertoires (RC), distributed by the Cultural Space in the following graph:



Cluster 1: Collaborative learning
Cluster 2: Learning for objectives
Cluster 3: Learning by trials and errors
Cluster 4: Instruct

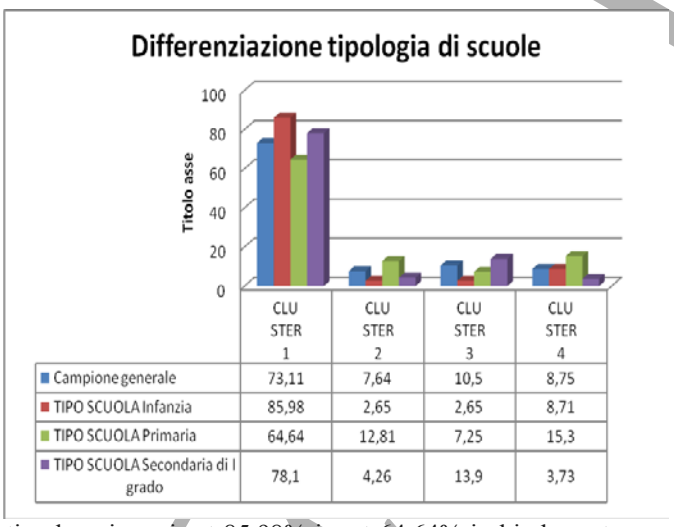


The first axis represents the relationship with the social categories

In the specific:
- with lemma refers to the representation of the vertical relationship, such as apply / know;
- with lemma refers to the product, the disciplinary contents, such as read / write.

The second axis represents the different interpretation between actors.
In the specific results:
- the educational relationship of dependency with lemma form / belong;
- the presence of the autonomy with lemma to get out.

The following graph represents the clusters in different types of schools: kindergarten, primary school, secondary school.



	CLUSTER 1	CLUSTER 2	CLUSTER 3	CLUSTER 4
Campione generale	73,11	7,64	10,5	8,75
TIPO SCUOLA Infanzia	85,98	2,65	2,65	8,71
TIPO SCUOLA Primaria	64,64	12,81	7,25	15,3
TIPO SCUOLA Secondaria di I grado	78,1	4,26	13,9	3,73

The cluster 1 - Collaborative learning - is at 85.98% in, at 64.64% in kindergarten, and at 78.1% in secondary school grade. The cluster 4 - Instruct - is present at 8.71% in kindergarten, at 15.3% in primary school at 3.73% at the secondary school. The cluster 3 - Learning by trials and errors - is present in the secondary school at 13.9% and primary school at 7.25%, at 2.65% in kindergarten. The cluster 2 - Learning for objectives – in school children at 2.65% and secondary school at 4.26%, while in kindergarten at 12.81%.

From analysis of language structures in the communication of the class context has shown that:
in kindergarten the vertical relationship is greatly limited to facilitation and coordination attitude. The time of collaborative learning is more dilated than the other times of relationship in the classroom. it develops rather positively the horizontal relationship in the exercise of the task. The teacher broadcast its expertise on class.
In primary school: collaborative learning has more weight, and now it is added with a significant percentage of the learning for objectives and whom of instructing (with a gap of almost three percentage points). A low percentage takes the experience of trials and errors. The setting built is a relatedness between assign and carry out the task, in close balance with each other, the teacher assigns, the student works (even in dynamics groups) depending on the discipline. At the same time it also gives the attitude of the produce, the measure with the learning systems and products that are independent from teacher and his policies, because the teacher can also assume a learning consultant, because he makes easy the students works.
In the secondary school: the diagram shows that more than half is related to collaborative learning, the remaining 22% (of which 13.9% learning by trials and errors) ranks representation for carrying out the task. This action of the teacher makes easy the groups works. The class interaction becomes symbolic space shared. The vertical relationship is strongly emphasized, and assumes power control, the teacher tends to define the outcome the learning process. This process is oriented to the realizing of students objectives.

CONCLUSION

This research has show that there is meaning before language. *Lebenwelt* is the experience that precedes language. It is reached through an operation carried out *in* and *on* language in the form of retracing via questioning which enables language in its entirety to find its foundation in what is outside language.
Language contains the reference to something different from the self.

Phenomenology shows that it is being itself that underlies and structures language utterances, which incorporate this structure, and it is precisely because there is structural identity that language can refer to experience.
The language of action construes meaning not in a situation of observation, but precisely insofar as it informs action in the transaction process that develops between two agents. For this reason the interplay of question and answer in which the concepts of intuition and reflection take on meaning, is not where protocols are expressed. But analyzing ordinary language reveals that languages construe meaning, even without constatation and without entailing verification There is, therefore, sense, not only in constatation, but also in all illocutionary acts, just as there is illocution in a constatation. Giving an order or making a promise is to say something about something, but to say it in the imperative or in the future indicative etc.
Ricœur argues that the crux of meaning lies in taking the other person into account. The relation between wills, in conflict or in collaboration, is important for any strategy. Action is always in fact a way of behaving in relation to another person, of regulating one's own game against the other's game.
At this level language works by *family resemblances, overlapping,* and *digressions.* This is the *wisdom of language*.

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LEARNERS' VIEWS ABOUT A COURSE OFFERED VIA DISTANCE EDUCATION

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Thanks to the innovations of online learning and its addressing the needs of modern societies, these is a huge demand for online learning from in-service education of industries and businesses to higher education. It can be said that learners prefer mostly online courses because of the variety in learning objects and useful tools like discussion boards, which are absent in traditional educational environments.

The purpose of this study is to investigate the views of students, who took an online course in undergraduate level, about online learning. This online course was designed in accordance with instructional design models.

Application stage of the research took a semester (14 weeks). In this process the online course was given completely distant. There was not any face-to-face lesson. At the end of the semester, face-to-face semi-structured interviews were performed with students. Findings of the study were interpreted according to Diffusion of Innovations Theory and Uses and Gratifications Theory.

As a result of the interviews conducted with the learners, students expressed their positive opinions about online learning by indicating the factors such as it offers flexible learning environment, it contains elements enhancing motivation, it enables the learners to communicate easily with the instructor, instructors can give feedbacks on time, students can get the course materials easily.

Keywords: Innovation; distance education; online courses; online learning

LEARNING FACTORY MORPHOLOGY – STUDY OF FORM AND STRUCTURE OF AN INNOVATIVE LEARNING APPROACH IN THE MANUFACTURING DOMAIN

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ABSTRACT

In academia and industry learning factories are established as close-to-reality learning environments for education and training in the manufacturing domain. Although the approach and concept of existing learning factories is often similar, orientation and design of individual facilities are diverse. So far, there is no structured framework to describe Learning Factory approaches. In the paper a multidimensional description model is presented in form of a morphology which can be used as a starting point for the structuring and classification of existing Learning Factory application scenarios as well as a support for the development and improvement of Learning Factory approaches.

INTRODUCTION

The intensifying consideration of action- and experience-based concepts for competence development in the field of education and vocational training results in an observable range extension of close-to-reality learning and teaching environments. While so called *Learning Factories* for education of future production engineers are leading the way, educational strategies for other occupational sectors also adapt the idea of learning factories, such as the chemical and pharmaceutical industry (Wüst, 2011) or the service sector (Hammer, August, 28th, 2014).

Since there is no globally accepted definition for learning factories as an educational facility and no consent on the associated terminology, existing institutions which characterize themselves as such vary a lot, e.g. with regard to the available infrastructure, the underlying didactical concept and the level of realism. Understanding this broad range, characterizing single institutions and comparing those with one another is eased by description models. Within the third-party funded "Network of Innovative Learning Factories (NIL)" and the CIRP CWG "Learning Factories for future oriented research and education in manufacturing", a new classification scheme for Learning Factories has been developed and tested. It intends to represent elements and features holistically. Due to the large numbers of institutions involved in the process, the result also claims a high degree of universal validity.

LEARNING FACTORIES FOR EXPERIENTIAL AND PROBLEM-BASED LEARNING IN THE MANUFACTURING DOMAIN

In the past, traditional teaching methods that have been applied in the manufacturing domain were not sufficient to meet the demands of the rapidly changing environments due to inadequate implementation and transfer effects for the manufacturing target groups (Abele & Reinhart, 2011). To avoid the obstacle of trainings

being too abstract and far away from real manufacturing problems, manufacturing appropriate learning environments have been created in which self-learning processes can be initiated and moderated. In recent years, this approach has been implemented in industry and academia in form of learning factories (Abele et al., 2015). Depending on the perspective, learning factories are

- highly complex learning environments that allow a high-quality, self-contained competency development (teaching learning perspective) or
- idealized replicas of industrial value chain sections in which informal, non-formal and formal learning can take place (operational perspective) (Tisch, Hertle, Abele, Metternich, & Tenberg, 2015).

(Abele et al., 2015) give a short overview of the history of the Learning Factory approach from the early implementations at the Penn State University (Jorgensen, Lamancusa, Zayas-Castro, & Ratner, 1995; Lamancusa, Jorgensen, & Zayas-Castro, 1997; Lamancusa, Zayas, Soyster, Morell, & Jorgensen, 2008) over new Learning Factory variations especially in Europe (Abele, Cachay, Heb, & Scheibner, 2011; Wagner, AlGeddawy, ElMaraghy, & Müller, 2012) to the establishment of the Initiative of European Learning Factories (founded in 2011), the Network of innovative Learning Factories (NIL, worldwide, founded in 2013, funded by the German Federal Ministry of Education and Research through the German Academic Exchange Service (DAAD)) and the CIRP Collaborative Working Group on "Learning Factories for future oriented research and education in manufacturing" (CIRP CWG, worldwide, started in 2014). The understanding of the system Learning Factory in this article is based on discussions inside and the first results of the CIRP CWG on Learning Factories (Abele et al., 2015). The detailed description model presented in section 3 is developed in close cooperation with the NIL and the CIRP CWG.

EXISTING DESCRIPTION MODELS

Several classification and description models have been disseminated for the purpose of allowing a feature-based delineation of learning factories during the last three years (Initiative on European Learning Factories, 2012; Steffen, Frye, & Deuse, 2013b; Tisch et al., 2013; Wagner et al., 2012). They primarily use the heuristic procedure of morphologic analysis and either focus on particular technical aspects or at least hide out the didactical and pedagogical dimension.

Great asset of the morphological analysis (Zwicky, 1966, 1989) as a method for describing complex systems such as a Learning Factory is the integration of all significant features and characteristics and their potential attributes (Metternich, Abele, & Tisch, 2013). Thus, a picture of learning factories both holistic and generic can be drawn while at the same time a particular Learning Factory can be classified, allowing a simplified illustration of the correlations between all existing options to conceptualize a Learning Factory and the specific design of the actual Learning Factory that is being analyzed.

(Steffen et al., 2013b) present a morphology-based model that covers three contentual dimensions: operation model, target group/metrics and equipment. Thereby, the model is able to also describe framework conditions and information that do not necessarily concern the actual capability building process.

Additionally, (Steffen, Frye, & Deuse, 2013a) appended a didactics-focused description model that is making use of the same technique, but systemizing targets and contents of teaching and learning processes, design of the teaching situation and the organizational framework.

(Wagner et al., 2012) developed a classification tool for learning factories based on a decision table that retrieves information solely regarding the changeability of learning factories. It distinguishes between first- and second-order parameters: The first-order parameters prove if a certain change-enabler is true to the Learning Factory. If that is the case, the second-order level describes how this change-enabler is realized technically.

(Tisch et al., 2013) show a comparatively compact typology displaying a variety of Learning Factory parameters as the result from a survey of ten institutions that are part of the European Initiative on Learning Factories.

LEARNING FACTORY MORPHOLOGY

The developed description model of this paper is based on the definition and the dimensions of learning factories identified in (Abele et al., 2015):

- Operating Model
- Purpose and targets
- Process
- Setting
- Product
- Didactics
- Metrics

Since learning factories are evolving further as a result of new research findings in the educational context or due to emerging technology that has an impact on training needs, also description models need to be adapted or even extended constantly. Therefore, the CIRP CWG on learning factories as well as the project Network of Innovative Learning Factories (NIL), at the same time developed and validated a multi-dimensional description model. It can serve as an orientation in the design of a new Learning Factory as well as a tool for delineation of existing learning factories. As a compilation of features and characteristics that represent an academic consensus, the description model has a direct effect towards further standardization of the Learning Factory idea. Basically, learning factories are developed based on an underlying purpose through intended definition of curricula, equipment and a didactic model. For the description model developed, 59 single characteristics in seven dimensions were identified. Then, respective attributes have been developed and elaborated for each.

Part 1: Operating Model

Today's learning factories are mainly operated by academic institutions (Abele et al., 2011; Hummel, Schuhmacher, & Ranz, 2014; Reinhart, Schnellbach, Hilgert, & Frank, 2013; Sihn & Jäger, 2012) or profit-oriented operators, namely consulting firms (Hammer, August, 28th, 2014) and big industrial companies (mainly in the automotive industry (Herrmann & Stäudel, 2014; Oberthuer, 2013; Werz, 2012), but also in other sectors (Wüst, 2011)). In the non-profit oriented sector, a variation of the Learning Factory concepts is common in vocational schools (Zinn, 2014).
To operate a Learning Factory, it is not sufficient to have the sole Learning Factory equipment. Learning Factories create values in developing competencies over all hierarchy levels along the value chain in various technological and organizational fields. In order to not only built-up, but also continuously operate and improve the Learning Factory, it has to be linked with a sustainable operational model including financial, personnel and thematic quality/sustainability.
Learning factories must be financed initially (to build up the facility) and continuously (to enable the ongoing operation of the Learning Factory). For both types, internal, public and third party (company) funds from short to long term funding are possible for learning factories. As an important form of financing training programs can be offered on the market in open models (club model or course fees) or can be designed for individual companies.
Personal and organizational aspects play an important role in the quality of the Learning Factory concept. In addition to the technical expertise the Learning Factory staff requires didactic competence for the development and the moderation of trainings or the coaching of trainees. Suitable personnel (research assistants, engineers, etc.) must be recruited and developed.

1.1	**operator**	academic institution			non-academic institution					profit-oriented operator		
		university	college	BA	vocational school / high school	chamber	union	employ-ers' asso-ciation	indus-trial network	consulting	producing company	
1.2	**trainer**	professor	researcher		student assistant	technical expert / int. specialist		consultant		education-alist		
1.3	**develop-ment**	own development			external assisted development			external development				
1.4	**initial funding**	internal funds			public funds			company funds				
1.5	**ongoing funding**	internal funds			public funds			company funds				
1.6	**funding continuity**	short term funding (e.g. single events)			mid term funding (projects and programs < 3 years)			long term funding (projects and programs > 3 years)				
1.7	**business model for trainings**	open models						closed models (training program only for single company)				
		club model			course fees							

Figure 1: Learning Factory morphology part 1: Operating model

Part 2: Purpose and targets

In order to classify a system as "Learning Factory", learning in some sense has to be part of the concept. Following this, either education and/or vocational training (learning in the sense of competency development) and/or research (learning in the sense of innovation) is/are the main purpose(s) of a Learning Factory. As additional secondary purposes industrial production, demonstration and technology transfer, advertisement for production and testing are possible.

For the education and training various target groups in heterogeneous or homogeneous constellation and targeted industries may be addressed in learning factories. Also numerous fields of subject relevant learning content can be identified in existing learning factories, for an overview see also (Micheu & Kleindienst, 2014).

2.1	**main purpose**	education	vocational training	research												
2.2	**secondary purpose**	test environment / pilot environment	industrial production	innovation transfer	advertisement for production											
2.3	**target groups for education & training**	pupils	students: bachelor	students: master	students: phd students	employees: apprentices	employees: skilled workers	employees: semi-skilled worker	employees: unskilled	employees: managers: lower mgmt	employees: managers: middle mgmt	employees: managers: top mgmt	entrepreneurs	freelancer	unemployed	open public
2.4	**group con-stellation**	homogenous	heterogenous (Knowledge level, hierarchy, students+employees, etc.)													
2.5	**targeted industries**	mechanical & plant eng.	automotive	logistics	transpor-tation	FMCG	aerospace									
		chemical industry	electronics	construction	insurance / banking	textile industry										
2.6	**subject-rel. learning contents**	prod. mgmt & org.	resource efficiency	lean mgmt	auto-mation	CPPS	work system design	HMI	design	Intralogistics design & mgmt						
2.7	**role of LF for research**	research object	research enabler													
2.8	**research topics**	production management & organization	resource efficiency	lean mgmt.	auto-mation	CPPS	change-ability	HMI	didactics							

Figure 2: Learning Factory morphology part 2: Purpose and targets

Part 3: Process

In the third dimension "Process" of the description model potential system boundaries of learning factories regarding the product, factory, technology and order lifecycle (Bauernhansl et al., 2014) are described. Furthermore processes and functions are described in detail regarding the material flow, the process type, manufacturing organization, the degree of automation, manufacturing methods and technology.

3.1	**product life cycle**	product planning	product development	product design	rapid prototyping	manufacturing	assembly	logistics	service	recycling
3.2	**factory life cycle**	investment planning	factory concept	process planning	ramp-up				main-tenance	recycling
3.3	**order life cycle**	configuration & order	order sequencing	production planning and scheduling					picking, packaging	shipping
3.4	**technology life cycle**	planning	development	Virtual testing					main-tenance	moderni-zation
3.5	**indirect functions**	SCM	sales	purchasing	HR	finance / controlling	QM			
3.6	**material flow**	continuous production	discrete production							
3.7	**process type**	mass production	serial production	small series production	one-off production					
3.8	**manufact. organization**	fixed-site manufacturing	work bench manufacturing	workshop manufacturing	flow production					
3.9	**degree of automation**	manual	partly automated / hybrid automation	fully automated						
3.10	**manufact. methods**	cutting	trad. primary shaping	additive manufact.	forming	joining	coating	change material properties		
3.11	**manufact. technology**	physical	chemical	biological						

Part 4: Setting

The dimension "Setting" describes the represented learning environment and its features. The original idea behind the learning factories involves a physical factory environment where participants can experiment and explore. Here life-size and scaled-down (miniaturized) factory environments are observed, see e.g. (Abele, Tenberg, Wennemer, & Cachay, 2010; Festo Didactic, 2014). In addition to this, learning processes can involve virtual and digital representations of value adding chains (Sivard & Lundholm, 2013). The Learning Factory concept also enables good opportunities for blended learning programs, where the physical Learning Factory serves as an application scenario and a place where participants can meet (Tisch et al., 2015).

According to the definition, a Learning Factory includes more than one single work station (Abele et al., 2015) – a whole factory (or even a factory network) may be part of the learning environment. Flexibility and changeability are important requirements for this factory environment since trainees must be able to remodel it. Like in a regular factory IT-support is possible before (CAD, CAM, etc.) and after (ERP, MES, etc.) the start of production (SOP) as well as after the production phase (CRM, PLM).

4.1	**learning environment**	purely physical (planning + execution)	physical LF supported by digital factory (see line "IT-Integration")	physical value stream of LF extended virtually	purely virtual (planning + execution)
4.2	**environment scale**	scaled down		life-size	
4.3	**work system levels**	work place	work system	factory	network
4.4	**enablers for changeability**	mobility	modularity	compatibility	scaleability	universality
4.5	**changeability dimensions**	layout & logistics	product features	product design	technology	product quantities
4.6	**IT-integration**	IT before SOP (CAD, CAM, simulation)	IT after SOP (PPS, ERP, MES)	IT after production (CRM, PLM)		

Figure 4: Learning Factory morphology part 4: Setting

Part 5: Product

The product is a functional instrument in every Learning Factory and has to support the knowledge transfer through its inherent characteristics. In contrast to the regular product design process, the product used in a Learning Factory is either chosen intendedly from existing products on the market or is even developed specifically for the objected use (Metternich, Abele, & Tisch, 2013; Tisch et al., 2015; Wagner, AlGeddawy, ElMaraghy, & Müller, 2014). For this particular case, (Wagner et al., 2014) provide a development procedure for Learning Factory products. The product has an impact on the complexity of learning scenarios and their duration. It is also one driver of operational costs and affects efforts for maintaining and administering a Learning Factory. While most Learning Factories use dismountable products for repeated usage, some facilities also merchandise the Learning Factory production output after trainings, see e.g. (Kreimeier et al., 2014).

5.1	**materiality**	material (physical product)		immaterial (service)		
6.1	**competence classes**	technical and methodological compentencies	social & communication competencies	personal competencies	activity and implementation oriented competencies	
6.2	**dimensions learn. targets**	cognitive	affective	psycho-motorical		
6.3	**learn. scenario strategy**	instruction	demonstration	closed scenario	open scenario	
6.4	**type of learn. environment**	greenfield (development of factory environment)	brownfield (improvement of existing factory environment)			
6.5	**communication channel**	onsite learning (in the factory environment)	remote connection (to the factory environment)			
6.6	**degree of autonomy**	instructed	self-guided/ self-regulated	self-determined/ Self-organized		
6.7	**role of the trainer**	presenter	moderator	coach	instructor	
6.8	**type of training**	tutorial	practical lab course	seminar	workshop	project work
6.9	**standardization of trainings**	standardized trainings	customized trainings			
6.10	**theoretical foundation**	prerequisite	in advance (en bloc)	alternating with practical parts	based on demand	afterwards
6.11	**evaluation levels**	feedback of participants	learning of participants	transfer to the real factory	economic impact of trainings	return on trainings / ROI
6.12	**learning success**	knowledge test	knowledge test	written	oral	practical	none

Figure 6: Learning Factory morphology part 6: Didactics

Part 6: Didactics

An integral component of every Learning Factory concept is "Didactics". Beyond describing the learning outcomes and competence classes addressed, the methods used and the surrounding conditions to achieve those outcomes are detailed. Although learning factories per definition focus on action-oriented, also teacher-centered teaching methods may be incorporated in the overall concept. It should be kept in mind, that competencies generally are developed in an alternation of thinking and doing, while both elements are essential (Aebli, 1994).

Part 7: Metrics

Ultimately, a metrics section describes quantitative figures easily ascertainable such as floor area size, average number of participants per trainings or the number of full time researchers assigned to the Learning Factory. It is supposed to give the user of the description model better vivid perception of physical and operational extent of the Learning Factory analyzed.

7.1	no. of participants per training	1-5 participants	5-10 participants	10-15 participants	15-30 participants	>30 participants
7.2	no. of standardized trainings	1 training	2-4 trainings	5-10 trainings	> 10 trainings	
7.3	aver. duration of a single training	< 1 day	1-2 days	3-5 days	5-10 days	10-20 days	> 20 days
7.4	participants per year	< 50 participants	50-200 participants	201-500 participants	501-1000 participants	> 1000 participants
7.5	capacity utilization	< 10%	10 – 20%	21 – 50 %	51 – 75 %	76 – 100 %
7.6	size of LF	< 100 sqm	100 – 300 sqm	300-500 sqm	500-1000 sqm	> 1000 sqm
7.7	FTE in LF	< 1	2-4	5-9	10-15	> 15

Figure 7: Learning Factory morphology part 7: Metrics

RESULTS AND OUTLOOK

The presented description model, compiled by seven morphological boxes, integrates all scope areas relevant for characterizing a Learning Factory for education in the manufacturing domain. Through the high number of involved partners in the international development and testing process, it can not only be considered the most comprehensive description model for learning factories existing, but also the most generally accepted. Thereby, it is a contribution towards standardization and standard assurance in the Learning Factory context. Since further dissemination of the Learning Factory concept and thereby the set-up of new facilities are expected in the years to come, also some new distinction criteria may arise as a by-product of the evolvement. Thus, this description model is not a static construct but will be questioned consistently with regard to actuality and integrity and updated or expanded whenever necessary.

As a first next step, a web-based platform that allows operators of existing learning factories to assess their concept with the help of the presented morphology will be established. The platform will also serve as an information database for those who seek to identify a facility with certain desired features and thereby facilitate forging new contacts and creating new partnerships for Learning Factory operators and interested parties.

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LEARNING ISLAMIC ARCHITECTURE ON A STUDIO PROCESS

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ABSTRACT
Belong the students of architecture faculty the most un-liked lectures are most probably the history of architecture lectures.
Most probably, it is because students do not like to memorize the historical knowledge related with the history of architecture lectures.
To eliminate this, on the history of Islamic architecture lecture, selected important mosques and religion complexes of the Islamic geography were chosen as the basic examples with Topkapi Palace and Aya Sophia. By three different modelling methods dimensional forms of these selected historical buildings were shown to students in the classroom and some discussions were made with them. Thus, the paper will have this process.

Keywords:history, past, historicity, historicism, architecture

1.INTRODUCTION: 3 dimensional modelling methods

Architecture education has not only project studios related with image creation of the praxis side of the field, but also has typical basic theory classes such as history of architecture. Generally it is seen that students do not like to attend to history of architecture classes because they do not want to memorize historic references. Not only to have more attention from the students and make lectures more interesting, but also to show the details of the historical buildings better 3 dimensional modeling has been selected as the basic method of the Ottoman history lecture.

2. 3 DIMENSIONAL MODELLING ON ARCHITECTURE

On architectural 3 dimensional modeling there are three main methods. These are:

1. 3 dimensional hand drawing perspectives;
2. 3 dimensional digital drawings;
3. 3 dimensional concrete models.

3. 3 DIMENSIONAL HAND-DRAWING PERSPECTIVES

This is maybe the oldest method of the praxis. There are many different type of making 3 dimensional perspectives however axonometric, diametric, isometric and cavalier perspectives are the most known and most used ones on architecture.

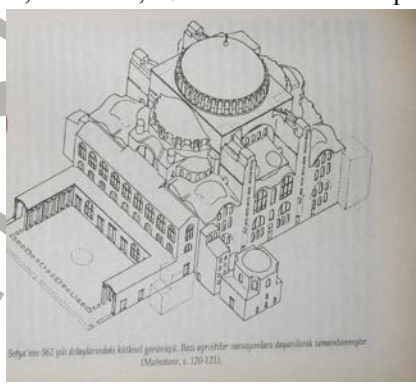

Fig.1. The conjectural image of Aya Sophia from the year around 562 (Mainstone, pp.120-121)

4. 3 DIMENSIONAL DIGITAL DRAWINGS: PERSPECTIVES

On the contemporary architecture praxis there are many digital computer programs to make 3 dimensional perspectives. Sketch-up, 3 D Max studio, All plan, Solid Works, Rhino, Revit and V Ray are the most popular ones.

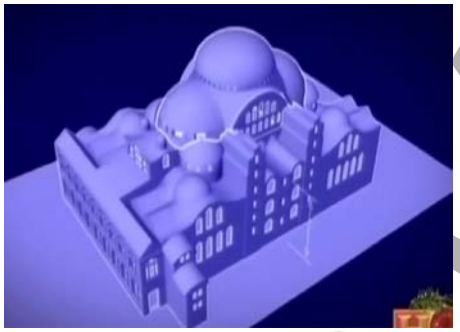

Fig. 2-3. Some Examples of digital 3 dimensional modeling of historical buildings, (a) History Channel,……(b) Nicola Parisi, ….

5. 3 DIMENSIONAL HARD MODELLING

This is also one of the most oldest 3 dimensional model-making methods of the architectural praxis too. The most well known material for this method is wood. On the contemporary architecture praxis with wood new materials such as metal types, corian, alucobond, etc. are mostly used

Fig. 4. The hard 3 dimensional modeling of Topkapi Palace, Topkapi Palace Second Courtyard, Istanbul, 2015.

Fig. 5. The hard 3 dimensional modeling of Topkapi Palace, Topkapi Palace Second Courtyard, Istanbul, 2015.

5. CONCLUSION

Working in a classroom with 80 students in Islamic Period architecture lecture, especially discussing the dome supporting structures of Ottoman Mosques with those 80 students by using 3 dimensional drawings and models could give us % 90 more sucess then the other years before. It is seen that students can understand dome supporting structures better by using of the 3rd dimensional drawings and models then only seeing some regular pictures of mosques. Thus, they can imagine better the space organization and thus they can use these informations on their future space creations.

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LEARNING OF A SHORT FORM OF AUTOGENIC TRAINING AND ITS INFLUENCE ON PSYCHIC AND SOMATIC FEELINGS AND ON COPING WITH STRESS IN DEPRESSIVE INPATIENTS

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ABSTRACT
The goal of this pilot study was to teach depressive inpatients a short form of Autogenic Training (AT) consisting of the first two formulas: heaviness and warmth of limbs, within 5 days and to examine psychic and somatic feelings and effects of coping with stress. 12 comparable depressive female and male patients took part in this study. 6 patients attended AT and the other 6 participated on an unspecific relaxation. At the beginning and at the end oft the study they had to complete 3 questionnaires: Beck-Depressions-Inventar, Änderungssensitive Symptomliste and Streßverarbeitungsfragebogen 120. The results showed that the AT-group benifited much more than the controlgroup for their health.
EK-Number: 21-200 ex 09{10

INTRODUCTION

Autogenic Training (AT), by the German psychiatrist and neurologist J.H. Schultz, is an autosuggestive specific relaxation method (2010). It consists of 7 basic exercises. By means of single, quiet, imaginary formulas, different body parts should be brought unintentionally and autonomously to a psycho-physiological relaxation. Krampen (2013) generally distinguishes between two categories of relaxation in everyday life by having them divided as unsystematic relaxation treatments and as systematic relaxation techniques. The unsystematic relaxation treatments include activities such as napping, watching television and so on, which allow individuals a sense of well-being in their recovery phase. But there are many disadvantages in these applications. For example, a low stability, often quite a volatile and a short-lived relaxation effect. Also, the effect is quite individual especially in the experience of relaxation. Empirically, they are not systematically checked. In contrast, relaxation procedures such as Autogenic Training are of a high stability. They show good short, medium and long term effects especially with regular use. These effects relate to the balancing of the psychological and physiological relaxation response (Hoffmann, B 2012). Above all, they have been empirically tested with many people. This shows that the relaxation experience, which is systematically brought to individuals by learning a relaxation technique in detail and is not caused by a random effect, is repeatable and, therefore is a major advantage to the onset of conscious relaxation. This advantage is not only felt in healthy people, but also proves to be quite beneficial for the sense of well-being in depressed persons, as described in the literature. Stetter (2002), for example, could show in his meta-analysis of clinical outcome studies that AT has a positive influence on the non-clinical mild to middle depressive patient group, who waited for psychotherapy compared with a waiting group who didn't take part in AT. The results of this study from 1999 Krampen (2013) suggested a combination of a single psychotherapy with AT which was found to be better than a single psychotherapy without AT for the therapeutic outcome of depressed patients. In agreement with Stetter, based on the study of Krampen (1999), Morgan and Jorm (2008) confirmed about 38 different kinds of treatments on people with depression and the positive effectiveness of AT as well. Some decades back Völkel (1965) pointed out some important aspects of AT for depressed people. Following Schultz, the founder of AT, he underlined the difficulty of the confusing diagnostic connotations of the term depression for AT at that time. So both of them used for their case vignettes mainly patients with symptoms of a „depressive Verstimmung", i.e., sad mood. Thus Schultz referred only to particular symptoms such as „Insomnie", i.e., sleeplessness, „Organreaktionen", i.e., organic reactions not the whole clinical picture of a depression like it is used by ICD-10 today. Völkel mentioned K. Thomas (1960), a colleague of Schultz in his article who worked with people who were tired of life. He was able to observe good results from depressed people with the use of AT in groups. On one hand, these people could free themselves from their individual isolation, on the other hand, they learned in spite of initial troubles by „Zurücknehmen" (alternatingly tensing both arms -making fists- leading both forearms with the fists to the upper arms- spreading arms and opening their hands) to lose their aggressive inhibitions at the end of AT. Völkel also underlined that depressed patients could get support from the therapist by using AT as an external suggestive method at the beginning so that the patient could develop confidence to get over his/her depression. The therapist would give him the formulas verbally. When the symptoms wore off, it would be easier for the patient to get into the AT on his own. The patient would also develop a better understanding of his/her problems and by experiencing peace and quiet could distance himself/herself to the depressive disorder.This should help the patient from experiencing a „Pfropfdepression" , i.e., an additional sadness described by Frankl (1959). In agreement with Völkel, there are actually no contraindications for depressed patients learning AT, provided that

a sufficient concentration and motivation is present. He stressed that especially in the presence of a reactive depressive mood, AT can lead by way of improving individual symptoms towards a more relaxed attitude and consequently, towards the improvement oft he bodily well-being. At the same time this can lead to an increase in ones mental resonance capability. Later studies, (Farnè and Gnugnoli 2000, Farnè and Jimenez-Muñoz 2000 and Bühler 2005), dealt specifically with the change of the mental state under the influence of AT, clearly could find beneficial improvements after completion of the AT courses. Bühler (2005) could find, depending on the personality trait „neuroticism“ among other things, a decrease in depression awareness during and at the end of the AT course in individuals in a clinic for outpatients. These findings were consistent with Vökel‘s earlier assumptions. (These patients suffered, according to ICD-10, either mild depressive episodes (F32.00), dysthymia (F34.1) moderate occurance of agoraphobia (F40.0), mild social phobia (F40.1), mild anxiety disorder (F41.1), mild anxiety and depressive disorder (F41.2), mild of longer depressive reactions (43.21), mild anxiety and depressive reactions (F43.22) and moderate occurence of neurasthenia (F48.0).).. Krampen (2013) found in his study in 1991 a decrease in the tendency towards depression as well. He describes a reduction of psychological and psychosomatic symptoms, an increase of positive change in their own experience to relax and in their state of health through participation in the AT. Goto et al. (2009) reported in a clinical case study the succes of a woman with hearing problems and major depression using AT and antidepressants. A psychophysiological study by Huber and Cramer (1990) showed that participants in a student population on AT had different relaxation reactions. So the relaxation response was in some cases accredited to the heart rate, while others in the relaxation phase reacted strongly with electrodermal and electromyographic activity.There were also participants who showed no psychophysiological responses and participants who produced a sympathetic activation instead of a relaxing effect. These results were not related to personality traits, which were measured with the Minnesota Multiphasic Personality Inventory (MMPI-Saarbrücken, 1963). It was, therefore, assumed that the subjective state of health measured by the psychological self-assessment questionnaires is not accompanied by psychophysiological findings. However, Schlamann et al. (2006) could find significant differences in the cerebral excitement in fMRI with AT-skilled to AT non-skilled in the first two basic exercises of AT in specific cortical areas. Due to the specific cortical activation findings, Schlamann et al. concludes, that the AT using a type of auto-suggestion actually has an "organic" effect. A study by Neuser and Kemmerling (1998) dealt in detail with the implementation of an abridged form of AT. They assume that students often suffer from attention disorders and for the achievement of physiological and / or psychological relaxation effects, according to Krampen and Ohm (1985), it is not necessary to learn the entire basic exercises of AT. This might just be an advantage for people with depressive symptoms, who often suffer from concentration problems. Many studies deal with the cause of the emergence of depressive symptoms. Frequently stress was investigated as a trigger. Frederic et al. concluded in 1977 that depressive symptoms correlate closely to social stressors specifically marriage and parenting. Depressive symptoms increased in proportion to the number of social stressors, which was an important finding for the consulting activities. Tennant (2001) emphasizes a relationship between job stress and the development of depression between 1980 - 1999. Another study of Rojo-Moreno et al. (2002) compared non-depressed patients with depressed. They found that the depressed had been exposed to significantly more frequent stress in the past 12 months. So they concluded that stress events are a major factor in the development of depression. Farabaugh et al. (2004), as well, found in their study that patients suffering from atypical depression experienced significantly more frequent stress than those patients who did not have atypical features of depression. In addition, it was found that patients with major depression and anger attacks had clearly more stressful experiences in their lives, than patients without anger attacks. Also non-specific symptoms of stress at work that have occured in prior can trigger a manifest depression, emphasized Unger (2007). Risk factors for the onset of stress that can lead to mental health disorders in the workplace were interpersonal conflicts at work, high demands in the job with low social support, change in workschedules, discrepancy between required workload and its recognition by the company, as well as insufficient job security. Even high levels of subjectively experienced stress, which is characterized by uncontrollability, unpredictability and flooding of stimuli and a low self-esteem causes stress in the work and leads to an increase in depressive symptoms (Lee, 2013).In a recent major study by Seib et al. (2014) about stress, lifestyle and the quality of life in older women in Australia, they could show that older women in critical life events, such as natural disasters, etc., where they felt helpless and scared, had a significantly higher BMI and significantly more chronic diseases (heart disease, strokes, breast cancer, diabetes, arthritis and osteoporosis). Prolonged stress also led to the development of depressive states and insomnia. According to the transactional stress model of Lazarus R. (1984), a person can appraise a situation, - a stress situation - negatively. If there is a negative appraisal and the situation is considered threatening, the coping strategies, depending on existing personal resources, were used correspondingly poorly. The following study of Lytwyn et al. (2000) was able to prove that the AT, on some coping measures, clearly had a positive impact on the participants during the course. For example, there was a decrease in the search for social support, which suggests a better self-competence and an increasing autonomy. Other negative coping strategies decreased as well (e.g. social isolation and aggression a product of uncontrolled emotion) under the influence of AT. The psychic and somatic state through the significant decrease of physical,

mental and pain load also proved very beneficial for the participants of AT compared to participants in a painting course as a control group. From these results, it turns out to be very important to examine more closely individual effects of AT in hospital patients who are suffering from depression. There are few clinical studies on the effect of AT in depressed patients but according to the study by Huber and Cramer, individually specific response patterns were observed. This study was limited to the first two standard exercises, - heaviness and warmth in the limbs- within a short learning phase. This study emphasizes that depressive individuals who have difficulty with the first exercise „heaviness of limbs“ should move on quickly to the next standard exercise „warmth of limbs“ so that they can benefit from the combination of both exercises as soon as possible. The length of hospital stay, taking into account medical needs, must also be kept to a minimum due to high costs. Therefore, the aim of this study is to examine the mental and somatic effectiveness in teaching a shorter form of AT to inpatients towards the end of their stay, while they are experiencing a mild depressive state.Another reason for this study is a lack of experimental research work of the influence of AT on coping with stress in depressive inpatients. So in this study, the psychological effect of AT will also be measured by the quality of coping with stress strategies, which were often seen as the cause in the development of depressive symptoms in people.

METHOD

Subjects

For this pilot study, voluntary adult depressed female and male inpatients from a psychiatric hospital were used. The age was 29 – 55 years. The antidepressant medication was comparable. None of them had prior experiences in relaxation techniques. Originally they were chosen randomly, but in order to get a proper comparability between the two study groups (EG and CG), they were classified according to the severity of depression after BDI. Thus, both treatment groups reported at the beginning of the study a slight depression based on BDI. After exclusion of severely depressed persons or patients who did not participate daily, 6 people remained in each study group for the evaluation of this study.

Relaxation Training

The basic level of AT as a specific relaxation method contains 7 stages of relaxation exercises and a pre-exercise in order to receive clearance from everyday thoughts.These exercises consist of certain formulas which directly exert an increasing influence on autonomic body functions in terms of relaxation. For this pilot study, a short form of AT consiting of *Pre-exercise* using a soothing mental image*, Heaviness in the limbs* focused on the feeling of heaviness in the limbs and *Warmth in the limbs* cultivated the sensation of warmth in the limbs was used. On the other hand, the relaxed seating with closed eyes compared to the AT method is one of the non-specific relaxation techniques which does not have to be learned. The effect is extremely subjective and of variable duration.

Experimental Procedure

Prior to the experimental relaxation sessions, the patients of each treatment group had to complete several questionnaires. These questionnaires were Beck-Depressions-Inventar (BDI by Hautzinger, M et al. 1994), a self-assessment questionnaire to determine the severity of depression. Änderungssensitive Symptomliste (AT-SYM from „Diagnostisches und Evaluatives Instrumentarium zum Autogenen Training (AT-EVA)“ by Krampen, G 1991) was used to measure different psychic and somatic complaints and Streßverarbeitungsfragebogen (SVF 120 by Janke et al. 1997) to record different kinds of coping with stress strategies. The experimental procedure is presented in Table 1.

Table 1: Experimental procedure

Monday 13h	Fill out the questionnaires: BDI, SVF 120 and AT-SYM. Both groups preliminary talk about AT or relaxed sitting ATgroup: Preliminary exercise and Exercise: Heaviness in the limbs (2 minutes) Control group: relaxed sitting with closed eyes (2 minutes) Both groups: brief conversation afterwards
Tuesday 11h	ATgroup: Preliminary exercise and Exercise: Heaviness in the limbs (2 minutes) Control group: relaxed sitting with closed eyes (2 minutes) Both groups: brief conversation afterwards
Wednesday 11h	AT group: Instruction of the exercise Warmth in the limbs; Pre-exercise and both exercises Heaviness in the limbs and Warmth in the limbs (3-4 minutes). Control group: relaxed sitting with closed eyes (3-4 minutes) Both groups: brief conversation afterwards
Thursday 11h	AT group: Pre-exercise, Heaviness in the limbs and Warmth in the limbs (3-4 minutes). Control group: relaxed sitting with closed eyes (3-4 minutes) Both groups: brief conversation afterwards
Friday 11h	AT group: Pre-exercise, Heaviness in the limbs and Warmth in the limbs (3-4 minutes). Control group: relaxed sitting with closed eyes (3-4 minutes) Both groups: brief conversation afterwards Fill out again the questionnaires: BDI, SVF 120 and AT-SYM.

Data analysis

For the statistical analysis raw data and normalized standard values of the psychological questionnaires were used. Univariate analysis of variance with repeated measures (SPSS 20) and the post-hoc analysis Newman Keulstest were applied for the statistical evaluation of these data.

RESULTS

Univariate analysis of variance with repeated measures of the questionnaires of the two groups showed following results:

Performance and behavioral difficulties

A significant main effect a decrease of „Performance and behavioral difficulties“ were found in the course of 5 days ($F1 / 10 = 24.535$; $p < 0.001$). There was a significant interaction between the results of the course and the two groups ($F1 / 8 = 5.256$; $p < 0.045$). At the 1st measurement time there appeared to be no significant difference between both groups. A significant improvement was found, however, in the EG between the 1st and the 2nd measurement time ($W = 18.1$; $df = 8$, $p < 0.01$), which did not exist in the CG. The EG was clearly at an advantage by a significantly better performance compared to the CG at the 2nd measurement time point ($W = 9.51$; $df = 8$, $p < 0.05$). There was also a significant difference between the CG at the 1st measurement time and the EG at 2. measurement time ($W = 5.64$; $df = 8$, $p < 0.01$).

Problems with self-determination and control

A significant main effect with „Problems with self-determination and control“ revealed itself in the course ($F1 / 10 = 14.716$; $p < 0{,}003$) along with a significant interaction between the groups and the individual time points ($F1 / 8 = 6.541$; $p < 0{,}028$). The results of the Newman Keulstest showed also an advantage of EG by a significant decrease in „Problems with the self-determination and control“ between the two measurement time points ($W = 17.67$, $df = 8$, $p < 0.01$). There was also a significantly better performance of the EG at the 2nd measurement time point ($W = 16.07$, $df = 8$, $p < 0.01$), which is also significantly better than the results from the 1st time the measurement was taken of the CG ($W = 13.53$, $df = 8$, $p < 0.01$).

Pain loads

In order that the two groups had a similar initial position, the initial value of a patient (1.9 standard deviations above the mean) was eliminated because it was extremely high. So 5 patients remained in the EG and 6 patients in the CG. The „Pain load“ decreased significantly between the two time points ($F1 / 9 = 16.241$; $p < 0.003$). There is also a significant interaction between the groups and time. EG showed a significant decrease of pain between the 1st and 2nd time of measurement ($W = 18{,}1$; $df = 7$, $p< 0.01$).For the second time of measurement EC fared significantly better than CG. EC clearly suffered less pain than CG ($W = 13{,}53$; $df = 7$, $p < 0.01$) at the

2nd measuring point. There was also a significant decrease of pain between CG 1st measuring point in time and EG 2nd measurement (W = 16,07; df =7, p < 0.01).

Downplaying
There was a significant interaction between the groups at the 2nd measuring point in time (W = 11.77; df = 8, p < 0.05) in "Downplaying". The EG clearly outperformed the CG.

Other results showed that both groups had a significant increase in positive symptoms and stress management measures as well as a significant decrease in negative mood and of negative coping strategies. The individual results are shown in tables 2, 3 and 4.

Table 2: Means from BDI of both measuring times from EG and CG at the beginning and the end with presentation of the p-values of the univ. analysis of variance with repeated measures in the course of time and between groups over time.

	EG (x̄)		CG (x̄)		Time (T1/T2)	Time x Group
	T1	T2	T1	T2		
BDI	16,66	5,6	18,66	14,16	p < 0,008**	p < 0,193

x̄ : mean; T1: measuring time 1, T2: measuring time 2, Time (T1/T2): Values between course of time and between both groups, p < 0,001**, p < 0,05*, Te: Tendency

Table 3: Means from AT-SYM of both measuring times from EG and CG at the beginning and the end with presentation of the p-values of the univ. analysis of variance with repeated measures in the course of time and between groups over time.

	EG (x̄)		CG (x̄)		Time (T1/T2)	Time x Group
	T1	T2	T1	T2		
Physical and mental exhaustion	75,83	52	69	58,66	P < 0,000**	P < 0,063 Te
Nervousness and inner tension	70,16	49,83	71,16	59,33	P < 0,003**	P < 0,323
Psycho-physiological dysregulation	63,83	51,33	63,5	59,33	P < 0,002**	P < 0,069 Te
Performance and behavioral difficulties	70,5	49,16	69	61,16	P < 0,001**	P < 0,045*
Pain load	60,16	46,33	61,16	58,33	P < 0,003**	P < 0,040*
Problems of self-determination and control	69,83	51,5	69,16	65,5	P < 0,003**	P < 0,028*
Total value	70,83	51,5	72,5	63,5	P < 0,000**	P < 0,084 Te

x̄ : mean; T1: measuring time 1, T2: measuring time 2, Time (T1/T2): Values between course of time and between both groups,p < 0,001**, p < 0,05*, Te: Tendency

Table 4: Means from SVF 120 of both measuring times from EG and CG at the beginning and the end with presentation of the p-values of the univ. analysis of variance with repeated measures in the course of time and between groups over time.

	EG (x̄)		CG (x̄)		Time (T1/T2)	Time x Group
	T1	T2	T1	T2		
Trivialisation	38,83	43,83	39,16	43,16	p < 0,106	p < 0,487
Play down	39,83	48,66	40,83	36,83	p < 0,378	p < 0,034*
Devensiveness	44,16	55,5	46,66	48,66	p < 0,143	p < 0,292
Deflection	47,5	51,66	51,66	51,16	p < 0,351	p < 0,460
Substitute satisfa.	38,83	42,66	49,83	49	p < 0,363	p < 0,169
Selfaffirmation	41,66	51	51	52	p < 0,045*	p< 0,095Te.
Relaxation	40,83	55	42,53	48,83	p < 0,009**	p < 0,244
Situation control	40,33	51,83	43,5	47,66	p < 0,009*	p < 0,158
Rection control	53,66	52,5	47,33	45,33	p < 0,603	p < 0,890
Pos. Self-instruct.	37,66	47,83	42,66	45,33	p < 0,163	p < 0,400
Soc. Support needs	47	57,33	47	51,83	p < 0,009**	p < 0,268
Avoidance	52	62,5	53	59	p < 0,648	p < 0,416
Flight	60,16	55,33	65,16	61	p < 0,153	p < 0.911
Soc. Isolation	62,83	54,5	63,16	60,33	p < 0,047*	p < 0,29
Mental Retention.	64,16	53,33	62,16	58,5	p < 0,01**	p < 0,15
Resignation	62,5	52,83	60,66	58,16	p < 0,043*	p < 0,203
Self-pity	58	52,16	61,33	55,33	p < 0,004**	p < 0,959
Self-blame	60,16	50	58,16	51,66	p < 0,017**	p < 0,542
Aggression	45,33	45,66	48,16	47,83	p < 1	p < 0,789
Taking drugs	61,66	54,16	59,5	54,66	p < 0,045*	p < 0,632
Pos. Strat.	37,16	50,16	41,33	45,66	p < 0,012*	p < 0,157
Neg. Strat.	64	53,83	65,5	59,5	p < 0,016*	p < 0,474

x̄ : mean; T1: measuring time 1, T2: measuring time 2, Time (T1/T2): Values between course of time and between both groups, p < 0,001**, p < 0,05*, Te: Tendency

DISCUSSION

The results show that the group that participated in this shorter form of the AT as a specific relaxation method had a clear advantage through the decrease of some problems and difficulties against a group which relaxed nonspecifically. It also confirms the opinion of Krampen (2013) that the unsystematic relaxation method will not always be positive in actual use situations. Negative emotions often cannot be turned off and cause burdens. Krampen also pointed to the problem that the unspecific relaxation only works temporarily and shows no long term effect. Especially when people are depressed it is important to distance themselves from their negative emotions and to develop more self-confidence and hope for an independent life again. Through the deliberate attention given to the body during the AT the ability to concentrate increases. In addition the conscious physical sensations from single relaxation reactions help to distance the patient mentally from negative thoughts which promote negative feelings. The results of the shorter form of AT also confirmed that it is possible to produce relaxation effects within a shorter time span. This is a good option for depressive patients because they often suffer from concentration problems. According to Schultz, the entire feeling and experience was restricted to the physical relaxation by the AT, which leads to "organismic change" a psycho-physiological total switching or as it is called today to a relaxation response. The effects of this "organismic switching" or relaxation response cause a vegetative functional transformation of an ergotropic power state towards a trophotropic recovery state, which dissolve, for example, muscular cramps and so leads to mental self-restraint, fear reduction and a "resonance damping of emotions". The reduction in anxiety is reflected by the significant decrease in the values of the scale performance and behavioral difficulties and the scale problems in the self-determination and control at the AT students compared to participants of an unspecific relaxation in the course of 5 days. The other aspect of "resonance damping of emotions" which Krampen (2013) describes not as a general loss of feeling, but as

regulating exuberant feelings which commonly occur in a depressed state as well. Through the clearly better performance due to general decrease of negative feelings in these two scales, he saw an advantage when applying the short form of AT. These results confirm the work of Farné and Gnugnoli (2000), Farné and Jimenez-Muñoz (2000) and Bühler (2005), which showed an improvement in the mental state of the participants after completion of the AT-courses. Even with the stress management measures, the AT group shows an advantage over the control group. This may have been caused by the conscious calming effect on the muscle tone and the vascular muscle relaxation of the two exercises of AT having decreased the arousal of the autonomic nervous system, which is connected with the development of pain (Hoffmann B, 2012). This result of pain reduction with the aid of the AT is also confirmed by the meta-analysis of clinical outcome studies of Stetter and Kupper (2002), which showed that pain could be positively influenced with AT. The positive coping strategy "Downplaying", which assesses the tendency of one's reactions to stress compared to others as less or more, this was clearly higher in the AT group the 2nd time of measurement (after 5 days) than in depressive persons who participated in a non-specific relaxation method. This downplaying consequently decreased which could be due to an early hospital discharge, which could be related to a certain degree of insecurity when they soon have to shift for themselves at home. However, the better performance of AT group by a more positive outlook by means of downplaying a stressful situation could be interpreted by AT as the result of a psychological self-immobilization and better regulation of excessive feelings in the sense of "Resonance Damping of Emotions". Using a more optimistic attitude towards different demands placed on them, they can be managed more easily. Generally, both groups developed a clear increase of positive coping measures, but the AT group tended to outperform compared to the control group. Above all, if there is an observable reduction of fear by increasing the patient's composure, as it can be observed under the influence of AT, it is much easier to deal with problems (Binder H. and Binder K., 1993). Another aspect of AT, which has a very positive influence on everyday life, Sedlak (1990) refers Bartl's concept of the basic human needs for warmth, rhythm and constance, which are observable especially in times of crisis. These properties are due to the need for contact and security (receiving "Warmth" from others), the need for competence while mastering a difficult task (without his "Rhythm" being interrupted) and the need for a sence of purpose ("Constance", for example, refers to the meaning of life). Sedlak emphasizes the dialogical-communicative character of AT, which evolved from the increased "Warmth" composure brought on by relaxing. People learn that with AT when they are more relaxed, and they are more able to connect with others by letting go their "Ego". The increase in longing for more contact is due to the development of greater serenity. This points to a positive development in the communication of depressed individuals. This aspect of the communication, which is encouraged by AT, according to Sedlak, could be particularly important for depressed people to interpret stressful situations with the help of others. By consciously opening up to others using the application of the coping strategy "Downplaying" in comparison with others as demonstrated in this study, meeting and thus assessing their situation more optimisticly and thus coping with stressful situations better.

The results of this study of the learning of a short form of AT as a systematic method of relaxation in depressed inpatients have a distinct advantage over the use of a non-systematic relaxation activity, confirming Krampen's version (2013) to distinguish between systematic relaxation techniques and unsystematic relaxation activities. Since this was a pilot study with a small number of cases, further investigations with a larger sample size would be interesting to see if the results would lead to the same conclusion of the encouraging effects of a short form of AT in hospitalized depressed patients.

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LEARNING STRATEGIES: VALIDATING A QUESTIONNAIRE

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ABSTRACT
Learning strategies are paramount for students to acquire flexible knowledge intentionally.
The aim of this study was to ascertain The Riddlefatorial validity of the Learning Strategies Questionnaire for University Students (CEA-U) Cabrera, Garcia, Betancor & Blanco (2007). 332 university students participated, 284 of whom were women. Their mean age was 19.48 years.
The results of the confirmatory factor analysis and Cronbach's alphas of the instruments and the three scales: motivational, cognitive and metacognitive strategies revealed good internal consistency suggesting they are statistically valid and reliable.
The results were discussed in view of the gains of the CEA-U for psychoeducational evaluation.

Keywords: strategies; learning; students; higher learning; university;

INTRODUCTION

Scientific literature documents that learning strategies "are student-selected activities or mental operations to facilitate acquisition of the content that is directly or indirectly manipulable and that have an intentional character" (Beltrán, 1998 cit in Donaciano and Almeida, 2011, p. 286). Learning strategies are also defined as "a systematic guiding plan of school work to achieve desired objectives." (Rosario, Núñez and Pienda, 2006 cit in Donaciano and Almeida, 2011, p. 286). In a more recent perspective, learning strategies "are procedures (cognitive and behavioural skills) used by individuals during learning activities in order to ensure success of all stages. Strategies can be modified by the student in order to increase the effectiveness of learning in an activity or specific environment" (Zerbini, 2008 cit in Peixoto et al, 2012, p. 3).
Cabrera Garcia, Betancor & Blanco (2007) advocate the existence of three types of learning strategies: cognitive, metacognitive and motivational. Cognitive operations are effected through ordered thought and attention. When students do not pay attention, their awareness is disorderly with random thoughts appearing. (Csikszentmihalyi, 1999 cit in Araújo et al., 2010). Therefore, to acquire, organise and utilise knowledge, students use cognitive strategies (Ribeiro, 2003 cit in Cunha and Boruchovitch, 2012). As for metacognition, this is related to knowledge itself and the evaluation, regulation and organization of the cognitive processes themselves. According to Weinert (1987) cit in Ribeiro (2003), metacognitions can be considered cognitions of the second order: thoughts and knowledge about oneself and reflections on actions. Campione, Brown and Ferrara (1982) and Flavell (1981) cit in Davis et al. (2005) refer to metacognition either as knowledge about oneself, both about cognitive processes themselves and their modes of operation, as well as executive control involving the regulation and cognitive monitoring.
With regards to classifying learning strategies, these are also classified according to base cognitive knowledge, differentiating work processes from the text and the so-called support processes. In the first three the following are differentiated: essentialization, structuring and elaboration (Garcia, 1998 & Hernandez, 1994 cit in Cabrera, Garcia, Betancor & Blanco, 2007).
The model proposed by Ramsdem (1992) cit in Tavares et al. (2003) defines three contextual domains that influence the development of study and learning strategies: teaching, assessment and programmes. Teaching is the method used by teachers to facilitate learning, and assessment is the method used by the teacher to evaluate what has been learned. Programmes, specifically the content and the structure, format learning in each subject (Tavares et al., 2003). On the other hand, Tavares, Bessa Almeida et al (2003) cit in Donaciano and Almeida, (2011) structure learning strategies into four categories: strategies for acquiring and/or organising information

that are directed towards increasing the knowledge acquired by the student, such as underlining, note-taking, memorising key issues, revising, planning, monitoring and self-regulation; strategies to process information in order to improve understanding, including organising and exploring ideas, writing summaries and abstracts, group study and individual systematic study; strategies to assess their own learning and performance, which include: simulations and review questions to confirm learning, exam preparation behaviours, analysis of the issues, preparation of reports and organising learning from previous assessments; personal management strategies aimed at self-management of study, including managing available resources.
Research Questions:The development of learning strategies through cognitive and behavioural activities by students is paramount to the intentional acquisition of flexible knowledge which will allow its effectiveness to be increased thereby representing learning strategies. In this context, the following question emerges: what learning strategies are implemented by the students attending higher education?

THE STUDY

Problem Statement: Currently, we question the capacity of higher education meet the goals brought about by today's creative challenges, since students are incentivised to excessive amounts of memorization, to reproduction of knowledge and to routines (Csikszentmihalyi, 2007, MWilliam, 2008, MacLaren, 2012, cit in Morais et al., 2014), so that it is necessary to lay out strategies and methods of motivating learning (Milgram, 2010 Sadoghi & Ofoghi 2011 cit in Morais et al., 2014). Knowledge of the manner of learning is required in students attending higher education, and they should master it. In this sense, improvement in learning and teaching can be helped by knowledge of the students' learning styles.
Purpose of the Study: The objective of this study was to ascertain the learning strategies implemented by higher education students. To that end the University Students Learning Strategies Questionnaire (CEA-U) Cabrera Garcia, Betancor & Blanco (2007) was validated for Portuguese. Three scales were analysed, respectively: motivational strategies, cognitive learning strategies and metacognitive learning strategies.
Research Methods: The methodological psychometric validation was carried out with 334 college students in 1st and 2nd year health courses, residing in central Portugal with 284 female participants and 50 males, aged between 18 and 37, with a mean age of 19.48 years.
The data collection instrument: The original Learning Strategies for College Students Questionnaire (CEA-U) by Cabrera et al. (2007), is a self-administered questionnaire, whose aim is to gather information on learning strategies used by university students during the study period. Students are asked to report the degree to which they use these strategies. It is a Likert-type scale with the following response format: 0 – not at all, 1 – slightly, 2 – sometimes 3 – often and 4 – always. It consists of three subscales: motivational strategies comprising 27 items, cognitive strategies with 22 items and metacognitive strategies with 8 items, for a total of 57 items. In turn, these three scales are, according to the authors (Cabrera et al, 2007), a reduced version of three scales: the questionnaire on habits and motivational strategies towards study, the questionnaire on cognitive learning strategies and finally the questionnaire on control strategies in study.
The validation study began by translating the original Learning Strategies for College Students Questionnaire (CEA-U) Cabrera et al. (2007) by a native Spanish expert. It was then translated back into Spanish by a Spanish teacher. After completing these procedures, the questionnaire was adapted to Portuguese with minor modifications, which, made the text more suitable in Portuguese without changing the meaning.
In the psychometric study, the processes adopted by Cabrera et al. (2007) were replicated, and the results were subjected to factor analysis in order to consider content validity and cultural adaptation to determine if the items that constitute the original factors measure the same concepts. The internal consistency was determined by the Pearson coefficient correlation of the various questions with the overall score, determining the Cronbach's alpha, and determining the splitting coefficient or the split-half method. For Pestana & Gageiro (2014) reference values should be considered as follows: >0.9, very good; 0.8 – 0.9, good; 0.7 – 0.8, average; 0.6 – 0.7, reasonable; 0.5 – 0.6, poor; <0.5, unacceptable. For the factor analysis, we chose analysis of the main components when using varimax-type orthogonal rotation and values greater than 1. To achieve a good factor definition, it was agreed that the items or variables that have "r" correlations below 0.2 should not be considered ing the overall score when it contains this particular item (Striener and Norman, 1989).

FINDINGS

Scale of motivational strategies

Table 1 shows the mean, standard deviation and Cronbach alpha values. From the mean scores there is heterogeneity in the responses given that the mean values range from 1.46 in item 8: "When I am very active or excited, I usually use relaxation techniques before I start studying." and mean=2.87 in item 18: "I seek to feel satisfaction when I manage to learn what I have studied." Analysing the value of the correlation coefficients, we find that item 20, "When I have concerns, problems or I am very restless, I try to draw pictures or doodle to relieve tension." was eliminated because it presents a correlation below 0.20. The Cronbach's alpha values of this first evaluation can be classified from good ranging between α=0.853 and α=0.862. Carrying out a new

study of internal consistency with the remaining items, we observed a slight increase in r values as well as for the alpha coefficients. The item which best correlates with the remaining is item 17 which explains 56.2% of variability. Analysing the Cronbach's alpha values, we can classify them as good since they vary between 0.861 in item 27 – "I usually distribute difficulties in studying to resolve them 'step by step'." and 0.865 in item 1 "I feel reactions of attraction and pleasure with the material I am studying" with an overall alpha of 0.868.

Table 1: Internal consistency of the learning strategies scale

				1st assessment		2nd assessment		
	Items	Mean	SD	r	α 1[a]	r	R^2	α
1.	I feel reactions of attraction and pleasure with the material I am studying.	2.39	.628	.335	.860	.343	.238	.865
2.	When I start studying I usually concentrate intensely on studying.	2.18	.759	.277	.861	.286	.450	.867
3.	When I'm studying, I'm focused on what I'm doing; I do not like to become distracted from my goal.	2.34	.834	.336	.860	.345	.489	.865
4.	When I'm studying I'm so interested in what I'm studying that I lose track of time.	1.75	.745	.388	.858	.393	.327	.864
5.	When I'm studying and my will to do so declines or other interests or problems arise, I usually analyse the causes to reassure myself.	1.92	.836	.321	.860	.327	.283	.866
6.	When lack of will or phobia arises, I try to avoid them by imagining positive things.	2.17	.921	.481	.855	.486	.356	.861
7.	When I have little desire to study, I often consider pleasant study situations or content to get into it.	2.13	.869	.403	.856	.483	.391	.861
8.	When I am very active or excited, I usually use relaxation techniques before I start studying.	1.46	.967	.357	.859	.363	.378	.865
9.	I try to finish studying with a pleasant situation to have a good memory for the next study session.	1.51	.995	.448	.856	.446	.451	.862
10.	When I have concerns or problems that prevent me from studying, I often relate them with pleasant ideas to help me to study.	1.55	.915	.460	.856	.470	.418	.862
11.	I often relate what I will study with things I already know or experiences related to the topic that I have had.	2.51	.789	.492	.855	.495	.445	.861
12.	I often relate the topics I'm going to study with my interests.	2.49	.770	.519	.855	.526	.485	.861
13.	Before I start studying, I try to consider the importance, interest or applicability of what I'm going to study.	2.44	.842	.541	.856	.451	.438	.862
14.	I often consider the usefulness of what I'm going to study: why is it important? What will it do for me? How useful is it?	2.59	.818	.418	.857	.424	.408	.863
15.	I try to set goals for myself before studying to motivate myself, for instance, "I will be able to learn this within half an hour", "Today I will get up to page x".	2.67	.907	.435	.857	.436	.359	.863
16.	To encourage myself to study, I often reward myself if I reach a goal. For example: "If I can all of this this afternoon, I'll go to the cinema."	1.95	1.030	.407	.858	.404	.526	.864
17.	I often encourage myself with positive things when I can achieve what I has set	2.27	.883	.559	.853	.557	.562	.859

	for myself.							
18.	I seek to feel satisfaction when I manage to learn what I have studied.	2.87	.732	.376	.858	.379	.527	.864
19.	I often value success and what I've learned after studying.	2.82	.791	.445	.857	.453	.508	.862
20.	When I have concerns, problems or I am very restless, I try to draw pictures or doodle to relieve tension.	1.95	1.135	.142	.868			
21.	When I have concerns that prevent me from studying, I think about them for a while and then start studying.	2.02	.807	.328	.860	.395	.202	.866
22.	When I lack the will to study or dislike it, I often take a look at the topic to let it float around in my mind for a while to make it motivate me to study.	1.83	.866	.409	.857	.450	.320	.864
23.	When I lack the will to study, I usually develop diagrams, ideas or graphs on the subject before looking at it. This keeps me entertained and stimulates me to study.	1.84	1.021	.462	.856	.501	.412	.862
24.	When I lack the will to study or dislike it, I try to focus on the parts that are most enjoyable and simple so as to facilitate the task.	2.13	.887	.500	.855	.414	.513	.861
25.	When I have no desire to study, I start with the easiest or most attractive things in order to get into it.	2.27	.894	.411	.857	.257	.466	.863
26.	I often change activities in order to maintain interest in what I am studying.	2.07	.883	.260	.862	.499	.288	.868
27.	I usually distribute difficulties in studying to resolve them "step by step."	2.06	.820	.495	.855	.343	.302	.861

We started the factor analysis study with the 26 items by analysing the main components with Varimax type orthogonal rotation with eigenvalues greater than 1. The results of the Kaiser-Meyer-Olkin test (KMO=0.815) indicate that we can proceed with the factor analysis. In our study Bartlett's sphericity test was not taken into consideration since in large samples it leads to rejection of the null hypothesis. The factor solution obtained allowed seven factors with latent roots greater than 1 that together explain 59.9% of the total variance to be selected. Meanwhile, we found the variance ratio of each variable explained by the factors, called commonalities. Only item 27 – "I usually distribute difficulties in studying to resolve them 'step by step'." had a commonality below the 0.40 benchmark for Marôco (2014), but it was not excluded because its value was 0.393. Nevertheless, the variances chart, called Scree plots (Figure 1), indicates that 5 are the number of components to be retained in accordance with the inflection point of the curve, so that we forced the rotation to five factors.

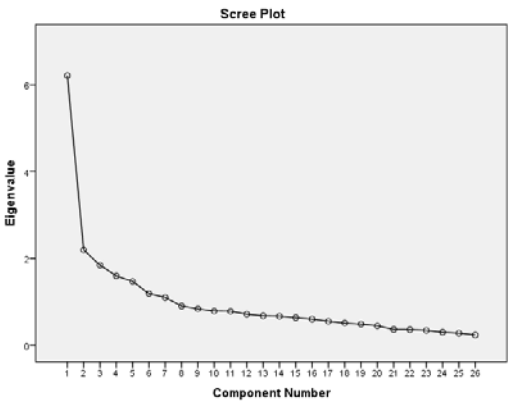


Figure 1. Scree Plots of the learning strategies scale

The final factor solution has a structure similar to the original scale with five factors that explain 51.20% of the total variance (see Table 2). Factor 1, designated self-reinforcing with a value of 3.062, explains 11.77% of the total variance and consists of items 6, 7, 8, 9, 10 and 22. Factor 2 with a value of 2.885, has items 5, 11, 12, 13 and 14, explaining 11.9% of the total variance, and was designated implication. Factor 3 with a value of 2.660 explains 10.23% of the total variance and was designated positive association. Items 15, 16, 17, 18 and 19 enter its construct. Factor 4 explains 9.32% of the total variance. It is made up of items 1, 2, 3 and 4 and was designated applicability and has a value of 2.245. Factor 5, with a value of 2.281, explains 8.77%. It was designated gradual approach and consists of items 23, 24, 25, 26 and 27. Item 21 was excluded due to a factor weight of less than 0.40. (Marôco, 2014).

Table 2: Order of the items by factor and factor weights

		Factors					
Items		1	2	3	4	5	h^2
1	I feel reactions of attraction and pleasure with the material I am studying.				0.544		.449
2	When I start studying I usually concentrate intensely on studying.				0.823		.695
3	When I'm studying, I'm focused on what I'm doing; I do not like to become distracted from my goal.				0.813		.697
4	When I'm studying I'm so interested in what I'm studying that I lose track of time.				0.621		.523
5	When I'm studying and my will to do so declines or other interests or problems arise, I usually analyse the causes to reassure myself.		0.519				.538
6	When lack of will or phobia arises, I try to avoid them by imagining positive things.	0.420					.528
7	When I have little desire to study, I often consider pleasant study situations or content to get into it.	0.497					.653
8	When I am very active or excited, I usually use relaxation techniques before I start studying.	0.810					.579
9	I try to finish studying with a pleasant situation to have a good memory for the next study session.	0.701					.701
10	When I have concerns or problems that prevent me from studying, I often relate them with pleasant ideas to help me to study.	0.645					.560
11	I often relate what I will study with things I already know or experiences related to the topic that I have had.		0.616				.521
12	I often relate the topics I'm going to study with my interests.		0.657				.584
13	Before I start studying, I try to consider the importance, interest or applicability of what I'm going to study.		0.707				.610
14	I often consider the usefulness of what I'm going to study: why is it important? What will it do for me? How useful is it?		0.688				.584
15	I try to set goals for myself before studying to motivate myself, for instance, "I will be able to learn this within half an hour", "Today I will get up to page x".			0.622			.495
16	To encourage myself to study, I often reward myself if I reach a goal. For example: "If I can all of this this afternoon, I'll go to the cinema."			0.749			.738
17	I often encourage myself with positive things when I can achieve what I has set for myself.			0.748			.710
18	I seek to feel satisfaction when I manage to learn what I have studied.			0.636			.710
19	I often value success and what I've learned after studying.			0.568			.595
21	When I have concerns, problems or I am very restless, I try to draw pictures or doodle to relieve tension.						.646
22	When I have concerns that prevent me from studying, I think about them for a while and then start studying.	0.531					.638
23	When I lack the will to study or dislike it, I often take a look at the topic to let it float around in my mind for a while to					0.456	.551

	make it motivate me to study.		
24	When I lack the will to study, I usually develop diagrams, ideas or graphs on the subject before looking at it. This keeps me entertained and stimulates me to study.	0.698	.610
25	When I lack the will to study or dislike it, I try to focus on the parts that are most enjoyable and simple so as to facilitate the task.	0.771	.703
26	When I have no desire to study, I start with the easiest or most attractive things in order to get into it.	0.673	.582
27	I often change activities in order to maintain interest in what I am studying.	0.443	.393

Confirmatory analysis

We carried out a confirmatory factor analysis (CFA) of the scales using the AMOS 22 software (Analysis of Moment Structures). We considered the covariance matrix and adopted the maximum likelihood algorithm MLE (Maximum Likelihood Estimation) to estimate the parameters. The following indicators were used as a global set of quality indicators: (i) the ratio of chi square and degrees of freedom (x /gl), evaluates the quality of the model itself. Perfect adjustment is considered if (x /gl) is equal to 1, good when it is less than 2, acceptable when it is less than 5 and unacceptable for values greater than 5. (ii) Goodness-of-Fit Index (GFI), Values or greater than or near 0.95 are recommended; (iii) Comparative Fit Index (CFI) is a comparative, additional content, adjustment to the model index, where values closer to 1 are best fit indicators and with 0.90 as a reference to accept the model. (iv) Root Mean Square Error of Approximation (RMSEA): values below 0.08 are recommended. (v) Root mean square residual (RMR) – the lower the RMR, the better the adjustment, with RMR=0 indicating a perfect fit. (vi) Standardized root mean square residual (SRMR) is an absolute measure of fit. A value of zero indicates a perfect fit and a value less than 0.08 is generally considered a good fit.

The local quality adjustment model was obtained by factorial weights (λ) and individual reliability of the items (r2). Composite reliability (CR) was also evaluated and the mean extracted variance (MEV) for each of the factors. The reference values for the factor weights are 0.50 and 0.25 for individual reliability. Composite reliability estimates the internal consistency of items for the factor indicating the degree to which these items are consistently demonstrations the factor. A CR≥ 0.70 indicates an appropriate construct reliability. The average extracted variance (AEV) evaluates convergent validity, that is, the behaviour of the items is explained by the factor (Marôco, 2014). A value of AEV≥ 0.50 indicates acceptable convergent validity.

We tested the solution by performing a pentafactorial CFA as shown in Figure 2 (a). We did not observe problems of multicollinearity and influential extreme multivariate and univariate cases according to the Mahalanobis distance criteria. We found that the contents of the CFA only had good fit for the RMSEA, RMR, and SRMR (Table 4) in the initial model. Because they have factor weights below 0.50, item 22 in factor 1, item 5 in factor 2, item 1 in factor 4 and item 26 in factor 5 were eliminated. Submitted to a new factor solution with the remaining items, the modification indices show that they should correlate in factor 1 – errors e3 vs. e5, in factor 2 – errors e7 vs. e8, in factor 3 – errors e14 vs. e15 and e15 vs. e16 and in factor 5 errors e23 vs. e25.

All regression weights are significant ($p<0.001$) and greater than ($\lambda \geq 0.50$), showing the factor's relevance in predicting the items. Individual reliability is also appropriate ($r2 \geq 0.25$) (Figure 2 c).

Table 3: Order of the items by factor and factor weights

Model	x^2/gl	GFI	CFI	RMSEA	RMR	SRMR
Initial model	3.032	0.834	0.781	0.078	0.056	0.075
Model 2	2.253	0.899	0.898	0.061	0.057	0.073

Because problems of collinearity were found with item 16 it was eliminated. The results show a good fit in the final model in all of the indices analysed (Table 4), except for the ratio x^2/gl, which is tolerable.

Table 4: Indices of model fit of the final model and the of 2nd order model

Model	x^2/gl	GFI	CFI	RMSEA	RMR	SRMR
Final model	2.181	0.904	0.903	0.060	0.053	0.070
2nd order model	1.929	0.923	0.929	0.053	0.041	0.055

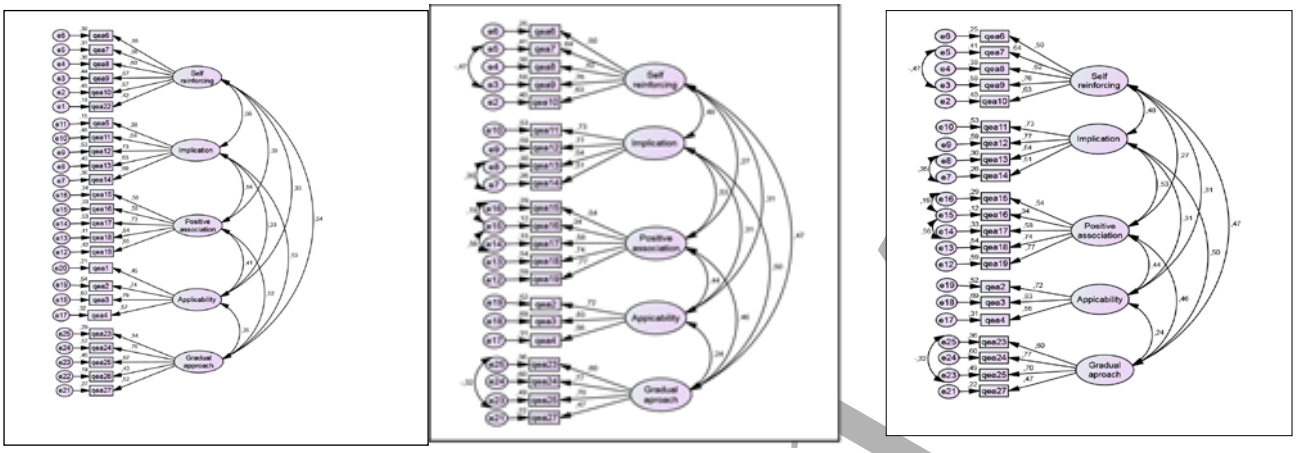


Figure 2. (a) Initial factor structure; (b) Initial factor structure with proposed modification indices; (Factor structure without item 16)

Composite reliability in presenting values above 0.70 in all factors of the scale showed a good internal consistency of the items relative to each of them. The same happened to convergent validity (VEM) that were shown to be normal, taking into account the reference values (0.40). The discriminant validity of the factors was evaluated by comparing the VEM with the squares of the correlations between the factors, yielding considerably lower results than the VEM. The existence of discriminant validity among the factors was thereby concluded.

Table 5: Confirmatory factor analysis in the motivational strategies scale

Factors	F C	VEM
Factor 1	0.769	0.404
Factor 2	0.736	0.418
Factor 3	0.753	0.438
Factor 4	0.748	0.505
Factor 5	0.735	0.417

In showing themselves to be positively associated, the correlational values suggest the existence of a 2nd order factor, such that we proposed a hierarchical structure with the inclusion of this factor, which we have called learning strategies for higher education students. Figure 4 shows the model proposed with quality of fit values considered good, which shows the factorial validity of the scale (χ^2/df=1.929; CFI=0.929; GFI=0.923; RMSEA=0.053; RMR= 0.041; SRMR = 0.55). The values are substantially better than those obtained with the first order model after we proceeded to the proposed modification indices. (Table5). Moreover, it is worth noting that by presenting a factorial weight of 00.48, item 27 was removed from the model.

For the sample under study, in the 2nd order hierarchical model, the factors: Self-reinforcing (4 items), Implication (4 items), Positive Association (3 items) Applicability (3 items) and Gradual approach (3 items) have similar standardized α values to the original scale. (Figure 3).

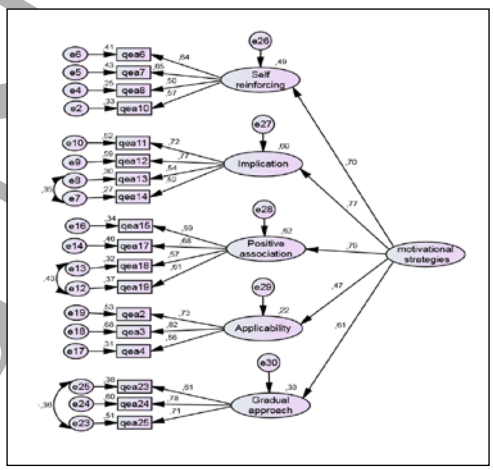


Figure 3. Factor structure with the proposed 2nd order model

Table 6: Cronbach's alpha values for the motivational strategies subscales

Subscales	No. of items	Cronbach's alpha	
		Original version	Current study
Factor 1: Self-reinforcing	4	0.70	0.686
Factor 2: Implication	4	0.73	0.757
Factor 3: Positive Association	4	0.71	0.737
Factor 4: Applicability	3	0.76	0.738
Factor 5: Gradual approach	3	0.63	0.678
Total factor	18	0.82	0.838

We concluded the study of this scale alluding to the Pearson correlation matrix established with the factors scale. We found that the correlations are positive and significant ranging from weak (r=0.223) in the relationship of gradual approach vs. applicability, explaining 49.7% of the variance, to strong (r=0.466) in relation to Self-reinforcing vs. Implication with 58.21% of the variance explained.

Table 7: Pearson Correlation Matrix between the motivational factors of the scale

Subscales	Self-reinforcing	Implication	Positive Association	Applicability	Gradual approach
Implication	0.466***	--			
Positive Association	0.319***	0.420***	--		
Applicability	0.290***	0.261***	0.317***	--	
Positive Association	0.444***	0.391***	0.393***	0.223***	--
Overall factor	0.763***	0.728***	0.706***	0.543***	0.718***

*** p<0,001

Scale of cognitive strategies

A scale of cognitive strategies consists of 22 declarative statements organized into an ordinal Likert scale with the following response format: 0 – not at all, 1 – slightly, 2 – sometimes 3 – often and 4 – always. The original scale had a factorial solution consisting of four components that explained 55.2% of the total variance. The first factor consisted of seven items representing strategies based on cognitive *essentialization* and structuring processes and is called organization. The second factor configures five items that reference the development strategies that go beyond what is in the text (for example, expand information from other sources, generate new information, among others), so that it was called Generative elaboration. The third component groups four related items to the development strategies, but which differ from the previous ones because they focus on the information found in the text, for example (linking it to prior knowledge, looking for examples, among others) and has been designated Anchoring. Finally, the last factor groups six items related to memorization strategies and has been designated memorization.

In its original version, the scale of cognitive learning strategies showed good internal consistency, since Cronbach's alpha values obtained were: for organization (0.84), Generative elaboration (0.86) Anchoring (0.75) and memorization (0.73). In the light of these results we just proceeded with confirmatory factor analysis with an estimation of maximum verisimilitude.

To analyse the data we resorted to the most appropriate statistical procedures such as:

- Distribution of items assessed by asymmetry (Sk) and flatness (Ku), eliminating all those with absolute asymmetry values greater than 3 and flatness greater than 7
- Construct validity assessed by factorial validity, convergent validity and discriminant validity.
- Quality of global fit of the factor model, conducted in accordance with the reference indices and values (as shown in the motivational strategies scale).
- Quality of local fit assessed by factor weights and the reliability of individual items. The model's fit was carried out from the change indices greater than 11 proposed by AMOS.
- Convergent validity of each factor evaluated by Mean extracted variance (MEV). The existence of convergent validity was considered when MEV was greater than 0.5 (Marôco, 2014)
- Discriminant validity of the factors assessed by comparing MEV for each factor with the Pearson correlation squared. Evidence of discriminant validity is considered when the squared correlation between the factors is less than each factor's MEV.

- The construct's reliability, assessed by composite reliability (CR), indicates the degree to which the items are consistent manifestations of the latent factor. If CR ≥ 0.7 the construct's reliability is appropriate.

Psychometric properties: construct validity and factorial validity

The descriptive analysis of the items in the cognitive strategies scale revealed that they all had a minimum value of 0 and maximum of 4 with mean scores ranging between 1.18 (0798 SD) in item 49 and 3.07 (0.878 SD) in item 29. All items had absolute asymmetry values below 3 varying between 0.008 and 0.929 and flatness values less than 7 ranging between 0.050 and 0.990. We therefore proceeded with confirmatory factor analysis. The critical ratios of the paths between the different items and corresponding factors are all greater than 1.96 and highly significant as can be seen.

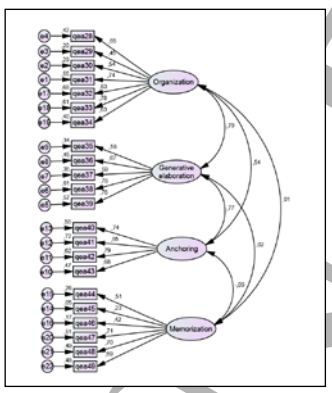
Figure 4 reproduces the tetrafactorial model tested, the correlation coefficients and the factorial structure of the scale. The circles represent the four designated factors as well as the latent variables, the rectangles are the items that represent the manifestation of the respective factor also called the manifest variables and the smaller circles are the errors associated with each item. The direction of the one-way arrows indicates that each factor reproduces a response to each item. The factors underlie the manifestation observed in answers to items, but part of that manifestation is not due to the respective factor, but to unknown causes, called the errors that represent the part of the variance not explained by the factor. The two-way arrows between the factors indicate the relationship established between themselves.

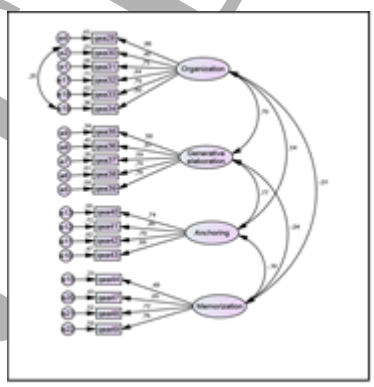
The model revealed an inadequate quality of fit in presenting the following values: $\chi^2/df = 3.117$, CFI = 0.855, GFI = 0.843, RMSEA = 0.076, RMR= 0.076, and SRMR= 0.08. We observe that the standardized coefficients range from 0.23 in item 43 and 0.85 in item 41. Because their values are less than 0.50, items 29, 45 and 46 were removed.

In the second model (Figure 5) the modification indices pointed towards the association of errors 2 and 19 belonging to factor 1, which was carried out and the indices of model fit showed more adequate values except for the ratio of the chi square degrees of freedom: x^2 /df = 2.179; GFI = 0.910 CFI = 0.935 RMSEA = 0.060; RMR = 0.049; SRMR = 0.06. Given however that items 30 and 48 showed standardized coefficients less than 0.50, we proceeded to refine the model eliminating them.

In the third and final model (Figure 6) modification indices were not proposed and the indices of model fit continue to show they are adequate except for the ratio of the chi square degrees of freedom which worsened slightly: x^2 /df = 2.268; but were better in the others which remained GFI = 0.920, CFI = 0.941, RMSEA = 0.062, RMR= 0.043, SRMR= 0.057.

Note the prevalence of significant indices with coefficients greater than 0.58 among the factors (constructs) and their observable manifestations. Each indicator also has significant factor loads in their respective factors. As for the correlations between the factors, there are significant relationships between all factors except for factor 1 (organization p=0.737) and factor 2 (Generative elaboration p=0.246) with factor 4 (memorization). That is, these factors are independent in their relationships.





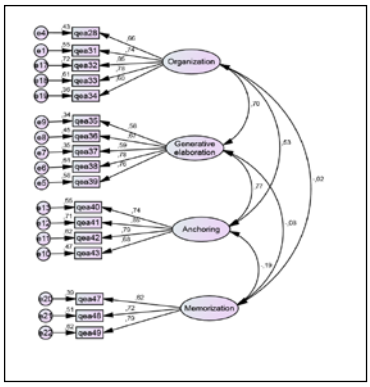


Figure 4. Factor structure1 Figure 5. Factor structure2 Figure 6. Factor structure3

Convergent validity and composite reliability

The MEV values allow us to conclude the existence of convergent validity as their indices are greater than 0.40 (reference value). The discriminant validity of the factors evaluated by comparing MEV with the squares of the correlations between the factors, do not allow us to conclude there is discriminant validity between organization and Generative elaboration and between Generative elaboration and Anchoring.

As for composite reliability, in presenting values greater than 0.70 in all of the scale factors, it showed good internal consistency of the items relative to each factor.

Table 8: Mean extracted variance and composite reliability

Factors	CR	MEV
Factor 1 – Organization	0.850	0.535
Factor 2 – Generative elaboration	0.810	0.464
Factor 3 – Anchoring	0.850	0.589
Factor 4 - Memorization	0.754	0.508

Factors F1 organization (5 items), F2 Generative elaboration (5 items), F3 Anchoring (4 items) and F4 Memorization (3 items) produce similar α values to the original scale for factor 1, slightly lower for factor 2 and higher for the other factors and overall value of the scale.

Table 9: Cronbach's alpha values for the cognitive strategies subscales

		Cronbach's alpha	
Subscales	No. of items	Original version	Present study
Factor 1 - Organization	5	0.84	0.847
Factor 2 – Generative elaboration	5	0.86	0.803
Factor 3 – Anchoring	4	0.75	0.843
Factor 4 - Memorization	3	0.70	0.751
Total factor	17	0.73	0.864

Through the Pearson correlation matrix established between the scale factors and overall factor, we found that memorization has negative and non-significant correlations with all of the subscales except with the overall factor with which it is positive and significant. In the other subscales the correlations are significant and positive, and the lowest is observed between Anchoring and organization with 21.4% of the variance explained and the highest between Anchoring and Generative elaboration with a variability of 41.6%. With the global factor over 50.0% of the variance is explained.

Table 10: Pearson correlation matrix between the factors of the cognitive strategies scale

Subscales	Organization	Generative dev.	Anchoring	Memorization
Generative elaboration	0.614***	--		
Anchoring	0.463***	0.645***	--	
Memorization	-0.012n.s.	-0.031n.s.	-0.118*	--
Overall factor	0.834***	0.866***	0.754***	0.185**

n.s. non-significant ; * p< 0.05; ** p<0.001; *** p<0,001

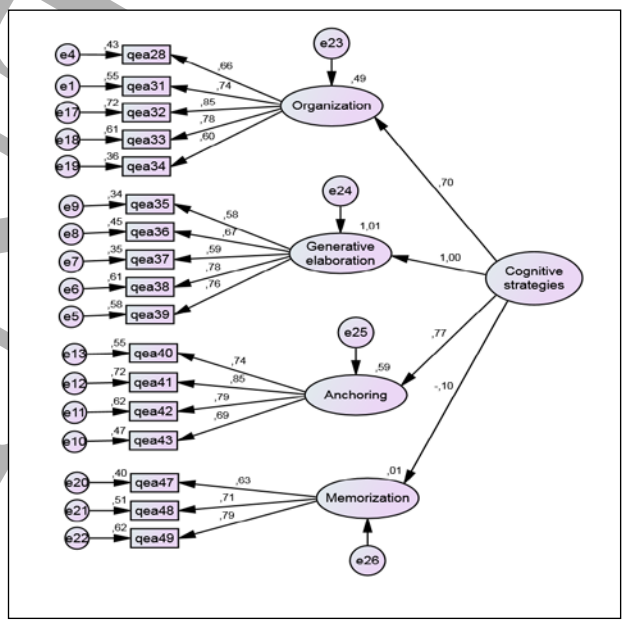


Figure 7. 2nd order model

Metacognitive Strategies Scale

The metacognitive strategies scale consists of 8 indicators organized into an ordinal Likert scale. The items are polytomic with a response format as follows: 0 – not at all, 1 – slightly, 2 – sometimes 3 – often and 4 – always. The original scale configured two factors, each consisting of four items. The first was designated planning as it refers to control strategies prior to the act of studying and explained 29% of the variance. The second was called revision, defining control strategies put into practice in the learning process as in completing study and explained 29.3% of the variance A scale showed good internal consistency with Cronbach's alpha values of 0.76, for planning and revision and of 0.81 for the overall factor (metacognitive learning strategies).

Internal consistency and factor analysis for this study

The internal consistency analysis of the 8 items showed that the mean values range from 2.13 in item 54: *"If there is something I don't understand or don't know how to do, I try not to move on until I resolve it."* and mean=2.69 in item 56: *"When I finish studying I have the habit of reviewing everything to see if I am missing anything."*; thus, they can be accepted as being well centred. Having analysed value of the correlation coefficient all of the items were found to be greater than 0.20. The Cronbach's alpha values were good in ranging between α=0.791 and α=0.839, for an overall alpha of 0.831. The item that best correlates with the others is item 53 which explains 66.3% of variability.

Table 11: Internal consistency of the metacognitive strategies scale

Items		Mean	SD	*1st Evaluation*	
				r	*Cronbach's alpha*
50.	Before I start studying, I often consider what I have to study, what activities I have to do or how much work or time study will consume.	2.35	.894	.809	.811
51.	I usually divide the task, work or study into parts, to make it easier for myself.	2.40	.863	.753	.794
52.	When I study, I usually order the different activities that have to do, telling myself, "First I have to do this and then that..."	2.51	.879	.771	.804
53.	I tend to be look ahead, calculating the time I have available to distribute it realistically.	2.36	.944	.814	.802
54.	If there is something I don't understand or don't know how to do, I try not to move on until I resolve it.	2.13	.899	.348	.839
55.	When I study, I usually continually review what I'm weaker at or where I fail in order to memorise it properly.	2.45	.803	.584	.809
56.	When I finish studying I have the habit of reviewing everything to see if I am missing anything.	2.69	.935	.519	.817
57.	When I finish studying, I try to memorise and consolidate the points I consider I'm weaker at.	2.66	.875	.537	.814

The study of the factor analysis was started through the principal component analysis with Varimax-type orthogonal rotation with eigenvalues greater than 1. The results of the Kaiser-Meyer-Olkin (KMO=0.838) indicated that we could proceed with the factor analysis. The factorial solution obtained allowed two factors to be selected with latent roots greater than 1 which explain 61.31% of the total variance. The variance chart, called Scree plots, tells us that there are 2 components to be retained in accordance with the inflection point of the curve.

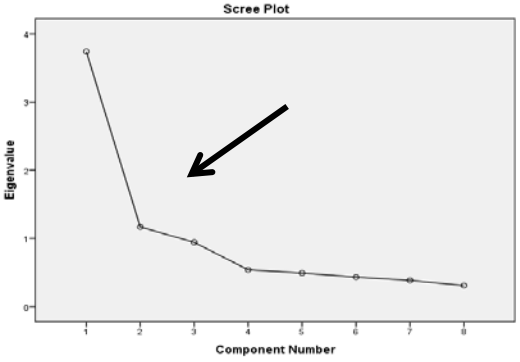


Figure 8. Scree Plots

We obtained a factorial structure equal to the original scale. Factor 1, called planning, explains 34.99% of the variance and consists of items 50, 51, 52 and 53. Factor 2, called revision, has items 54, 55, 56 and 57 and explains 26.31% of the total variance.

Confirmatory Factor Analysis

We tested the two-factor solution performing an CFA as shown in Figure 9. The descriptive statistical analysis revealed that the items did not have absolute asymmetry values greater than 3 and flatness greater than 7. In this model, the goodness and fit indices are considered tolerable because the chi square degrees of freedom and RMSEA are suitable for the remaining items (χ^2/df=3.881, CFI=0.941, GFI=0.943, RMSEA=0.093, RMR=0.049, SRMR=0.062). All of the items had significant standardized coefficients with the respective factor and greater than the reference value (0.50), except item 54, so that it was eliminated.

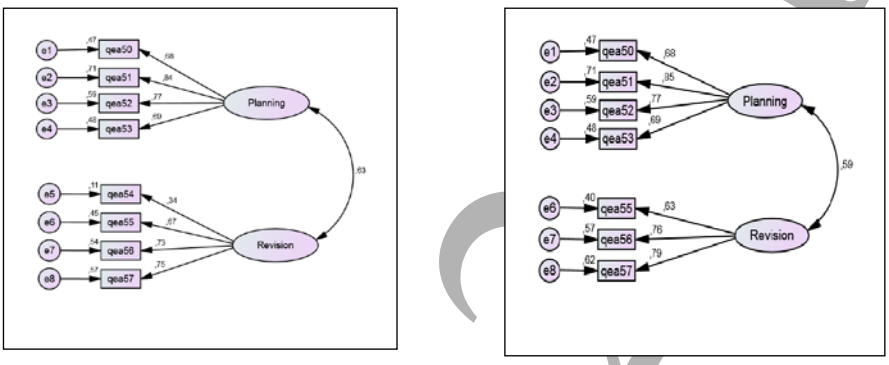


Figure 9. (a) Initial factor structure (b) Final Factor structure

Their removal, which limited the discriminant validity of the subscales, does not alter the conceptual interpretation. The final modified scale therefore shows the two dimensions. All regression weights are significant ($p<0.001$) and greater than 0.50, showing the factor's relevance in predicting items and the individual reliability is also appropriate ($r^2 \geq 0.25$). The final model has adequate fit indices except for the ratio of chi-square with degrees of freedom (see Table 12).

Table 12: Goodness of fit indices of the first and second models

Model	x^2/gl	GFI	CFI	RMSEA	RMR	SRMR
Initial model	3.881	0.943	0.941	0.093	0.049	0.062
Final model	2.375	0.975	0.979	0.064	0.035	0.045

The composite reliability was found to be adequate revealing values greater than 0.70 in both factors. This allows us to state there is good internal consistency of the items relating to each of the factors. The convergent validity (MEV) also presents normal indices since they are greater than the reference values (0.40). With regard to the discriminant validity (DV) assessed by comparing MEV with the square of the correlation between the factors, there was a lower value than the MEV, such that we concluded that there was discriminant validity (DV=0.349) among the factors .

Table 13: Composite Reliability and mean extracted variance

Factors	CR	MEV
Factor 1 – Planning	0.836	0.563
Factor 2 - Revision	0.770	0.529

Cronbach's α values of the original scale are in conformity and Table 15 shows they are slightly lower than those obtained in this study except for the revision factor that has the same coefficient.

Table 14: Cronbach's alpha values for the metacognitive strategies subscales

Subscales	No. of items	Cronbach's alpha	
		Original version	Present study
Factor 1 : Planning	4	0.70	0.831
Factor 2 : Revision	3	0.76	0.763
Overall Factor	7	0.81	0.839

The Pearson correlation matrix established with the scale's factors reveals positive and significant correlations with a value of r=0.505 between the revision and planning, explaining 25.5% of the variability. With the global factor and the subscales, the correlational values are higher with a variability above 64.0%.

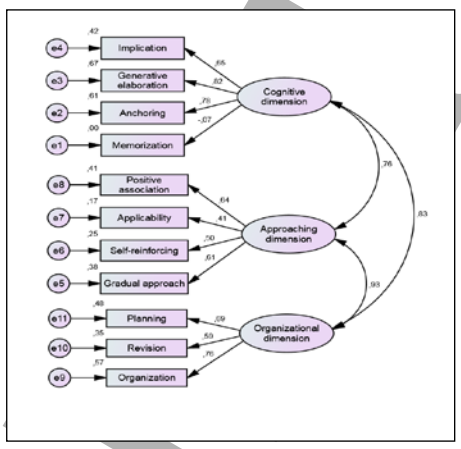
Table 15: Pearson correlation matrix between the metacognitive strategies scale factors

Subscales	Planning	Revision
Revision	0.505***	--
Overall Factor	0.907***	0.822***

*** p<0.001

Overall Confirmatory Factor Analysis

Following the procedures adopted by the scale authors, we submitted the factors resulting from each of the scales to a confirmatory factor analysis that brings together three megafactors. The first collects the factors implication, Generative elaboration, Anchoring and memorization, and was called cognitive megafactor. The second named approaching megafactor, brings together the factors gradual approach, reinforcement, applicability and positive association. The third and last named organizational megafactor consists of the organization, revision and planning factors. Descriptive analysis reveals that all of the factors had an absolute asymmetry of less than 3 and a flatness less than 7. The critical ratios of the paths between the different items and the corresponding megafactors are highly significant except for the memorization item (CR= -1.114; p=0.265) so that it was eliminated. The trifactor model tested revealed a tolerable quality of fit with the following values: $\chi^2/df = 4.808$; CFI=0.867, GFI=0.905, RMSEA=0.107, RMR=0.408 and SRMR=0.06 and with standardized coefficients of -007 in memorization (see Figure 10 A and B).



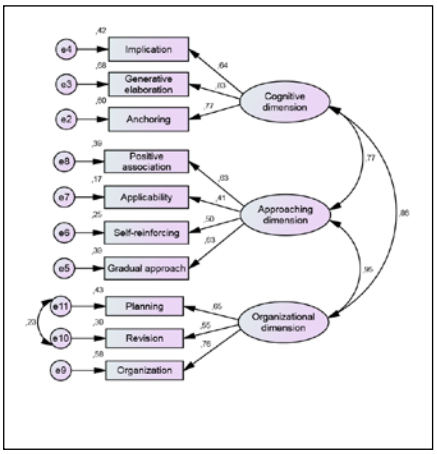


Figure 10 A The initial megafactor Figure 10 B - Megafactor without memorization

Having eliminated the memorization megafactor and proceeding to the modification indices proposed with the association of errors 10 vs. 11, the overall quality of fit of remained tolerable (see Table 16).

Table 16: Goodness of fit indices of the megafactors

Model	x^{2}/gl	GFI	CFI	RMSEA	RMR	SRMR
Initial model	4.808	0.905	0.867	0.107	0.408	0.060
Model with fit	5.012	0.918	0.892	0.110	0.388	0.054
2nd order model	5.012	0.918	0.892	0.110	0.488	0.054

All of the items of the scale showed factor weights (factor 1: λ=0.64-0.83, factor 2: λ=0.41-0.63, factor 3: λ=0.55-0.76) and appropriate individual reliability ($r^2 \geq 0.25$).
Given the correlational values between dimensions that have high positive and significant among factors suggestive of a 2nd order model, a hierarchical structure was proposed with a 2nd order factor we have called "*learning strategies*". The model modified with the 2nd order factor meant that quality of fit values remain tolerable and equal to those obtained in the first order model. (See Figure 11).

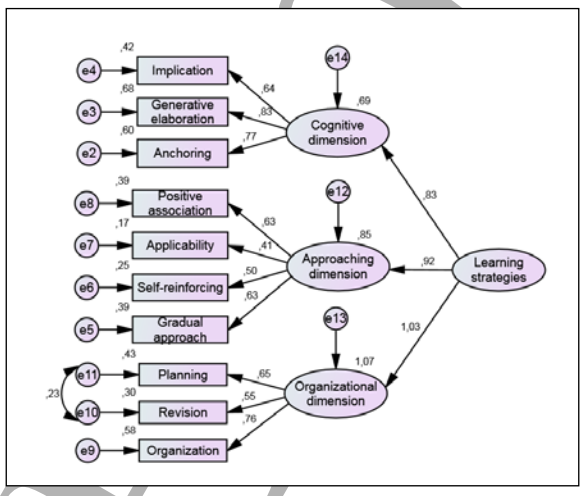


Figure 11 – 2nd order modified model

The standardized α values are 0.795 for the cognitive megafactor, 0.626 for the approaching megafator and 0.723 for the organizational megafactor with an overall alpha of 0.853, which indicate good composite reliability for the first and third factor and acceptable reliability for the second. The mean extracted variance confers adequate variance only to the first factor, leading to problems of discriminant validity in the others.

Table 17: Composite reliability and mean extracted variance and discriminant validity

			Discriminant validity	
Factors	*CR*	MEV	Factor2	Factor3
Factor1 – Cognitive megafactor	0.795	0.566	0.592	0.739
Factor2 – Approaching megafactor	0.626	0.301		0.902
Factor3 – Organizational megafactor	0.723	0.468		--

Having determined the final factorial structure of learning strategies, the results of the statistics on each of the factors are presented by megafactor and the overall value. All of the scores were the object of transformation statistics ((gross score-minimum expected score)/range)*100) in order to use the percentage as a unit of measure. Of the results presented the minimum and maximum indices are found to range between 0% and 100.0%. It is in the positive association (mean=66.42% ± 15.53) that students use better learning strategies on average, sequenced by using revision (mean=64.99% ± 17.97). The learning strategy used least is self-reinforcing (mean=45.69% ± 16.47). Analysing the results, the organizational megafactor is found to be the strategy used most by students on average (mean=59.18% ± 14.99) and the least one found is the approaching megafactor with

an average rate slightly above 50.0%. The minimum and maximum ratios are situated between 15.0% for the approaching megafactor and 97.92% in the organizational megafactor. Overall, the strategies are used on average by 55.43% of the total sample with an amplitude between 22.5% and 84.38%. The skewness and kurtosis values indicate dimensions and overall value normal distribution and variation coefficients dispersions located between moderate and high to the subscales.

Table 18: Statistics of learning strategies by factor, megafactor and overall value

Factors/Megafactors/Overall	Women		Men		Total						
	M	SD	M	SD	Min	Max	M	SD	CV (%)	Sk/error	K/error
Implication	62.98	15.58	61.12	13.61	18.75	100.0	62.70	15.30	24.40	0.120	-0.834
Generative elaboration	52.27	16.53	50.10	16.82	0.0	100.0	51.94	16.57	31.90	-1.210	0.146
Anchoring	59.48	17.25	54.87	16.036	6.25	100.0	56.95	17.13	30.07	0.135	-0.973
Positive Association	**67.25**	15.26	61.75	16.39	15.50	100.0	**66.42**	15.53	24.10	-1.548	-0.033
Applicability	52.72	15.65	49.83	16.53	0.0	100.0	52.29	15.79	30.19	-1.654	-0.530
Self-reinforcing	**45.75**	16.51	45.37	16.40	0.0	93.75	**45.69**	16.47	36.04	-0.090	-0.097
Gradual approach	53.37	18.39	**44.33**	15.47	0.0	100.0	52.02	18.25	35.08	-0.857	1.248
Planning	61.09	18.41	54.37	16.23	0.0	100.0	60.08	18.24	30.35	0.293	-0.473
Revision	65.37	18.15	**62.83**	16.93	8.33	100.0	64.99	17.97	27.65	-1.172	-0.199
Organization	56.37	18.84	47.10	17.95	0.0	100.	54.98	18.98	34.52	-0.496	1.086
Cognitive Megafactor	57.78	13.91	54.96	13.02	17.31	94.32	57.36	13.80	24.05	-0.233	-0.808
Approaching Megafactor	51.35	10.62	47.40	10.17	15.0	80.0	50.76	10.64	20.96	-0.037	0.203
Organizational Megafactor	60.19	15.07	53.45	13.30	10.42	97.92	**59.18**	14.99	25.32	0.270	0.387
Strategies (Overall)	**56.09**	11.19	51.67	10.12	22.50	84.38	**55.43**	11.14	20.09	-0.045	-0.439

The mean order showed that women use learning strategies more than men, scoring with statistically significant differences in the gradual approach strategies (p=.002), planning (p=.009), organization (p=.005), approaching megafactor (p=.028), organizational megafactor (p=.007), overall strategies (p=.017). (See Table 19).

Table 19: Mann-Whitney U test between learning strategies and gender

Gender	**Women**	**Men**			
Factors/Megafactor/Overall	**Mean order**	**Mean order**	MWU	Z	p
Implication	168.87	159.72	6711.0	-.624	.532
Generative elaboration	169.20	157.84	6617.0	-.771	.441
Anchoring	171.35	145.62	6006.0	-1.749	.080
Positive Association	171.53	144.63	5956.5	-1.834	.067
Applicability	169.64	155.33	6491.5	-.980	.327
Self-reinforcing	167.94	165.02	6976.0	-.198	.843
Gradual approach	174.44	128.10	5130.0	-3.164	.002
Planning	173.28	134.66	5458.0	-2.625	.009
Revision	169.10	158.39	6644.5	-.731	.465
Organization	173.65	132.57	5353.5	-2.785	.005
Cognitive Megafactor	170.36	151.28	6289.0	-1.289	.197
Approaching Megafactor	172.38	139.78	5714.0	-2.204	.028

Organizational Megafactor	173.48	133.55	5402.5	-2.699	.007
Overall Strategies	172.78	137.51	5600.5	-2.382	.017

The applicability strategy was largely implemented by older students (≥ 20 years), distinguishing it significantly from 18 to 19-year-olds who scored worse on applicability (F=3.756; p=.024). Second year students distinguished themselves with statistical significance from those in the first year in using positive association strategies, applicability and approaching megafactor more (see Table 20).

Table 20: T test for independent samples between learning strategies and the year of the course

Factors/Megafactors	**1st Year**		**2nd Year**		**t**	**p**
	M (%)	***SD***	**M (%)**	***SD***		
Positive Association	64.62	16.01	69.25	14.52	-2.689	.008
Applicability	49.87	15.79	55.90	15.23	-3.472	.001
Approaching Megafactor	49.54	11.15	52.73	9.56	-2.718	.007

CONCLUSIONS

The psychometric study of for Learning Strategies Questionnaire for University Students (CEA-U), sustains its validity on theoretical assumptions. In its final version this questionnaire was composed of 44 items (20 items in the motivational strategies scale, 17 in the cognitive strategies scale and 7 in the metacognitive strategies scale). This allows the implications of learning strategies to be scrutinized in the context of university students. First, the motivational strategies scale presents six factors (implication, positive association, applicability, self-reinforcing and gradual approach). The cognitive strategies scale then has four factors (organization, Generative elaboration, Anchoring and memorization). Finally, the metacognitive strategies scale has two factors (planning and revision). Because of the multiplicity of factors we performed a confirmatory analysis of the psychometric data belonging to the respective scales.

The CEA-U validation results show acceptable Cronbach's alpha values and with good internal consistency, having psychometric standards considered inadequate when values are below 0.70 (Pestana and Gageiro, 2014; Marôco, 2014; Fortin, 2009). The values obtained were as follows: motivational strategies scale α=0.838; cognitive strategies scale α=0.864; metacognitive strategies scale α=0.839 and global learning strategies scale α=0.838. From this discussion we can see that CEA-U expresses an up-to-date validation with good internal consistency, which makes it relevant for its application in a university context.

Charactering university students' learning strategies is assumed to be a basic element of planning in the teaching/learning process in the context of the methodology inherent in the Bologna reforms. This grants the CEA-U the potential for use in pedagogical practice and academic research. With this study, we found that the validation methodology carried out allowed us to infer the Portuguese version of the questionnaire has good psychometric properties. The study of CEA-U was revealed to have a multifactorial origin. These factors depend on the learning strategies that each individual adopts.

With regard to the internal consistency of the CEA-U, it can be said to be a reliable questionnaire, both in terms of first order factors as well as second order ones. It has acceptable internal consistency coefficients like many similar instruments. To this end, the various validation tests performed show credibility conditions for its use in the teaching context and psycho-educational research.

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LEARNING THE PHONETIC OF FFL BY TURKISH LEARNERS: NEED FOR SPECIFIC TEACHING MATERIALS

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ABSTRACT
This study is meant to analyze the evolution of the pronunciation problems encountered by Turkish learners of French as a foreign language at the University of Uludag from preparatory class to the fourth year of license. The first part of this study highlights the fact that the learners in question cannot be considered as generic students and that the specificities of these learners can be correlated with their pronunciation mistakes: mistakes that tend to persist and can be fixed during learning. In the second part, the lack of teaching materials in the field of phonetics for Turkish learners will be highlighted by comparing specific difficulties with books available. Finally it is shown how this study serves as a theoretical basis for a project related to the learning of phonics by Turkish learners.

Keywords: phonetic, French as a foreign language, Turkish learners, didactic material.

INTRODUCTION

In FFL teaching, communicative competence plays a major role since the birth of the communicative approach and the Common European Framework of Reference for Languages (now the Framework) (2001) in which it is called "the communicative language competence." The acquisition of this skill is proposed by the Framework in three competences (2001, p . 17-18): linguistic competence, sociolinguistic competence and pragmatic competence , all three considered in different language activities such as reception, production , interaction and mediation which can be accomplished in oral and / or written activities.

In the teaching of foreign languages, these activities refer to four basic communication skills: oral comprehension and oral production skills, and skills of reading comprehension and written production . Such differentiation of these skills facilitates the organization of the order of skills to teach and also that of teaching programs. While all skills are necessary for a good command of a foreign language, one skill stands out from the others: the competence of oral communication. The importance of this skill in language teaching is emphasized with the communicative approach in which it is addressed through the components of perception and production. The acquisition of oral communication skills through learning the phonetic which Borel (1991) underlines the importance: " To correctly identify the meaning, it must first be correctly identified the sound support. In fact, without a good phonetics, we did, in speaking, no chance to pass a message to be understood, even if the words were well chosen and if the syntax is correct. Moreover, prosody, through its intonation structures, accentual and rhythmic, provides, for the most part, the syntax orally. The meaning is accessible only if the syntax is decoded."

Hence, the need for the teaching / learning of phonological skills in a non-French-speaking environment and the need for appropriate support for the aural learners' mother tongue differ, because the difficulties are not the same for all languages.

THE PROBLEMS ENCOUNTERED BY TURKISH PRONUNCIATION LEARNERS FFL: OVERVIEW

Although the phonetic alphabet is universal for French, pronunciation difficulties in learning a foreign language vary depending on the mother tongue of the learner. In regard of a Turkish EFL learning audience, many recent research focuses on analyzing the specific difficulties.From Özçelik's (2008) research, one can summarize that the pronunciation problems Turkish students encounter is possibly because of their mother tongue

1. The relationship between spelling / sound, a category consisting of several difficulties encountered in Turkish learners are :

- the tendency to read the words as they are written ; ex : Tu as … ? → /tuα … / → [tyα …]
- the pronunciation of the dropped "e" (ə) that should not be pronounced; ex : J'entre → / ʒɑntRe / → [ʒɑ̃tR]
- the pronunciation of the dropped "e" /ə/ like the "e" oral vowels simples /e/ ; ex : je serai → / ʒeseRe /

→ [ʒ(ə)s(ə)Re]

- the tendency to pronounce the "h" silent; ex : Eh bien! → /ehbjen/ → [ebjɛ̃]
- the pronunciation of double consonants; ex : d'accord → */dakkoR/ → [dakɔ̃R]
- the correct pronunciation of nasal vowels creates problems for Turkish learners; félicitations! → /felisitasjon/→ [felisitasjɔ̃]
- the change of the phonemic structure which can be in various forms such as by adding a phoneme to create a syllable, ex : des projets → */ depıRʒɛ / → [depRoʒɛ] ;

by replacing phonemes /b/, /c/, /d/, /g/ when in syllable-final (which never happens in Turkish) by the phonemes /p/, /ç/, /t/, /k/, ex : b → p Je t'embrasse → */ ʒətɑmpRas /→ [ʒətɑ̃bRas] ;
by the omission of one or more phonemes during pronunciation, ex : travailler → /tRavaj/→ [tRavaje],
and by the substitution of phonemes, ex : On s'appelle → /onsaple /→ [ɔ̃sapel].

2. The ability to recognize words, which means that the learner read more easily and fluently the words he already knows
3. The wrong segmentation of rhythmic groups, ex : [Le chat] [est] [sur] [la chaise]
4. The intonation of interrogative and exclamatory sentences are problematic
5. Misplacement of the tonic accent due to the interference the mother tongue as the emphasis in Turkish is an increase in the intensity and not the duration and that due to the interference of English where the emphasis is lexical.
6. Sequencing; Turkish learners struggle to perform successive chains.
7. The link; Turkish learners do not respect the binding rules, including mandatory connections
8. The rhythm, the reading speed and lack of punctuation knowledge are sources of pronunciation problems among Turkish learners
9. The pronunciation / R / "uvular" is problematic but does not prevent access to meaning
10. The English language skills have influences on the French pronunciation (Özçelik, 2008, p. 206-213)

The research performed by Onursal-Ayırır (2012) about the problems of perception due to the connection with dictations shows that learners have less difficulties in the perception of words and / or phrases often encountered such as « de temps en temps », « de plus en plus », « comment allez-vous ? »…, however, to overcome difficulties in discriminating links, learners attempt to compensate their deficiencies by various methods:
1. Replacing expressions containing links with already known words, ex : « la porte est ouverte » become *"la porte tout vert"
2. Creating new words or phrases, ex. « un petit homme » → *"un petito"
3.The links "adjective + noun" masculine becomes feminine, ex. « le premier acte » → *"le première acte"
4. The addition of the letters in the case of link, ex. « elle m'a beaucoup aidé » → *"elle m'a beaucoup paidé"
5. The addition of phoneme appeared in the link, ex. « prend-il des médicaments ?» → *"Prend-t-il des médicaments ?"
6. Notwriting the unheard links (Onursal-Ayırır, 2012, p. 40-41).

To these problems of discrimination and production, may be added the problem of assimilation of successive phonemes. For example in words such as « pilule », « habitude »… where phonemes [i] / [y] are consecutives, an assimilation of the phoneme [i] is observed that comes close to the phoneme [y]. The phonemes [ʒ] and [z] in the final become respectively [ʃ] and [s].
For example, "cage" [kaː ʒ] pronounced [kaʃ] without lengthening and this refers to the verb "cacher", "age" [aː ʒ] becomes [aʃ] and means "la hache" or "hacher". The same for the [z] final, the most representative errors are "francaise" [frɑsɛː z] pronounced [frɑsɛː s] or "anglaise" [ɑglɛ: z] pronounced [ɑglɛː s]. the phonemes [w] and [ɲ] that do not exist in Turkish, so during the pronunciation of the first there is the addition of the phoneme [v], "trois" pronounced [truva] or "toilette" pronounced [tuvalɛt]. For the phoneme [ɲ] two different pronunciations can be heard; while in the word "magnifique" [maɲifik] this phoneme is pronounced [magnifik] in the word "montagne" [mɔtaɲ] the same phoneme becomes [mɔtɛjn].

RESEARCH OBJECTIVE

This research aims to analyze in detail certain difficulties encountered by our students through an analysis of the sources of error and an analysis of the degree of persistence of the types of errors; to list other error generating variables for a given phoneme in order to develop the most appropriate material to our audience, who are future teachers of FFL.

For this research, the difficulties are approached in two views: discrimination and production. At the level of the selection of phonemes analyzed, two types of phonemes have been chosen:

- Phonemes existing in mother tongue and foreign language [i]/[y]/[u]. The reason, according to Borel (1991) is that « "The sound and / or phonemes, facing in both languages seem to be identical, but there are often differences more or less apparent. Moreover, there are distribution problems: identical phonemic units may have, in both languages, different uses in the speech. There is therefore a real teacher training problem. "
- - Phonemes that do not exist in Turkish mother tongue, namely the nasal.

METHOD

Univers of the research

The universe of the research consists of four license classes of didactics department FFL of Uludag University in Bursa in Turkey and two classes of preparatory to this higher school Licensed Foreign Language of the same university.

The numbers of learners who participated in the research are shown in the table below (table 1), for a total of 146 learners with few exceptions, the first foreign language is English which they do not master at the same level.

Table 1: The number of participants

	preparatory class	License 1	License 2	License 3	License 4	Total
Number of participants	37	25	44	25	15	146

Corpus research

The experimental corpus has been made up from extracts of phonetic exercise books intended for a broad public. They are : « *Les 500 exercices de phonétique, Niveau A1/A2 »* and « *Les 500 exercices de phonétique, Niveau B1/B2 »* ofD. Abry and M.-L. Chalaron publishedrespectively in 2010 and 2011, that of C. Martins, J.-J. Mabilat « *Sons et intonation : exercices de prononciation* » published in 2004.

This corpus consists of 8 exercises of oral comprehension and 9 exercises of oral production in isolated words sentences and in texts.

FINDINGS

1. Discrimination exercises results review

Table 2 presents the results of discrimination to the phonemes [i] / [y] / [u] in single words in the first three activities, and in the fourth case in complete sentences including only one of the specified phonemes. This table allows us to observe and compare the difficulties of discriminating phonemes that exist in native language and in foreign language.

Table 2: Results of sound discrimination [i]/[y]/[u]

	1-Discrimination [i]/[y]		2-Discrimination [u]/[y]		3-Discrimination [i]/[y]/[u]		4-Discrimination [u]/[y]/[i]	
	percentage of correct answers	Percentage of errors	percentage of correct answers	Percentage of errors	percentage of correct answers	Percentage of errors	percentage of correct answers	Percentage of errors
End of Preparatory Class	84	16	80	20	79	21	85	15
License 1	89	11	85	15	86	14	89	11
License 2	93	7	86	14	89	11	87	13
License 3	92	8	83	17	92	8	86	14
License 4	99	1	92	8	95	5	91	9

The first corpus representing the evolution of the number of errors regarding the discrimination of sounds [i] / [y] during the training license, shows that the amount of errors decreases over time to be virtually zero at the end

of the license (at the beginning 16% errors of discrimination against 1% error in the fourth year). Therefore, discrimination [i] / [y] does not generate significant problems when these phonemes are in single words.

The corpus 2, which is about the evolution of the number of errors for discrimination [a] / [y], shows that the discrimination of these phonemes still poses no persistent problems so that the error rate is slightly higher than the previous phoneme. These 8% of errors concern mainly the word "habit[y]de" which is pronounced "habit[u]de" in English.

As for discrimination of phonemes [i]/[y]/[u] in the corpus 3, the conclusion is the same: there are some persistent errors even when the experiment is done on discrimination of these three phonemes. What is different concerning the discrimination of phonemes [u] / [y] / [i] is that these phonemes are integrated in complete sentences. Note that the error rate is slightly higher when discrimination is made in complete sentences when it is made into single words. (15% errors in preparatory class and 9% at the end of license cycle). Indeed, learners must "isolate" the phoneme and not be influenced by the rest of the sentence.

The results of discrimination to the phonemes [ã] / [õ] / [ɛ], phonemes that do not exist in the native language but which are specific to French, are presented in Table 3.

Table 3 : Les résultats de discrimination des sons [ã] / [õ] / [ɛ̃]

	5- Discrimination [a]/[ã]		6 - Discrimination [o]/[õ]		7 - Discrimination [õ]/[ɔ]/[o]		8 - Discrimination [ɛ̃]	
	percentage of correct answers	Percentage of errors	percentage of correct answers	Percentage of errors	percentage of correct answers	Percentage of errors	percentage of correct answers	Percentage of errors
End of Preparatory Class	80	20	85	15	87	13	65	35
License 1	81	19	92	8	92	8	78	22
License 2	86	14	92	8	98	2	72	28
License 3	87	13	94	6	100	0	76	24
License 4	85	15	92	8	100	0	85	15

The corpus 5 representing the evolution of the percentage of correct answers on discrimination of phonemes [a] / [ã], demonstrates not only that the discrimination of these phonemes generate problems in preparatory (20% errors), but also that the relative errors persist sustainably: 15% error in the fourth year license. This could be explained by the fact that nasal sound [ã] does not exist in Turkish.

Discrimination of phonemes [o] / [õ] corpus 6, creates some problems in preparatory classes (15% errors). At the end of the first year of the license, the error rate is divided by two (8%) and remains constant throughout the license (8%). Errors on discrimination of these phonemes persist although quantitatively less important than the discrimination of phonemes [a] / [ã] seen previously.

Contrary to the previous corpus in which discrimination between the nasal [õ] and the closed "o" created some problems in this corpus 7 discrimination between the nasal [õ] and open "o" less problematic. Only 13% of errors in preparatory classes.

As for discrimination [ɛ] in the corpus 8, we see that 33% of preparatory class answers are wrong. The error rate decreases gradually during the licensing cycle but errors persist in the end cycle (15%), the percentage of errors of this phoneme is as high as that for the nasal [ã].

Regarding the part of the problems of discrimination of phonemes groups [i] / [y] / [u] and [ã] / [õ] / [ɛ], it is possible to say that discrimination does not create concerns in general. Even if learners do not evolve in a French environment outside the school system, mistakes in discrimination do not persist or very little if at all. This shows the need to find or develop a more appropriate way to make the ear more sensitive to persistent problems.

2. The results review of oral production exercises

In this second part of the statistical study the mistakes made in oral production were analyzed, reading more precisely, on problematic phonemes for Turkish learners.

Table 4: Results of the pronunciation of sounds [y] / [u] / [i]

	9 – Speaking [i]/[y]-consecutive		10 – Speaking [y]/[i]-consecutive		11 – Speaking [u]/[y]-consecutive		12 – Speaking [y]/[u]-consecutive	
	percentage of correct answers	Percentage of errors	percentage of correct answers	Percentage of errors	percentage of correct answers	Percentage of errors	percentage of correct answers	Percentage of errors
Preparatory Class	63	37	55	45	55	45	51	49
License 1	68	32	63	37	61	39	52	48
License 2	60	40	64	36	77	23	47	53
License 3	60	40	77	23	77	23	35	65
License 4	69	31	84	16	95	5	83	17

As it can be observed in the corpus 9, discrimination of phonemes [i] / [y], create problems for Turkish learners, even if they exist in the Turkish language. In this corpus we gave words to read to learners in which the phonemes [i] and [y] were chained. Throughout the five-year cycle, the error percentage is about 33%. This can be explained by the spelling of the phoneme [y] in French is "u" whereas the Turkish phoneme is used for the phoneme [u]. Moreover, most learners have a level of English B1. This prior knowledge of English is then presented as a didactic obstacle during the pronunciation of the suffixes "-ue" and "-us" as the word "issue" [ɪʃuː] and “virus” [vaɪrəs].

The corpus 10 also concerns the phoneme [y], but this time it precedes the phoneme [i] (while in the previous corpus he succeeded him). Results show that in the beginning of the cycle, still under the influence of English, the spelling "u" to be pronounced [y] is 50% pronounced [u] in transparent words "public", "single "" multiple ". The percentage of errors is greatly reduced in the fourth year (16%).

The results of the corpus 11 show that preparatory class consecutive pronunciation of phonemes [u] and [y] is very problematic (45% errors). In the fourth year of the license, the percentage of errors is only 5%. Under the influence of English suffixes "-ture" and "-lure" are mispronounced. This type of error does not seem to be persistent.

However in the corpus 12, the order of the phonemes is inverted relative to the preceding case. The error rate is 49% in preparatory classes. The error is quite persistent in the fourth year (17% of pronunciation errors). Suffixes such as"-our" as in “humour”. [uːmər] are problematic because of the English interference. Conducting this analysis we noticed another kind of error: the “dropped e" in the last syllable “tu louches" pronounced /tu louch[e]/

Finally, according to the corpus 9 and 10, it is apparent that not only the place of the phoneme [y], but also the adjacent phonemes, cause variations in the percentage of errors and the persistent nature committed pronunciation errors. In our case, the pronunciation of the phoneme in the corpus 9 [y] at a word succeeding phoneme [i] has shown itself the most problematic. Regarding the corpus 11 [a] / [y] and 12 [y] / [u], we see that the sequence of phonemes [y] / [u] is more problematic.

In the following tables the results of pronunciation problems made in complete sentences and texts are presented.

Table 5: 13 Speaking [y]/[u]/[i] in sentences

	End of preparatory class	License 1	License 2	License 3	License 4
Percentage of correct answers	37	38	30	45	63
Percentage of wrong answers	63	62	70	55	37

In this exercise, the phonemes [y] / [u] / [i] are present in the same sentence consecutively. The results show that students experience great difficulty to pronounce these phonemes in this configuration. In preparatory classes 63% (2 thirds) sentences have errors. In the final year of the license there are fewer errors: 37% but (1/3) of the sentences have errors.

Table 6 : 14 – speaking [y]/[u]/[i] in a text.

	End of Preparatory Class	License 1	License 2	License 3	License 4
Average fault per learner	8	5	3	3	1

In this corpus 14, the phonemes [y] / [u] / [i] are placed into groups of words in a text, but the phonemes are not consecutive. We notice here that the average error is greatly reduced by learning throughout the cycle: 8 errors on average in preparatory class to an error in the final year of license. We do not take into account here the problems concerning the division into rhythmic group, links and chains.

Table 7 : 15 – Speaking : the nasal [ã] (graphie ant/ent)

	End of preparatory class	License 1	License 2	License 3	License 4
percentage of correct answers	45	55	39	38	60
of errors	55	45	61	62	40

In this exercise, the corpus 15, 5 sentences containing -ent -ant and spellings were read by the students. This exercise has proven the most difficult for learners. Preparatory class, 55% of sentences include pronunciation errors. At the end of the fourth year, 40% of sentences contain what do they contain?. In the corpus, the phonemes [ã] have been read very often [ing]. The phonemes constituting verb endings in the third person plural (-ent) tend to be read [ã].

Table 8 : 16 – Speaking : the nasal [õ] in sentences

	End of Preparatory Class	License 1	License 2	License 3	License 4
percentage of correct answers	15	57	71	64	71
Percentage of wrong answers	85	43	29	36	29

The sentences of the corpus 16 on the nasal [õ] located at the end of a word in sentences also contain the phoneme / o / closed. We noticed a high percentage of errors in preparatory classes (85%). After the phonetics classes and course understanding /speaking first-year license, the error rate was halved.

Tableau 9 : 17 – Speaking : nasal [õ]/[ã]/[ɛ̃] in a text

	End of preparatory class	License 1	License 2	License 3	License 4
Average fault per learner	8	6,6	6,4	6	2

The results of this last corpus 17 representing the evolution in the average number of errors made by students regarding nasal embedded in a text, shows that during the first years of license, the pronunciation of the three nasals create persistent problems. In the last year, according to the results the problem visibly decreases. However, this decline is relative since learners have a strong tendency to read word by word without paying attention to rhythmic groups, links and chains.

CONCLUSIONS AND PROPOSALS

We can summarize the findings of our experiment in four points:

1. First, we find that reading exercises (spelling / speech), namely to associate a phonemes spelling, pose a lot of problems even for phonemes in which discrimination does not constitute a major difficulty. Besides, it is an observation already made by Özçelik (2008).
2. In the statistical analysis we noticed the influence of the place of the phonemes within a word or group of words and the subsequent nature (or not) of phonemes sources of error.
3. Previous knowledge of learners is likely to create a didactic obstacle. In our case the knowledge of English (level B1 for the majority of our learners), generate pronunciation errors in transparent words ("false friends") or

like syllables (eg, “personne / person, objet/ object”). False friends words in the native language are also sources of errors (eg « pantalon / pantolon », « camiom/ Kamyon »).

4. It is observed that the majority of progress both in terms of discrimination on the production plan have been achieved during the first year of license. We can explain this by the nature of the first year courses. Indeed these are language courses separated by subject: phonics and spelling lessons, during production and oral reception, grammar, speaking and reading comprehension.

This study finally ends to the following conclusion: a Turkish learner FLE needs specific teaching phonetic materials adapted to his needs because currently such books do not exist on the market.. Despite the quality of the available literature, they have shortcomings in the treatment of certain phonemes, prosodic topics in some sources of problems for Turkish learners. Our project's main objective to overcome deficiency by creating educational materials dedicated to Turkish students about learning phonics to improve their competence in listening, oral output (pronunciation) and written production (spelling speech) . This material must be used in class and independently by students outside class.

In the context of the project "Uludag FLE" for the development of specific training materials for phonics phonetics, inspired by a similar project dedicated to the Spanish public and carried out in Spain at the University of Leon (http: // flenet.unileon.es/phon/phoncours.html), so we have the goal of achieving a composite didactic material constituted by a book and an Internet Site providing interactive exercises workable autonomy. This material will specifically designed to be adapted to Turkish learners.

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LET'S WRITE ON THE WALL: VIRTUAL COLLABORATIVE LEARNING USING PADLET

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ABSTRACT

Technology has made its presence felt in the classrooms since its invention. However, in the past few years, the creations of various Web 2.0 tools and applications have enriched teaching further. These tools that are designed for various purposes improve learners' experiences in the classrooms making learning fun, engaging and relevant. Padlet is one such tool. It is a simple web-application which enables the creation of virtual walls where students and teachers can write on or pin up images or files. This paper reports a small scale study on the use of Padlet in the teaching of Communication Skills. Based on the data collected through qualitative (open-ended) questionnaires, analyses of students' writings on the virtual walls, and observations of students' behavior when Padlet was used in class, it was found that Padlet 1) encouraged the formation of virtual communities where students learned not only from the teacher but also from one another; 2) enhanced learners' engagement with course content and 3) created 'safe' virtual spaces for learning. The qualitative data gathered also uncovered some potential challenges in using Padlet in the classroom. Suggestions are shared for teachers who are interested in incorporating the use of Padlet in their own classrooms.

INTRODUCTION

The prevalence of technology tools among young adults leads many to believe that teaching in the university classrooms should be technologically up-to-date. This results in a dramatic transformation of the university classrooms, and to the processes of teaching and learning and the roles played by university teachers and students. As a result of this transformation, many universities are equipping their classrooms with internet-linked computers which encourages the integration of Web 2.0 tools in teaching. As a result, tertiary teaching is now supported not only by electronic learning platforms (Blackboard, LMS), but also by various Web 2.0 tools (Messenger, Facebook, Twitter, Google Docs, Blogs, Wordle, Padlet, Gloster, Smilebox, PollEverywhere, and Clickers, to name a few).

Studies have shown that the integration of these technology tools in the classrooms could improve student engagement (William & Chinn, 2009); increase students' participation (Sweeney & Ingram, 2001); "enhance classrooms and learning in meaningful and sustainable ways" (VanSlyke-Briggs, Hogan, Waffle, and Samplaski, 2015, p.139), and improve students' understanding of complex concepts (Smith, 2010). Some findings on the use of technology tools in teaching and learning, however, have not been encouraging. A study by Park (2013, p. 52) on the potential of four Web 2.0 tools to promote reading engagement, for example, shows that even though the tools used made students become more involved in course reading "to a greater extent", they do not guarantee "every student's deep engagement in course readings". Another study conducted by McCabe and Meuter (2011) on students' view of technology used in the classroom shows that even though students enjoyed the use of different technology tools in learning Management, they did not "see the tools as highly effective at enhancing their learning" (p. 149). A study conducted by Clarke III, Flaherty and Mottner (2001) also revealed similar findings: students had differing opinions on the impact of different technology tools on their overall learning. Specifically, they found that even though students' involvement in chat rooms and electronic discussion groups contributed to their participation grade, they found that students perceived these two tools as having nonsignificant impact (Clarke III, Flaherty and Mottner, 2001). The findings in these studies show that even though the use of technological tools are prevalent among young adults, students' perception of these technology tools as teaching or learning tools were not often positive. In fact, many studies seemed to report that students' perception on the use of technology tools in teaching in the context of higher education often varied. More importantly, the findings of these studies support McCabe and Meuter's suggestion to "explore whether technology truly enhance student learning" (2011, p. 150). This is because despite an abundance of research conducted to understand the impact of technology/ web tools on learning, the functions of these tools in enhancing students' learning remains obscure.

The present paper, which explored the use of Padlet, a web 2.0 tool, in the teaching of Communication Skills would contribute to the present literature as it sought to understand how students perceived Padlet as a tool for learning. In trying to understand its use in the Communication Skills classroom, it also sought to explore the challenges that students faced in using Padlet. Padlet is a 'free' web tool which enables the creation of virtual

walls. Virtual walls function like a white board where words could be written on or a notice board where images or files can be 'pinned up'. The creator of the walls have total control over the content, design and layout of the walls. He or she can also choose to make the walls public or private simply by making changes to the privacy setting. To make the walls exclusive to only specific viewers, the creator of the wall could invite the viewers or set a password. The creator of a wall can also control what visitors can do on the wall, either view, write or moderate others' work. What is written or uploaded on a wall remains on it unless removed by the creator. Like any other web tools, Padlet walls can be accessed when there is internet connection.

The use of Padlet in the classrooms has been quite well publicized. Many videos have been uploaded on YouTube which explain the many different ways Padlet can be used. Many teacher bloggers and educational websites have also reported the use of Padlet in teaching and learning in different classrooms. So far, however, there has been no reported study which shares the impact of Padlet on students' learning and very little is known of students' perception of its use in the teaching of a specific subject. This study thus supports the need for more research in the area as it increases knowledge and understanding of the function or impact of another Web 2.0 tool (in this case Padlet) on teaching and learning.

THE STUDY

In the current study, Padlet was used for the teaching of Communication Skills. Communication Skills is a concept and skill-based course that is compulsory for second-year Degree students. In the Communication Skills classroom, Padlet was used for different purposes: 1) to carry out quick surveys 2) to check students' understanding of the communication concepts that they had learnt, and 3) to provide students with practice in answering case study and examination questions. Padlet walls have to be prepared before students could access them.

To gain access to a wall, students were required to access their E-learn Blackboard to obtain the address (the URL) of the wall. Provided there is internet access, clicking on the URL would bring the student to the Padlet website. As the walls created are not made public, students could only gain access to the wall when they had keyed in a password which the teacher had provided earlier.

Sometimes, tasks on Padlet were done as part of class activity. When this was the case, all students were required to respond to the Padlet task prepared. Supplementary activities on Padlet that were to be completed outside of class time were made optional; it was left up to the students to complete the activities. There was no set time limit for students to respond to the supplementary activities given on Padlet. This flexibility was given to encourage students to complete the Padlet tasks. The teacher would respond to the answers given by her students, by writing her comments, underlining parts of her students' answers that were unclear or inaccurate, and by giving students scores for their answers. She would also praise her students for correct responses and if the answers given did not receive full score or was inaccurate, she would encourage them to resubmit their answers for rechecking. Often, the teacher would remark work that students had resubmitted. Regardless of whether it was a class or supplementary activity, when responding to a task on Padlet, students were given the choice to use either their own name, a pseudonym, or to simply remain anonymous. Students were also given the choice to complete the tasks on the walls either individually or in groups. On the walls, however, students were only allowed to write their answers or responses and to view other students' work. They cannot moderate or make changes to others' work.

The current study explored the use of Padlet in the Communication Skills classroom. It attempted to understand students' perception on the use of Padlet as a learning tool and the challenges that students faced in using Padlet. Two research questions guided the study: 1) how did students perceive Padlet as a tool for learning? and 2) what were the challenges faced by the students in using Padlet? Data for the study was collected over the period of one year. Students who took part in the study were second-year Degree students from four different departments, (Psychology, Business, Computer Studies, and Hospitality and Hotel Management, and Computer Science), who were enrolled in the Communication Skills Course. 83 out of 107 students responded to the qualitative questionnaire.

The study employed a qualitative approach and used three data collection methods to gather information to answer the research questions. They are qualitative questionnaires (open-ended survey questions), analyses of students' writings on the virtual walls, and observation of students' behaviour when Padlet was used in class. To understand students' perception on the use of Padlet as a tool for learning, and the challenges they faced when using Padlet, a qualitative survey questionnaire containing five open-ended questions were distributed. According to Erickson and Kaplan (2000), open-ended survey questionnaire has more advantage over interviews or focused interviews because responses received through such method are often more honest because of its anonymity. Furthermore, open-ended questions can capture "diversity in responses" (Jackson and Trochim,

2002, p. 307) and will "provide a direct view of a respondent's own thinking" (Roberts et al., 2014, p. 1065). The qualitative questionnaire was distributed after Week 10 of the semester (full semester is 14 weeks), when students had ample time to respond to the walls put up on Padlet by the teacher.

The open-ended survey contained five questions attempted to capture students' opinions and perception of the following: 1) how they perceive accessing and using Padlet; 2) the reasons why they visited the walls on Padlet; 3) whether Padlet supported their learning of the subject and reasons (why or why not?) 4) the feelings they associated with using Padlet; 5) suggestions for the teacher to improve her use of Padlet; 6) any other comments. Qualitative content analysis, was carried out to make sense of students' responses to the open-ended questions. According to Hsieh and Shannon (2005), qualitative content analysis is a "research method for the subjective interpretation for the content of text through the systematic process of coding and identifying themes or patterns" (p.1278). In analysing the data from the qualitative questionnaire, these steps were followed: 1) read through the responses to get a good sense of the data, 2) develop categories based on the initial review, 3) assign codes to the responses and place them in the category/categories, 4) recheck the categories, 5) review for major themes; 6) identify major patterns and trends, and 7) write the analysis (Planning Council for Health and Human Services, 2011). To ensure validity of the teachers' interpretations of the responses, another teacher was selected to review her coding and the conclusions she derived from the process.

Analysis of students' written responses on Padlet walls, on the other hand, was carried out to understand students' uses of Padlet, and the ways they responded to the teacher's questions or prompts. The teacher would visit the pages in which students had written their responses to the given questions or prompts and she would analyse and categorize the different ways students had reacted to the questions and to her comments on their answers.

When Padlet was used in her classroom, the teacher would record her observations of her students' reactions to the activities she required her students to complete through Padlet. These observations were compiled and data from them were used to triangulate findings from other sources, for example, the open-ended questionnaire, particularly on the challenges students faced in using Padlet and their perceptions of the use of Padlet as a tool for learning.

FINDINGS

Several themes emerged from the analysis of students' responses to the qualitative questionnaire in order to understand students' perception of Padlet as a tool for learning. They are: 'building virtual community', 'enhancing engagement' and 'creating 'safe' virtual classroom for learning'.

The study found that the use of Padlet for the teaching of Communication Skills created a platform for students to share their answers and show their understanding of the communication concepts learnt. Some students described Padlet walls as a "social learning platform" or "a space which allows us to express our opinion…". The sharing platform on Padlet encouraged the formation of a virtual community. This 'coincidental' community which consisted of students and the teacher supported students' learning of Communication Skills. Even though most students chose to remain anonymous when responding to the questions/prompts given on the walls, students were coincidentally assisting one another in the learning of the subject: *"I could improve how to answer questions by learning from others"*. Even though analysis of students' responses to the qualitative questionnaire revealed that more students visited the walls to check other students' answers than to check the feedback given by the teacher, the teacher became part of the community which supported students' learning. As students could view the feedback given by the teacher to their answers and to the answers posted by others on Padlet walls, students were generally learning from the feedback that they and others' received: "*I learn from my feedback and other course mates' feedback"*. The response given by a student below showed evidence of the virtual community (which consisted of the students and the teacher) built through Padlet, which assisted in his learning of Communication Skills:

> *It (Padlet) is the strongest revision tool for me personally, because I can read the answers students provided, link to the comments the lecturer provided, and learn from the mistakes or good answers that (other) students gave*.

This virtual and accidental community built on Padlet even helped in the formation of answer bank for future reference. By responding to the questions given on the walls, students were collaboratively sharing "*all sorts of answers"* which they could *"compare and discuss freely"*. This supported students' learning as they could see that most of the time, *"there is not only one correct answer. You can have a variety of answer for one question."* This also supported students' learning of the subject as the variety of answers given by students increased their understanding of the subject, as one student reported: *"I can have more examples on the readings and more understanding on each chapter through Padlet"*.

Analysis of students' responses to the qualitative questionnaire also showed that the use of Padlet supported students' learning as it helped enhance learner engagement with the subject. It was found that students were continuously engaging with the content of the subject when they responded to the given questions given on Padlet walls after class. The use of Padlet, in other words, helped extend the learning of Communication Skills beyond the context of the physical classroom as aptly described by a student, "*It is like having a class outside of the classroom".* Furthermore, as Padlet is available on the web 24/7, students had the opportunity to respond to the question at their own time: *"I found that I can try to attempt every single case study question anytime."* This is a feature on Padlet that was valued by students as 'interactions' on the subject between students and the teacher continued "*even outside of the classroom".* The use of Padlet did not only extend learner engagement on the subject, it also helped students who were absent from classes to engage with the subject content: *"If I miss some classes, at least I can do some exercises on Padlet".*

Analysis of students' responses to the qualitative questionnaire also revealed that students found Padlet supportive of their learning because it helped create a 'safe' virtual classroom for them. Many students appreciated the fact that they could hide their identity from others, even the teacher, when responding to the given questions on the Padlet walls: *"Lecturer does not know who you are."* Being able to remain anonymous encouraged them to share their answers on Padlet: *"Anonymity makes me not afraid to provide uncertain answers which in turn help me learn from my mistakes."* Some students shared that being able to hide their identity reduced the probability of them being judged by others. It made them feel safe to share their answers even when the answers they gave could be wrong as shared by a student: "*I AM ANONYMOUS. So no people will know I write wrong or ridiculous answer".* The fact that students' identities could remain hidden on Padlet walls was a feature that improved sharing among the students: "*It is anonymous. Everyone can write their opinions whether it is right or wrong. Thus everyone can learn together."*

However, not all students found the use of Padlet supportive of their learning. Some students reported that they did not use Padlet much. These students reported that they only visited the walls when Padlet was used during class, when they were preparing for tests, and when they were instructed by the teacher. Furthermore, even though analysis of data from qualitative questionnaire showed that most students perceived Padlet as a supportive tool for learning, its use was not free from problems or challenges. Some students reported that they felt threatened when sharing their answers on Padlet. The use of Padlet was also perceived as "troublesome" for some students due to some technical aspects of its use.

Some students reported that responding to Padlet tasks was a threatening experience. This was despite the fact that they were given the choice to remain anonymous when responding to tasks on Padlet walls. Students related various reasons for feeling threatened. Some of the reasons given were related to their low proficiency in the English language; fear of criticism; fear of sharing the wrong answer; fear of answering questions; and worry that answers given were not good enough. One student related that because of his perceived low ability in the English Language and fear of being criticized by others, he would complete the tasks given on Padlet only when "*we are being forced to answer in class*". Another students shared that when "*you get it wrong… you are embarrassing yourself*". Another student shared that she "*was constantly worried that my answer was not good enough."* In fact, one of the students who responded to the qualitative questionnaire shared that responding to the tasks on Padlet could *"affect my confidence in writing."* This showed that students' perception on Padlet as a tool for learning was not consistently positive. In fact, some students felt that its use could have some adverse impact on their learning.

Not only some students felt responding to Padlet tasks could be threatening to them, some viewed its use as troublesome due to the following reasons: 1) it was difficult to access Padlet walls*: "We have too many links to open- Imail, Elearn, and multiple Padlet links"*; 2) it was difficult to find their post on the walls: *"There are too many posts on the walls, so it is harder to find specific posts"* 3) the arrangement of the posting on the walls can be messy and this could affect readability; 4) it was problematic when viewing the walls through tablets or smartphones: *"small screen experience"*; 5) occasionally there were problems with the Wi-Fi connections: *"Occasionally lag during use"*; 6) it was difficult to differentiate between teacher's feedback and student's answer: *"It is really hard to know which one is posted by lecturer"*. Teacher's observation of students' behaviour when completing tasks on Padlet during class time proved that students who were accessing Padlet using tabs or smartphones faced more difficulty when they wanted to type their answers on the wall. To write their answers, students had to double tap the wall, and this was observed to be easily done on laptops using either a mouse or the touch pad. Students also complained that sometimes there was a lag in Padlet use during class time. It was observed that there were instances when students gave up on trying to get to a Padlet wall because of problematic Wi-Fi connection. From these responses, it appeared that Padlet's use became challenging and troublesome particularly when Padlet was used during class. Other troublesome aspects of its use relates to its accessibility, layout of the postings on the walls and differentiating teacher's feedback from students' answers which occurred regardless of whether Padlet tasks were done as class or supplementary.

DISCUSSION

The study found that Padlet was generally supportive of students' learning because it encouraged the formation of a virtual community, enhanced learner engagement with subject content, and created a 'safe' virtual classroom for students. These positive findings show that the use of Padlet could result in a positive impact on students' learning as it made their learning a collaborative process, and it made students more autonomous and less reliant on the teacher. It also showed that the use of Padlet could improve students' processing and connections with subject content as it made them think and continue to 'interact' with knowledge they had learnt even when classes were over. Not only that, the use of Padlet promoted anonymity among students. This reduced students' inhibition on exhibiting their answers to a larger audience which increased sharing regardless of the quality of the answers. This helped make students' learning formative as they built or formed better answers by learning from their mistakes and the mistakes made by others and also from the comments given by the teacher. It also provided students the opportunity to test their knowledge and to improve their understanding of subject matter.

Despite this some students found that the use of Padlet did not affect their learning. Students who shared this opinion were generally students who were not active users of Padlet. This finding was somewhat justifiable as it reflected how Padlet was used in the Communication Skills classrooms. Students' completion of Padlet tasks, other than the Padlet activities done in class, was optional. Doing so seemed to impact some students negatively. This instruction, however, did not seem to impact students who were autonomous and were generally self-motivated. Making the use of Padlet optional, in other words, had varied impact on students thus some students may benefit from its use more than others.

The findings of the study also showed that like any other technology, the use of Padlet has its limitations. Padlet seemed ineffective and burdensome for students who cannot overcome their fears of sharing due to various reasons which appeared to be internal, relating to anxiety and perhaps low self-confidence. Other problems with the use of Padlet appear to be technical relating to aspects of accessibility, connectivity, hardware, layout and readability.

The next section provides some suggestions to improve the use of Padlet in the Communication Skills classroom. These suggestions could also give ideas to other teachers who plan to use Padlet in their classroom.

IMPLICATIONS ON PRACTICE

The findings of this study show that the use of Padlet, generally, received positive feedback from the students. However, to improve its effectiveness, some measures need to be taken. First of all, the teacher decides to continue making the activities on Padlet as optional, particularly when Padlet tasks are given as homework. This is because tasks on Padlet is only one form of support for students' learning of Communication Skills. Students who chose not to be active on Padlet could have their own reasons for doing so. Perhaps, learning through this platform is not their preferred style of learning. What is more important is that keeping it optional can train students to be more independent in their learning.

Some students felt threatened when they were asked to post their answers on Padlet even when their identity was hidden from others. To reduce their anxiety, students will be encouraged to work in groups when completing Padlet tasks regardless of class activities or supplementary ones. This could perhaps make students feel more secure when participating on activities involving Padlet. Students will also be given options to submit their answers privately to the teachers. Being flexible is important as this could improve learner inclusivity. Some students who have a high level of anxiety on sharing their answers publicly, would perhaps feel more secure when they are given the option to submit their work to the teachers privately and this would in some ways support their learning of the subject.

Another aspect on the use of Padlet that needs to be improved is the accessibility of Padlet walls. Previously, students had to access different pages to get to the walls. To simplify this process, all the addresses to the walls will be placed in one page and properly labelled under different chapters. This way, students do not have to go to different pages to retrieve the addresses to the walls. Access to the walls on Padlet would remain password-protected. This is to ensure privacy and exclusivity of access to the walls.

Another challenging aspect of the use of Padlet was the difficulty faced by students in differentiating the teacher's comments and the students' answers. Analysis of different Padlet walls show that the teacher was not consistent in the font and style used when writing her comments. At times, she would bold her comments but at other times she underlined or italicized them. There were also instances where she did not differentiate her comments from the students' answers. To rectify this problem, the teacher has to ensure that her comments will only be presented in one uniformed way, perhaps only bolding them. This way students could differentiate her feedback from the students' answers.

Many students also complained that their experience using Padlet on tabs and smartphones have been quite troublesome. Students who used laptops, however, seemed to have a better experience. To improve students' experience in using Padlet in class, students will be notified earlier when Padlet is going to be used in class. This will signal to the students that a laptop will be required for a better learning experience when Padlet is in use.

To improve search for specific answers or responses, in the future, the teacher plans to encourage her students to use pseudonyms when submitting their answers on the walls. This way, it will be easier for them to find their answers or specific responses. This may improve their search but at the same time maintaining their anonymity. The layout of the walls will also be fixed to either 'grid' or 'stream' layout and not 'freeform' to improve readability of the Padlet walls.

CONCLUSION

The use of Padlet in the Communication Skills classrooms appears to be perceived positively by students. Even though there were minor glitches and challenges faced when using Padlet for the teaching of Communication Skills, the study proves that Padlet can increase collaboration between students, extend learning beyond the context of the classroom and create a 'safe' virtual classroom where students can test knowledge learnt. The study also proves that Padlet can be used as a form of formative learning tool as students learnt from theirs and others' mistakes and improve their responses based on the comments received from the teacher. In short, the study finds that Padlet is a worthwhile Web 2.0 tool that can impact students' learning in a positive way. The use of Padlet, however, should be explored further in order to understand its full potential as a tool that assists teaching and/or learning.

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LINKING PROGRAMS EUREKA AND ERASMUS+ IN INTERNATIONALIZATION OF EDUCATION

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ABSTRACT
A unique apparatus for detecting anomalies in a porous medium using electrical impedance spectrometry was implemented at the Faculty of Civil Engineering of BUT through the solution of projects in the EUREKA program. This program is oriented to applied research with the necessary participation of foreign partners; work is carried out in both laboratory and field conditions. Foreign students of all forms of their education are also involved in research activities through the Erasmus + program. In this work they need knowledge in various areas of education, such as physics, mathematics, hydraulics, materials engineering, and more. Given that it is also a practical application of theoretical knowledge with a very attractive potential in the technical field, these activities are interesting for students.

Keywords: Erasmus, Internationalization, Education

INTRODUCTION
The educational policy in advanced countries is part of the public policy and results from two inter-related processes. These are a process of upbringing and a process of learning, the results of which is education. The level of education becomes the characteristic of an individual or a given population. From the economic point of view, it is a typical example of non-market goods that are a source of innovations and changes in the quality of labor force; in addition to it, it has also fundamental significance for the development of a human personality and the quality of life in a given society (Krebs, 1997).
The following principles can be included in the basic principles of most educational policies (http://www.inflow.cz/principy-vzdelavaci-politiky-v-demokratickych-zemich) of advanced states:
• of lifelong learning – in the society a demand for learning is growing and is becoming more varied; the need for steady learning is caused by a fast development of sciences - knowledge is rapidly becoming obsolete and is being replaced by newer one; education becomes a lifelong process;
• of equal chances in access to education – the right to education and equal chances in access to education are already enshrined in the Charter of Fundamental Rights and Freedoms; the chance for education should be equal to everyone; it depends on the individual how he/she will use it;
• of individualization and differentiation in education – every human is different, has different abilities, prerequisites, intelligent potential, and the like, therefore individual education is important; the same form of learning cannot be efficient for everyone; and
• of internationalization in education – it understands education as a supranational affair that helps people of different nationalities, races, religions, etc., coexist.

INTERNATIONALIZATION OF LEARNING
The issue of internationalization has been topical in the developed countries of Europe as well of the world for a long time. The internationalization and electronization of capital markets, the intensification of international relations in the area of science and technology, the creation of the common market (European, global, etc.) and the relating need of the professional mobility of people significantly strengthen the position of internationalization in education. It has also become a priority of the Czech educational policy, as mentioned in the Long-Term Plan of the Ministry of Education, Youth and Sports (2005), including subsequent updates (http://www.msmt.cz/vzdelavani/ vysoke-skolstvi/dlouhodoby-zamer-ministerstva), which is also the crucial

document for preparing and updating the long-term plans of individual universities/colleges.
The term internationalization in education, however, denotes more trends (Janebová, 2008), (Teichler, 2004), (Webber, 2004), (Knight, 2003). In the area of schooling, not only in the area of higher education, on which this paper is focused, internationalization is perhaps perceived in the last decade more intensively particularly in relation to the Lisbon and Bologna Declarations (http://www.msmt.cz/vzdelavani/vysoke-skolstvi/bolonsky-proces-1) and to the implementation of the ECTS (European Credit Transfer System) or to the thoughts on the "Euro Passport" on the level of professional education and to a number of international relations and exchanges between individual schools (Gavalcová, 2011). In June 2012, the British Council, in cooperation with the consulting firm Oxford Economics, published a new report on the assumed worldwide development of higher education, mobility of students and cooperation in research during the ongoing decade (until 2020) with the title The Shape of Things to Come: Higher education global trends and emerging opportunities to 2020.
Based on the analysis of the latest demographic and macroeconomic trends, the report identifies the changing paths (from where – to where) of foreign students, the fastest-growing educational systems and also which countries will open most to international cooperation in research and education, but sometimes the attractiveness of destination leaves aside the quality and professional benefit of stay; the positive side of the current model is greater emphasis on language skills (http://www.britishcouncil.org/education?iheeducationintelligence/shape-of-things-to-come). The growth of participation in tertiary education as well as the study at universities/colleges abroad will continue, but its direction will substantially be changed and the role of new economies will be highlighted. Competition will considerably be increased and will compel even well-established and best European universities/colleges to extend their strategies of internationalization. They must be supported by a corresponding governmental policy and principles and mechanisms of research financing. The extent and significance of international cooperation in research will substantially be increased (https://vsmonitor.wordpress.com/2012/10/03/ rozmach-internacionalizace-bude-pokracovat/).
In the text below, internationalization is thus perceived in a very narrow range of activities in conjunction with the physical mobility of students of the Faculty of Civil Engineering at Brno University of Technology (BUT FCE) and foreign universities/colleges of similar specialization, and with cooperation between academic institutions and scientific-research activity.

ERASMUS+
Erasmus+ is a new program of the European Union (EU) for education, professional preparation, youth and sport for a period of 2014 – 2020 (http://ec.europa.eu/programmes/erasmus-plus/discover/index_cs.htm), which was commenced in January 2014. The objective of the program Erasmus+ is to develop skills of young people and to increase their chances in obtaining a good job, and also to modernize education, professional preparation and work with young people. The duration of the program is seven years and has a budget amounting to 14.7 billion euros; as compared to the current state, this represents a 40% growth, indicating the interest of the EU to invest in the given area. Within the program Erasmus+, more than 4 million Europeans gain an opportunity to enrich their study, professional preparation or practice with experience from abroad.
Erasmus+ supports supranational partnership between institutions concerned with education, professional preparation and youth so that deeper cooperation can be established between the world of education and the labor market and that they can be interconnected, which is necessary for solving the disharmony between the needs of the European labor market and the types of classification which are available in Europe. It also supports the efforts of the member states for the modernization of education, professional preparation and work with young people. In the area of sport, it is oriented to local physical education and projects which are devoted to the solution of negative phenomena which can be encountered in many countries (influencing of the results of competitions, doping, violence, racism, etc.).
In this integrated form, Erasmus+ brings more opportunities of cooperation across the branches of education, professional preparation, youth and sport. Due to simpler rules it is easier to take part in it.

EUREKA
The program EUREKA (http://www.eurekanetwork.org) is one of the instruments of European strategy and cooperation in the area of applied and industrial research and innovation activities. The objective of the program is to support international cooperation between European industrial enterprises, research institutes and universities/colleges and thus to create conditions for increasing the performance efficiency and competitiveness of European industry and for developing its joint infrastructure. The program EUREKA was founded in 1985 and now it associates cooperation of 40 member countries and the EU Commission. Some other countries have the status of associated membership. The Czech Republic has been a full member since 1995 and ranks among the most active member countries (http://www.msmt.cz/vyzkum-a-vyvoj/eureka-cz-lf). The EUREKA projects are oriented to the areas of the private as well public sectors. Their output must be new top products, technologies or services capable of commercial application. In general, they are focused on information technologies, new materials, the issue of the environment, biotechnologies and medical technologies, robotics

and automation, communication technologies, power engineering, transport and lasers.

E!4891 AND E!7614 PROJECTS AND THEIR RESULTS

The workplace of the Laboratory of Water Management Research of the BUT FCE Department of Water Structures was intensively involved in the program EUREKA in 2006. At the present time, the current projects are as follows:

• E!4981 entitled "A Computerised Measuring System for Analysis of Chosen Characteristics and Processes in a Porous Environment by the EIS Method" (http://www.eurekanetwork.org/project/-/id/4981), development and construction of a set of monitoring systems using the electrical impedance spectrometry method for application under real conditions, was completed at international level on 11.3.2013; participating countries – Belgium, Switzerland, Czech Republic, Italy and Slovak Republic; nominated in 2014 for the competition EUREKA Innovation Award 2014 amongst 11 best projects in the category "Cluster, Eurostars and Individual Projects", now in the phase of sustainability; and,

• E!7614 entitled "A System of Monitoring of Selected Parameters of Porous Substances Using the EIS Method in a Wide Range of Applications" (http://www.eurekanetwork.org/project/-/id/7614), development and construction of a monitoring system based on the method of electrical impedance spectrometry for monitoring selected parameters of porous substances for application in conditions of a real environment, agriculture and food industry, is solved in the project, running since 22 June 2012; participating countries – Belgium, Bulgaria, Switzerland, Czech Republic, Spain, Italy, Latvia, Philippines and Slovak Republic.

The theme of the solved projects results from the need of a deeper knowledge of processes that take place in porous environments due to changes in water content. The tool for obtaining the knowledge is an indirect method – electrical impedance spectrometry (EIS) and the means is a new measuring apparatus with a Z-meter device. The outputs of solution have a direct continuity with the issue of the safety of the operation of earth-fill dams, protection against floods, avalanche danger, monitoring of drought or the need for soil moisture of plants, treatment of wooden building structures infested by wood-decaying insect, etc.

BRNO UNIVERSITY OF TECHNOLOGY, FACULTY OF CIVIL ENGINEERING, AND INTERNATIONALIZATION OF EDUCATION

The Faculty of Civil Engineering is the traditional and historically the oldest faculty of the Brno University of Technology (BUT) seated at Veveri 95, 602 00 Brno, Czech Republic. Its history is closely connected with the history of BUT, which falls into the year 1899 when Emperor Franz Joseph I signed the Decree of the Establishment of the Czech Technical University in Brno. This was the first Czech higher education institution.

The Brno University of Technology supports internationalization of studies through ECTS (http://www.vutbr.cz/studium/ects-katalog), participates in EU projects such as Tempus, Leonardo, Erasmus, CEEPUS, Aktion, DAAD partnership, studies for two degrees and the Euro-engineer degree, organizes lectures of visiting professors, provides courses for foreign students in English, and organizes international conferences. Research and development activities at BUT center around non-specified research receiving funding from the state budget. Attention is also given to research projects that are clearly defined and supported by contracting authorities such as the Czech Science Foundation, grant agencies of the Czech government ministries, international grant agencies, and scientific and research programs. A major part of applied research is initiated directly by industrial companies both domestic and international.

DOMESTIC STUDENTS' THESES IN CONJUNCTION WITH THE GIVEN PROGRAMS

The theses of students of the Institute of Water Structures at the Faculty of Civil Engineering, combining both the above-given programs, permeate through all levels of education (Tab. 1); they are thus a part of the study program of Bachelor's, Master' and doctoral studies, including a program of lifelong learning (Fig. 1) and the University of Third Age.

Table 1: Theses of Czech students carried out in conjunction with projects E!4981 and E!7614 in the years 2010 to 2014.

	E!4981	E!7614
Bachelor's Thesis	5	2
Master's Thesis	5	3
Doctoral Thesis	2	1

Students engage through them in scientific-research activity in which they acquire work basics in the area of research, but they have also the possibility of assessing applied research that requires the practical application of the result obtained. A bonus for them is to be involved in an investigators' team of companies (Fig. 2) and in inter-university cooperation (e.g. with Masaryk University and Mendel University in Brno, University of Defense, Palacky University in Olomouc and Czech Technical University in Prague), including publication

activity and the presentation of results at domestic and foreign conferences and workshops.
Indispensable in the process of education are also science popularization events, in which students are also involved. These are e.g. The Night of Scientists or The Days of Open Doors, in which prospective applicants have an opportunity to visit laboratory facilities twice a year, including a professional lecture on study at a university and a students' commentary. Laboratory models are also prepared for children from kindergartens and students of elementary and secondary schools during these events. These groups, however, have an opportunity to visit laboratories, including a lecture, practically at any time after agreement. Tutorial courses for groups of employees of companies related to water management practice are also popular.

Fig. 1: Physical model of a double rain separator on a length scale of 1:10 and a trainees lifelong learning course.

Fig. 2: Measurement on a physical model of a fish ladder on a length scale of 1:20 and pollution transport in soil.

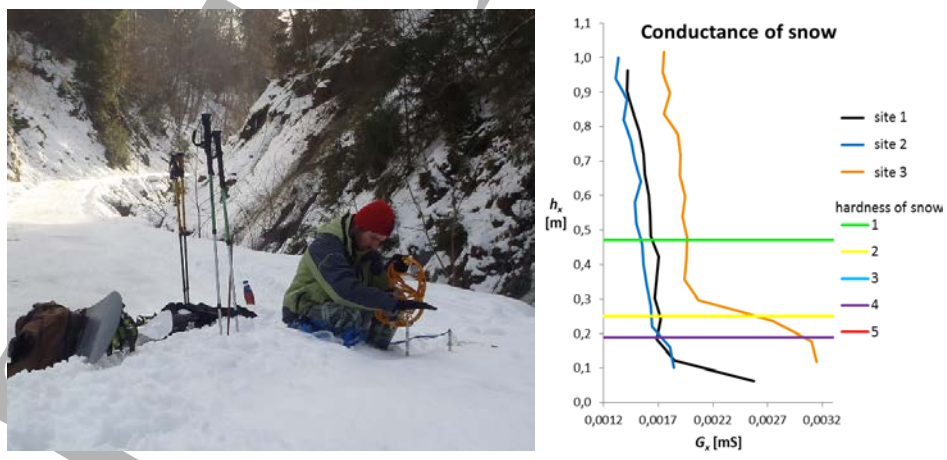

Fig. 3: Measurement of snow layers.

FOREIGN STUDENTS' THESES RELATED TO THE GIVEN PROGRAMS

Particularly projects related to practical training in the water management laboratory and to field measurements gained popularity amongst foreign students (Fig. 4), despite the fact that work for them is not easy. On the one hand, the teaching of the required subjects is usually accredited only for the Czech language; on the other hand, experimental research in both of the above-mentioned environments is time-consuming; students must learn how

to master a new measuring technology usually not known to them; and last but not least, work is demanding of theoretical knowledge from many scientific disciplines because it is a combination of them. In other words, e.g. when evaluating the safety of operation of earth-fill dams, it is necessary to have the knowledge of hydraulics of groundwater and soil mechanics, but at the same time to have the knowledge of measuring methods and apparatuses monitoring variables required and suitable for performing a risk assessment. It is thus also necessary to have the knowledge of mathematics, physics and electrical engineering.
Students also highly appreciate excursions to hydro-engineering structures or to water management plants and personal meetings with representatives of companies and attach great significance to them (Fig. 5).

Table 2: Theses of foreign students carried out in conjunction with projects E!4981 and E!7614 in the years 2010 to 2014.

Country	E!4981	E!7614
Belgium – KHBO Brugge-Oostende	2	0
Portugal – Universidade de Trás-os-Montes e Alto Douro, Vila Real, Instituto Politécnico de Leiria	8	0
Spain – Technical University Granada, Technical University Barcelona	1	5
Latvia – Riga Technical University	0	1
Bulgaria – University of Architecture, Civil Engineering and Geodesy Sofia, TU Varna	0	1

Monitoring of the aeration process in a wastewater treatment plant at Modrice by a CZ student from TU Granada, Spain

Monitoring of soil structure and moisture content changes at the Zabcice site by a CZ student from TU Barcelona

Fig. 4: Examples of field measurements.

Fig. 5: Wastewater treatment plant at Laa an der Thaya - an excursion organized for students from Portugal.

Foreign students who use credited subjects in our country to elaborate projects – given are selected papers of students from universities in Granada and Barcelona (Cobos, 2014), (Quijada, 2014), (López, 2014), (Llinares, 2014) and final papers of study (Bolle & Strypsteen, 2013), papers of students from KHBO, B (Fig. 6) – take active part in work, get to know the issue of practical experience, laboratories and clusters. They thus have an opportunity to get to know the working atmosphere, environment and life of companies. On the other hand, company employees are invited as external examiners or members of commissions of defenses of students' papers (Fig. 7). Just the system of defenses of final papers is well and sophisticatedly elaborated at the university (Fig. 6). Foreign students manage to adjust to this trend after initial embarrassment, see a list of some of their papers in the references.

Within the laboratory of water management research, we work with foreign students individually even if the tutorial group is not full; the topics of projects are selected in relation to the applicability of work to study at the principal university/college.

Fig. 6: Defense of a final paper of Belgian students before a commission composed of representatives of universities (BUT, CZ and KHBO, B) and professional experts (from GEO*test*, a.s. and Povodi Moravy /Morava River Basin Agency/, s.p. - Agricultural Water Management Administration).

CONCLUSIONS

For the reason of maintaining a high standard of teaching and research, meeting the needs of domestic and foreign students or solving global problems of research, it is necessary to steadily and greatly invest in education. Universities/colleges in many countries, however, have to work in an environment of financial uncertainty and savings. So far there are plenty of capacities of how to use the excellence of universities/colleges in research in commercial activities, and thus to increase their potential for economic growth. Therefore, also for the future, emphasis will be placed on mutually beneficial cooperation in teaching and research and on providing tertiary education of students in their home countries, namely in the form of providing online study programs, establishing detached premises abroad, founding new institutions jointly with foreign partners, etc. These steps

extend the concept of internationalization and open new opportunities on the market.

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LİSE ÖĞRENCİLERİNİN ALDIKLARI ROL MODELLERİN VE KİŞİLİK ÖZELLİKLERİNİN EĞİTİMSEL AÇIDAN DEĞERLENDİRİLMESİ

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Öğrencilerin kişilik gelişimi üzerinde aldıkları rol modellerin önemli bir etkisi vardır. Rol model alınan kişilerin olumlu ya da olumsuz özellikleri öğrencilerin kişilik gelişimlerini olumlu veya olumsuz yönde etkileyebilmektedir. Öğrencilerin aldıkları rol modeller daha çok aile bireyleri, yakın çevreden kişiler, arkadaşları ve okulda öğretmenleri rol model olurken kabul edilirken özellikle teknolojinin gelişimine paralel olarak rol modellerde değişmiştir. Özellikle TV ve Bilgisayarlar öğrencilerin yaşamında önemli bir yer tutarken son dönemlerde nerdeyse iletişimin tamamına yakını cep telefonları ve internet üzerinden Facebook, twitter gibi sosyal paylaşım siteleri üzerinden yapılmaktadır. Dolayısıyla rol model alınan kişilerde yakın çevre yerine bazen bir çizgi film kahramanı, sinema sanatçısı, sporcu, tiyatrocu, ünlü bir müzisyen ya da TV dizilerindeki oyuncuları rol model alabilmektedirler. Bu yönüyle bakıldığında televizyon programlarının niteliği, yada rol model alınan kişilerin (sinema sanatçısı, Sporcu, müzisyen ve oyuncuları) kişilik özellikleri öğrencilerin kişilik gelişimini büyük ölçüde etkilemektedir. Bu yönüyle bireyde istenen davranışların oluşturulmasında önemli bir işlev üstlenen okulların ve öğretmenlerin öğrenciler üzerindeki rol model özellikleri azalmakta bunun yerine öğrenciler farklı rol modeller arayışlarına girmektedir.

Araştırma lise öğrencilerinin aldıkları rol modellerin kimler olduğunu ve hangi özelliklerinin rol model alındığını belirlemeyi amaçlamaktadır. Araştırma betimsel tarama modellerinden nitel araştırma yöntemi kullanılmıştır. Bu amacın gerçekleştirilmesine dönük olarak Muğla ilinde yer alan lise öğrencilerine yarı yapılandırılmış görüşme formu kullanılmıştır. Veriler içerik analizine tabi tutulmuş gruplandırılarak yorumlanmıştır. Araştırma sonucunda öğrencilerin daha çok maddi açıdan belirli düzeylere ulaşmış kişiler ve ünlü kişilerin rol model olarak görüldükleri saptanmıştır.

Keywords: Rol Model, Lise Öğrencileri, Kişisel Özellikler

OPINIONS OF HIGH SCHOOL STUDENTS ABOUT MATHEMATICAL PROOF

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ABSTRACT
This study aims to discover the varied opinions of high school students about proof and mathematical proving. Accordingly, the research is carried out on 136 high school students studying at all grades of in a high school in the Erzurum during 2014-2015 academic year. Data were collected and prepared by researchers in the three open-ended questions with data collection tool. This data of the research are collected by taking written answers to the questions posed to students. As a result of the study, students generally define the proof as "explanation" and "reality". At the same time, most of the students comprehend making a proof as "understanding the accuracy or inaccuracy" and "explaining". And finally, students define making a mathematical proof as "verifying" and "showing the result of the operation". Moreover, opinions of high school students are evaluated and discussed according to grades.

Keywords: Mathematical proof, mathematics education, high school students

INTRODUCTION

Undoubtedly, proof is an essential part of mathematics and mathematics education (Özer & Arıkan, 2002). Mathematical processes start with looking for patterns, discovering relationships, apprehending by intuition, making a conjecture, and ends with more formal processes such as proving and defining (Dreyfus, 1991; Schoenfeld, 1994).

Selden and Selden (2003) refer to proofs as “texts that establish the truth of theorems” and define validation of proofs as “readings of, and reflections on proofs to determine their correctness”. Proving involves “constructing a deductive argument using valid rules of inference, axioms, definitions and previously proven conclusions” (Morris, 2002). According to Stylianides and Stylianides (2009), an argument for the truth of a statement that is “general, valid and accessible to the members of the community” qualifies as proof.

Proof plays an important role in mathematics education, and many studies have been conducted in recent years investigating teachers, pre-service teachers and high school students’ understanding of proof across all grades (e.g. Knuth, 2002; Miyazaki, 2000; Morris, 2002; Healy and Hoyles, 2000; Weber, 2001; Hoyles and Küchemann, 2002; Güler, 2010; Moralı, et al., 2006; Özer and Arıkan, 2002; Stylianides and Stylianides, 2009; Kaplan, Doruk and Özdemir, 2015). Most of these studies report that students have a poor understanding of proof. And students experienced difficulties in the proof process.

Moore (1994) found difficulties in constructing proofs under seven headings:

- The students did not know the definitions. That is, they were unable to state the definitions.
- The students had little intuitive understanding of the concepts. failure to use the concept images while performing proof;
- The students’ concept images were inadequate for doing the proofs
- The students were unable, or unwilling, to generate and use their own examples.
- The students did not know how to use definitions to obtain the overall structure of proofs.
- The students were unable to understand and use mathematical language and notation.
- The students did not know how to begin proofs

Mathematical proofs contribute to the development and systematization of mathematics (Almeida, 2000; Hanna and Barbeu, 2008). Mathematical proofs increase mathematical knowledge of students and help to develop mathematical thinking (Carpenter, Franke and Levi, 2003).

Mathematical proofs serve many functions related to learnings of students. These functions are verification, illumination and systematization (Bell, 1976). de Villiers (1999), developed Bell's (1976) list of functions of proof and suggested the following model:

- verification (concerned with the truth of a statement)
- explanation (providing insight into why it is true)
- systematization (the organization of various results into a deductive system of axioms, major concepts and theorems)
- discovery (the discovery or invention of new results)
- communication (the transmission of mathematical knowledge)
- intellectual challenge (the self-realization/fulfillment derived from constructing a proof)

The aim of this study find out the high school students' opinions about proof and proving. Accordingly, the following questions related to this aim are asked in the study:

Q1. What do high school students think about definition of prove?

Q2. What meanings do high school students attribute to proving?

Q3. What meanings do high school students attribute to mathematical proving?

THE STUDY

This study employs qualitative research approach. The most appropriate qualitative research design for this study is thought to be phenomenology. The aim of phenomenological research is to aspire to pure self-expression, with non-interference from the researcher (Offredy and Vickers, 2013). This study aims to discover the varied opinions of high school students about proof and mathematical proving.

This research is conduct with 136 high school students studying at all grades of in a high school in the Erzurum during 2014-2015 academic year. Data were collected and prepared by researchers in the three open-ended questions with data collection tool. This data of the research are collected by taking written answers to the questions posed to students. 35 high school students are ninth grader, 39 high school students are tenth grader, 30 high school students are eleventh grader and 32 high school students are twelfth grader. Data collection tool was prepared with reference to an expert academician opinion in qualitative research methods. The views and data collection tool on the basis of suggestions received its final shape and applied to students.

Review of written answers by students show that four students didn't give an answer. So, opinions of these students are excluded from the research. Content analysis method is used for data analysis. The main objective of the content analysis is to reach the collected data to explain the concepts and relationships. Concepts and themes that can not be identified with descriptive approach can be discovered with content analysis (Yıldırım and Şimşek, 2011). In the study, categorical analysis of the content analysis method was used. Categorical analysis process; coding of data, creation of categories, organizing categories, defining and interpreting the findings steps were followed (Corbin and Straus, 2007). Students' responses to questions examined separately by the first and second authors codes and categories it has been created. At the end of the analysis the authors gave final version of the code and categories to come together. Some of the students did not answer some questions. This cases were added to "no comment" category. Students answers are often presented as descriptively. In this way it is aimed to increase the reliability and validity of the study.

FINDINGS

In this section, the findings obtained in the research are offered by tabulating with the categories formed of the answers that the students give to the questions and with the answers forming these categories.

The question "what is proof?" is asked in order to reveal the opinions of the students for the definition of the proof.

It is determined that the answers obtained are collected under nine categories in a way to be 3 categories in the ninth grades, 8 categories in the tenth grades, 5 categories in the eleventh grades and 7 categories in the twelfth grades. These categories are illustrated in Table 1.

Table 1. High school students' opinions about definition of proof

Categories	9th	10th	11th	12th	Total
Explanation	%38	%34	%26	%31	%31
Reality	%22	%26	%40	%22	%28
Explaining The Accuracy and Inaccuracy	%22	%15	%11	%31	%21
Revealing	%6	%10	%11	%7	%7
Final Judgement	%6	%5	%6	%3	%5
Theorem	%3	%2	-	%3	%2
Occurrence of Something Without Hesitation	%3	%2	%3	-	%2
Questioning the Reason	-	%2	%3	-	%1
Support	-	%2	-	-	%1
Accepting	-	-	-	%3	%1
Redundant Information	-	%2	-	-	%1
Total	%100	%100	%100	%100	%100

Examining the Table 1, students generally define the proof as "explanation" and "reality". When the opinions are evaluated based on the grades, all the grades describe the proof as "explaining the accuracy and inaccuracy" and "revealing". Moreover, one student stated a negative opinion for the definition of the proof. This student defined the proof as "redundant information". Though few in numbers, students also explain the definition of the proof as "final judgement", "questioning the reason", "support", "and theorem ","" occurrence of something without hesitation" and "accepting". When the opinions of the students are examined, it is observed that they mostly focus on the verification and explanation function of the proof.

In order to understand what meaning attributed to making a proof by the students, a question like "what do you understand by making a proof?" is asked to the students.

It is determined that the answers obtained are collected under ten categories in a way to be 6 categories in the ninth grades, 9 categories in the tenth grades, 6 categories in the eleventh grades and 6 categories in the twelfth grades. These categories are illustrated in Table 2.

Table 2. Meaning attributed to making a proof by the high school students

Categories	9th	10th	11th	12th	Total
Understanding The Accuracy or Inaccuracy	%26	%24	%37	%25	%27
Explaining	%23	%26	%20	%37	%26

Indicating the Origin And The Way of Occurence	%28	%15	%30	%23	%23
Strategic Interest	%14	%8	%3	%9	%9
Convincing	%3	%13	%3	%3	%6
Examining	%6	%2	-	%3	%3
Precision	-	%5	-	-	%2
Recognition by Everyone	-	%5	-	-	%2
Reaching a Solution	-	-	%7	-	%1
Result	-	%2	-	-	%1
Total	%100	%100	%100	%100	%100

Examining the Table 2, it is detected that most of the students comprehend making a proof as "understanding the accuracy or inaccuracy" and "explaining". A part of the students attribute making a proof to "indicating the origin and the way of occurrence" and "strategic interest". Though few in numbers, students understand the actions of proof such as "examining", "convincing", "precision", "recognition by everyone", "reaching a solution", "revealing" and "result". When the opinions of the students are examined, it is observed that they mostly focus on the verification and explanation function of the proof. When evaluation is made according to the grade levels, all the grades regard making a proof first as "understanding the accuracy and inaccuracy" and then as "explaining". Accordingly, it can be said that students attribute the proof to showing the accuracy of an expression as well as describing why this expression is accurate. Expressions which form the first most repeated three categories which are "understanding the accuracy and inaccuracy", "explaining" and "proving" are given respectively in the following.

In order to understand what meaning attributed to making a mathematical proof by the students, a question like "what do you understand by making a proof?" is asked to the students.

It is determined that the answers obtained are collected under nine categories in a way to be 5 categories in the ninth grades, 7 categories in the tenth grades, 7 categories in the eleventh grades and 6 categories in the twelfth grades. These categories are illustrated in Table 3.

Table 3. Meaning attributed to making a mathematical proof by the high school students

Categories	9th	10th	11th	12th	Total
Verifying	%43	%26	%31	%44	%35
Showing The Result Of The Operation	%37	%38	%20	%22	%30
Proving The Theorem	%14	%18	%10	%16	%14
Showing Geometrically	-	%5	%30	%12	%12
Reaching a Solution	%3	%5	%3	%3	%4
No Comment	%3	%5	%3	-	%2
Pile of Operations	-	%3	-	-	%1
Developing a Strategy	-	-	-	%3	%1

Being Satisfied	-	-	%3	-	%1
Total	%100	%100	%100	%100	%100

Examining the Table 3, students define making a mathematical proof as "verifying" and "showing the result of the operation". A part of the students attribute making a mathematical proof to "showing geometrically", "proving the theorem" and "reaching a solution". Though few in numbers, students explain the meaning of making a mathematical proof as "pile of operations", "developing a strategy", "convincing" and "being satisfied". When the opinions of the students are evaluated, it is observed that the students attribute making a mathematical proof to verify a mathematical expression and showing the result of the mathematical operations.

CONCLUSIONS AND COMMENTS

As a result of the study made for revealing the opinions of the students for the definition of the proof, the participants generally state the proof as "explaining" and "explaining the accuracy and inaccuracy". This opinion is in agreement with the definition by Yıldırım (2000) which is "proof is the attempt to provide acceptance for the accuracy or inaccuracy of a judgement, argument or result by showing sufficient evidence". Though few in numbers, students also explain the definition of the proof as "final judgement", "questioning the reason", "support", "and theorem", "occurrence of something without hesitation" and "accepting". When the opinions are evaluated based on the grades, all the grades describe the proof as "explaining the accuracy and inaccuracy" and "revealing".

In order to understand the meaning attributed to making a proof by the students, a question like "what do you understand by making a proof?" is asked to the students. Findings show that the students mostly attribute meaning to making a proof in parallel to the definition of the proof they made. Most of the students comprehend making a proof as "understanding the accuracy or inaccuracy" and "explaining". A part of the students attribute making a proof to "indicating the origin and the way of occurrence" and "strategic interest". Though few in numbers, students understand the actions of proof such as "examining", "convincing", "precision", "recognition by everyone", "reaching a solution", "revealing" and "result". This result shows parallelism with Kaplan, Doruk and Özdemir (2015) and Güler and Dikici's (2013) findings with respect to the fact that students attribute the proof to verifying and explaining.

In order to understand the meaning attributed to making a mathematical proof by the students, a question like "what do you understand by making a proof?" is asked to the students. Findings show that students define making a mathematical proof as "verifying" and "showing the result of the operation". A part of the students attribute making a mathematical proof to "showing geometrically", "proving the theorem" and "reaching a solution". Though few in numbers, students explain the meaning of making a mathematical proof as "pile of operations", "developing a strategy", "convincing" and "being satisfied". Students' views shows parallelism with Baki's (2014) expressions. According to Baki (2014), mathematical proof is to prove the accuracy or inaccuracy of a mathematical expression. In other words, the assertion indicates that the pattern can be generalized from all the conditions. There are also high school students which pay attention to the systemization and discovering function of the proof although they are few in number. This suggests that the other functions of the proof are not paid attention to by the students (Hanna and Barbeu, 2000; Hanna and Jahnke, 1999). Considering from this aspect, the students should be provided to discover the other functions of the proof on learning the mathematical information.

Proof is one of the five process standarts recommended by NCTM (2000). In this manner, considering the important and essential place proof in mathematics education, proof should take place at all levels of school mathematics curriculum. Also, students should train themselves in the way of improving their knowledge about the proof. The following suggestions can be made; methods of proving which are given in secondary education should be taught in details, students' self-confidence about prove should be provided with plenty of individual applications, importance of proof should be comprehended with real-life examples, research can be done with different scales about proof.

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INVESTIGATION OF HIGH SCHOOL TEACHERS' ATTITUDE AGAINST COMPUTER AIDED EDUCATION WITH SOME VARIABLES: A CASE STUDY IN DENİZLİ

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ABSTRACT
Aim of this study is to detect high school teachers' attitudes towards computer based instruction (CBI) through statistical analysis of the relationships between various variables (age, gender, seniority, major, receiving education about computer use within FATIH project, ability to use a computer) survey method was used in this research. In order to achieve this aim, 'attitude scale toward Computer-Based Instruction', which was developed by Arslan (2006) was applied to 160 high school teachers in Denizli. Data were analyzed through SPSS 16 program. At the end of the research, it was found that there is a statistically significant difference between attitudes towards CBI depending on gender and ability to use computer.

Keywords: Computer, teacher, Computer-Based Instruction (CBI)

INTRODUCTION

As it is in every aspect of life, technology in education is developing rapidly, and it is argued how to provide education better with new approaches and new developments. It wouldn't be wrong to mention that teachers have the biggest responsibility for this. Through making use of CBI, it is aimed to increase students' motivation, timesaving, increase quality, effectiveness and flexible learning in education. According to Hannafin and Peck (1989), Computer- Based Instruction (CBI) is defined as transferring content and activities of the course by using computers. While Demirel et.al. (2011) defines CBI as using computers in line with school administration in courses, Şahin and Yıldırım (1999) defines CBI as a teaching method, which increases students' motivation in teaching process, enables students autonomous learning. CBI can be viewed as activities that are prepared for a specific field in which it provides an environment that students are active, and teachers are guides.

Presley and Skinner's studies in 1950's are the first studies related CBI. In that period, since principles of behaviorist theory were popular, individual learner differences were neglected. In 1960's, in the name of personalized education and computer based education, punched cards were developed. Thanks to rapid developments in 1970's, teachers started to make use of computers in their courses. In 1980's first personal computers were produced. When computer based teaching applications were applied, they were designed as systems in which students could individually study, assess their learnings, and get feedback. However, with the spread of constructivist approach, computers have been used widely with software programs that were developed for qualified teaching purposes (Tanyeri, 2007).

In these days, it is common that computers are used in different fields of education. For instance, we can see computers as an application tool that students make use of while learning and finding answers to questions or students become teachers and computers become students for providing students' with learning applications. Need for use of computers in education is increased, due to the fact that number of students are rising, there are not enough teachers, and there is not enough time, individual capabilities and differences become important (Alkan, 1998, Yanpar, 2006**).**

Nowadays, computers, that provide teachers with sources of teaching materials and supports education, plays an important role in education. This situation covers only one of the most important contributions that CBI makes to education. It should not be forgotten that through using computers, the student practices the ability of applications and research and explore the teaching side of the computer in this period.

In general, CBI is used to present the information in teaching and learning process, make students practice, and guide them appropriately. It should be recognized that in order to make this process efficient, teachers should have enough background knowledge and they should be at the level of transfer their knowledge**.**

When the literature is analyzed, in the studies related to investigate teachers' and preservice teachers' attitudes towards CBI(Çelik and Bindak, 2005;Yenilmez and Ersoy, 2008; Şahin and Akçay, 2011), it is concluded that

teachers and students made positive comments on using computers in education, and they have positive attitudes towards CBI. In addition, Tay and Yıldırım (2013) carried a research in social sciences pre-service teachers, and they found that there are significantly positive differences in recalling information, interest in courses, permanent knowledge, while there were no statistically significant differences based on gender. In addition, it was also observed that teaching with the help of computer simulations provides help to solve problems of teaching three dimensional content traditionally (Çekbaş et. al., 2003). In a study carried with elementary school math pre-service teachers**,** while there were significant differences between their attitudes towards computers and computer based courses depending on their frequency of using computers, there were positive and meaningful results towards applying CBI in the classroom (Özgen, et.al., 2009). ın Yenilmez's (2009) research on math pre-service teachers, it was found that male teachers were statistically more interested in computers than female teachers. In addition, Kocasaraç (2003) has another research study that indicates that male teachers involve computers in their teaching more.

There is an ample gap in recent years on in-service high school teachers' CBI applications. Most of the studies existing in this field are conducted with elementary school teachers and pre-service teachers. In our country, it is important to investigate existing research due to the fact that teachers are expected to make use of technology in their classes since technological infrastructure of the elementary schools are improved within FATIH project (meb.gov.tr, 2012) that stands for Movement of Enhancing Opportunities and Improving Technology that is conducted by Ministry of Education and supported by Ministry of Transport and Maritime Affairs and Communications

In this respect, this research is aimed to investigate developments in technological infrastructure of schools within FATIH project, and attitudes of in-service teachers towards CBI, instead of pre-service teachers' attitudes. Attitudes of the sample group was investigated to detect whether there are any significant differences between teachers' towards CBI in terms of various variables (school type, age, gender, seniority, major, and whether or not they received any computer education within FATIH project).

So, this research aimed to investigate to answer "What are the variables that effect attitudes of high school teachers in central Denizli towards CBI?" as main research question.

Research Questions

1. Is there any difference between high school teachers' attitudes towards CBI depending on the institutions they work in?
2. Is there and difference between high school teachers' attitudes toward CBI depending on gender?
3. Is there and difference between high school teachers' attitudes toward CBI depending on age?
4. Is there and difference between high school teachers' attitudes toward CBI depending on their seniority?
5. Is there and difference between high school teachers' attitudes toward CBI depending on their major?
6. Is there and difference between high school teachers' attitudes towards CBI depending on receiving education in computer use within FATIH project?
7. Is there and difference between high school teachers' attitudes toward CBI depending on the ability to use computer?

METHOD

This research conducted as survey method. Generally, survey methods are organizations within a population composed of multiple elements, or a sample group extracted from the population, in order to make a general interpretation about the universe (Karasar, 2005). In this research, teachers' attitudes towards CBI were analyzed.

Population and Sample

The population under investigation included all high school teachers in Denizli. Sample of the population was chosen from high schools that represent different demographic structures of Denizli. Sample, which represents the population was composed of teachers from different major, were selected from nine different high schools (5 Anatolian high schools, 2 vocational high schools, 2 private high schools). Presented research is limited to these groups. Demographic data of the participants are resented in Table 1.

Table 1. Demographic information of participants

Variable	Category	n	%
Gender	Female	91	56,9
	Male	69	43.1
High school	Anatolian high school	87	54.4
	Vocational high school	49	30.6
	Private high schools	24	15
Total		160	100

Data Collection

A questionnaire was used as data collection tool, which is composed of two sections, in this research. In the first section, data, which were gathered by the researcher, related to high school types, seniorities, age, gender, and whether they received any education about computer use within FATIH Project, and their abilities of using computer were analyzed. In the second section, CBI attitude scale, which was developed by Arslan (2006), was applied.

Data Collection Tool

Likert- type Attitude scale that was used in the research was developed by Arslan (2006), was one-dimensional, composed of 10 affirmative, 10 negative items. Kaiser-Meyer-Olkin (KMO) co-efficient of the scale was 0.88, Barlett test meaningfulness value was 0.000. and Cronbach-alpha internal consistency co-efficient was 0.93 (Arslan, 2006). Items were organized in five points: 'Strongly Agree', 'Agree', 'Neutral', 'Disagree', 'Strongly Disagree'. In affirmative items, the pointes were determined as such: 1 'Strongly Disagree', 2 'Disagree', 3 'neutral', 4 'Agree', and 5 'Strongly Agree'. In negative items, the points were determined as such: 1 'Strongly Agree', 2 'Agree', 3 'Neutral', 4 'Disagree', 5 'Strongly Disagree'. Internet consistency co-efficient of this research was 0.91.

Data Analysis

Kolmogorov-Smirnov test was applied to detect whether the items of the Attitude Scale of CBI, which is used as a dependent variable in this research, show normal distribution or not. According to K-S(z) analysis, it was identified that answers for Computer-Based Instruction CBI showed normal distribution (K-S(z)=1.01; p>0.05). Thus, t-test and one way variance test, which are parametric statistical tests), were used to answer research questions.

FINDINGS

Findings were presented in categories of research questions.

Do teachers' attitudes towards CBI differ depending on the schools they work in?

In order to answer this research question, One Way Anova Test, which is a parametric technique, was used.

Table 2. Analysis of teachers' attitudes towards CBI based on the schools they work in

Variable	Category	n	$\bar{X}$	ss	F	p
Schools	**Anatolian high school**	87	3.80	0.58	1.092	0.338*
	Vocational High school	49	3.64	0.62		
	Private High schools	24	3.71	0.72		
	Total	160				

*p=0.338>0.05

As a result of one way variance analysis, there were no statistically significant differences in attitudes of teachers towards CBI depending on the schools they work in. When Table 2. is analyzed, it can be seen that teachers' attitudes towards CBI were similar, varying between 3.64-3.80. when they are classified based on their schools: Anatolian high schools, Vocational High schools, and Private high schools

Is there any difference between high school teachers' attitudes toward CBI depending on gender?

Independent Samples T Test, which is a parametric technique, was used in order to answer the research question.

Table 3. Analysis of attitudes towards CBI based on gender

Variable	Category	n	$\bar{X}$	ss	t	p
Gender	**Female**	91	3.63	0.62	-2.389	0.011*
	Male	69	3.88	0.58		

*p=0.011< 0.05

A statistically significant difference was found as a result of the analysis based on gender in 0.5 level (t=-2.57, p< 0.05). When Table 3. is analyzed in order to detect which gender has advantage, it was detected that means of male teachers'' attitudes towards CBI ($\bar{X}_M$= 3.88), are higher than female teachers' attitudes ($\bar{X}_F$= 3.63). Considering this result, it can be said that male teachers have higher attitudes that female teachers towards CBI.

Is there any difference between attitudes of high school teachers' based on age?

One Way Anova test, which is a parametrical technique, was applied in order to answer the research question**.**

Table 4. Analysis of high school teachers' attitudes towards CBI based on age

Variable	Category	n	$\bar{X}$	ss	F	p
Age	**24-29**	13	3.62	0.71	1.304	0.265*
	30-35	28	3.95	0.49		
	36-41	62	3.72	0.63		
	42-47	28	3.80	0.59		
	48-53	23	3.55	0.68		
	54-60	6	3.61	0.48		

*p=0.265>0.05

As a result of one way analysis, it was seen that there were no statistically significant differences in attitudes of high school teachers towards CBI based on age. Attitudes towards CBI of the participants from different age groups were similar to each other. In other words, as age ranges differ, attitudes towards CBI become similar.

Is there any difference between high school teachers' attitudes toward CBI depending on their seniority?

One way Anova test was applied to answer the research question.

Table 5. Analysis of high school teachers' attitudes towards CBI based on seniority years

Variable	Category	n	$\bar{X}$	ss	F	p
Seniority	1-5 years	16	3.70	0.69	0.73	0.601*
	6-10 years	15	3.90	0.45		
	11-15 years	57	3.77	0.63		
	16-20 years	31	3.78	0.60		
	21-25 years	25	3.56	0.66		
	26 years and above	16	3.67	0.61		

*p= 0.601> 0.05

Results of one way analysis indicate that there is not a statistically significant difference between attitudes of high school teachers towards CBI. When Table 5. was analyzed, it was seen that as teachers' seniority years differ, their attitudes towards CBI become similar. In other words, as teachers' seniority years change, their attitudes towards CBI are similar in 3.56- 3.90 level, out of five.

Is there any difference between high school teachers' attitudes toward CBI depending on their major?

One Way Anova Test, which is a parametric technique, was applied in order to answer the research question.

Table 6. Analysis of teachers' attitudes towards CBI based on their majors.

Variable	Category	n	$\bar{X}$	ss	F	p
Major	Math	35	3.72	0.79	0.30	0.825*
	Science	41	3.67	0.65		
	Social sciences	59	3.78	0.52		
	Other	25	3.77	0.52		

*p= 0.825> 0.05

Result of the one way analysis indicate that there were no a statistically significant differences in teachers' attitudes towards CBI based on their major. When Table 6. was analyzed, it was seen that attitudes of teachers from different braches were similar since their scores were above average. In other words, attitudes of teachers' from different major towards CBI were similar.

Is there any difference between high school teachers' attitudes towards CBI depending on receiving education in computer use within FATIH project?

Independent Sample T-Test, which is a parametric technique, was used in order to answer the research question.

Table 7. Analysis of high school teachers' attitudes towards CBI based on their computer education within FATIH Project

Variable	Category	n	$\bar{X}$	ss	t	p
Receiving computer education within FATIH project	Participants who received education	119	3.76	0.59	0.626	0.53*
	Participants who did not receive education	41	3.69	0.69		

*p=0.53>0.05

Results of the Independent Sample T-test indicated that there were not a statistically significant differences between scores based on their computer education within FATIH Project (t=0.626, p> 0.05). When Table7. was analyzed, it was also seen that there is a similarity in teachers' attitudes towards CBI. Although great majority of teachers received education of computer use, their attitudes showed no statistically significant difference towards CBI.

Is there any difference between high school teachers' attitudes toward CBI depending on the ability to use computer?

One Way Anova test, which is a parametric technique, was used in order to answer the research question.

Table 8. Analysis of high school teachers' attitudes towards CBI based on their abilities to use a computer

Variable	Category	n	$\bar{X}$	ss	F	p
Ability to use computer	**Very bad**	3	2.87	0.75	7.697	0.000*
	Bad	14	3.56	0.73		
	Average	56	3.51	0.65		
	Good	70	3.90	0.51		
	Very good	17	4.12	0.55		
Total		160				

*p= 0.000< 0.01

Results of the one way variance analysis indicated that there is a statistically significant difference between high school teachers' attitudes towards CBI depending on their abilities to use a computer. In order to detect which group have positive attitude, Levene Test was used and it was seen that the variances were equal (L= 0.741;p> 0.05). Thus, a Post hoc test developed by Duncan for the cases when variations are equal, was applied. According to the data obtained, it was detected that teachers with higher ability to use computers have higher mean of attitude scores ($\bar{X}$very good= 4.12) than other groups. According to Post hoc test developed by Duncan, it was determined that teachers with 'very good' and 'good' levels of computer use have higher mean scores of attitudes towards CBI than teachers with 'very bad' and ' average' levels of computer use.

CONCLUSION AND DISCUSSION

In general, teachers' attitudes towards CBI are high. In this respect, it can be concluded that they have positive attitudes towards involving computers in their courses. There were no statistically significant differences between teachers' attitudes based on the schools they work in. Thus, it can be said that teachers have positive attitude using CBI in class regardless of the schools they work in.

There is no difference between teachers' attitudes as their ages change. Since CBI has been detected to have positive effects on student and teacher motivations from the beginning of 2000's (Çekbaş et.al. 2003; Kocasaraç, 2003; Çelik and Bindak, 2005; Yenilmez and Ersoy, 2008; Özgen, et.al. 2009, Yenilmez, 2009; Şahin and Akçay, 2011; Tay and Yıldırım, 2013), not having any difference based on age in these days can be normal**.**

In light of the data obtained related to teachers' attitudes towards CBI based on gender, it was seen that attitudes of male teachers are more positive than attitudes of female teacher. Although Tay and Yıldırım (2009) did not find any gender-related difference between teachers' attitudes towards CBI, Yıldırım (2009) detected that male pre-service teachers have more positive attitudes towards use of CBI in math classes. Results of the study, which was conducted by Kocasaraç (2003), also showed that male teachers' attitudes were higher than females. As a result, it can be said that female teacher have lower attitudes towards CBI. Identifying possible reasons of this situation will play an important role in increasing the awareness of taking precautions.

Research findings showed that teachers with the ability to use a computer have increased positive attitudes towards CBI. As Aypay and Odabaşı (2008) proposed, as teachers' ability to use a computer gets better, they are more likely to integrate computers in their teaching.

To sum up, findings of the present research indicate that teachers have high attitudes towards CBI, their attitudes remain the same regardless of school and seniority, while male teachers have more positive attitudes than female teachers, and teachers with good computer skills have more positive attitudes compared to the ones with bad computer skills. This study provides a clue that researches (Tay and Yıldırım, 2013; Yenilmez, 2009), which are related with pre-service teachers, can be generalized to in-service teachers**.**

On the other hand, this research did not aim to investigate teachers' attitudes towards CBI in terms of their perceptions about CBI, that is they asses the CBI as constructivist or behaviorist theories. Thus, a further study should focus on this aspect, since it is important to guide teachers in light of constructivist theory (Tanyeri, 2007), in which CBI is important for cognitive development of students, in these days that technological infrastructure of our schools are being developed.

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LOOKING FOR A SPECIFIC MEASURE FOR ASSESSING SOURCES OF STRESS AMONG TEACHERS: A PROPOSAL FOR AN ITALIAN CONTEXT

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ABSTRACT
The teaching profession is now recognized as a highly stressful occupation, mainly due to the increase in work demands and interaction with students. Given that in Italy there is a scarcity of validated instruments that specifically measure school-related sources of stress, specifically Workload and Class Stress, this study proposes a first contribution for the validation of the Teacher Stress Inventory (TSI) in the version proposed by Klassen and Chiu (2010), including 7 items. To accomplish this, the items of the instrument were back-translated from English into Italian. A survey among Italian primary and secondary school teachers (n=269) was conducted in order to explore the psychometric proprieties of the Italian version. Results of the Exploratory Factor Analysis revealed, in accordance with expectations, a bi-dimensional factor-structure underlying the 7 items. Specifically, the first factor extracted was Classroom Stress (4 items), explaining the 59.37% of the variance, whereas the second factor comprised all the 3 items of Workload Stress (variance explained: 15.01%). All Cronbach's alphas were satisfactory ($\alpha > .80$). In addition, the significance of the correlations of both scales of TSI with burnout and another measure of stress provided evidence for predictive and convergent validity. Overall, these results suggested the validity and applicability of the instrument also in the Italian context.

INTRODUCTION

In the last decade, growing attention has been paid to occupational wellbeing in the educational sector, primarily due to the link between the quality of the teaching process and students outcomes, not only in terms of learning process, but also for the general academic and psychosocial wellbeing of the latter (Caprara et al., 2006; Denny et al., 2011; Reyes et al., 2012; Converso et al., 2014).

Like other "helping professions", teaching is a highly stressful occupation (IARD, 2003). Specific sources of stress that account for the onset of burnout, mental illness, and job dissatisfaction could be identified either in the social or in school-classroom characteristics. Teachers seem to experience – more than any other category – social disvalue and poor acknowledgement of their commitment from school administrators (Zurlo et al., 2007; Cordeiro et al., 2002) along with the increased workload, the management of demands not directly related to the teaching process, often without a corresponding increase in salary or job security (Drago, 2006). Moreover, several studies showed that the daily interactions with students - most of all with their disruptive behaviors - colleagues and students' parents, have the main impact on their wellbeing (Boyle et al., 1995; Kokkinos, 2007; Hargraves, 2003; Otero-Lopez et al. 2008; 2010; Velasco et al., 2013). Several studies identified, as the main predictive factors of burnout among teachers, the student's inappropriate behavior and attitudes (e.g. Hasting, Bham, 2003; Kokkinos, 2007; Kyriacou, Sutcliffe, 1978a), the difficulty in dealing with potentially conflictive situations, and the lack of support, as emerged also from Chang's literature review (2009). In this sense, as teachers mainly link their goals and expectations to the quality of the educational process and in influencing and inspiring students, they may experience less meaningful work when have to deal with students' inattention and disinterest in learning (Pines, 2002). This is of primary importance given that the efficacy perceived in the daily interaction with students and in classroom management is also predictive of the quality of the learning environment (Caprara, 2003), job satisfaction (Skaalvik, Skaalvik, 2009) and intention to leave (Martin et al., 2012). Otherwise, knowing the sources of stress that teachers experience in the class context is also indicative of the general class social climate, which, as highlighted by the research on school effectiveness, is one of the major elements linked to student wellbeing and academic outcomes (e.g. Reyes et al., 2012; Way, Reddy, Rhodes, 2007).

Despite this, in the Italian context, most of the instruments used in the school-research field, such as the JCQ (Karaseck, 1988) or the ERI (Siegrist, 1996), are actually shaped in relation to the general organizational health psychology literature that doesn't take into account the specific demands posed by the teaching profession. Even though all the dimensions considered by these tools emerge as important transversal characteristics of the work environment, it could be state that, to facilitate more meaningful research into teaching stress, there is the need for a manageable tool for the assessment of the main sources of stress experienced by teachers, especially in the Italian context where there is a paucity of validated instruments that specifically measure school-related factors (Guidetti, Converso, Viotti, 2014).

One of the most interesting tool in the assessment of the teachers' working quality life, based on the interactional/transactional perspective on stress proposed by Kyriacou and Sutcliffe (1978b), is the Teacher Stress Inventory developed by Boyle et al. (1995), a formerly validated scale either in Anglo-Saxon (Dunn-Wisner, 2004) and other cultural contexts (Hanif, Pervez, 2003; Boshoff, 2011; Kourmousi et al., 2015).

The authors of the original questionnaire specifically aimed at validating the dimensional structure of latent variables pertaining to teacher stress - previously identified by a series of factor analytic studies (e.g., Kyriacou, Sutcliff, 1978b; Payne, Fumham, 1987; Borg et al., 1991) - using different samples to undertake separate exploratory and confirmatory factor analysis, providing strong evidence as to the reliability of the dimensions contributing to teacher stress. Based on this, the Teacher Stress Inventory consisted of 20 items that after EFA analysis, resulted in 16 items (after a deletion of items with a double loading) grouped into a five-factor solution (χ =91.97; df=16; $p < .05$): Factor 1 - Workload (e.g. lesson preparation, responsibility for pupils and inadequate rest periods) accounted for 32% of the variance, Factor 2 - Professional Recognition (e.g., poor career structure, insufficient salary) accounted for 11.2% of the variance, Factor 3 - Student Misbehaviour (e.g., noisy and difficult pupils, lack of class discipline, problems in managing additional students) accounted for 7.7% of the variance, Factor 4 - Time/Resource Difficulties (e.g., inadequate equipment and facilities, large class size) accounted for 7.2% of the variance, Factor 5 - Poor Colleague Relations (e.g. attitudes of other teachers or pressure from educational authorities) accounted for 6.3% of the variance. Consequently, the factor structure was tested using Confirmatory Factor Analysis, providing evidence that the hypothesized model was stable (χ =171,14; df=70; AGFI = .91; RMR = .06). Finally, the relationship of the five "causal" factors with a single-item self-rating measure of teacher stress was examined, and, interestingly, revealed that both Workload and Student Misbehaviour were the only latent variables that emerged as significant predictors, explaining respectively 30% and 29% of the variance (Boyle et al., 1995).

Since these two dimensions revealed the main contribution in the onset of teachers' overall stress, Klassen and Chiu (2010) adapted this instrument (rescaling the items on a nine-point response scale) confirming a two-factor solution for these two sources of stress and their predictive power in the levels of job satisfaction and teacher self-efficacy

THE CURRENT STUDY

The present study represents a first contribution to the development of the Italian version of the Teacher Stress Inventory (TSI) in the version proposed by Klessen and Chiu (2010). Particularly, it aims at examining the psychometric proprieties of TSI in a sample of Italian teachers.

MATERIALS & METHODOS

Data collection:

Teachers from 18 public schools in a region of Northern Italy were involved during the academic year 2013/2014. Presentation of the project, sharing of content, objectives, and modalities of research implementation were first presented to school administrators, and consequently to all the participants involved in the project.

The self-reported questionnaire was administered anonymously to a total sample of 299 teachers, and its completion was the result of consent for the processing of the data, conducted in privacy and in accordance with current legislation. The questionnaire was filled out individually during working hours, in the presence of a researcher of the Department of Psychology who was available to the participants for clarification about the completion.

Participants:

269 teachers filled out the questionnaire correctly and therefore were considered for the current study. 169 (62.8%) were teachers of primary school, and 100 (37.2%) of secondary school.

91.2% were female and 8.8% were male. Participants were aged between 25 and 63 years (M= 45.22; sd=7.84).

As educational level, 15.4% had a bachelor degree, 80.7% a master degree, and 3.9% a PhD or a specialist degree. Most of the subjects were married (71.3%), 65.9% have at least one child.

As concerns professional data, participants job tenure in the public school system ranged from 1 to 41 years (mean: 18.47; sd=9.54). The majority had a permanent contract (72.5%).

Instruments:
The data were obtained by means of a self-reported questionnaire including a socio-demographic section and the version of Teacher Stress Inventory (TSI) proposed by Klassen and Chiu (2010) back-translated into Italian. A single item aimed at capturing overall stress (Klassen and Chiu, 2010) and the Spanish Burnout Inventory (SBI, Figueiredo-Ferraz et al. 2013) were also included.
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The Klassen's TSI version consists of 7 items grouped in 2 sub-dimensions: workload stress (4 items) and class stress (3 items). More specifically, Klassen and Chiu (2010) used six items from the Boyle et al. (1995) Teacher Stress Inventory, plus an additional item about class size (see in table , the item 3). All 7 items were back-translated (Brislin, 1970, 1976) and included in the present questionnaire. Also the following instructions were translated into Italian: *As a teacher, how great a source of stress are these factors to you*?, with responses ranging from 1 (*no stress*) to 9 (*extreme stress*).

Teacher stress was also measured by a single-item scale ("*I find teaching to be very stressful*", 1=completely disagree; 9=completely agree), following the approach used in recent studies of teacher stress (e.g., Chaplain, 2008; Klassen and Chiu, 2010).

Burnout syndrome was assessed by the Spanish Burnout Inventory. It consisted of 20 items distributed in four scales (five-point scale ranging from 0 "Never" to 4 "Every day"): Enthusiasm towards the job (5 items, e.g., *I see my job as a source of personal accomplishment,* α=.86), Psychological exhaustion (4 items, e.g., *I feel emotionally exhausted* α=.84), Indolence (6 items, e.g., *I don't like taking care of some students,* α=.64), and Guilt (5 items, e.g., *I regret some of my behaviors at work,* α=.77).

Data analysis.
Data analysis were performed using SPSS Statistical Package version 21 and included in five steps: a) item analysis (mean, standard deviation, skewness and kurtosis); b) assessment of score reliability of the TSI sub-scales (Cronbach's alpha and alpha if item is deleted); c) testing factorial validity of the TSI through Exploratory Factor Analysis (EFA; Method of Estimation: Maximum Likelihood; Rotation method: Oblimin); d) Pearson's correlations between TSI, the job stress single-item-scale and, SBI sub-scales in order to assess respectively convergent and predictive validity.

FINDINGS
Item analysis.
Descriptive statistics for the items are shown in Table 1. The highest mean values were reached by item 5 ("having noisy students", m=6.74), item 3 ("have large class size", m=6.69), and item 7 ("dealing with students' impolite behavior or rudeness" m=6.68).
For all items, the corrected item-total correlation achieved values equal or greater than r = .60. All values of skewness and kurtosis are comprised in the range –1.0 to +1.0, suggesting no violation of normal distribution.
Internal consistency.
The internal consistency of the sub-scales was satisfactory as the values of Cronbach's alpha reached respectively .82 for Workload stress subscale and .90 for Classroom stress (Table 1). In addition, all items seem to give a relevant contribution to the subscales where they belong, since in no case, if the items were deleted, the alpha increased or kept the same value.

Table 1 – Descriptive Statistics of TSI Items.

Subscale Item	*M* (SD)	Corrected item-scale correlations	Skewness	Kurtosis	Alpha if item deleted
Workload stress (α=.82)					
1) Having too much work to do	5.65(2.26)	.75	-.38	-.78	.73

2) Having extra duties/responsibilities because of absent teachers	5.58(2.35)	.68	-.32	-.99	.76
3) Having large class size	6.69(2.25)	.57	-.86	-.26	.81
4) Being responsible for students' achievement	6.14(2.25)	.60	-.60	-.58	.80
Classroom stress (α=.90)					
5) Having noisy students	6.74(2.04)	.81	-.78	-.28	.85
6) Maintaining class discipline	5.83(2.24)	.80	-.42	-.85	.86
7) Dealing with students' impolite behavior or rudeness	6.68(2.29)	.80	-.84	-.36	.86

Exploratory Factor Analysis (EFA).
The Kaiser-Meyer-Olkin measure (KMO =.86) and Bartlett's test (χ =1279.33, df=21, p < .00) indicate that the factor model is appropriate.
In accordance with expectations, a bi-dimensional factor-structure was found underlying the 7 items. Overall, the amount of variance explained is 74.38%. Table 2 presents the items loadings on the two factors. The first factor explained 59.37% of variance. It consisted of three items of Classroom stress. All items positively loaded on the factor, with a saturation greater than .40 (the lowest value is on item 3 "maintaining discipline" with a value of .85). The second factor was Workload stress with 15.01% of variance explained. All loadings were greater than .40 and the lowest loading was reached by item 4 "Being responsible for students' achievement", with a value of .42.

Table 2 – Factors, items loadings, variance explained of TSI

Item	Factors	
	Factor I	Factor II
7) Dealing with students' impolite behavior or rudeness	**.88**	-.03
5) Having noisy students	**.87**	.01
6) Maintaining class discipline	**.85**	.04
1) Too much work to do	-.05	**.91**
2) Extra duties/responsibilities because of absent teachers	-.06	**.81**
3) How great a source of stress is having a large class size	.27	**.51**
4) Being responsible for students' achievement	.29	**.42**
% of Variance	59.37%	15.01%

Note 1– Bold type indicate Value ≥ .40.

Correlations among subscales

The two subscales showed a high positive correlation (r=. 62) in the expected direction.

The correlations (Table 3) also suggest an adequate convergent validity with the measure of global stress and a good predictive validity on the burnout syndrome. All the correlations were significant. Workload stress showed the highest correlation with the measure of overall stress (r=. 52). Among the burnout dimensions, psychological exhaustion showed the strongest correlations with both the stress sources (r for workload equal to .54 and r for classroom .39), whereas guilt the weakest (both r were equal to .11).

Table 3 - Pearson's correlations among subscales

	1	2	3	4	5	6	7
1. Classroom Stress	1						
2. Workload Stress	.62**	1					
3 Overall Stress	.39**	.52**	1				
4. Enthusiasm towards the Job (burnout)	-.25**	-.19**	-.18**	1			
5. Psychological Exhaustion (burnout)	.39**	.54**	.45**	-.37**	1		
6. Indolence (burnout)	.24**	.14*	.16**	-.30**	.28**	1	
7. Guilt (burnout)	.11*	.11*	.06	.00	.35**	.38**	1

** p <.001; * p<.05

CONCLUSIONS

The purpose of this study was to examine the psychometric properties of the Italian version of TSI proposed by Klassen and Chiu. The results obtained indicate that TSI is an adequate tool for assessing stress sources also in the Italian teaching context. In line with previous studies that underlie how the daily interaction with students and the management of academic demands are the main sources of stress (Otero-Lopez, 2008; 2010), this study shows similar patterns presenting significantly high correlations with levels of overall stress and emotional exhaustion.

This study has some limitations. The most important are that the data collection included only one Italian Northern Region, and that participants were selected in a non-random way. Future studies should select representative samples in order to provide stronger evidence for the adequacy of the psychometric proprieties of TSI in an Italian context implementing confirmatory factor analysis.

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Appendix-1 English and Italian version

	Original item	*Item translated into Italian*
	As a teacher, how great a source of stress are these factors to you?	Pensando al suo lavoro di insegnante, in quale misura i seguenti aspetti rappresentano per lei una fonte si stress?
	(Workload stress)	
1)	Having too much work to do	Avere troppo lavoro da portare a termine
2)	Having extra duties/responsibilities because of absent teachers	Avere responsabilità e compiti extra quando altri insegnanti sono assenti
3)	Having a large class size	Avere classi numerose
4)	Being responsible for students' achievement	Essere responsabili dei risultati conseguiti dagli studenti
	(Classroom stress)	
5)	Having noisy students	Avere studenti in classe che disturbano, fanno baccano
6)	Maintaining class discipline	Mantenere la disciplina in classe
7)	Dealing with students' impolite behavior or rudeness	Rapportarsi con studenti maleducati, insolenti

M. NECATI ÖZKAN AND THE EDUCATION OF CYPRUS TURKS

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M. Necati Özkan, one of the leaders of Cyprus Turkish Society, started his vocational career as a teacher in Lefkoşa Turkish High School. Having worked as a teacher for three years, he pursued his life with trading affairs and contributed greatly to the development of Cyprus Turkish Society. In this period, Özkan found the opportunity to be closely interested in public and engaged himself to find solutions to people's problems.

In this period, M. Necati Özkan started to get into politics. He emphasized the path to be followed in politics and the need for the development of Cyprus Turks. He started to get an opposing position against British colonial administration and he claimed the rights of Cyprus Turkish Society. Özkan had a seat in the Lefkoşa city council in the elections of 1926. Four years later, in 1930, he was up for candidature from Lefkoşa/Girne Township and won the elections of legislative assembly (Kavanin Meclisi) and became the representative of Cyprus Turks. He was also the founder of Independence Party and Independence newspaper. Throughout his life, Özkan struggled to develop Cyprus Turks and preserve their national identities. Educational problems became a part of this struggle and he wrote articles in Independence newspaper regarding educational issues. This study presents M. Necati Özkan's conceptions of education and the effort he made for the education of Cyprus Turks.

Keywords: M. Necati Özkan, Education, Cyprus, Cyprus Turks, Turkey

SCHOOL ADMINISTRATORS' LEVEL OF USING SCIENTIFIC PROBLEM SOLVING SKILLS IN ORGANISATIONAL PROBLEMS BASED ON THE VIEWS OF INSPECTORS

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ABSTRACT
This study was designed to identify high school administrators' level of using scientific problem-solving techniques in organisational problems based on inspectors' views. The population of the study was the inspectors working in the city of Kırklareli in 2014-2015 school year. No sampling method was used since the whole population was reached within the study. Survey model was adopted, and the "Scale of School Administrators' Level of Using Scientific Problem-Solving Processes and Techniques in Organisational Problems" developed by Sağır and Göksoy (2011: 1-11) in 5-point Likert type was used as the data-gathering instrument. The scale was adapted to the Kırklareli sample and the Cronbach's Alpha coefficient was 0,95. According to the findings, the inspectors stated that school administrators differed in their level of using scientific problem solving techniques in terms of various variables. In overall, the inspectors indicated that school administrators properly defined the organisational problems they encountered, but did not apply the solutions developed to solve these problems. The study suggests that in-service training should be organised to enable administrators to use the necessary techniques to solve organisational problems, and policies including requiring them to do a master's degree in areas that focus on these issues should be developed to enhance administrator effectiveness.

Key Words: Inspector, School Administrator, High School, Problem-Solving, Organisational Problems, Scientific Problem-Solving Processes and Techniques

INTRODUCTION

The concept of problem has many different definitions in the literature. According to Dewey, problem is "anything that confuses and challenges human mind, and obscures belief" (Gelbal, 1991: 167). For Morgan, problem is a conflict situation in which individuals face inhibition in achieving a goal (Morgan; 1999, p: 149). Bingham defines problem as an obstacle in front of individuals' strengths that they have to achieve a goal. (Bingham, 1998, p: 1, cited in Güner; 2013, p:1022). In the Turkish dictionary of Turkish Language Association, problem is accepted as an issue that needs to be searched, learned, analysed and solved (TDK, 1992, 1200).

Considering that the concept of problem is associated with trouble, individuals need to know problem-solving techniques. There is no absolute way of problem solving techniques, but it is known that there are different ways that take individuals to the solution (Gülşen & Turhan, 2015: 207-2016; Morgan; 1995, p: 149)

As in the past, people encounter problems in their lives and produce various alternatives to cope with these problems. People produce alternative techniques in their individual problems as well as organisational problems. Using scientific methods to solve problems, either individual or organisational, has now become more important.

Because various problems can also be encountered in educational organisations, scientific methods should be used in solving problems in educational institutions. Organisational goals in educational institutions cannot be expected to be achieved without solving the problems (Gülşen & Turhan, 2015: 207-2016; Sungur, 1992: 129).

In educational organisations, schools are systems that operate under public oversight and where students are taught in a programmed and systematic way by staff who are experts in their subject areas to achieve a set of educational goals (Ada & Ünal, 1999: 67). From the perspective of schools, a problem is a situation that inhibits, slows down or disrupts achieving the school aims. As the school administration starts trying to eliminate such obstacles, the problem-solving process begins. School administrators are expected to keep the individual-

institution dimensions of the social system in balance with a sense of mission, and operationalize the elements around them for achieving the school aims. To do these, they should do their job effectively and perform successful administrative behaviours. However, they should not try to solve problems without gathering accurate, reliable and sufficient data on the problems. In all schools, problem-solving methods should be determined based on scientific criteria, and solutions should be implemented by using scientific methods. Using scientific problem-solving techniques to solve problems is of great importance in high schools that have significant effects on the future of individuals, and it is perhaps more important in this level than it is in other levels of education. Solving problems in institutions that have an effect on individuals' future by using scientific techniques is closely related to the administrators in these institutions. For this reason, knowing the attitudes of high school administrators in scientific problems, and the ways they follow in solving organisational problems would enhance the success of these institutions. It was thought to be of significance to identify high school administrators' level of using scientific problem-solving techniques in organisational problems based on the views of inspectors who know them closely, inspect their work, and advise them as a professional coach for their professional development. In this regard, this study was designed to identify high school administrators' level of using scientific problem-solving techniques in organisational problems based on inspectors' views. The stages and techniques of problem solving should be firstly analysed to identify high school administrators' level of using scientific problem-solving techniques in organisational problems. Therefore, the stages of problem solving and scientific problem-solving techniques are explained in the following sections.

Stages of Problem Solving

To educate 21st century individuals who have adopted constant development as their philosophy of life, think analytically, have developed problem-solving and decision-making skills, are open and flexible to team work, seek information and can access to it, have high qualifications and try to develop themselves, believe, are assertive and confident, and have national and universal values, each school should be turned to a high-quality school. This requires changes that would improve education, and thus, the participation of families, school administrators and all other relevant members of the society in addition to students, and coordination of constant development efforts (Gülşen, 2003: 68-69). However, ensuring changes can reveal various problems. Problem situations are solved through certain stages. In the literature, these stages are briefly described as follows: (Büyüköztürk, 2013: 24-26; Gülşen & Turhan, 2015: 207-2016; Karasar, 2012: 29-30; Yıldız, 2003: 29):

1. Realisation and Definition of the Problem: Defining the problem is the first stage of the problem solving process. A realistic definition of the problem with all its aspects considering various variables is of great importance.

2. Analysing the Problem: The first task after realising the problem is fully analysing it before moving on to the solution stage. This analysis requires the limits, dimensions, reasons and necessities of the problem situation to be thoroughly analysed.

3. Developing Alternative Solutions: After analysing the problem, ideas and possibilities regarding the solution should be put forward. Here, it should not be forgotten that creative thinking is active. Possible solutions are offered after revising the information related to the problem, and the appropriate solution is aimed to be found by examining the positive and negative aspects of these solutions.

4. Implementing the Solution Chosen: One of the importance aspects of solving the problem is the process of applying the solution for the problem. This process should be carefully followed, and whether the solution yielded the desired results should be monitored.

5. Evaluation the result: To identify the effectiveness of the solution and whether new problems have arisen, the results should be evaluated in a realistic way. For the evaluation to be successful, it should have standards.

Problem Solving Techniques

There is no absolute way of solving problems. There are various alternatives that exist and are tested to solve problems. Solving problems in accordance with scientific principles and effectively is a kind of art. Many techniques are used in solving problems, either individual or organisational. School administrators are expected to use these scientific techniques in solving organisational problems. These techniques are usually divided into six groups: "a)*Techniques for producing ideas, b)Constant development techniques, c)*Problem analysis techniques, d)Techniques for prioritising suggestions/reasons, e)Decision-making techniques and f)Data gathering, data analysis and evaluation techniques". Some of these techniques are described below (Arcaro, 1995: 108; Çalık, 2003: 178; Çetin, Akın & Erol,1998: 339; De Bono; 2008: 1-20; Efil, 1999: 202; Erdoğan; 2000: 27; Ernest, 1992: 143; Gülşen, 2000: 44-53; Gülşen & Turhan, 2015: 207-2016; Ishikawa, 1997: 142; Koray, 2004: 3; Langfort & Cleary, 1995: 96, 177; Schermerhorn, 1989: 142; Turhan, 2015: 24-50; Yüksel, 2004: 1).

a) *Techniques for Producing Ideas* 1. Brainstorming Technique, 2. Six Thinking Hats, 3. Power Field Analysis, 4.Focus Groups, 5. Interview,
b) Constant Development Techniques 1. Plan-Do-Check-Act (PDCA) Cycle, 2. Wh questions technique,
c) Problem Analysis Techniques 1. Flow Diagram, 2. Fishbone, 3. Pareto Analysis, 4. Decision Analysis, 5. Affinity Diagram, 6.Time Sheets, 7. Force/Power Field Analysis,
d) Techniques for prioritising Suggestions/Reasons: 1. Affinity Diagram, 2.Priorities Matrix/Effectiveness Analysis (Matrix Diagram),
e) *Decision-Making Techniques*: 1.Nominal Group Technique. 2.Priorities Matrix/ Effectiveness Analysis, 3.Multiple Voting Technique, 4.Benchmarking
f) *Data Gathering, Data Analysis and Evaluation Techniques*: 1.Pareto Diagrams, 2.Survey, 3.Teamwork, 4.SWOT Analysis, 5.Similarity Diagram. 6.Affinity Diagram, 7.Control Schema, 8.Histogram, 9.Scatter Plot, 10.Timetable, 11.Control Tables.

In the scope of this study, not all the techniques were included in the evaluation. Some of the scientific problem-solving techniques were considered in the evaluation. The scientific problem-solving techniques that were included in the evaluation and questioned within the study are presented in Table 2.

METHOD

Research Design

In general, survey model was used in the study. It was designed to identify inspectors' views on high school administrators' level of using scientific problem-solving techniques in organisational problems.

Population and Sample

The population of the study consisted of all the inspectors working in the Department of School Inspectors in the city of Kırklareli in 2014-2015 school year. No sampling method was used since the whole population was reached within the study. 78,57% of the surveys distributed to the participants were returned and included in the evaluation.

Data Gathering, Analysis and Interpretation

In the study, literature review was firstly conducted, and then the views were identified through a scale. Survey model was adopted, and the "Scale of School Administrators' Level of Using Scientific Problem-Solving Processes and Techniques in Organisational Problems" developed by Sağır and Göksoy (2012: 1-11) in 5-point Likert type was used as the data gathering instrument. The scale was adapted to the Kırklareli sample and the Cronbach's Alpha coefficient was 0,95. The weights assigned to the extent of agreement for the propositions in the scale and the limits of these weights are as follows: "Never: 1.00-1.80**”**, **“**Rarely: 1.81-2.60**”**, **“**Sometimes: 2.61-3.40**”**, **“**Usually: 3.41-4.20**”**, **“**Always: 4.21-5.00**”**.

In data analysis, SPSS was used, statistical analyses were performed, and frequencies, percentages and arithmetic means were determined. To determine the relationship between the level of using scientific problem-solving method and the administrators' experience, Kruskal Wallis Test was performed. Since all of the inspectors participated in the study were male, no evaluation could be done based on the gender variable, and the evaluation results based on experience was interpreted by means of the tables.

FINDINGS AND INTERPRETATION

In this section, the data obtained related to the inspectors' views on the school administrators' level of using scientific problem-solving processes and techniques were interpreted by the help of the statistical information presented in tables. In the interpretation of the data, package programs were used in the computer environment. The tables formed by the help of the data obtained, and the evaluations based on the data in the tables are presented below. The data related to the inspectors' views were firstly tabulated, and the frequencies, standard deviations and arithmetic means are presented in Table 1.

Table 1. Data Related to the Inspectors' Views on High School Administrators' Level of Using Scientific Problem-Solving Processes in Organisational Problems

No	**"School Administrators ....."**	Never	Rarely	Sometimes	Usually	Always	$\bar{X}$
		%	%	%	%	%	
1	Define organisational problems.	0	0	9,10	45,45	45,45	**4,36**

2	Identify solution alternatives for organisational problems.	0	0	45,45	54,55	0	**3,55**
3	Choose the most suitable possible solution for organisational problems.	0	9,10	0	90,90	0	**3,82**
4	Take into account the importance of the chosen solution for the school/organisation.	0	0	45,45	9,10	45,45	**4,00**
5	Do planning for implementing the solutions for organisational problems.	0	0	54,55	9,10	36,37	**3,82**
6	Implement the solutions developed for solving organisational problems.	0	81,82	9,10	9,10	0	**2,27**
7	Are creative in solving organisational problems.	0	9,10	36,37	54,55	0	**3,45**
8	Consider the contribution of the solution to the school community.	0	27,27	27,27	0	45,45	**3,64**
9	Prepare reports of the practices implemented in the problem-solving process.	0	0	3637	54,55	9,10	**3,73**
10	Evaluate the problem-solving process.	0	0	27,27	54,55	18,18	**3,91**
	General Arithmetic Mean						**3,65**

* “Never: "Never: 1.00-1.80”, “Rarely: 1.81-2.60”, “Sometimes: 2.61-3.40”, “Usually: 3.41-4.20”, “Always: 4.21-5.00”

The inspectors agreed on the propositions related to the high school administrators' level of using scientific problem-solving processes in organisational problems at the level of "usually" with a mean of $\overline{x}$=3,65. When the agreement levels were examined based on the propositions, it was found that the inspectors thought that the high school administrators always defined organisational problems. The proposition on which the inspectors had the highest agreement rate was "School administrators defined organisational problems". The inspectors agreed on this proposition at the level of "always" with an arithmetic mean of $\overline{x}$=4,36. The proposition on which the inspectors had the lowest agreement was "They apply solutions to solve organisational problems" at the level of "rarely" with an arithmetic mean of $\overline{x}$=2,27. It can be argued that based on the inspectors views, the school administrators were able to define organisational problems, but could not apply the solutions developed to solve organisational problems. The inspectors perceived the high school administrators as mostly sufficient in "identifying solutions for organisational problems, choosing the most suitable possible solution in organisational problems, considering the importance of the solution for the school/institution, making plans to apply the solution for organisational problems, being creative in the solution of organisational problems, considering the contribution of the solution to the school community, reporting the works implemented during the process of solving the problem, and evaluating the process of solving the problem".

Table 2. Kruskal Wallis Test Results Between the Inspectors' Scores Regarding Their Views on High Sool Administrators' Level of Using Scientific Problem-Solving Processes in Organisational Problems, and Their Experience

No.	**"School Administrators ....."**	Chi-Square	df	Significance (Asymp.Sig).
4	Take into account the importance of the chosen solution for the school/organisation.	9.220	4	,056

A significant different was found only in the proposition "They take into account the importance of the chosen solution for the school/organisation." between the inspectors' views on the high school administrators' level of applying scientific problem solving processes in organisational problems, and the experience variable. No significant differences could be found for other propositions.

In this section of the study, the inspectors vies on the scientific problem-solving techniques that high school administrators use in organisational problems, and interpretations regarding these views are presented.

Table 3. Data Related to the Inspectors' Views on Using Scientific Problem-Solving Techniques That High School Administrators Use in Organisational Problems

No.	Scientific problem-solving techniques that school administrators use in organisational problems "In solving organisational problems, school administrators ……."	Never	Rarely	Sometimes	Usually	Always	$\bar{X}_*$
		f	f	f	f	f	
1	Use the cause-effect diagram technique.	0.00	0.00	72.73	9.10	18.18	3.45
2	Use the tree diagram technique.	0.00	0.00	45.45	45.45	9.10	3.64
3	Use the Six Thinking Hats technique	0.00	0.00	54.55	45.45	0.00	3.45
4	Use the survey technique.	0.00	27.27	45.45	18.18	9.10	3.09
5	Use the brainstorming technique.	0.00	0.00	18.18	45.45	36.37	4.18
6	Use the 5N1K (wh questions) technique.	0.00	0.00	18.18	72.73	9.10	3.91
7	Use the similarity diagram technique.	0.00	0.00	36.37	63.64	0.00	3.64
8	Use the force-field analysis technique.	0.00	0.00	9.10	54.55	36.37	4.27
9	Use the relationship diagram technique.	0.00	0.00	18.18	63.64	18.18	4.00
10	Use the nominal group technique.	0.00	54.55	36.37	9.10	9.10	2.73
11	Use the case study technique.	0.00	0.00	36.37	63.64	0.00	3.64
12	Use the team work technique	0.00	0.00	0.00	54.55	45.45	4.45
13	Use the PDCA cycle.	0.00	0.00	54.55	45.45	0.00	3.45
14	Use the SWOT analysis technique.	0.00	0.00	0.00	100.00	0.00	4.00
15	Use the Pareto diagram technique.	27.27	54.55	0.00	18.18	0.00	2.09
General Arithmetic Mean							**3.60**

* "Never: "Never: 1.00-1.80", "Rarely: 1.81-2.60", "Sometimes: 2.61-3.40", "Usually: 3.41-4.20", "Always: 4.21-5.00"

As is seen in Table 3, the inspectors agreed on the propositions related to the scientific problem-solving techniques that high school administrators use in organisational problems at the level of usually with an arithmetic mean of $\bar{X}$=3,60. Based on this result, it can be stated that high school administrators mostly used scientific problem-solving techniques in organisational problems they encounter according to the views of the inspectors. According to the inspectors, high school administrators use the teamwork technique at most in terms of the arithmetical means in solving organizational. According to the inspectors, high school administrators use the teamwork technique in solving organisational problems at the level of always with an arithmetic mean of $\bar{X}$=4,45. The inspectors also stated that the least used technique by the high school administrators in organisational problems is the Pareto diagram technique. According to the inspectors, high school administrators use the Pareto diagram rarely in organisational problems. As for the rest of the problem solving techniques, they are used by the high school administrators in varying levels.

Table 4. Kruskal Wallis Test Results Between the Inspectors' Scores Regarding Their Views on High School Administrators' Level of Using Scientific Problem-Solving Techniques in Organisational Problems, and Their Experience

No	Scientific problem-solving techniques that school administrators use in organisational problems "In solving organisational problems, school administrators ……."	Chi-Square	df	Significance (Asymp Sig)
1	Use the cause-effect diagram technique.	9.521	4	,049
6	Use the 5N1K (wh questions) technique.	10.060	4	,039
12	I use the team work technique	13.645	4	,009

A significant difference was found between the inspectors' views on high school administrators' level of applying scientific problem solving processes in organisational problems, and the techniques of cause-effect diagram, wh questions and teamwork in terms of the experience variable. No significant differences were revealed apart from the these three techniques.

RESULTS AND SUGGESTIONS

Findings:

The following results were revealed based on the findings:

1. Based on the inspectors views, the school administrators were able to define organisational problems, but could not apply the solutions developed to solve these problems.
2. The inspectors stated that high school administrators mostly used scientific problem-solving techniques in organisational problems they encounter.
3. The inspectors also indicated that the most used technique by the high school administrators was teamwork while the least used one was the Pareto diagram technique.
4. A significant different was found only in the proposition "They take into account the importance of the chosen solution for the school/organisation." between the inspectors' views on the high school administrators' scientific problem solving processes in organisational problems, and the experience variable, whereas no significant differences were found between the views in terms of other processes.
5. A significant difference was found between the inspectors' views on high school administrators' level of applying scientific problem solving processes in organisational problems, and the techniques of cause-effect diagram, wh questions and teamwork in terms of the experience variable. No significant differences were revealed between the views on levels of applying other techniques.

Suggestions

The following suggestions can be offered based on the results of the study:

1. Considering that high school administrators could identify organisational problems, but could not apply solutions, a set of academic trainings including in-service trainings to enable high school administrators to apply problem solving techniques and solutions should be organised.
2. It would be of significance to reach other stakeholders (e.g. inspectors, teachers, students and parents), obtain their views and make comparisons with the results in this study.

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MADRASAHS IN OTTOMAN STATE AND ITS FINANCING: CASE OF KONYA

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Madrasahs, basic intitution of islamic educational understanding, has been indispensable element for educational life even in Ottoman State continuing its importance. It has been attached great importance ever since the foundation of Ottoman State because of providing the growth of qualified personals required for administrative staff, scholars for science and the spread of the islamic religion and civilization. After the first madrasah built by Orhan Ghazi, the year of 1331 in İznik, number of madrasahs has increased rapidly thanks to his successors and the any other major state officilas. Madrasahs, including various courses, gained hierarchical feature in course of time.

Madrasahs serviced as a institution that education was free. Even though Ottoman State didn't transfer any money directly from its budget, vaqfs (foundations) was the most important financial resources for establishment and treatment of madrasahs. Waqfs as a financing sources, played an important role of continuity of education and fulfilling the needs of scholars and students. In this context, it has been seen that establishment of madrasahs and the contribution of money, workplaces, books with the help of various benefactors in Konya city. These benefactors that we can define as a financiers of education, prevented the hitch of education at the same time by vaqfiye (written rules). This study will find out the how madrasah financed in Konya city by using some vaqf registers situated in Konya Shariah (judge) Records between the years of 1650-1910.

Keywords: madrasah, finance, ottoman state

MAKING THE PROCESS OF UNIVERSITY TEACHERS' MOTIVATION MORE EFFECTIVE

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ABSTRACT
At present, managements of all organizations have to face the task of hiring and retaining competent staff, particularly by means of the right motivation. Motivation, as one of the basic preconditions of effective and successful performance of employees in the working process, is an essential part of human resources management also at universities. Well motivated university teachers are people with clearly defined objectives who take steps to achieve them. They have developed a strong sense of duty and responsibility, i.e. they are aware that their efforts are directed at meeting the needs of the university and also their own interests.
When developing a motivational program, it is important to have a basic idea about its form and specifications of its creation in the specific conditions of the university. A motivational program of a university should focus exclusively on its positive influence on working motivation of university teachers. The essence of an effective motivational program at universities should motivate to work through a suitable working environment for the university teachers, as well as through innovation of the current remuneration system, which should take into account the ratio of efforts to the work and salary.
The aim of this paper is, based on an analysis of the current state of motivation and motivational factors of university teachers in Slovakia and at the University of Žilina, to propose how to make the process of university teachers' motivation more effective at the Žilina University.
Each process of motivation is usually difficult and requires a thorough analysis and rich theoretical and practical experience. In comparison with other investments, it can bring to the University of Žilina better rating at much lower costs and also other values that cannot be quantified, such as a feeling pleasure of a job well done, a sense of recognition, self-realization and the overall satisfaction of the employees and the university management.

Key words: motivation, motivational program, university, university teacher

INTRODUCTION

Human performance is affected by many internal factors which include motivation. The term motivation is derived from the Latin word "movere" = to move. Motivation cannot be directly seen or measured but only observed and identified in human actions.

There are several definitions of motivation which may look different but which are essentially the same. They see motivation as a psychological process which affects internal inducements (motives) which regulate human behavior and activate the person to achieve a particular goal (Sedlák,1997).

Motivation to work is a certain "energetic"side of human conduct which brings in dynamism into the working process and activates the people. It focuses on work performance, required working behavior etc. In addition to internal inducements – motives, which affect the working motivation of an individual or of a working team, motivation is closely related to needs, habits, interests, working attitudes and ambitions.

The working motivation is associated with satisfaction of the people at work but this does not automatically mean that the worker is motivated. On the other hand, highly motivated people are often able to cope with dissatisfaction with certain aspects of the work.

DEFINITION OF UNIVERSITY TEACHERS´ MOTIVATION AND MOTIVATION FACTORS

In every country university teachers represent a specific category of employees. They form the intellectual elite of each nation, a picture of erudition and continuous progress used for the benefit of the entire society and transmitted to students or employers. University teachers perform work which is extremely responsible, very demanding in terms of mental capacity and, particularly, personal requirements. Similarly as other employees in other organizations, they have to be effectively motivated. Well-motivated teachers have clearly defined

objectives and they adopt appropriate measures to achieve them (Mattová, Pleschová, 2007). They have a strong feeling of duty and responsibility, i.e. they are aware of the fact that their efforts focus on meeting of the university needs, as well as their own interests.

Motivation is the most sophisticated and the most dynamic characteristic of university teachers; it is a certainty, a basis and commitment used for creation of new values – knowledge, ideas, new solutions (Kachaňaková, 2011). It is characterized by enthusiasm, determination, reasonableness, orientation on goals and pro-active conduct of each teacher and department, or even faculty and university. Motivation represents a dynamic processes going on in the person. The processes indicate direction and provide energy (Slávik, 2012). Motivation can be also defined as a process through which the teachers and whole departments outline their objectives. It can be a culmination of a conflict of different motives which the teacher experiences and from which he must choose It can be understood and implemented as substantiation of any action (Blášková, 2010). Motivation gives rise to the quality and adaptability of the social system of a faculty and university. It predetermines in which direction the teacher will develop, which of his competencies he will apply, the quality of his work, research, teaching of students etc. The motivation to be a teacher operates as an interiorized personality factor which contributes to teacher´s professionalism. It means that some events or circumstances in the individual´s history played a role which was so important that they contributed, as an internalized motive, to the choice of the teaching profession (Kasáčová a kol., 2006).

An important role in the teaching profession, in addition to expert knowledge and professional skills, is also played by the teacher´s notion of himself, i.e. how he perceives (evaluates, assesses) himself as a teacher. This notion is a strong factor which (in a positive case) may facilitate and support application of the teacher´s professional knowledge and skills or (in a negative case) it may obstruct them. This internal property of the teacher is called perceived professional proficiency and it is the motivation potential of the teacher as it determines how much internal energy he is able to accumulate and to dedicate to his work, how persistent he is in dealing with pedagogical situations, how tenacious he is when he wants to succeed. It is assumed that the higher the teacher´s perceived professional proficiency the more efforts, perseverance and tenaciousness he exerts. Teachers who perceive their professional proficiency as strong are able to exert more efforts as they are supported by their internal motivation force. On the contrary, teachers who perceive their professional proficiency as weak quickly exhaust their energy and efforts when they face obstacles. Moreover, they often connect their activities with unpleasant feelings, stress etc. (Pajares, 1996; Milson, 2003). Still, it should be noted, that the perceived professional proficiency is the teacher´ s conviction and not his actual proficiency and it even does not reflect how his professional proficiency is applied. It is his own belief in his power and abilities but not the actual abilities used by the teacher. The actual performance of the teacher at school can be best evaluated by external observers and not by himself. Naturally, teachers with strong perceived professional proficiency are usually efficient (Gavora, 2009).

CURRENT STATUS OF MOTIVATION OF UNIVERSITY TEACHERS

CURRENT STATUS OF MOTIVATION OF UNIVERSITY TEACHERS IN SLOVAKIA

After Slovakia joined the European structures and its economy transformed into the market one, human capital has become a key factor of success in the competitive fight between organizations in the business sector, as well as in the public administration sector, specifically in schools. The competitive advantage has been more and more often acquired through quality of labor force, i.e. through employees who bring certain values into the organization and therefore many organizations highlight the importance of their employees. The primary objective of every organization is to hire the right employees, to retain and to develop them, mainly by effective motivation of the employees.

The following challenges are often faced by Slovak organizations from the viewpoint of the motivation process:

- Unbalanced application of the motivation program on the employees of the organization. If this is the case some employees may feel neglected which may lead to their demotivation.
- Incorrect application of motivation tools on the individual employees. Each employee has a unique personality with individual needs.
- Incorrect application of a motivation tool, even with good intentions, may be counterproductive, such as public praise of an employee who is introvert, promotion of an employee and extending of his powers and responsibilities against his will.
- "Application " of motivation tools only in the form of promises. As an example of this approach we can describe a situation in which an employee, who is most positively motivated by personal development, is constantly promised educational activities but the promises are never delivered.

CURRENT STATUS OF MOTIVATION OF UNIVERSITY TEACHERS AT THE UNIVERSITY OF ŽILINA

The following set of motivation tools has been used for motivation and development of the potential of pedagogical employees at the University of Žilina:

a) qualification and personal premium (reflecting the achieved education and the contribution to the work of the department, faculty and university),
b) financial bonuses (reflecting extraordinary qualities of the teacher and /or his contribution to development of the study program, image of the department and faculty, success of students on the labor market etc) – it depends on the financial possibilities of the faculty and the university,
c) financial bonus for prestigious publications, the so-called publication grants for the teachers (reflecting excellent publications, contributing to the development of the faculty, university and its successful accreditation),
d) contribution to the third pillar of the pension co-insurance (reflecting financial support to the long-term care of the teacher during the retirement period) – the contribution is paid to all university employees involved in the retirement co-insurance scheme,
e) praise and recognition (reflecting appreciation of excellent performance of the defined tasks, new approaches to teaching, publishing of articles in impacted magazines etc.), either in the form of individual or public appreciation (at department meetings),
f) individual and family holidays organized by the university (reflecting recognition of the employees´ work and supporting their regeneration),
g) organization of faculty student events, university balls, sports and games days, "Christmas punch" etc. for the employees and students of the individual faculties, university units and university as a whole (reflecting recognition of the teachers work and results of the students and their mutual solidarity) etc.

In 2014 the faculty of safety engineering at the University of Žilina conducted a survey about work motivation with 32 respondents - university teachers. The survey has produced the following results relating to the motivation of university teachers:

- the level of motivation to quality publishing activity is only average,
- the level of motivation to valuable and responsible scientific–research activity is only average,
- the level of motivation to cooperation with superior and managing units of the faculty or university is only average,
- the level of motivation to quality teaching and objective evaluation of students is sufficient,
- the level of motivation to continual improvement of professional knowledge and skills of the teachers is sufficient,
- the level of motivation to submit new suggestions and to improve efficiency of the teaching and work at the faculty is sufficient.

University teachers from the faculty of safety engineering at the University of Žilina have evaluated the current application of motivation tools and approaches from the viewpoint of the department or faculty in the following order:

1. showing the interest in opinions and proposals of the teachers,
2. correct approach on the side of the superiors and the management,
3. provision of independence to the teachers,
4. granting of personal premiums and bonuses,
5. expressing praise,
6. opportunity to participate in educational activities,
7. provision of necessary information,
8. scientific career opportunities,
9. creation of good interpersonal relations and atmosphere,
10. use of threats and sanctions.

The results have also shown that:

- 54% of the respondents believe that department managers change the motivation tools usually only if there is a significant change in the needs and expectations of the teachers,
- 46% of the respondents believe that department managers do not change the motivation tools at all – they keep using the same spectrum of the tools,

- Ca. 36% of the respondents believe that the overall level of teachers' efforts would increase if the motivation approach on the managerial side (faculty or university management) is more efficient in respect to the teachers.

Fig. 1 shows evaluation of efficiency of the motivation tools by the university teachers from the faculty of safety engineering at the University of Žilina. The evaluation indicates average number of points for efficiency of each motivation tool which has been applied or may be applied by the management – based on the points scale from 1 to 10. 10 points mean the maximum efficiency of the motivation tool and 1 point means the minimum efficiency of the motivation tools.

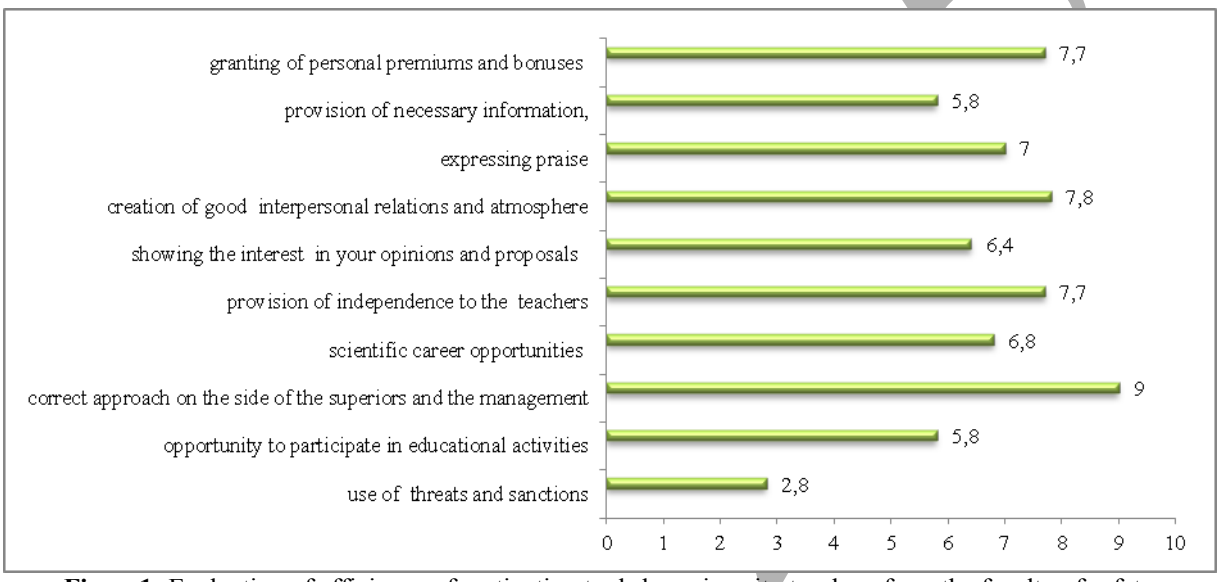

Figure1: Evaluation of efficiency of motivation tools by university teachers from the faculty of safety engineering at the University of Žilina

The results indicate that the teachers worry most about unjust approach and abuse of personal contacts between employees and their superiors and therefore correct relations with superiors and management have been evaluated as the most significant motivation tool. Positive relations and atmosphere at the workplace are seen as the second most important motivation tool. It is generally known that it is much easier to work in the atmosphere of collegiality, willingness and open cooperation than at a workplace full of conflicts and tension. Significant motivation tools also included personal premiums and bonuses and independence, as well as praise and scientific career opportunities. Praising of positive performance of employees by managers always encourages them and supports their enthusiasm to continue quality work and it also increases the feeling of satisfaction from their efforts. In respect to the scientific career, each employee should be aware of his/her opportunities. The less important motivation tools included provision of necessary information and opportunity to participate in educational activities. Threats and sanctions have been evaluated as the least motivating . This confirms the fact that negative motivation methods are, as a rule, not efficient and that positive motivation should be preferred.

PROPOSAL TO INCREASE EFFICIENCY OF THE MOTIVATION PROCESS AMONG UNIVERSITY TEACHERS AT THE UNIVERSITY OF ŽILINA

In order to increase efficiency of the motivation process among university teachers at the University of Žilina it is necessary to have the environment favorable for improvement of the following conditions:

- To accurately define university and faculty motivation objectives and to create a motivational program,
- To outline performance standards (numbers of study programs, numbers of publications, numbers of scientific projects etc.),
- To identify motivation incentives (anticipated amounts of financial bonuses, character of non-financial benefits) and other significant prerequisites of the motivation process.

To increase efficiency of the motivation process among university teachers at the University of Žilina we recommend to improve quality of the following elements - the following steps (adapted according to Blašková, 2013):

1. *To collect information about the needs, motivation preferences and expectations of the teachers.*
   To effectively motivate the teachers it is essential to identify their needs, values and expectations and to determine how important they are for them. Individual employees respond differently to different

motivation factors and therefore it is essential to communicate with them and to find out which of the motivation factors affect the teachers and to use them most efficiently to benefit the university. The information can be acquired, e.g. based on an analysis of teachers satisfaction, analysis of perceived motivation and preferences (e.g. in the form of a short questionnaire, motivation interviews, use of outputs from valuation interviews, use of impulses from department meetings etc.).

2. *To set up objectives of the motivation process, both for the individuals and teams (departments) and to define suitable methods to achieve them.* The motivation objectives should be based on the objective set for each teacher after completion of his performance evaluation process. The task of the head of the department is to ensure conformity of the individual motivation objectives with those of e.g. the department, faculty and university. At the same time, it is necessary to define appropriate methods to achieve the motivation objectives, including all necessary and supporting activities which will contribute to their achievement, while taking into account financial demands, probability of meeting the objective with the selected method, risks if the objectives are not achieved etc.

3. *To assess expediency, efficiency and economy of the motivation process.* Some benefits, e.g. development of the teacher´s potential or better quality of cooperation within a department, can be assessed directly from qualitative statements of the involved individuals (e.g. statements made by the teacher himself and also opinions of his colleagues, head of the department and students) or indirectly, based on other quantitative results (a high number of successful projects may indicate high competences of the teacher and quality cooperation within the department).
4. *To define positives, imperfections and corrective measures resulting from the process.* The identified positives will be an excellent response for the motivators and they can be used to achieve better quality of future motivation processes. (Negative findings should serve as warnings which should not be repeated to avoid disruption of the future motivation processes).

From the viewpoint of the *personal process of teacher´s motivation* it is recommended to strengthen the following objectives, e.g.:

- To increase the scientific career opportunities of the teachers (preparation for habilitation or appointment proceedings)
- To improve scientific –research activities of the teachers,
- To improve quality of publishing activities of the teachers,
- To improve pedagogical activities of the teachers, e.g. to improve quality of the content of lectures and seminars,
- To strengthen the overall motivation of the teachers in the field of continual development of their potential etc.

In addition of the mentioned personal objectives, there may be also additional combinations of similar or different motivation objectives. These objectives have to be set up specifically for each teacher to suit his/her personality and also to meet the needs of the department, faculty and university.

From the viewpoint of **team (department) process of teachers' motivation,** it is recommended to strengthen the following objectives, e.g.:

- To strengthen the confidence, support and team spirit of the department,
- To strengthen pro-active cooperation within the department e.g. through various projects implemented jointly by the whole department,
- To continually improve respective competences, skills and experience of the teachers in the department,
- To improve quality of decision-making and creative discussion about the most suitable procedures in the department,
- To harmonize the efforts and ambitions with those of other departments,
- Not to allow non-ethical conduct of department members, etc.

An important role in increasing efficiency of the motivation process of university teachers at the University of Žilina is played by the number of motivation factors or tools. The richer the group of motivation tools selected for a particular teacher, the more effectively the team can affect his motivation. It has been recommended that heads of departments, the dean and the university rector should pay more attention to the following **motivation tools**:

- to develop positive interpersonal relations in the department, faculty and university, e.g. by means of two-way pro-active communication, creation of environment to support innovativeness and inventiveness,

- to demonstrate the prestigious status and position of the employee in the department, faculty or university, e.g. by praise (appreciation of positive results),
- to grant financial rewards or benefits or bonuses to employees,
- to use appropriate management styles and motivating personal features of the employees (helpfulness, honesty, confidence, respect and deference, keeping the promises, empathy, correctitude),
- to allow and to support scientific career opportunities,
- to support cooperation with the business sphere (to offer to companies the activities in which the university/faculty has achieved excellent results),
- to modernize equipment of classrooms and other premises of the university, including offices, to get high-performance technology and ergonomic facilities for the work,
- to provide other benefits (flexible working hours, work from home, qualification growth – courses, training, study courses abroad, secondments, scientific symposia), etc.

Every motivation process is demanding and requires careful analyses, wide theoretical and practical experience but, in comparison with other investments, it may bring to the University of Žilina high returns at much lower costs and also values which cannot be achieved in any other way, such as feeling of joy from good work, feeling of recognition, self-fulfillment and, last but not least, overall satisfaction of the employees and the university management.

CONCLUSIONS

Each employee needs motivation for his/her performance. Even though many managers believe that motivation of employees depends on their personal attitudes and individual properties which cannot be significantly influenced, the reality is different. Surveys have proved that motivation of employees is affected most by the superiors whose ability to motivate depends on their emotional intelligence and empathy.

The most common mistake is to simplify motivation to financial remuneration. Even though financial remuneration is important it has been well-known from practice that not even a relatively high salary guarantees high performance. Moreover, if the motivation is based only on money then more and more money will be needed to achieve the same motivation effect.

Teachers at the University of Žilina are motivated by relations with the students and colleagues, provision of information, recognition and support by the management, working conditions and opportunity for professional development. Effective forms of motivation should be supporting achievement of the outlined objectives of the university, provide the employees with a good feeling about their previous and current results and encourage them to achieve better results. They should operate in synergy with the internal motivation of the employees and they should be cost-effective.

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MANAGEMENT OF LEARNING EXPERIENCES VIA LIFE LOG AUDIO

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The process of recording sounds heard by the individual via a life logging system can be grouped under three titles such as taking audio notes, recording interviews and recording moments. Besides, the moments recorded can differentiate such as personal moments, public moments and commercial moments. Aim, technique and legal/ethical conditions of all these recording types are different from each other. The sounds recorded via life logging system are placed unique and one-way timeline of the individual and become a part of the life log archive. According to Whittaker and Sellen, life logging have benefits such as recollecting, reminiscing, retrieving, reflecting and remembering intentions. At the same time life logging support management of learning experiences of the individual. In this study, the first researcher recorded life sounds for two months via audio capturing tool of the life logging system. The recorded audio and other life logs are placed on personal timeline by transferring them via cloud and they are interpreted via a life logging viewer and their contexts are defined. The opportunities provided by the personal life archive which is formed by life sounds, are discussed at the end of the semester.

Keywords: Life logging, audio capturing, taking audio notes, learning experiences

MARKING OF INTERNATIONAL CHEMISTRY OLYMPIAD TASKS

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International Chemistry Olympiad (IChO) is one of the oldest international subject competitions. The objective marking scheme is a key issue for fairness of the competition. The marking directions have developed during its nearly 50 years history and are included in the constituting document "Regulations of IChO" which is approved by International Jury. The contribution deals with two important issues: *(i) double penalization problem* related to marking of consecutive steps of task solution and *(ii) evaluation of accuracy and correctness of measurements* in the practical tasks.

Keywords: International Chemistry Olympiad, marking, double penalization

MASS MEDIA AND RELIGIOUS PRACTICES IN THE IMMIGRANT SITUATION: A CHALLENGING DEVELOPMENTAL PSYCHOLOGY ENCOUNTERED BY THE SRI LANKAN TAMIL ADOLESCENTS LIVING IN PALERMO, SOUTH ITALY.

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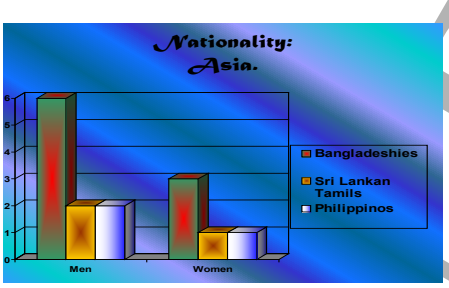
ABSTRACT
Mass Media and Religious Practices in the immigrant situation is a challenging Developmental Psychology, encountered by the Sri Lankan Tamil Adolescents living in Palermo, South Italy. Adolescents in the modern world face a lot of challenges in the process of their growth. One of such challenges is that of the social impact of Mass Media, which manipulates and determines the individual's decisive moments of growth. They are left with no choice but confront Mass media and personal choice of religious attitudes, and religious practices, (Cohen 2010; Kukreja 2010). The attitudes and belief-systems are built and sustained by the social structure. (Cooper and Denner 1998). In this article we administer focus group analysis on 'Mass Media and Religious Practices in the immigrant situation: A challenging Developmental Psychology encountered by the Sri Lankan Tamil Adolescents living in Palermo, South Italy.' We try to verify the 'Theory of Concepts of Beliefs" which states that: Every human being tries to transcend specific situations for a desirable end which are ordered by relative importance. (Bilsky and Schwartz 1992). The results are interesting. Enumerated in the full article.
Keywords: Psychological challenges, Adolescents' socio-religious development, Mass media, Tamil Immigrants, Focus group, Inter-cultural-adaptation.

INTRODUCTION

Adolescents in the modern world face a lot of challenges in the process of their growth. One of such challenges is that of the social impact of Mass Media, which manipulates and determines the individual's decisive moments of growth. The Adolescents in the modern times are left with no choice but confront Mass media and personal choice of religious attitudes, and religious practices, (Cohen 2010; Kukreja 2010). The attitudes and belief-systems are built and sustained by the social structure. The strength and force of the influence of Mass Media depends upon the demographical ethos of the community where the individual adheres to conformism or non-conformism of the social environment (Cooper and Denner 1998).
In this article we interact with the Adolescents from Tamil Culture, the Immigrants from Sri Lanka. During the ethnic war in Sri Lanka from 1983 the Tamils started fleeing from Sri Lanka to America and other parts of Asia, and to various European countries, (Tamilnet.com 2014). In Palermo, South Italy there are various nationalities of immigrants (Daniels 1990; Hurrelman 1994). From Asia, nearly 2,000 catholic Tamil Immigrants are from Sri Lanka, the second largest number, according to the statistics of Caritas. (caritaspalermo.it 2013).



Courtesy: "Caritas diocesana di Palermo" from original Italian (Charitaspalermo.it)

Mass Media and technology has influenced the adolescents of the present time in great magnitude, in their expression of freedom, morality and thereby also in their religious practices. "The new technological possibilities are mostly viewed and employed from pragmatic perspectives. If they are critically evaluated it is mostly from ethical consideration." (Fernando 2006). Mass media has grown tremendously, making a remarkable impact upon the adolescents "An increasing number of young people spend a great deal of time watching television, reading newspapers and magazines, playing records, listening to the CD and surfing the Internet". (Devadoss 2006, p.185).

1.2. Media's impact – a Challenge for Immigrant adolescents.

As quoted by the same authors (Antony et al., 2014) on confronting mass media in the Indian Context, it is fitting to cite the arguments for our further verification in Immigrant Situation. Are the immigrant adolescents motivated enough to counter act the following research results, is to be seen at the end of the focus group analysis.

i) A group of 7888 Dutch Students were studied under the use of everyday internet and found that it is related to the psycho-socio-spiritual well-being. Researchers like Aa, Overbeek, Engels, Scholte, Meerkerk, Eijnden, proposed a Diathesis-Stress Model Based on Big Five Personality Traits, have shown that the adolescents who were using frequently the internet were losing the personal uplift and overall growth. "Results from structural equation modelling analyses showed that daily Internet use was indirectly related to low well-being through CIU (Compulsive Internet Use). In addition, daily Internet use was found to be more strongly related to CIU in introverted, low agreeable and emotionally less-stable adolescents. In turn again, CIU was more strongly linked to loneliness in introverted, emotionally less-stable and less agreeable adolescents." (Aa 2009, p.765).

ii) A recent research study in America with the mixed student of White, Asians, Hispanics, Afro-Americans, and Indan-Alascan Native students by Werner, Matthew, Bumpus, and Rock, in the article "Involvement in Internet Aggression during early Adolescence," have noted that the present day Adolescents are constantly involved in internet communication and contacts and violence and also for other purpose of shopping and gaming and education as well. "About 89% of adolescents surveyed used email, 75% used Instant messages, 48% exchanged IMs everyday, 33% used cell phones to send text messages, 55% used Internet social networking on daily basis." (Werner 2009, p.608)

It's undeniable that there are problems caused by abuse of Media. It can become a menace and can demoralise the adolescents, bringing in violence and sex and secularism without control. Therefore it is a challenge for the Adolescents today (Yusuf & Sterkens 2014), to face this reality fair and square. As Bilsky and Schwartz indicate a similar attitudinal foundation in their article on "Universal Psychological Structure of Human Values", whose theory we propose to verify with proceeding focus group discussion.

iii). Theory of Concepts of Beliefs, stating that "Every human being tries to transcend specific situations for a desirable end which are ordered by relative importance". (Bilsky **&** Schwartz 1992)

Seconding this theory, "High level media knowledge offers young people a strong, broad perspective to be able to interpret messages along many different dimensions giving them more choices of meaning and to select the one that is most useful from several, but interrelated points of view: cognitive, emotional, moral and aesthetic." (Devadoss 2006, p.190).

1.3. Adolescents in Immigrant Situation.

There is a constant tug-of war within communities of the same culture and with extra-culture, trying to emerge out the best characteristics of both the culture, "social identity is constructed in the context of attitudes toward one's group, and is related to prejudice, intergroup conflict, culture, and acculturation", (Tajfel 1978, p.8)

The Adolescents from the traditional Tamil Cultural background finding themselves in the problematic immigrant situation may have psychological need (Shoemaker 2010), and fear of God and the necessity for religious practices as a protection (Daniels 1990; Hurrelman 1994), than giving in to the allurement and psychological compulsion of mass media as a challenging developmental psychology. The situation of immigration in itself is a particular phenomenon, "Especially in minority contexts religiously affiliated schools experience a double challenge: to contribute to the flourishing of their own religious tradition, and to stimulate interaction with and full participation in the surrounding society". (Yusuf & Sterkens 2014, p.47).

2.1. Area of Research

Location: Palermo. Instrument: "Focus Group" Interview with the Adolescents.
Gender: Boys and Girls. Age group:13- 19. Quantity: 10. Religion: Catholics.
Education: Both school going and non-school going Adolescents.
Language: Tamil / English / Italian.

2.2. Hypothesis

The Tamil Immigrant Adolescents in Palermo, deep rooted in traditional Tamil Culture have psychological need and necessity for religious practices as concrete assurance and security than giving in to the allurement and psychological compulsion of mass media.

2.3. Instrument: Focus Group

The instrument "focus group interview" is a flexible and adaptable tool that allows the researcher to make viable and relevant formulation of the questions, thereby, we have reasonably constructed 5 parts. Part 1 – Opening Question. Part 2 – Introductory Question. Part 3 – Transition Questions. Part 4 – Key Questions. Part 5 – Ending Question.

3. Administration and Results of Focus Group Interview

Focus group interview was administered on 08/09/2013. There were 10 adolescents of the Tamil Immigrants. The participants were well informed a week earlier about the importance of the focus group. When they arrived for the interview they were received cordially and were given snacks and soft drinks and were made to take comfortable seats for the interview. The entire sitting was video recorded with their knowledge for the purpose of being precise and document correctly.
Participants: Names are modified for anonymity,.
1.Rib / 2.Ney / 3.Col / 4.Jad / 5. Ale / 6. Ash / 7.Nil / 8.Shl / 9.Nis / 10.Sur.

Part 1 - Opening Question

1A) Are you all interested in sharing your experience about mass media and its use and drawbacks and your expectations?
2B) Is mass media an interesting tool for you to learn and to gain from it? Does it affect you in anyway, be it positive or negative?

Part 2 - Introductory Question

3C) Do you have recourse to any of the printed material, internet, email, and messenger, chat, browsing the web, iPhone, computers, Mobile phone messaging, TV, DVD, and other Mass Media gadgets and programmes?
4D) According to your use, how much of the content is social / secular oriented? 20%... 50%... 80%... And how much of it is religious content 20%... 50%... 80%...?
5E) What are the general aspects of Mass Media that you like?
6F) Which are the aspects of Mass Media that you think are destructive?

Part - 3- Transition Questions

7G) Does Mass Media play an important role in your life? (for Growth, learning, communication, entertainment, work, earning, etc.)
8H) Does Mass Media positively help you in your Religious Practice? (for praying, learning, expressing yourself, etc.) 20%... 50%... 80%...
9I) Is there any mass media programme/tool/gadget that you specifically use in religious context/ religious practice?
10J) Does Mass Media deviate your attention from your Religious Practice in anyway?

Part - 4 - Key Questions.

11K) Do you feel addicted to Mass Media to the extent of spending more time on it than your religious practices?
Rib: *no.* I can stop using mass media when i need to go for prayer (2)
Ney: *no* I am *not addicted* (2)
Col: I am partially addicted (1)
Jad: **I am addicted a lot** (0)
Ale: *no I am not addicted* (2)
Ash: I am *not addicted*. I can do without mass media. (2)
Nil: I am *not addicted* I am be without mass media. (2)
Shl: a bit addicted to entertainment. (1)
Nis: *not addicted*, instead I use for religious practices. (2)
Sur: I *too use more for religious practices.* (2)

12L) Do you think Mass Media has directly or indirectly reduced your participation in religious practices?
13M) Do you think Mass Media is a support to your Religious Practices or a hindrance to your religious practices?
14N) Do you think the existing use of mass media is appropriate (with regard to your religious practices) for you and for other adolescents who live in this similar situation?

Part - 5 - Ending Question

15O) Has Mass Media reduced your participation of religious practices ...0% 10%... 90%...?
16P) Has Mass Media positively contributed for your religious practices, 30%, 50%, 70%, 80% …?
17Q) What do you propose for the adolescents (including you) with regard to the use of mass media and the religious practices?

4. ANALYSIS AND INTERPRETATION

Part 4 being the Key Questions we have demonstrated the full structure of the response of the participants with the significant words and corresponding values, (the same procedure is followed for all the questions, but not displayed in this article). For each question we identify positive, negative and neutral responses according to which we have given values such as: Positive response "2" / Neutral response "1" / Negative response "0"

17 questions are termed "A,B,C,....Q" to enable clarity and to facilitate easy reading.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Rib	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2	2
Ney	2	2	2	2	2	0	2	2	2	2	2	2	2	1	2	2	2
Col	2	2	1	0	2	0	2	0	0	0	1	0	2	0	0	0	0
Jad	2	2	2	0	2	0	2	0	0	0	0	0	0	0	0	0	0
Ale	2	2	2	2	2	0	2	2	2	2	2	2	1	2	2	2	0
Ash	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	1	2
Nil	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2
Shl	2	2	1	2	2	0	1	2	0	2	1	1	2	2	2	1	2
Nis	2	2	1	2	2	0	2	2	2	2	2	2	2	2	2	2	2
Sur	2	2	2	2	2	0	2	2	2	0	2	2	2	2	2	2	2
Total	20	20	17	16	20	2	17	16	14	14	16	15	17	15	16	14	14

Table-1: Focus group response. Column: 17 questions. / Rows: 10 Candidates

The table-1 gives 17 column referring to the questions (A,B,C,...) and 10 rows referring to 10 adolescents who responded in the Focus Group.

4.1 Interest in Mass media: The questions "A,B and E" clearly points out that the adolescents whom we were interviewing in the Focus Group all got the response "20" which is a clear indication that the topic on which we held the interview and the discussion was fully in line with the adolescents' inclination and need of the time.

4.2 A critical view of the aspects of the Mass Media. The lowest point scored by the groups is question "F" which is an indication that the negative aspect of the mass media is known to the adolescents and is strongly expressed by the group. It also points out to the fact that the group is coherent in their attitude. It goes to show that the group has present, concomitant experience, (Indrapala 2009), and denote an unusual capacity to critically evaluate mass media.

4.3 Balanced attitude: To counter check if the Adolescents are only negative about the view of mass media or do they also think positively about the same, we have placed question "E", to which the participants have unanimously stated many good aspects of mass media, signifying that the attitude is not biased but open ended and realistic.

4.4 Access to mass media: It wouldn't be appropriate to gather information about mass media influence from someone who has no recourse and no access to it. So we placed the question "C", according to which almost all of them have responded positively, which is already 95% affirmative. Only two of them have given neutral response.

4.5 Correlation of Media and Religious practices: The questions "H, M, and P" poses the connection between mass media and religious practices, (Waggoner 2010). The response correlates media and religious practices with the points of "16, 17, 14" respectively which is 87% positive and affirmative. The adolescents in this "stage of growth" to use media for religious practices is something natural, (Whittington & Scher 2009). As the modern generation is accustomed to activity rather than passivity, the results indicate that the Tamil Adolescents in their migrant situation use media for the religious practices.

4.6 Verifying the Media Impact, Primary Aim: Our scope of the interview is to clarify if "the mass media psychologically enslaves the adolescents as against the religious practices", to which the questions "J, K, L, M and O" are explicit. The result from the adolescents is refuting strongly with the result "14, 16, 15, 17, and 16 respectively" which is 78% "*not affected / not deviated / not hindered .. by mass media*". This indication is very important. The common concept is that the Tamil Adolescents are deep rooted in their cultural tradition (Cooper & Denner 1998) hence they are able to withstand the onslaught of the modern technology, which is a salient aspect of Tamil ethnicity. This result is very closely affirming our hypothesis: *The Tamil Immigrant Adolescents in Palermo, deep rooted in traditional Tamil Culture may have psychological need and necessity for religious practices than giving in to the allurement and psychological compulsion of mass media.*
Moreover the very words of the adolescents saying that "*I'm not addicted ... I use mass media for religious practices too,..it does not deviate,...*" strengthen the argument that media can be positively used, in spite of the fact that mass media is negatively seen as a drug addiction. The immigrant situation in Palermo is a strong reason for the Tamil Adolescents to resist the psychological impact of the mass media, because the survival problems are primary pre-occupation (Miller and Gur 2002) in the life of the adolescents living in this immigrant condition.

4.7 Integrating Religious Practice with mass media: Another important aspect of the hypothesis is the need for the religious practice, which is indicated in "D, H, I," for which the adolescents responded with "16, 16, 14" that is 76% positive. Though 2 candidates gave a negative reply out of the 10 candidates which is a true picture of the modern adolescents to differ as individual identity.

4.8 Prudent use of Mass media: To have counter check with the role of mass media we have placed two questions "G, and N" to which the adolescents have responded "17, and 15" respectively, that is, 80% affirmative. They express that mass media plays an important role in their life and one can use it in an appropriate way at the same time. As in their own words "*according to me it is useful. But we must be careful... So if we want we can always gain... mass media and religion can go hand in hand... etc...*"

CONCLUSION

The scope of the research is "to identifying the constructive and destructive factors of mass media", concurrently we have identified in the result 4.2. of the analysis, a critical view of the aspects of the Mass Media by the adolescents. From the question "F" where the adolescents indicate the negative aspect of the mass media (strongly expressed by the group). Secondly, from the question "E" the participants have unanimously stated many good aspects of mass media, signifying that the attitude is not biased but balanced in recognising both destructive and constructive aspects of mass media.
The second aspect of the "Correlation of Media and Religious practices" with the questions "H, M, and P" posing the connection between mass media and religious practices, the response indicates definitively, the links between media and religious practices (Mosher & Handal 1997), with the points "16, 17, 14" respectively which is 87% positive and affirmative. The adolescents in this "stage of growth" use media for religious practices, which is something creative and psychologically filling the void of boredom and making it down to earth empirical reality of the religious practices (Bilsky & Schwartz 1992), which is usually supernatural in character. The Tamil Adolescents in their migrant situation is psychologically drawn to 'activity' rather than 'passivity' in the use of media for the religious practices.
The aspect pertaining to the hypothesis, we see that the immigrant adolescents live in an ambient of uncertainty of the existential reality and needs which makes them surmount the natural tendency of getting addicted to Mass Media (Mosher & Handal 1997), compared to other local adolescents, in the words of the Tamil Immigrant Adolescents, "*I have no difficulty with mass media. I can always go to pray whenever i want"... "Mass media is good and appropriate in my life. I see* ***my*** *(Tamil)* ***friends too are very controlled*** *and not addicted. We go to play and spend more time talking than sitting in front of TV or other mass media".* The maturity they show seems to be well-advanced due to the necessity for survival (Harker 2001; Miller & Gur 2002).
Finally our verification of the 'Theory of Concepts of Beliefs' is found to be true such as: *Every human being tries to transcend specific situations for a desirable end which are ordered by relative importance.* (Bilsky & Schwartz 1992). This

brings us to the conclusion that religious, cultural and structural formation is important to every growing individual especially the adolescents to confront the media world and to face the multi-dimensional immigration situation.

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MASS MELANCHOLY PERCEIVED AS EDUCATION MATERIALON HISTORICAL TURKISH DRAMAS AFTER 2000

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ABSTRACT

It is an important fact that movie films and TV dramas which found a new visual and thematic style starting from mid-1990's in Turkey has created argument areas which affect daily and politic life beginning with 2000's. Especially the power to create public memory and alter established information resources of historical dramas watched by large masses on both tv and cinema is seen as quite a problematic field regarding historians and politicians who perceive existing dramas as historical documentaries.

Main purpose of this study is discussing the illusion regarding relation between creation process and reality of art created by seeing historical dramas on movies and TVs as an educational material. Main question of this study is the fact that seeing historical dramas as an educational material is in fact confusion with their objective to rehabilitate deep wounds in our social psychology. In this context, during this study it is intended to answer to the question about at which point historical dramas stand between reality and fiction and to what extent their content match up with reality. During this effort to find an answer, what historical dramas correspond to will be discussed(with readings on origins of psychological structure which form main sources; mass melancholy, melancholic anger and melancholic subjectivity concepts), and right points of criticism seen on daily political arguments will form other themes of this study.

Within the scope of this study, a general analysis of historical dramas produced for both television and cinema in 2000's will be made and the subjects of arguments they created on the period they are broadcasted or screened will be classified. Dramas examined as a result of all classifications will be observed by using sociological, politic and cinematographic criticism method.

INTRODUCTION: The Power of Historical Dramas to Determine Daily Politics and Mass Melancholia

Fethi Açıkel addresses melancholia in the field of sociology and politics, not in the field of psychiatry, and determines it as an ideology of life against modernism. According to Açıkel, *Subjectivity here is a melancholic refusal that constantly 'dreams of returning to its authentic self, that 'hopes to bring the past into existence within its authentic comfort' and that accepts other existences as illegitimate. This is the rise of a melancholic subjectivitity that cannot put the thought that 'its imperial ego and sacred memories' are irreversibly damaged out of its mind. Moreover, this is a subjectivity that cannot face its historical responsibility and that considers melancholic anger and melancholic denialism as an ideology of life. Today, we encounter the expansion of a melancholic refusal that cannot cope with the 'loss/defeat and failure' it experiences against modernity, that cannot face the fact that ancient civilization came to an end and died mentally and physically, and that still tries to keep the 'sacred time' and 'authentic civilization' alive with all its glory in its inner world.* (Açıkel,2003:187-188) As a matter of fact, historical perception is based on this fiction when considered in line with Serol Teber's description of melancholia as the will to determine one's own destiny. That is, melancholic masses deny their current positions, losses and defeats in a historical context based on the glorious past, and try to build today upon this denial. Therefore, they sometimes experience mania (the mood of an elevated energy level) as a result of melancholia or are stuck in melancholia for a long time. The severity between periods of melancholia to mania differs from time to time. (Freud, 1964)This results in bipolar disorder also called manic-depressive illness. The melancholia of the past can turn into manic episodes all of a sudden. Within this context, masses feeling behind of the modern world rebuild themselves through melancholia or mania with the fictitious history on TV or at the cinema.

Historical dramas may also end up creating so powerful agendas that they even manage daily politics. The power to determine politics is evaluated, of course, over the power of historical dramas to create social memories. Therefore, it includes the impression that they miseducate or should accurately educate the masses.

The role of historical dramas to create social memories or their effects of the construction of reality seem to be the continuation of a certain effect of the hypodermic needle model on the affecting power of mass media. Hypodermic needle model is a model of communications. According to this model, any message given through mass media is directly received by masses. That is, messages are injected under the skin just like a needle, and masses are absolutely affected by the messages without making any judgements. Today, communication spiral is quite complicated and multi-directional. It is not possible that messages are absorbed by masses without making any judgements, just as is the case with the visualization of violence, which was proved not to turn the society towards violence in time. As a matter of fact, mass media was found not to promote violence but just to teach how it is carried out. This means that communication channels alone have long lost their power to change and transform masses. Therefore, consideration of historical movies and TV dramas as education materials actually means that they are attributed exaggerated meanings. This results from the fact that the mass watching the historical dramas in question have multi-directional expectations and motivations towards drama. Approaching these dramas with the purpose of acquiring knowledge or learning a history lesson is considered to be highly problematical. It should be understood that the dramas in question are mere fictions within narrative possibilities and not the reality itself. However, even a little fragmentation of the glorious and merry days and memories of the past turning masses towards melancholia and the positioning of the dramas outside the official or ideological history records do carry the situation to a different political ground. Therefore, the present study tries to examine *the rise of a melancholic subjectivity that cannot put the thought that 'its imperial ego and sacred memories' are irreversibly damaged out of its mind* via the analyses of historical movies and TV dramas in the 2000s in accordance with their release dates and the discussion areas they create.

Melancholia and Mass Melancholia

Melancholia which was believed to be a disease in the Ancient Greek medicine was considered to be the synonym for laziness and sluggishness in the Middle Age. It was also associated with art and literature in the writings of Theophrastus and Aristotle. In modern times, melancholia has become one of the most interesting fields of study from a scientific point of view in many areas such as psychology, sociology, art and literature.

As for the etymology of the word melancholia, it means one of the four bodily fluids. According to the doctrine from the writings of Aristotle and Galenus to the Middle Age, melancholia is one of the four bodily fluids and is named as the black bile. *"In the ancient doctrine based on the four temperaments and four bodily fluids, (as a matter of fact, Galenus describes 9 temperaments which correspond to one season and one period of life) melancholia is associated with the characteristics of human body. The excess of blood results in a "sanguine", sympathetic humor, the excess of phlegm results in a phlegmatic, "sluggish and stagnant" humor, the excess of yellow bile results in a "choleric" and angry humor, and the excess of black bile results in a melancholic humor.* (Binkert, 1995:15) Aristotle asked "Why do all the extraordinary men in philosophy, politics, poetry and art have an evident excess of black bile?", and traced black bile back to ancient times, determining that the situation of having an excess of black bile was extraordinary. In fact, there is nothing illogical and irrational here. Borgna described the basic symptom of the disease not as an irrationality or a lack of reason but a fragmentation of meaning and the replacement of an acknowledged meaning with a totally different meaning. The person does not lose his/her mind; logic enters into roads other than the general meaning, and the code of the roads can only be revealed through the conduct of a (essential and intuitive) study. (Borgna,2014:29-30)

The Turkish Language Association (TDK) explained the meaning of melancholia as a blind love rather than a black bile. The word is generally used to express sadness and passionate love. According to Serol Teber, "*Melancholic people, though not always consciously aware, sense in their own selves that people's selves (too) are political products, and a wrong life cannot be lived right. The problem in melancholic people generally focuses on the basic will to determine one's own destiny. Melancholic people want to make sense of their own lives even if this would cost them their lives, and become introverted in despair, doubt and grief as they cannot achieve this. Therefore, melancholia can be considered as a significant rebel of one or more against an ordinary existence, which ends up with regression, withdrawal, abnegation –just as in the examples of Socrates and*

*Antigone, making her/himself killed directly or indirectly to the people/institutions s/he despises- or frequently with self-destruction. (*Teber, 2002: 14)

Fethi Açıkel also associates conservative political ideology with mass melancholia in his work based upon the consideration that the self is a political product, and bases the effort to make sense of life on a call of longing for the past and a refusal of the destiny. In his work, Açıkel describes melancholia as *the effort of a self to resist time and change as the self buries the object of love s/he has lost inside and tries to exist together with the dead object of love*. It is the *denial of loss/death/benefit* or the *abnegation of the harm done to the symbolic integrity of the self. It is an angry response to loss. Within this context, melancholic politics can be described as an – supressed- anger towards the death of the 'object of love' or the 'authentic tradition'; and as a hard resistance to and refusal of the practical necessities of life itself. It is the effort to abnegate the death of peaceful tradition and to keep the past alive. It is the impossibility of death, that is, the denial of death. A melancholic self refuses to return to life after grieving the loss of the 'object of love'. Therefore, it is the refusal of not only death but also the idea of returning to life*. (Açıkel,2003:187-188) Judith Butler also reads the relationship between melancholia and death as the denial of grief and the inclusion of loss. Melancholic people imitate death as they cannot grieve. However, inclusion of death requires the instincts of death to such an extent that it is a matter of concern whether the two can ever be separated on an analytical or a phenomenological basis. (Butler,2005:135)

Mass melancholia is the mass acceptance of the feeling of individual death and a way of collective resistance to the acceptance of death itself, though the existence of the lost hope and the object of love is still felt. In Açıkel's words, the *efforts to resurrect the ancient/mythological contents of history* are the best examples of mass melancholia especially in Turkey. The effort to attribute meaning to historical dramas, their consideration as education materials, and the belief that they have the power to transform masses are all part of this mass melancholia.

Overview of the Historical Turkish Dramas of the 2000s

Considering the historical Turkish dramas of the 2000s, it is observed that the Ottoman Empire, the proclamation of the Republic of Turkey and the recent historical and political narratives constitute the main themes of the dramas. It is especially seen that historical dramas of the Ottoman Empire have become more popular since 2000 in line with the historical conjuncture also reflected in the novels of the period; and none of these developments, of course, are independent of the conjuncture. While the historical narratives focused more on the proclamation of the Republic of Turkey following the 1990s, the magnificent centuries of the Ottoman Empire have become more popular along with the Ottomanism within the recent political conjuncture. Historical dramas examined in this section of the study which have been watched by masses since 2000 are considered in terms of their potentials to create social perceptions, to make an impression in the public opinion and to determine political agendas or to be determined by the political agendas.

Abdulhamid Düşerken (2002) (The Fall of Abdulhamid)

Abdulhamid Düşerken, is a 2002 movie based on the novel *Sultan Hamid Düşerken* of Nahid Sırrı Örik directed by Ziya Öztan. It is the first movie of Öztan's trilogy followed by "Kurtuluş" (Salvation) and "Cumhuriyet" (The Republic).

The movie addresses the issues such as the Second Constitutional Era, the dethroning of Abdulhamid, the 31 March Incident and the arrival of the Harekât Ordusu (Army of Action) in İstanbul within a love story; and is about Major Şefik, a successful man and one of the leaders of the Committee of Union and Progress who fought at the forefront at the democratization fight of the Ottoman Empire, and his love for the daughter of a minister and his overwhelming ambition for power.

The movie was harshly criticized by conservative and right wing parties for that it was made to insult Sultan Abdulhamid. Besides the criticisms claiming that the story was only based on a hostility towards Abdulhamid, the director of the movie was also stigmatized that he is the official history movie maker of the state.

That the movie does not prefers or deliberately refuses to call Abdulhamid "The Sultan", displays the impulsive action of the Harekât Ordusu which was even criticized by Mustafa Kemal himself, and insults Ottoman Empire constitutes the most important criticisms directed at the movie.

Hacivat Karagöz Neden Öldürüldü? (2005) (Who Killed Shadows?)

It is a historical movie starring Haluk Bilginer and Beyazıt Öztürk which was directed by Ezel Akay in 2005. The movie is the first part of Akay's trilogy *Anadolu Ortaçağ* (Medieval Anatolia) (the trilogy is still uncompleted). The movie set in Bursa in the 14th century is about Hacivat and Karagöz, two important characters within the Turkish history. All the chiefdoms and states in Anatolia are sick and tired of the Mongol invasions, and the people runs away from the Mongols and settles in Bursa. Karagöz, too, comes to Bursa with his mother running away from the Mongolian taxmen. He is an illiterate but intelligent Turkmen immigrant who makes people around him laugh especially when he is angry. Hacivat, on the other hand, is a postman carrying news between the states. He is an intelligent, dissolute, reveler and talkative opportunist. He gets away from difficult situations by talking. Hacivat meets Karagöz when he buys his sick cow. Hacivat realizes the natural talent of Karagöz and wants to take advantage of it. They start to work as stonemasons at a mosque built by Orhan Gazi after himself. However, Hacivat and Karagöz constantly have words with each other and make other workers laugh, thus slowing down the work. As Hacivat and Karagöz slow down the work and make insinuations about everyone, Seljukian vizier Sultan Pervane is killed upon the death warrant of Orhan Gazi.

As the movie was considered to be a historical comedy, it did not receive severe political criticisms like the other historical films of the time. However, it has a narrative falling out of the official historical records. The movie makes bold statements regarding the complex cultural structure of Anatolia especially when Turkish people converted to Islam, and claims that the social role of women decreased along with Islam. However, the movie did not become the target of political environments due to the clever choices of its director, its successful cinematography, its casting and, mostly, the clever use of the narrative possibilities offered by comedy.

Cenneti Beklerken (2005) (Waiting for Heaven)

Cenneti Beklerken is a historical movie directed by Derviş Zaim in 2005. It is the first movie of Zaim's trilogy followed by the movies "Nokta" (Dot) and "Gölgeler ve Suretler" (Shadow and Faces).

The movie is about Eflâtun, a miniature master living in İstanbul in the 17th century. One day, Eflâtun is taken to the mansion of an Ottoman vizier by force. He is told that Danyal, the son of a Sultan who rebelled against the Ottoman Empire, has been caught in a distant state and will be executed. Then, he is asked to make a Western style portrait of the rebellious in order to make sure of the identity of the Sultan's son. Following the order, Eflâtun goes on a tough journey to Anatolia with a couple of men.

Although the movie mainly focuses on the story of the painting of the figure prohibited by Islam, it reflects the insecurity of the Ottoman Empire prevailing in Anatolia in the 17th century and tells about the famous "impostor şehzade" incident in the Ottoman history. However, the movie did not cause much historical or political controversy despite the complicated matters it addressed.

Fetih 1453 (2012) (The Conquest 1453)

It is a high budget Turkish historical movie directed by Fatih Aksoy in 2012, and tells the story of the conquest of İstanbul around Ulubatlı Hasan.

The movie is considered to be a highly brave production as it claims to tell about the conquest of İstanbul, an event which constitutes a turning point in the history of Turkey and is celebrated every year with enthusiasm. Therefore, it became the target of many discussions even prior to its shooting, and anything regarding the movie such as the casting, the costumes and the visual effects was constantly on the agenda.

The character Ulubatlı Hasan who climbed the walls of İstanbul and placed the Turkish flag also became controversial after the release of the movie. Discussions mainly focused on whether Ulubatlı Hasan was for real

or just a myth. Many recognized historians participated in the discussions and countless television programs were made in this regard. Prof. Dr. Feridun Emecen clarified the claim that Ulubatlı is a fictitious and legendary character saying that "In the movie, you only see Hasan; he is not mentioned as Ulubatlı Hasan.".

The movie is considered to focus on Ulubatlı Hasan instead of Fatih Sultan Mehmet, a more controversial figure, as it adopts an abstaining position regarding a common historical event and personality valued by both conservative and nationalist ideologies in Turkey.

Moreover, the movie is thought to be inadequate in terms of cinematography despite the 4.5 million viewers it attracted. It is far behind "Troy" or "300" with its war scenes in terms of its cinematography and narrative.

Besides the national controversies, the movie was also criticized and banned in certain countries abroad. Its projection was cancelled in Beirut and in Lebanon following the protests of the Greek Orthodox groups claiming that the movie insults the Greeks in private and the Christianity in general.

Greek's weekly gazette *To Proto Thema* bewilderedly claimed that "the Turkish invaders are presented as if they are the masters of the world. The director Faruk Aksoy has failed to represent significant historical events including the plunders and the slaughter of the Greeks."

Elveda Rumeli (2007) (Farewell Rumelia)

It is a historical TV series directed by Serdar Akar between the years 2007 and 2009. It is about a poor father and his daughters living in Macedonia ruled by the Ottoman Empire in the 1900s. The milkman Ramiz and his family lives in the village Pürşıçan in Manastır. It is the final days of the Ottoman Empire. Civil rebellions arise in the Balkans, and the uneasiness prevailing in Macedonia because of the separatists gradually increases, foreshadowing the big events to break out in the near future. The unionists are organized against Abdulhamid and opposes the Ottoman Empire. The world and Macedonia, of course, witness rapid changes.

The TV series which addresses the rebellions aiming to found a nation-state based on nationalism in the Balkans during the time of the Ottoman Empire did not cause much controversy with its historical narrative in terms of the political agenda. Nevertheless, it strongly reflects the lost nostalgia of the past to which the new Ottomanism ideology holds on considered within the conjuncture. The series presents a quite clear message regarding the perception of the time with the way it addresses the Turkish families living peacefully in the Balkans and the Macedonian komitadjis.

Muhteşem Yüzyıl (2011) (The Magnificent Century)

It is a TV series directed by the Taylan Brothers between the years 2011 and 2014. The TV series addressing the period of Suleiman the Magnificent was watched with great interest not only in Turkey but also around the world. It is important to note that the TV series is the most controversial historical drama examined within the present study. The government's severe criticisms and the pressure put on the TV channel on which it was broadcast occupied the agenda for quite a long time. The controversies regarding the TV series can be examined under two categories: historical and political.

Moreover, it got reactions of the viewers to a great extent and countless complaints were made to the Radio and Television Supreme Council (RTÜK), asking the TV series to be banned.

Recep Tayip Erdoğan, Prime Minister of the time, severely criticized "Muhteşem Yüzyıl" saying "Some people claim that our history is merely made up of swords, wars, machinations, civil rebellions and, unfortunately, harem. Although some people who are clearly not one of us deliberately try to tell our history like this, we cannot and will not see our own history as such." (Milliyet:2012)

The scene in which the Sultan's son Şehzade Mustafa is killed also caused great reactions and was discussed by both the historians and the viewers due to its violent content. (5 thousand people visited the *türbe* (mausoleum) of Şehzade Mustafa in Bursa after Suleiman the Magnificent gives the death warrant of him in

the TV series. Following this incident, RTÜK received lots of complaints (137 complaints in a week) claiming that the history was twisted and reflected in a wrong way.) (Haberturk:2015)

The TV series became the focus of discussions not only in Turkey but also around the world. For example, İSNA, semi-official news agency of Iran, claimed that the real women in the Ottoman harems are not like the ones presented in the TV series publishing a so called photography of the Ottoman harems and a photography of the women in the series side by side. The news stated that the dressing style of the women in the Ottoman palaces are not like the one presented by the director and scriptwriter. Fars News Agency in Iran referred to the words of the Prime Minister Erdoğan regarding the series and claimed that it insulted Iran and the Iranian people. Asriran, one of the most popular news websites, published the news with the headline "Muhteşem Yüzyıl even caused Erdoğan to raise his voice".

The TV series attracted great attention in the Balkans, and still occupies the Bosnia-Herzegovina media. Dnevni Avaz, one of the daily newspapers of the country, published the news "The Bad Image of the Ottoman Empire" and referred to the thoughts of the viewers, academicians and movie makers regarding the show. The news stated that “the clothes of the women in the palace are of the 19th century fashion in France, that the Sultan wears pants, and that the Suleiman the Magnificent is 26 years old, not 41.” under the section “The Mistakes within the Show”. The news added that the show also caused controversies following its broadcast in Turkey, and indicated that the TV series in question had a similar fate in Bosnia-Herzegovina.

“Muhteşem Yüzyıl” also caused two recognized historians to come up against each other with their books regarding the show. Historian Erhan Afyoncu, one of the concept counsellors of the show, published his book **"Muhteşem Süleyman"**, while recognized historian and writer Yavuz Bahadıroğlu who severely criticized the show published **"Muhteşem Kanuni Sultan Süleyman ve Hürrem Sultan"** in order to disprove the claims and theses of it.

Two historical dramas should also be mentioned here. *Hürrem Sultan*, directed by Fatih Aksoy and broadcast on Star TV in 2003, became a successful drama with its production and story applying to a wide range of subject matters from politics to fashion though it has quite a similar subject as “Muhteşem Yüzyıl”. The other drama is “Bir Zamanlar Osmanlı: Kıyam” (Once Upon a Time in the Ottoman Empire: Rebellion), which was broadcast within the same period as Muhteşem Yüzyıl and was supposedly influenced by its high ratings, did not last long.

Bir Zamanlar Osmanlı: Kıyam (Once Upon a Time in the Ottoman Empire: Rebellion)

The TV series directed by Ezel Akay in 2012 is about the Tulip Period of the Ottoman Empire under the ruling of Ahmed III. It caused little controversies regarding historical mistakes besides some political discussions due to its broadcast on TRT and the way it reflected the spirit of the time.

Diriliş: Ertuğrul (Resurrection: Ertuğrul)

It is a historical drama which is directed by Metin Günay in 2014 and is still broadcast on TV. It is about the foundation of the Ottoman Empire. The drama attracted the attention of both the viewers and the politicians; for example, Ahmet Davutoğlu, Prime Minister of the time, visited the set of "Diriliş Ertuğrul" and expressed his appreciation. Historians also discuss every episode of the show.

Son Mektup (The Last Letter)

It is a 2014 movie which is directed by Özhan Eren and is about the Gallipoli Campaign. The movie caused more discussions compared to other movies regarding the Gallipoli at the time. Discussions mainly focused on the ideological position of the show despite its high budget, not on its inadequate cinematography or production. The fact that the name Atatürk, who achieved great successes in the Gallipoli Campaign, was mentioned only in the letter caused great controversies especially within the nationalist and leftists parties. The movie was also severely criticized in that it turned the issue of the Gallipoli Campaign and the question whether the success at the wars belong to the Ottoman Empire or to the founders of the Republic of Turkey a serious political resolution point on a conjunctural basis.

That the TV series “Çemberimde Gül Oya” (Rose Lace on My Scarf) and “Hatırla Sevgili” (Remember Darling) which were subjected to censorship and self-censorship and included the ignored events in recent history such as the pains and periods of military dictatorships attracted great attention resulted in an increase in the number of historical dramas. Movies such as “Beynelminel” (The International) and “Babam ve Oğlum” (My Father and My Son) also got a similar attraction. All these movies create areas of mania with the sharing and solidarist relationships and with the friendly stories they present as people who are sick of the alienating, manipulative and selfish social relationships of mass melancholia long for such relationships.

CONCLUSION

Within this context, the present study tried to determine where historical dramas are positioned between fiction and reality and to what extent their content should correspond to reality. The present study found out that what historical dramas actually correspond to and which part of the political mental map they serve are crystal clear.

That consideration of historical dramas as education materials is in fact confused with their function of rehabilitation of the deep traumas in our social psychology, which constitutes the research question of the study, was explicitly determined to reflect a culture of social habit and perception. Our social perspective towards art is generally restricted with the thought that it does and should reflect only the reality and what we want to see. As a result, cinema in Turkey is perceived this way, thus leaving deep traces on the soul of the society with each image it presents. To give an example, it is out of the question that a beloved character in Yeşilçam (Turkish cinema) plays a bad character; because the audience interiorizes an image it sees on the screen. This was exactly what happened when Yılmaz Güney, who long played in adventure movies and was thus called as the "Çirkin Kral" (Ugly King), is slapped as the poor and miserable character Cabbar in the movie "Umut" (Hope) and the audience found it strange and reacted. In Turkey, our social perception of art is highly emotional and relies on the irrational responses.

Dramas are often questioned whether they are fictitious and imaginary products. Considered in terms of the creation of social memories, they are obviously not education materials.

It is considered to be highly problematical that fictitious and imaginary TV series in which fiction and reality intertwine, rating concerns are sought and political pressures become one of the determinant factors in the scenario are confused with real history or perceived that way. Historical events or phenomenon constitute another source of severe political criticism as they are reconstructed at the disposal of current conflicts between the middle class and the government in order to extend political and ideological hegemony areas.

Historical movies and TV series examined within the present study indicated that narratives regarding the Ottoman Empire shaped by the spirit of the modern times are quite high in number instead of subjects including recent history or different histories (history of Rome, China or Maya as seen in Hollywood movies). This situation leads us to the fact that art reflects the spirit of the time. Moreover, it was found that the perception created as a result of consideration of historical movies and TV dramas as education materials with regards to the relationship between the creation process of art and the reality is constructed on an incorrect basis. As previously mentioned, mass melancholia is still maintained as the mass acceptance of the feeling of individual death and a way of collective resistance to the acceptance of death itself, though the existence of the lost hope and the object of love is still felt. Therefore, maybe the question of Aristotle should be asked once more with this study: “Why do all the extraordinary men in philosophy, politics, poetry and art have an evident excess of black bile?”

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MATCHING AND MISMATCHING THE LEARNING STYLE OF STUDENTS AND THE LECTURER

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ABSTRACT
The implications of learning style in education have a huge potential to improve teaching and learning. The purpose of this study is to investigate the effects of matching and mismatching learning style of students and the lecturer on the students' achievement. The casual comparison method (ex post facto design) was utilized in the study. The sample of the study included 258 prospective teachers. Participants' demographic information, learning style and course grade lists were used as data. Results of the study indicated that majority of the patricipating students and the lecturer has the "assimilating" learning style. It was also found that matching and mismatching learning style of students and the lecturer did not affect the achievement of students in the Turkish Folk Literature course regardless of the gender. Besides students' achievement, future studies should use students' motivation towards the course, their attitudes and/or their course involvement variables to examine the effects of matching and mismatching.

Keywords: Kolb learning style model; learning style; course achievement

INTRODUCTION

Individuals are different from each other in their cognitive abilities, interpersonal styles and emotional reactivity. The history of the idea that individuals learn differently goes back to 2500 years ago when ancient Hindus used it in their religious practices (Claxton & Murrell, 1987). Ever since numerous learning style models have been developed. Curry (1983) developed the metaphor of onion to describe the framework for the learning style models. There are four layers at the onion metaphor (Figure 1). The personality trait is at the center of the onion. Information processing, social interaction and instructional preferences are other traits towards the edge of the onion respectively. It is difficult to develop valid and reliable instruments to measure learning style for the traits. Traits at the outer layer of the onion are less stable and more susceptible to change by intervention from researchers (Claxton & Murrell, 1987). Therefore research studies usually utilize traits close to the core level of the onion metaphor. Developed from the experiential learning theory, Kolb's inventory of learning style is one of the learning style inventories preferred in research studies (D'Amore, James, Eleanor, 2012). Having influenced from the works of twentieth century scholars including but not limited to John Dewey, Kurt Lewin, Jean Piaget, William James, Carl Jung, Paulo Freire, Carl Rogers, Kolb (1984) developed the learning style inventory based on the Experiential learning theory. Kolb uses two elements to describe the learning process. The first one is the grasping the experience and the second one is transforming the experience. Learners either rely on reflective observation or active experimentation while transforming the experience. Also learners either rely on concreate experience or abstract conceptualization while grasping the experience (Figure 2). Kolb's learning style inventory characterizes individuals into one of four main learning styles: Diverger, Assimilator, Converger and Accommodator (D'Amore, James, Eleanor, 2012). Describing the strengths of individuals in different learning style categories according to Kolb's learning style, Claxton & Murrell (1987) indicated that while individuals with Diverger learning style have a good imaginative ability, individuals characterized as Assimilators are good at constructing theoretical models. On the other hand, individual with Convergers learning style are good at finding one correct answer in any given problem while individuals characterized as Accomodators are good at focusing doing things.

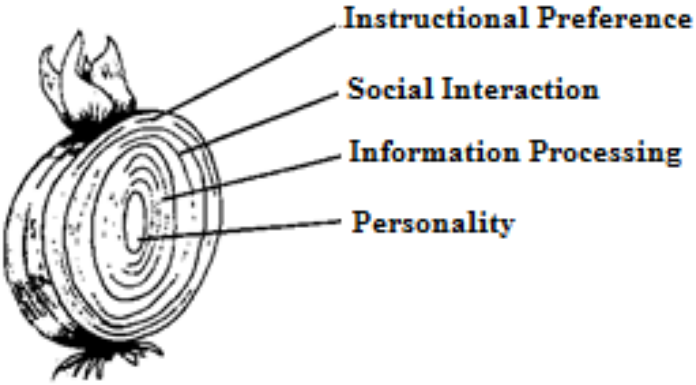

Figure 1. Curry (1983)'s framework of learning style models

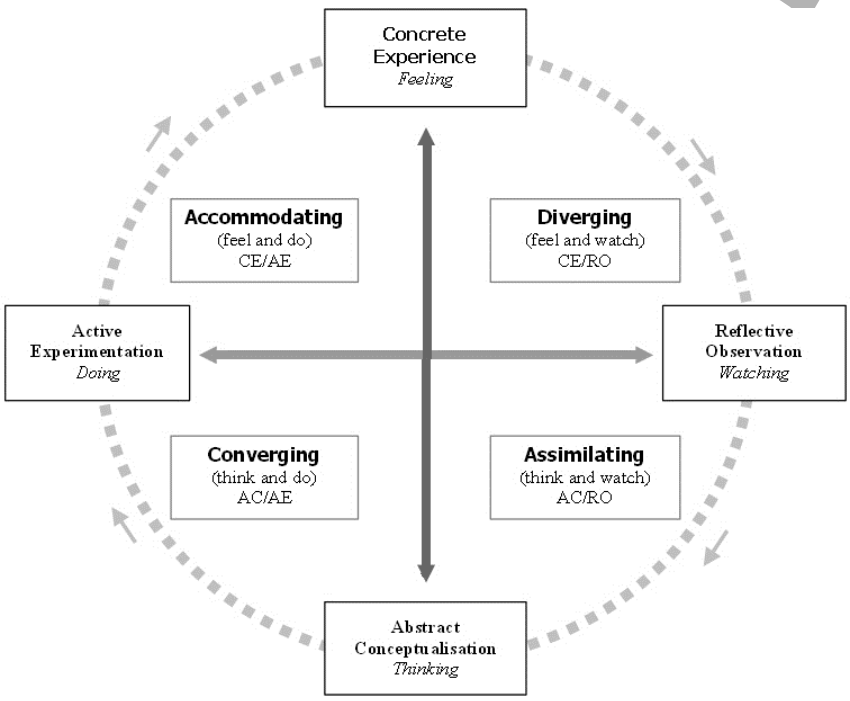

Figure 2. Kolb's model of experimental learning

Identification of individuals' learning style may have the potential to improve teaching and learning practices to improve learning. The relationship between academic achievement and learning style are investigated in studies (Akdemir et al., 2006; Ersoy, 2003; Bilgin & Durmuş, 2003; Ertekin, 2004; Tepehan, 2004; Önder, 2006; Yazıcı, 2004).

Akdemir et al. (2006) conducted a study to compare final grade of the students who were continuing their undergraduate education and were classified as dependent learner and independent learner according to their learning style in the Physics course. Statistically significant differences was found between the final grades of field dependent and field independent learners in the Physics course. Results indicated that final grades of students who were classfied as having independent learning style in the physic course were higher than students classified as having dependent learning style. Ersoy (2003) conducted a study with 6th, 7th and 8th grade students to investigate the relationships among students' learning styles towards the English course, their study habits and their achievement. A siginificant relationship between the students' learning styles and their achievement in the English course was found. It has been found that although the achievement of students having visual learning style is high, the students having kinesthetic and listening-based learning styles showed low achievement in the English course. In the research study which was conducted by Ertekin (2004), the relationship among the primary education students' learning styles, primary education Mathematics teachers' teaching styles and

achievement of students in the Match course was investigated. Findings revaled that there is not a significant relationship between students' learning styles and their achievement. Also there was not found any relationship between teachers' teaching style and students' achievement.

In another study Tepehan (2004) investigated the relationships among high school type of fresmen students graduated from, learning style and academic achievement. Results of the study revealed that there was not any relationship between students' learning style and academic achievement. Önder (2006) conducted another study to investigate the effects of utilizing teaching method aligned with the students' learning preferences on the achievement of the physics course. Findings of the study revealed that the achievement of students in the control and the experimentation group increased in the physics course. Also results revealed that the increase on students' achievement in the experimentation group is higher than the control group. Yazıcı (2004) investigated the relationship between learning style pereferences of students and math achievement of 5th grade students. The study was conducted with 102 fifth grade students. Kolb's Learning Styles Inventory and the Mathematics Achievement Test were used for data collection. The study results revealed a significant diffrences among math achievement of students with regrads to their learning styles.

Implications of learning style for training and development have been investigated for many years. Matching and mismatching the learning style and learning activities, and matching and mismatching the learning style of students have been the focus of many research studies (Dasari, 2006; Ford, & Chen, 2001). In the research conducted by Dasari (2006), the effect of matching teaching and learning styles on the achievement of the 6th grade students in science courses were investigated. The findings of the study revealed that there is a significant difference between the pre-test and the post-test scores of the experimental group. It was concluded that matching teaching and learning styles improved the achievement of the 6th grade students in science courses. Ford and Chen (2001) conducted a study to investigate the relationship between the matching and mismatching students' cognitive styles and instructional presentation condions in a computer-based learning environment. The findings revaled that matching and mismatching coginitive style and instructional presentation had effects on learning outcomes. Limited number of research studies are insufficient to explain the effects of matching and mismatching the learning style of students and the lecturer on students' learning. The purpose of this study is to investigate the effects of matching and mismatching learning style of students and the lecturer on the students' achievement in Turkish Folk Literature course. Four research questions were developed to investigate the issue.

- What is learning styles of Turkish Language Teaching department students?
- Is there a difference on the achievement of students whose learning style match and mismatch the lecturer's learning style?
- Is there a difference on the achievement of female students whose learning style match and mismatch the lecturer's learning style?
- Is there a difference on the achievement of male students whose learning style match and mismatch the lecturer's learning style?

METHOD

Participants

The study population consisted of students studying at the Turkish Language Teaching departmet of public universities in Turkey. The convenience sampling method (Balcı, 2007) was used to select the public university. All students of the Turkish Language Teaching Department at Ereğli Education Faculty who had taken the Turkish Folk Literature course were invited to participate in the study by visiting their classes. Students accepting to be volunteer in the study involved in the study. Total of 258 students who took the Turkish Folk Literature course participated in the study. There was one lecturer at the department and she had taught all the Turkish Folk Literature course to all participants.

Research Design

The casual comparison method (ex post facto design) (Tuckman,1994) was utilized to investigate the effects of matching and mismatching learning style of students and lecturers on the students' achievement in Turkish Folk Literature course in the study.

Data Collection

The first data collection instrument is used to collect students' demographic information and data to determine their learning styles according to Kolb's learning styles. Kolb' learning style inventory was translated into Turkish by Aşkar and Akkoyunlu in 1993. Aşkar and Akkoyunlu (1993) used similar age group of participants to

test the reliability of the instrument. The students' grade lists for the offered the Turkish Folk Literature course were also utilized for the data collection purposes.

ANALYSIS AND RESULTS

Descriptive statistics and independent samples t-tests were used for the data analysis using the Statistical Package for the Social Sciences. All the statistical analyses were conducted with a significant level of .05.

The first research question investigated the learning styles of the Turkish Language Teaching department students. The descriptive analysis of the participants' learning style based on the Kolb's learning style was presented at the Figure 3.

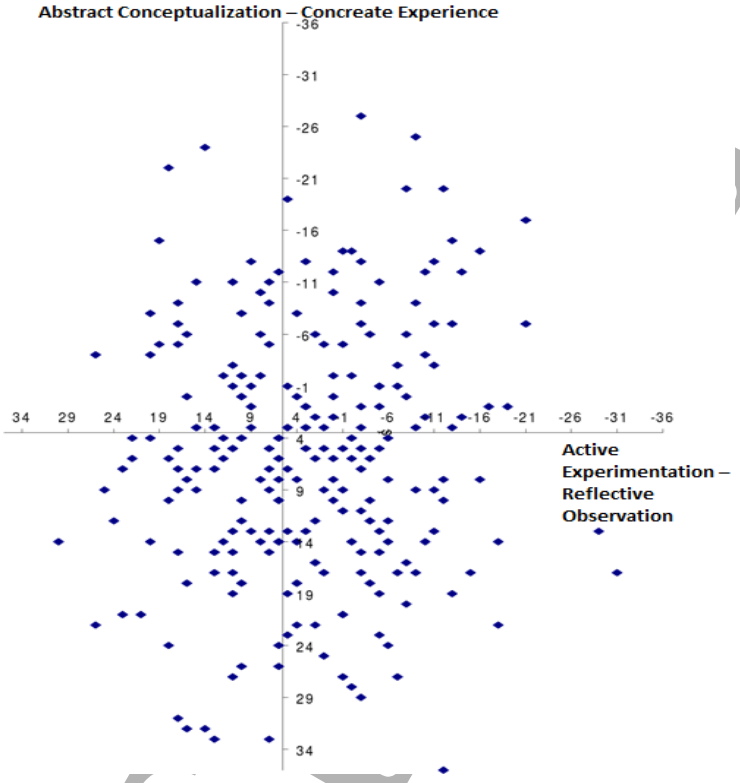

Figure 3. Distribution of participants' learning style

The distribution of the participants' learning styles by gender was presented at the Table 1. Majority of the participants have the assimilator learning style regardless of their gender. Also, the learning style of the lecturer was assimilator.

Table 1. Distribution of participants' learning style by gender

Learning Styles	Gender				Total	
	Female		Male			
	N	%	N	%	N	%
Accomomodator	25	17.6	16	13.8	41	15.9
Diverger	34	23.9	27	23.3	61	23.6
Assimilator	44	31	40	34.5	84	32.6
Converger	39	27.5	33	28.4	72	27.9
Total	142	100	116	100	258	100

The second research question investigated whether there is a difference on the achievement of students whose learning style match and mismatch the lecturer's learning style. The independent samples t-test was used to

compare the achievement of participants in the match and the mismatch conditions. Findings revealed that there was not any significant difference in two conditions (t = - 0, 555 p>0,05) (Table 2).

Table 2. Comparisons of the match and mismatch conditions

Learning Style	N	Mean	S	sd	t	P
Match	84	66,57	16,85	256	-0,555	0,58
Mismatch	174	67,77	16,08			

The third research question investigated whether there is a difference on the achievement of female students whose learning style match and mismatch the lecturer's learning style. The independent samples t-test was used to compare the achievement of participants in the match and mismatch conditions. Results of the analysis revealed that there was not any significant difference in two conditions for female participants (t = 0, 277 p>0,05) (Table 3).

Table 3. Comparisons of the match and mismatch conditions for females

Learning Style	N	Mean	S	sd	t	P
Match	44	71.2	14.2	140	0,277	0,78
Mismatch	98	70.5	15.8			

The last research question investigated whether there is a difference on the achievement of male students whose learning style match and mismatch the lecturer's learning style. The independent samples t-test was used to compare the achievement of participants in the match and mismatch conditions. Data showed that the achievement of male students in match and mismatch conditions is not significantly different (t = -0,833 p>0,05) (Table 4).

Table 4. Comparisons of the match and mismatch conditions for males

Learning Style	N	Mean	S	sd	t	P
Match	40	61.3	18.1	114	-0,883	0,379
Mismatch	76	64.2	15.7			

DISCUSSION

Learning Style and Occupational Preferences

In this study, Kolb's Inventory of Learning Style was used to determine the learning style of the students of Turkish Language Education Department. According to Kolb, while it is expected that students who show interest to literature are more dominant in the "changing" learning style, it is expected that ones who have the jobs like teaching centre on the "assimilating" learning style. While it is expected that the students of the Turkish Language Education who aim at being a Turkish Language Teacher in the future are more prone to teaching, it is thought that the students in the Literature Department which takes part in the Faculty of Arts and Sciences are more prone to literature and therefore they prefer these departments. Correspondingly, it is expected that the students of Turkish Language Teaching Department centre on the "assimilating" learning style more when Kolb's proclaim is taken in consideration.

The majority of the students, 32.6%, and the lecturer of the Turkish Folk Literature course were in the "assimilating" learning style group which is the group that shows interest to teaching profession. As it has already been stated by Kolb, people who prefer teaching profession mostly take part in the "assimilating" learning style group (Ekici, 2003). This finding complies with the Kolb's claim. Demir (2008)'s study conducted with 200 students in the Turkish Language Education Department revealed that female and male students centre on the "decomposing" learning style. Demir (2008)'s findings do not comply with the results of this study. According to Kolb, individuals who have the "decomposing" learning style prefer the jobs which concentrate on using technology such as medicine, engineering, economics, computer sciences more. The use of different types of learning style inventories in both studies could be a reason to achive such contradicted results.

In the research conducted with Aşkar and Akkoyunlu (1993), it was found that 73% of individulas in Social Sciences are dominant in the "assimilating" learning style. The results which were found in this study show consistency with the results of Aşkar and Akkoyunlu (1993)'s study since the Turkish Language Education Department is part of a Social Science. In the research studies conducted by Çaycı and Ünal (2007) and Hasırcı

(2006), the learning styles of prospective teachers were investigated. Hasırcı (2006)' study and revaled that %41 students have "assimilating" learning style. Similiarly Çaycı and Ünal (2007) found in their study that 59.8% prospective teachers have "assimilating" learning style. Prospective teachers are expected to have "assimilating" learning style. The results of this study support the findings of Çaycı and Ünal (2007)'s and Hasırcı (2006)'s studies.

Learning Styles and Student Achievement

While some studies conducted by Akdemir et.al. (2006), Ersoy (2003), Bilgin and Durmuş (2003), Koçak (2007), Öztürk (2007), Peker (2003), Yazıcı (2004) revealed siginificant diffrences between learning style and student achievement, other studies conducted by Ertekin (2004), Karataş (2004) ve Tepehan (2004) revealed that learning style doesn't affect academic achievement. There are limited number of research studies examining the effects of matching and mismatching students' and teachers' learning style on academic achievement. Ford and Chen (2001)'s study revaled that matching and mismatching coginitive style and instructional presentation had effects on learning outcomes. Also Dasari (2006)'s study found that matching the teaching and learning styles improved the achievement of 6th grade students in the science course.

In this study, the effect of matching the students' learning style and the teacher' learning style on academic achievement of students was examined. It was found that the lecturer who lectures the Turkish Folk Literature course and 84 students have the "assimilating" learning style. Results of this study revaled that there was not any significant difference in match and mismatch conditions on students' achievement. Data analysis also revealed that results are identical when examined for males and females alone which showed that gender does not affect the findings statistically. Although Ford and Chen (2001)'s and Dasari (2006)'s study have found that matching the teacher's and students' learning style have effects on students' achievement, results of this study revealed that matching and mismatching conditions do not have any effects on the achievement of students. According to Ford and Chen (2001) and Kolb (1984), the students whose learning style don't match may be more successful in long term. This study was conducted with prospective teachers. Therefore participants of this study might have gone in a process of adaptation to cope with different learning style that do not match their learning style.

The effect of matching students' learning styles and teachers' teaching styles on the academic achievement of students was investigated by Karataş (2004). While GrashaReichmann Learning Styles Inventory was used on the purpose of determining the students' learning styles, the Inventory of Teaching Styles prepared by Grasha was used for the teachers. Results revaled that there is a relationship between the academic achievement of students and teachers teaching style. However matching the teaching style of teachers and students learning style did not affect the academic achievement of students. It is seen that the result of Karataş (2004)'s study complies with the result of this study. The results of research studies, which were conducted by Akgün (2002), Demir (2006), Demir (2008), Gencel (2006), Güven (2003), Karakış (2006) and Öztürk (2007), support the findings of this research study because identical results were found when male and female students' academic achievement were compared in match and mismatch conditions.

CONCLUSION

Implications for Practicioners

It is expected that students and teachers know their learning styles. This study has showed that most of the students in the Turkish Language Education take part in "assimilating" learning style group as Kolb suggested. According to the results of Kolb's Inventory of Learning Style, it is expected that the people who make plans of occupation which are intended for the Turkish Language Education take part in "assimilating" learning style group more. Kolb's Inventory of Learning Styles can be used in determining the students who want to head for the Turkish Language Education Department by school counsellors at high schools.

This study has showed that matching or mismatching the learners' and teacher's learning style doesn't have an effect on their achievement in the Turkish Folk Literature course. Therefore teachers should avoid using Kolb's inventory of learning styles in Turkish Folk Literature to genereate match and mismatch conditions. Also, the study has showed that gender doesn't play an active role on matching or mismatch conditions.

Contribution of the Study to the Theory

This study has showed that there is no difference among the achievement of students in the case of matching and mismatching the learning styles of the teacher and the students. Various reasons might have contributed to achieve this result. The study population consists of undergraduate students. Participants throughout their education had taken courses from numerious teachers. While some teachers' learning styles matched their learning style, others' learning style did not match students' learning style. As a natural result of this, the

students may have experienced a natural process of adaptation to the teachers whose learning style did not match their learning style. As a part of the adaptation process, participants may have developed skills which may adapt them to the teaching methods and techniques that teachers used in courses.

The content of the Turkish Folk Literature course shows variety. Therefore students might have showed more interest to the course. As a result of this, students might have formed positive attitude to the course which affected their achievement regardless of the match and mismatch conditions.

Recommendations for Future Studies

The connection which Kolb established between occupational preferences of individuals and their learning style should be investigated for other teaching programs. It was found that the matching students' and the teacher's learning styles did not have an effect upon the achievement of the students in the Turkish Folk Literature course. Future studies should be replicated for other courses in the Department of Turkish Language Education so the possible effects of the content can be investigated. The Kolb's Inventory of Learning Style was used in this study. Different learning style dimensions are defined in other learning style inventories so this study should be replicated to investigate the effects of other learning style dimensions. Besides students' achievement, future studies should also use students' motivation towards the course, their attitudes and/or their course involvement variables to examine the effects of matching and mismatching.

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Note: This study was completed as a master thesis under the supervision of Asoc. Prof. Ömür Akdemir by Emine Zehra Samancı.

MEASUREMENT OF TEACHERS' INSTRUCTIONAL TECHNOLOGY SELF-EFFICACY AND OUTCOME EXPECTATIONS

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The main purpose of the study is to measure reliability and validity of the Motivation for Technology Integration in Education Scale prepared in light of Bandura's Social Cognitive Theory. The participants were 228 high school teachers in Turkey. The results of confirmatory factor analysis revealed that self-efficacy and outcome expectations are related but distinct constructs. Outcome expectations seemed to consist of three dimensions: performance, self-evaluative and social outcome expectations. Moderate relationship between self-efficacy and outcome expectations was found. Based on these results, we believe that researchers can confidently use this scale to measure teachers' motivation for technology integration in education.

Keywords: Technology Integration,self-efficacy,outcome expectations, motivation

MEASURING STUDENTS´ ATTENTION BY DISTRIBUTION OF ATTENTION TEST AND BOURDON´S ATTENTION TEST

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ABSTRACT
The goal of this study was to measure the level of attention among students in upper secondary education by Attention distribution test (ADT). To verify the measurements, respondents of the research were presented with Bourdon`s cross-out test (BCOT) in Prague squared modification. Using Pearson correlation coefficient we verified the degree of relationship between the Attention distribution test and the standardized attention test, Bourdon`s cross-out test. The research sample consisted of n = 134 and the correlation coefficient r = 0,455 confirmed moderately strong correlation between the results of BCOT and ADT. We can recommend the Attention distribution test to the teachers as a quick diagnosis of students` attention level.

INTRODUCTION

The quantity and quality incentives which the individual must process have changed and natural adaptive capacity of man is daily exposed to the increased pressure, "the door to the soul" is wide open and sometimes there is great draft. However, individual psycho-regulators whose rate and strength varies in different individuals, allow to cope with these stimuli pressures. Special place among them occupies attention as the psychological quality of man that forms the basis of many effective capabilities of man. On the one hand, attention strengthens (or in the event of insufficiency it inhibits) natural adaptive capacity, on the other hand, it is a prerequisite for effective and creative input into the outside world (Cabanová, 2013).

THE STUDY

Attention:

In the broad sense of the word, attention covers all mental activities from "noticing" something to the concentrated observation of something. All that objects, events or activities that we pay attention to, have in common is that for a certain period of time they become the focus of mental events. This "central location" makes the objects, phenomena or activities to which the attention is directed, becoming clearer and clearer and they dominate more over other currently ongoing mental, behavioral or real actions or events.
Attention can be understood in at least two ways:

1. as a term expressing or outlining certain current state of organism readiness to mental or behavioral act,
2. as the current level of "vigilance" or excitation (arousal) of psychological or somatic activity.

The current level of attention acts as a selective factor that determines which of the operating incentives come into consciousness and trigger an appropriate response (Cabanová, 2013). Plháková (2003, p.77) aptly puts it when she writes that "attention is a mental process, the function of which is to inject into the consciousness the limited amount of information and to protect it against "overloading " with plenty of incentives currently and realistically acting on the man ".
Attention, however, does not only mean the focus of mental activity acting on the initiative, but it also expresses particular state of consciousness. This state of consciousness is characterized by a certain degree of clarity and explicitness of percepted objects in consciousness. Therefore, attention can be understood as a general feature of consciousness, presenting itself as conscious deployment of mental functions in order to bring these functions to the highest degree of performance. So if we understand attention as a mental state that manifests itself in the directedness and concentration of consciousness (Chalupa, 1981), we must take into account the fact that the mental activity of a person varies over time in intensity, it has a fluctuating character and determines the current level of performance.
Under the concentration of consciousness we most often understand the degree of activity of mental act, which is usually referred to as the intensity of attention. As the degree of intensity of attention we consider the current degree of awareness of somatic or mental activities, while we mean those activities that take place on a conscious level. The more intense is the concentration of consciousness, the clearer we reflect on our experience or behavior. Of course, these processes are taking place at an unconscious level, which means that the regulation and control of behavior has its off-conscious attributes. In the area of attention we are most often moving at the level of consciousness, however it does not mean that we have all ongoing mental or behavioral activities constantly under control (Cabanová 2013).
Attention is closely connected with the educational process. Its development itself is driven under the influence of school requirements (Hamranová 2003). It is an important prerequisite for good performance. If underdeveloped it is a common cause of school failure (Svoboda, Krejčířová ,Vágnerová, 2009). The role of

teachers is also to motivate children and adolescents to the education itself Lemešová (2013). Part of these efforts is obviously the need of improving the ability of teachers to master such techniques, which help stimulation the student's attention and especially keeping it during the lesson, as confirmed by Šramová (2004, 2013). According to Smetanová (2012) the importance of attention in learning is seen as unquestionable.
Level of attention is unevenly distributed in the population, somebody had it higher, another lower. The level of attention fluctuates even in one and the same individual - during the day, during different periods of his life. For teacher to recognize whether it is a student with a permanently lower level of attention or his weaker school results are based on different grounds, he must have at hand a suitable and easily serviceable tool to measure the attentional level.
Measuring the level of attention is a problematic issue, because in the tasks that are sometimes referred to as a test of attention, it is not quite possible to distinguish the effect of attention from other mental functions and processes. The most significant level of attention is reflected in the tests, the content of which is to perform relatively simple, stereotypical activities for a longer period of time.
According to Chalupa (1981) it is possible to consider the methods of attention research in the broader sense. Thus, we can distinguish several basic types of tasks: methods of monitoring of mental activity course; methods of conducting two activities; the role of interconnection attention; tachistoscopic method; methods of research of attention in association tasks and to solve the mental tasks; implementation of complex sensorimotor coordination; observation of reversible figures; other methods of attention research .

Research question:
The basic question that stood at the beginning of our research was: Is there a link between variable (value), which are measured by Bourdon`s cross-out test, namely the Prague squared modification, and variables that are measured by Attention distribution test? Otherwise and more precisely: do the test result of BCOT and ADT correlate for secondary school students?

Research method:
As appropriate (albeit partial) compensation could serve Attention distribution test (ADT) end Bourdon`s cross-out test (BCOT) in Prague squared modification. ADT is a methodology which is based on similar principles as the standard techniques for measuring the level of attention. The author of the original English version of the test is Audley L. (1988) and the Slovak modification was created by I. Brezina and K. Ďuričová- Cabanová (1989). Test has got the verbal nature and it consists of three parts. In the first part respondents select from the ranks those words that begin with the letter "K". In the second and the third part they select both the adjectives and words beginning with the letter "K" (Cabanová, 2009).

Fig. 1 The relationship between variables BCOT score and total score ADT

To assess the size of the Pearson and Spearman correlation coefficient and thus to assess the strength of dependence between variables, we use the scale designed by Jacob Cohen, who assessed the results of

psychological research as follows: Correlation (in absolute value) of less than 0.1 is trivial; 0.1-0.3 small; 0.3-0.5 medium and over 0.5 large (Cohen, 1988).

Participants:
The research sample consisted of 134 students (mean age 17,4 years) of upper secondary education.

FINDINGS

The measured values of correlation coefficients (r=0.455) between the results of BCOT and ADT were significant at significance level of 0.001. In any case, the correlation coefficient unmistakably indicates moderate dependence between test results of BCOT and ADT. Since Bourdon test is standardized, verified and validated instrument to measure the level of vigilance and to test the ability of its distribution, this correlation makes the distribution of attention test an appropriate tool to measure the level of attention and the ability of its distribution among secondary school youth. Only moderate correlation with the results of BCOT is richly balanced simplicity and time undemanding ADT compared to Bourdon test.

CONCLUSIONS

Work has met its goal. Attention distribution test (ADT) is an appropriate tool to measure the level of attention among secondary school youth. Its results are statistically significantly correlated with the results of standardized Prague modification of Bourdon cross-out test (BCOT). In testing we also verified and that it is time-saving and does not burden pupils excessively.

It does not, of course, substitute the Bourdon`s test. The later also monitors the attention with prolonged load, also distinguishes errors and performance. Moderately strong correlation between these two tests have confirmed that ADT really tests the distribution of attention, as the Bourdon`s test does. For the final confirmation of this thesis further testing would be needed.

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MECHANISMS OF PUPIL´S SELF-ASSESSMENT PROCESSES AT PRIMARY SCHOOL IN THE CONTEXT OF A POLYTECHNICAL EDUCATION

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ABSTRACT
The paper is concerned with the issue of pupil´s assessment at primary school in the context of a polytechnical education in accordance with the current trends of the education policy in the Czech Republic (the processes of assessment are the subject of criticism of the imperfection of the Czech education according to OECD). These processes are perceived as significant for the socialization of a child, which is declared by valid and obligatory legislative documents. With respect to strengthening efforts in society to revive the technical fields it is the main intention of the project to reflect the present-day condition of instruction of the polytechnically oriented subjects through a teaching process analysis. A resource for fulfilling the output of the project is making of a research, whose results would make possible to identify the key problematic elements in the instruction with respect to the development and support of the self-reflective activities of a pupil, and to suggest measures that could lead to improvement of a technical education at primary school and to develop the process of socialization. The main intention of the paper is to present a project which try to reflect the extent of space for self-assessment by a pupil, which is offered by a teacher during the realization of a technical education.

Keywords: polytechnical education, primary school

INTRODUCTION

For approximately 20 years we have been trying to implement the principles of a curricular reform to our school´s practice. If we think about it a bit, we realize that this time period represents one whole generation. During this time period we could observe a high publishing activity of the experts about the various approaches to the education innovations. However, in the present day in accordance to the fact that the Framework Educational Programme for Basic Education (FEP BE) which is applied in all schools in the form of school educational programme, we find ourselves in the times when we should begin with a targeted, intentional and precisely criterion adjusted evaluation of the effectiveness of the school reform´s philosophy (while we want to focus on the changing of the teaching process, patters and the evaluation of its effectiveness). It is not just the opinion of this proposal´s authors, but we mainly depend on the criticism of the international organization OECD from 2012. The biggest criticism fell on the insufficient setting of criteria for the assessment on all levels – evaluation of FEP´s functionality, quality of School Education Programme, work of the headmasters and teachers and the evaluation of the pupil´s activity with a focus on the self-assessment processes.
The published outputs of the *Česko mluví o vzdělání* campaign (the Czech Republic talks about the education) are another impulse. We can consider its topic number 2 about how to increase the interest of the children and pupils to learn new things as a very interesting influence on creating of an objective for our scientific intention. In the discussion there were inspiring polemical opinions, for example that the meaningfulness of education should be guaranteed, but the practical usability of the knowledge to suppress the academically conceived education should not prevail. If we focus on the context of this discussion impulse it seems to be indispensable, if we think about the transformation of the school´s inner system.
However, the most important thing to define our scientific intention was that all above stated impulses are connected by one important element and that is that there is no exact line of the education content, but only a thought which way should we head regarding the approach to education – thus a pupil should understand more rather than just know. To respect this approach we have an opportunity to track the traces in curricular documents, which are only fragments of specific approaches with predicted outputs and also only a small number of researches is concerned with the evaluation of the school reality.
One of the topics, which appears in the context of the criticism of the Czech education system, is also a polytechnical education. The Czech companies are battling with the lack of quality graduates from the technical

fields in the recent years and because of that the attention of the society focuses on support and improvement of the polytechnical education. The support of the polytechnical branch of education was already discussed during the previous years and at the present day there is an effort to increase the share of the polytechnical education on its top. The year 2015 was labelled as "the year of the polytechnical education" (Šrámek, 2014) and the support of concepts, mainly from the field of polytechnical education at nursery and primary schools, was determined, on the basis of cooperation with the Ministry of Education, Youth and Sports and the Confederation of Industry of the Czech Republic.

The authors of the pedagogical dictionary define the polytechnical education as "an education offering the knowledge about the scientific principles and manufacturing sector, knowledge from the technical fields and general technical skills." (Průcha, Walterová, Mareš, 2009, p. 207) This term was earlier used also as a name for tertiary level of schools, today is the term used in the connection with the technical and natural sciences education, including the environmental education, education of the public and the support of the education in the natural environment on all education levels. The polytechnical oriented subjects occur on a primary school for example within the frame of education field *A Man and the World of Work* (see below), on which we plan to focus the most in our project.

TECHNICAL EDUCATION AS ONE OF THE AREAS OF HUMAN´S KNOWLEDGE DEVELOPMENT

The creative abilities of a man are now becoming one of the decisive factors influencing the economic and social development of countries. The present day era is then characterised mainly by an increased effort to improve the instruction and education of the younger generation. The role and function of the pedagogues is transformed from passing the information to forming the personality and the social relations, from reproductive activity to productive creativity, from passivity to activity, initiative and creativity, from quantity to quality of the knowledge and skills. People are looking for the new basic curriculum, they are modifying the instruction methods, they are developing and using new teaching aids and the thinking of the teachers is changing. The objective is mainly the support of the development of the abilities, thinking, character, value systems and creativity of a person. (Šubert, 2010)

The educational area *Člověk a svět práce* (A Man and the World of Work) is in the FEP BE dedicated to the area of the technical education and preparation for the working life. It is conceptually focused on the practical working skills and habits, which form the necessary part of the basic education. This educational area (along with some others) is the counterweight to the theoretically focused educational areas, because it is based on the practical active involvement of the pupils. The gained knowledge, skills and working abilities create the basic part which a person needs to succeed in life and in society.

The educational area *Člověk a svět práce* (A Man and the World of Work) is compulsory on a primary school on both education levels (ISCED level 1, ISCED level 2). The educational area on ISCED level 1 is divided into four thematic fields, which are Work with small materials, Constructive activities, Growing practices and Preparation of a dish. On ISCED level 2 it is divided into eight thematic fields, which are Work with technical materials, Design and constructing, Growing practices and livestock farming, Running and maintenance of a household, Preparation of a dish, Work with laboratory technology, Using the digital technologies and World of work. The concrete names of the disciplines can vary depending on the *School Education Programme*.

The focus within the realization of the technical education narrows to the thematic fields *Work with small materials and Constructive activities* on ISCED level 1 and on Work with technical materials and Design and constructing on ISCED level 2. Within the stated thematic fields we are trying to build a system of knowing the working abilities and habits, which will allow in the future to plan, organise, realise and evaluate the working activity (of one own and of others).

The technical education in the requirements at primary school leads to a general development and adoption of the key competence of the pupils when they are getting to know the surrounding world, adoption of the basic working abilities and habits, persistent and systematic fulfilling of the basic tasks and mainly employing the creativity during one´s own working activities. The task of the technical education teacher is to create in a pupil a positive relation and responsibility to work, lead a pupil to respect and protect the environment, to develop the positive character traits such as resolution, persistence and creativity. And mainly to perceive that the physical and mental work are part of the human culture and an opportunity to self-realization and self-development. (FEP EE, 2007)

These objectives are on primary schools fulfilled with practically oriented subjects of various names and characters (according to the School Education Programme). The technical and creative thinking of the pupils is a significant topic of the technically oriented disciplines and today often discussed issue. The present day is characteristic with its fast advancement of knowledge, mainly in the field of technology. National Programme for the Development of Education (Národní program rozvoje vzdělávaní) declares as one of the objectives to increase the quality of education through an inner change of a school. A part of this change is the transformation of the role of a teacher and a pupil which should be reflected mainly in the objectives and contents of the

education, style of teacher´s instruction and in the mutual relationship between a teacher and a pupil.
The objective of the primary education should be a universal cultivation of pupil´s personality (attitudes, values orientation and interests), creating of motivation for learning, development of thinking, creativity and adopting of the basic literacy in different fields as a tool for successful future education. (National Programme for the Development of Education, 2001)

PUPIL´S PURPOSEFUL INDIVIDUAL AND ALSO COOPERATIVE ACTIVITY, EXPERIENCES, PRACTICES

An active work of pupils is the general trait of the technical subjects, whose primary objective is to supply the pupils with the competence for "life with technology". This active work is strongly focused on creating of the relationships and attitudes mainly towards the technology and because of that it should bring positive impulses, experiences (from a successful solution, product, from fulfilling a useful task etc.) to a pupil. We comprehend an experience as a mental phenomenon, which "an individual experiences (perception, thinking, imagination), always inner, subjective, emotionally linked; a source of a personal experience..." (Hartl, Hartlová, 2004, p. 701). An experience thus arises on the basis of the involved living through a situation, here a situation connected with the technology. When applying the research oriented approach in technical education, it is not merely about the activities of a pupil, focused on observing and experimenting during the practical activities, but mainly about applying the creativity, critical thinking and other thinking processes.
The contemporary theory of cooperative instruction is based i.a. on the theory of group teaching, which is also applied to the instruction´s practice, for more details see Kasíková (2001). The conditions for cooperation are made by dividing the pupils into groups. The cooperative instruction lies in the cooperation in a group, in the social interaction, whose significant tool is a dialogue (Kolář, Šikulová, 2007). The success of an individual, fulfilling of the given objective of instruction, during the cooperation within the realization of the research oriented instruction, is bound to the success of a group, cooperating members of the group. A pupil adopts the curriculum about technology in a group interaction, in the relations to others and in own work "for a group". A part of the learning is then also the forming of social skills for the team work, a contribution to personally social and intellectual development of a pupil (Kasíková, 2001, p. 62).
Creation of experiences from an environment that is similar to reality is one of the contributions of a pupil within the research oriented instruction of technical subjects. The authors of the pedagogical vocabulary (Průcha, Walterová, Mareš, 2009) consider the term practice as ambiguous. It can mean knowing the world based on senses, experiences, social contacts and practical activity or a summary of one´s individual knowledge and skills, habits, interests, experiences, social relationships. It can be related to an individual but then it is passed to the others with difficulties (there is also a collective practice). The practice, thus earlier known and experienced has a considerable significance when knowing (environment or oneself). It applies to school as anywhere else. The known is interpreted on the basis of the manner of comprehending the earlier perceived facts; this thesis is one of the basic ones for the constructivist conception of instruction. "That, what a subject has in mind, offers him a complex scheme, a framework of knowledge which is used for the new knowledge, which will only be built" (Grecmanová, Urbanovská, Novotný, 2000, p. 20). Another idea of constructivism is that a pupil learns what he is interested in, what he considers to be useful and what "is working for him" (viability), functionality of the knowledge is then a specific scale for the correctness of knowledge (Riedl, 2003, p. 30-31). A possibility to verify the known and also what one found about oneself during the activities of adequate process of instruction of technical subjects on primary school can then be a significant factor of developing the self-concept.
An individual activity is significant for creating the pupil´s self-concept. An activity during which a pupil directly experiences his own achievements or failures, and also a cooperative activity which allows to take place among the cooperating ones, evaluate own performance, reflection of opinions of others about oneself.

THE RESEARCH ORIENTED INSTRUCTION AS ONE OF THE ACTIVATING METHODS OF THE POLYTECHNICAL EDUCATION

In accordance with the current education trends, a constructivist axis of instruction is being promoted in the modern education, mainly represented by activities oriented on the development of the key competence of a pupil. An emphasis is put on the participation of a pupil in the instruction and the development of one´s personal qualities. A basis of the educational process is constructing of the knowledge by a pupil himself, and a teacher, as a guarantee of the method, ensures that every pupil can reach the highest possible level of development. The pupil´s knowledge is gradually created as a subjective cognitive structure, which is being changed and enriched in the process. Research oriented instruction, same as most of the constructivist didactics, is based on pre-concepts of a pupil as the tools for knowing. They should be repeatedly reconstructed in the instruction in the manner, that the knowledge would be integrated into actual schemes. A pupil is then in an educational process put into the role of explorer representing own knowledge based on own activity. (Pecina, Zormanová, 2009)
For example Dostál (2013) draws attention to more intensive implementing of research oriented instruction in the Czech Republic and abroad, in relation with the effort to popularise the technical and natural sciences

subjects. The research oriented instruction as one of the activation methods of problem learning originates from the principal of constructivism and it is based on independent controlled cognition through own activity of an individual, which develops the critical (then also research) thinking. Such a conception of instruction can be realized through various educational strategies, with the use of vast range of teaching methods. The research oriented instruction can be then perceived as a field involving more activation methods (e.g. method of solving problems, heuristic or project instruction). (Stephenson, 2013)

The role of a teacher changes in comparison with the other traditional approaches from a transmitter of ready-made knowledge to a facilitator and coordinator of the pupil´s process of knowing (Bertrand, 1998). A teacher sets the conditions, helps, advises and motivates to the exploring itself. A pupil is in the technical education placed in front of the theoretical or practical problems, which he must solve on the basis of own existing knowledge, skills but also attitudes and opinions about oneself and the surrounding world. A pupil is forced to compare these opinions with the pedagogical reality and the results of own learning activity.

It is possible to adjust the research oriented instruction to age and level of knowledge of the pupils, so that it corresponds with the specific specialities of each age period. With the younger pupils it is more suitable to submit already made process of solving, through sub-steps, whereas with the older pupils we can just submit a formulation of a research task. (Papáček, 2010) It is possible to realize the process of pupil´s research in several ways. These are:

- confirmatory research, when the pupils know the procedure, questions and results which they verify with their own experiments,
- directed research, when a teacher asks a question, to which the pupils are searching for an answer,
- structured research, when the pupils are given the research question and a procedure of the activity. The pupils then formulate their conclusions according to these information.
- open research, when the pupils ask the questions, they also choose their methods and they do the research. (Eastwell, 2009)

The active and conscious approach of a pupil, his ability to learn, to cooperate, his self-reflection and self-assessment is needed for all these activities.

ASSESSMENT IN TECHNICAL EDUCATION AS MEANS TO LEARNING AND UNDERSTANDING

In the effort to diagnose a pupil´s performance and result when realizing the technical education, a teacher is forced to answer the following question: What specifically should they control and evaluate and what approach should they choose in order to ensure that the assessment of pupils is fair, reliable and effective? (Bajtoš, Pavelka, 1999) The answers to these questions are characterised by the used instruction strategies of a teacher, among others also the interaction between teacher and pupils. Assessment has a specific role in the teaching process, because without the evaluating processes it is not possible to further develop oneself. Assessment itself has various forms and from that derived functions.

A teacher´s assessment is influenced by many factors, which are part of the mutual relationship between teacher and pupil. Among the most important determinants is that a pupil is understood by a teacher and from that derived conception of instruction (instruction strategy). If a teacher is the only evaluator, the process of learning is being looked at by only one (although expert) point of view. In the case, that in the spirit of the modern pedagogics we perceive a pupil as a co-creator of the educational process, the pupil´s participation is then necessary also for the results evaluation of the learning activities.

Evaluating of pupil´s own work can allow a pupil to regulate own activity, by which he influences own learning, and he learns to accept the responsibility for his results. We can then perceive the self-reflection as a process of reversed control, which then leads to connecting the existing knowledge with the current knowledge by using the actions and facts and their critical judging. (Kolář, Šikulová, 2009)

Self-reflection as a part of pupil´s self-assessment

Self-assessment in the context of primary school is one of the didactics methods, during which a pupil confronts his own opinions on himself with the opinions of a teacher or other pupils. From psychological point of view we are dealing with the emotional representation of perception of own value and competence (Blatný, 2010). The self-reflection can be then determined as generally conscious self-knowing in the means of introspection, on which base a relationship to oneself is created. A path to self-reflection of a pupil leads through the evaluation by a teacher, who is one of the main factors influencing the self-assessment activity of a pupil.

The evaluating skills need to be systematically developed for example by guiding reflective questions. These questions are for example: What new have I discovered? What have I learned? What have I achieved? In what situation do I feel insecure? How do I react when I don´t know something? On what should I focus more? Why have I got better/worse? (adjusted according to Kolář, Šikulová, 2009)

The questions formulated in this manner can have regulative, motivational and cognitive function during the progress of learning process and also in its end. Even though the self-assessment of a pupil cannot completely replace the assessment of a teacher, it has its justification in the educational process. The activities evaluated by

a teacher and the self-assessment by a pupil should be in a mutual balance and they should intersect, because the effort of every teacher should be guiding a pupil to independence and responsibility for one´s own actions.

Strategies of the pupil´s self-reflection regulated by a teacher

Although a School Educational Programme of every school declares the basic characteristics of evaluation, which are chosen by every school and a teacher should fully respect them; there is still a certain degree of the teacher´s personal conception used in the educational process. Thinking through the most suitable way of "becoming independent" of a student from a controlled self-reflection to uncontrolled process can thus vary according to every teacher and every class. It is possible to observe the strategy of expanding in the means of deepening, guiding questions (or items) from several general ones to specific ones or vice versa.

A proposal of items specific for the instruction of technical education, which can help a pupil to get an insight about the quality of his work in the field of knowledge, skills and emotional influence of the realized activity was presented in the contribution of the main coordinator on the Trends in Education 2014 conference (Částková, Stolinská, 2014). Following the theoretical base we made a research, in which we focused on evaluating the interaction between a teacher and a pupil in the context of self-reflection, where we evaluated the strategies of evaluation of pupils by a teacher. (Stolinská, Částkova, 2014) We plan to develop this concept, when solving the project by verifying its effectiveness.

Objectives of the project:

The main objective of the project is to analyse the present-day level of realization of processes of technical education in the real environment of primary school´s practice with an intention to identify the extent of space for self-assessment by a pupil, which is offered by a teacher.

The fulfilling of the main objective is conditioned by completing the partial objectives, which were determined on both theoretical and empirical level.

Partial objectives:

Theoretical:

- to theoretically analyse the approaches and educational strategies used in the instruction of polytechnically oriented subjects at primary school with an emphasis on the specifics of primary school,
- to theoretically analyse the approaches to a child´s socialization with the support of evaluating strategies applied during the realization of polytechnically oriented subjects at primary school,
- to create scientific publication which is solving the issue of the processes of pupil´s self-assessment in the polytechnically oriented subjects.

Empirical:

- to identify the formal form of polytechnically oriented subjects on a primary school,
- to analyse the teaching process of polytechnically oriented subjects on a primary school from the point of view of the teacher´s approach and application of the teaching strategies,
- to identify the individual approaches of the teachers to the assessment of polytechnically oriented subjects,
- to create a typology of teachers according to the identified conceptions

CONCLUSIONS

The works on the project in connection with the profiling of the project proposer will start by a study of home and foreign literature, which is related to the issue of assessment of the pupil at primary school. A theoretical analysis of the evaluating strategies of the teachers and pupils will take place on the basis of literature study. A selection of research sample, which should consist of primary schools, will take place simultaneously. The research survey will have a mixed design, where the quantitative and qualitative approaches will be combined. The main objective of the research survey will be to analyse the teaching process in the polytechnically oriented subjects at primary school in terms of teachers´ approaches and the applied educational strategies.

The research will map the processes of evaluating of a pupil by a teacher and the pupil´s self-reflective activity, as it happens in the reality of a primary school. It is possible to perceive the research survey on two levels, where the first level is represented by a teacher as a manager of instruction and evaluation. The second level is represented by a pupil as a co-participant of the realization of the educational process. We suppose, that from the research will result the information about the acting and behaving of teachers and pupils directly in the educative reality - instruction of polytechnically oriented subjects. The records from the observation will be written into the observation sheets in the form of terrain records and then evaluated by a paired samples t-test.

The research will focus on the key factor of a teacher and his strategies of evaluating of the polytechnically oriented subjects and the experience with the self-assessment of a pupil in the instruction. It will be a field of research with the use of technology of participated observation of the educational reality. The second phase will follow after the following analysis of the acquired data - a guided half-structured interview with a teacher (as a

part of the Characteristics of the masterful teacher´s work), through which we will add the analysed data. By that we will support the level of objectivity of the acquired data. Through one of the project´s outputs we plan to create a typology of teacher according to the identified evaluating strategies. We see the contribution of the project to the pedagogical theory mainly in the reflection of the currently used mechanisms in the environment at primary school in the polytechnically oriented subjects.

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MEDIATION TRAINING IN THE CONTEXT OF MEDIATION AUTHORITY

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Alternative dispute resolution methods (or friendly format dispute resolution methods) can be defined as methods which a neutral third person, assist in the resolution of the dispute. It is an optional method that works alongside the litigation conducted in the courts. Common features of these methods are to be subjected of voluntary participation. Therefore to apply and to terminate the process and to have the freedom of the parties in respect of applying to the court for the resolution of the dispute, unless the parties as long as agree, the lack of binding agreement reached at the end of the process, not the exception to the court proceedings, alternative forms not, being at the forefront of privacy dispute settlement process and to reach a solution can be listed as the necessity of third-party intervention. Due to non-barrier restrictions on the right of the parties of seeking freedom to the case methods, plays an important function in reducing the workload of the courts in Europe and the United States.

The main objective of the ADR process, is based on a mid-point of interest of the parties. By In this way not win-lose but win-win approach is adopted in the form of the solution. This understanding, helps to maintain the confidentiality of the relationship of the parties, and and continue to, such as a more economical and provides a quick solution to predict the process of having a positive way of ADR methods. But, again, the absence of such a free solution environment, one of the parties due to the reluctance of the clogging of the solution process, the financial situation of imbalance between the parties can lead to the formation of the negative effects of the application and process this method. However, if there is no the sufficient culture of reconciliation in societies, the ADR process will be difficult to win the effective and widespread interoperability.

You first need to get a mediation training to be entered in the register to begin mediation activities. Training for mediators, not just to be entered in the register is also needed to be able to continue its operations (see also. MEUK Art. 9). Because Regulation Art. 26/5 by education institutions has been given permission, for not less than eight hours per year to renew at least once a mediator is to be trained mediators are obliged to participate in this eight-hour training.

Mediation training to provide the competent authorities of Turkey Bar Association in Turkey, they keep the law faculty of the university within the Judicial Academy are law school. But, again, it is necessary to get permission from the Ministry of Justice to begin the training activities of these organizations. (HUAK Art. 23/1). The time allowed by the Ministry is valid for a maximum of three years (HUAK Art. 23/3) and this three-year period as it is possible to extend the scope of the provision of HUAK Art. 24. As of January 2015 the number of organizations providing mediation training is 50.

In the mediation of disputes mediation training institutions such as the significance of the solution point is also of importance for the development. Law schools should mediation training requirements of ADR methods in this respect should be included in the curriculum as elective courses at least.

The scope of mediation training direction is arranged in Article 26, the contents of this training, basic information about the conduct of mediation activities, communication skills, negotiation and dispute resolution methods, and other theoretical and practical knowledge in psychology is necessary for the fulfillment of the mediation said to consist of other knowledge and skills (Reg. Art. 26/1). We see that the mediation training with the relevant regulations have been devoted exclusively to lawyers. When the mediation of the nature and functions of institutions considering we carry the conviction that it should not be devoted only to lawyers.

Keywords: Mediation Law, Mediation Education, Alternative Dispute Resolution

MEDYA OKURYAZARLIĞI EĞİTİMİNİN ÖNEMİ

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SIGNIFICANCE OF MEDIA LITERACY EDUCATION

ABSTRACT
Defined as the ability of the audience and the readers to make sense of as well as analyze the messages constituting the content of media texts, media literacy has assumed paramount importance in Turkey as it already has in the world.

Today, it is very important to raise individuals who can gather that usually the world presented by the media may not be the reality itself and perceive the messages correctly in this sense. Thus, the purpose of our study is to feature the significance and function of media literacy education.

Key words: media, media literacy, education

ÖZET
İzleyicilerin ve okuyucuların medya metinlerinin içeriğini oluşturan iletileri anlamlandırabilmesi, çözümleyebilmesi olarak tanımlanan medya okuryazarlığı dünyada olduğu gibi son yıllarda ülkemizde de büyük önem kazanmıştır.

Günümüzde medyanın sunduğu dünyanın kimi zaman gerçeğin kendisi olmayabileceğini anlayabilen, mesajları doğru olarak algılayabilen bireyler yetiştirmek son derece önemlidir. Bu bağlamda çalışmamızın amacı medya okuryazarlığı eğitiminin önemi ve işlevini aktarabilmektir.

Anahtar kelimeler: medya, medya okuryazarlığı, eğitim

GIRIŞ

Medya insan yaşamının ayrılmaz bir parçası haline geldikçe insanların medyayla olan ilişkilerinin de çok daha ciddi bir biçimde ele alınması ve sorgulanması gerekmektedir. Dolayısıyla medya okuryazarlığı genel okuryazarlık kavramının bir uzantısı olarak ele alınabilir. Bu bağlamda basılı ve görsel medya iletilerinin okunması için gerekli bir yetidir.

Medyanın doğru bir şekilde değerlendirilmesi için medya içeriğinin yaratıldığı sosyal, kültürel, ekonomik, politik ve tarihsel süreci bilinmesi gerekir. (Livingstone, 2004: 6-7)

Medya okuryazarlığı eğitimi, medyadan gelen her iletiyi doğru olarak kabul eden edilgen izleyiciler, okuyucular yerine, gördüklerini, duyduklarını eleştirel bir bakış açısıyla değerlendirebilen aktif bireyler olabilme özelliği kazandırmaktadır.

1.1.Medyanın Tanımı ve İşlevleri

Medya, her türden sözlü, yazılı, görsel-işitsel metinleri içeren çok geniş iletişim araçlarını kapsar. Gelişen teknoloji ile birlikte medyanın yaşamımızdaki yeri ve önemi gün geçtikçe daha da artmaktadır. Bugün içinde yaşadığımız dünya gittikçe medyanın yapılandırdığı bir dünya haline gelmektedir. Toplumsal yaşam bir bakıma televizyon kanalları, radyo, sinema, gazete ve bilgisayarlar tarafından şekillenmektedir. Medya sadece insanlara haber ve eğlence programları sunmamakta aynı zamanda, insanlara bir yaşam tarzı kazandırmaktadır.

Medyanın gerek çocuklar gerekse yetişkinler üzerindeki etkisi yadsınamaz. Medyayı bilgilenmek, eğlenmek ya da hoşça vakit geçirmek için kullanan insanlar gün içinde bilinçli ya da bilinçsiz bir biçimde birçok medya mesajına maruz kalmaktadır. Örneğin 'kullanımlar ve doyumlar' yaklaşımı bağlamında, kitle iletişim araçlarının insanlara ne yaptığı değil, bireylerin medyayı hangi amaçlar için kullandığı araştırılmıştır. Dolayısıyla

kullanımlar ve doyumlar yaklaşımı medya alımlayıcılarını seçim ve kullanımlarında aktif olarak kabul eder. Medya okuryazarlığı da bu yaklaşım ile aynı paralellikte ele alınabilir. Aktif kullanıcılar medya iletilerinin alt kodlarını daha eleştirel bir biçimde çözümleyebilirler.

"Kullanımlar ve doyumlar yaklaşımına göre, izleyiciler, yayınları çok farklı şekilde yorumlayıp verilmek istenen mesajın dışında kendisine göre sonuçlar çıkarabilir. Bu yaklaşım, izleyicilerin kendi mantığını ve öznelliğini ön plana çıkarmıştır. Buna göre medya, izleyicilerin kendi ihtiyaçlarını sağlayan kaynaktır. İzleyici kendi ihtiyaçları doğrultusunda bu kaynağı rayonel şekilde kullanır. Oysa bu yaklaşımın gözden kaçırdığı nokta izleyicinin kontrolü elinde tutan esas güç olmamasıdır."(Yaylagül, 2008:63)

"Liberal/çoğulcu görüşlere göre, medyanın 5 temel işlevi vardır. Bunlar, bilgilendirme, kültürel devamlılık, toplumsallaştırma, kamuoyu yaratma ve eğlendirmedir. Eleştirel görüşlere göre medyanın işlevi ise, ekonomik sistemin ve bilinç yönetiminin satışını yapmaktır. (Mora, 2008:98) Medya ekonomik işlevlerinin yanı sıra ideolojik bir araçtır ve insanların zihinlerini yönlendirerek topluma paketlenmiş bilinç sunmaktadır. İnsanlar medyanın yarattığı sanal dünyanın etkilerinden ancak eleştirel bakış açısıyla kurtulabilirler. Bu bağlamda Habermas'ın medya okuryazarlığı konusuna katkısı system dünyası ve yaşam dünyası arasındaki çelişkiyi ifade eden iletişimsel eylem kuramı ile olmuştur. Habermas, bürokrasi, akıl ve rasyonel ilişkilerin egemen olduğu dünyayı sistem dünyası; her bireyin günlük yaşantısını ifade eden dünyayı da yaşam dünyası olarak kabul etmektedir. Modernleşmeyle birlikte sistem dünyası yaşam dünyasını egemenliği altına almıştır. Artık günümüzde yaşam dünyası bütünüyle işgal edilen, biçimlendirilen bir alana dönüştürülmüş ve bireylerin özgür düşünce yetileri kaybolmuştur. Habermas'a göre bu durum özgür iletişimin önünü kesen her türlü engelin yok edilmesi ile dolayısıyla iletişimsel eylem yaklaşımı yoluyla çözümlenecektir. Dolayısıyla eleştirel yaklaşımlar bireylerin yaşam dünyaları içinde edindikleri bilgileri sorgulamaları ve özgürleşmeleri adına önemli ve gereklidir.

1.2. Medya Okuryazarlığı Kavramı

İngiliz Kültürel Çalşımalar geleneğinin temellerini atan düşünürlerden Richard Hoggart *The Uses of Literacy (Okuryazarlığın Yararları)* eserinde, okuryazarlık konusunu ilk kez detaylı bir biçimde ele alır. Hoggart bu çalışmasında toplumsal gelişmenin, insanlığın ilerlemesinin yolunun kültürel ilerlemeden geçtiğini, bunun ise insanların eğitimli olmasına, toplumdaki okuryazar oranının yükselmesine bağlı olduğunu vurgulamıştır. Raymond Williams da yetişkin eğitimi konusunda gerek kuramsal gerekse uygulamada gerçekleştirdiği çalışmalarla bir bakıma okuryazarlık konusuna katkı yapmıştır. (Gibson&McHoul, 2006:25) Yazılı ve görsel formatlardaki mesajları değerlendirme ve çözümleme yeteneği olarak tanımlanabilen medya okuryazarlığı, 1970'li yıllardan itibaren kitle iletişim araçlarının bireylerin gündelik yaşamında daha fazla yer almasıyla birlikte gündeme gelmiştir. Dolayısıyla medya ile olan ilişkilerinde bireylerin aktif bir rol almasına neden olmuştur.

"En basit anlamda medya okuryazarlığı; kitle iletişim araçlarıyla bize ulaşan her bilgiyi doğru kabul etmemektir. Dikkat edilmesi gereken nokta, medya metinlerinin diğer bir ifade ile bize ulaşan iletilerin neye hizmet ettiğidir. Varolan kapitalist düzende kök salmış medya kurumları, genel olarak medya patronunun çıkarı ve topluma kabullendirilmesi gereken egemen düşünceler etrafında şekillenir. Medyayı okuyabilme yetisi ise donanımlı bir medya eğitimiyle mümkündür." (Şeylan, 2008:41) Medya okuryazarlığı, eleştirel izleme, okuma ya da tüketme ile sınırlı değildir. Bunların yanı sıra, yaratma, üretme, yönetme, yazma ve düzeltme gibi yeterlikleri de işaret eder. (Laughey, 2010:65)

Medya, dünyada olup bitenler hakkında bilgi verirken, aktarım biçimiyle de gündemi belirlemektedir. Hangi konuların gündemde öncelikle ve ne kadar süreyle yer alacağı medya tarafından biçimlenmektedir. Bizler de medyanın kurmuş olduğu gündem sayesinde olayların önemini öğreniriz. Medya alanında enformasyon akışını kontrol edenler bir anlamda iktidar kurma gücünü de ellerinde tutmaktadırlar. Kitle iletişim araçlarının mülkiyetinin kimlerin elinde olduğu ve medya sahiplerinin siyasilerle olan ilişkileri de gündemin belirlenmesinde son derece önemlidir.

Medya metinlerinin içerikleri çeşitli ideolojilerle yapılandırılmıştır. Bu bağlamda kitle iletişim araçlarından gelen iletilerin önceden kurgulanmış yapılar olduğunu söylemek mümkündür. Medya okuryazarlığı eğitimi, medyadan gelen her iletiyi doğru olarak kabul eden edilgen izleyiciler, okuyucular yerine, gördüklerini, duyduklarını eleştirel bir bakış açısıyla değerlendirebilen aktif bireyler olabilme özelliği kazandırmaktadır.

Medya Okuryazarlığı Merkezi (Center of Media Literacy) kurucusu ve Başkanı Elizabeth Thoman; medya okuryazarlığının, öğrencilerin yalnızca gördükleri medya ürününü okumalarını değil, aynı zamanda onu yaratma sürecinde de etkin rol almalarını gerektiren bir hareket olduğunu vurgular. (İnceoğlu, 2005)

Medyadaki artan çeşitlilik ve bu çeşitliliğin, toplumdaki çocuklardan yetişkinlere bireylere olan etkisi bu kavramın ortaya çıkmasına neden olmuştur. Medyayı bilinçli kullanma her yaştan birey için son derece önemlidir. Özellikle çocukların medyanın olumsuz etkilerinden korunmaları gerekmektedir.

"Özellikle çocukların ekran karşısında geçirdiği sürenin çok yüksek olması, günümüzde medyayı aile ve yakın çevre gibi toplumsallaşma araçlarıyla rekabet eder duruma getirmiştir. Televizyon yeni değerler kazanılmasında ya da davranışların biçimlendirilmesinde önemli bir rol oynar.çoğu zaman televizyonda gördükleri ile biçimlenir. Televizyon izlemek çocukların iç dünyasında şiddeti, cinselliği, kültürel yozlaşmayı, bilinçsiz tüketimi, madde bağımlılığı ve kötü alışkanlıkların özendirilmesini körükler."(Arslan, 2014: 75)

Televizyonun çocuklar üzerindeki belli başlı etkileri şu şekilde sıralanabilir: Tüketim toplumu bireyi olmaları üzerine etkileri, cinsel kimliğin oluşması ve karşı cinsle olan ilişkiler üzerine etkisi, anne-baba ile ilişkisi üzerine etkisi, şiddet eğilimlerine etkisi, okumaya, düşünmeye ve başarıya etkisi, kültürel yabancılaşmaya ve dildeki yozlaşmaya etkisi, kendi kimliklerinin oluşumuna etkisi ve çocukluğun yitirilişine etkisi. (Büyükbaykal, 2007:35)

Televizyonun toplumun yararına, toplumun hizmetinde bir kitle iletişim aracı olarak önemini ve işlevselliğini koruyabilmesi için eğitici içerikte programlara yer verilmesi ve topluma yönelik nitelikli yayınların gerçekleştirilmesi gerekmektedir.

"Medya okuryazarlığı çalışmaları, medya iletilerinin kitleler üzerindeki etkileri üzerine yapılan araştırmalarla başlamıştır. 1960'lı yıllarda başlayan ve 1970'li yıllardan sonra özellikle de televizyonun olumsuz etkilerini vurgulayan araştırmaların sonucunda, medya okuryazarlığının etkin bir şekilde uygulanması gerekliliğini ortaya çıkarmıştır. Bu dönemlerdeki medya okuryazarlığı çalışmaları daha çok 'Korumacı Yaklaşım' benimsenerek sürdürülmüştür. Korumacı yaklaşım, özellikle çocukları medyada yer alan olumsuz iletilerden korumak için, uzaklaştırma, yasaklama, kötüleme, uyarma gibi daha tutucu koruma yaklaşımıdır. 'Eleştirel Medya Okuryazarlığı Yaklaşımı' ise çocukluktan başlayarak bireylerin medya karşısında bilinçli bir bakış açısı kazanmalarını amaçlamaktadır." (Kalan, 2010: 61)

Çocukları ve gençleri medyanın zararlı etkilerinden medya kullanımlarını kısıtlayarak korumak artık çok kolay olmadığından korumacı yaklaşımım günümüzde sağlıklı bir biçimde uygulanması zordur. Gelişen teknoloji ile yaygınlaşan tablet ve cep telefonu kullanımının bir anlamda yeni medyanın yaygınlaşması gençlerin kontrol altında tutulmalarını güçleştirmiştir.

1.3.Medya Okuryazarlığının Önemi

"İletişim teknolojilerinin gelişmesi ile bugünün çoklu ve sınır ötesi iletişim ortamı, hızlı bilgi akışı ve iletişim özgürlüğünün yanı sıra içerik sorununu da birlikte getirmiştir. Medya okuryazarlığı ise bu konuda bir çözüm olarak ortaya çıkmıştır." (Avşar, 2015)

Medyanın bireylerin ve toplumun davranışlar ve değerler üzerindeki etkisinin bilincinde olarak akıllı ve etkili bir biçimde okunması son derece önemlidir. Medya okuryazarlığı, bireylerin medyanın mesajlarına karşı daha bilinçli olmalarını sağlar. Medya okuryazarlığının önemi bireylerin eleştirel düşünceye sahip olmalarını sağlayarak, günümüz dünyasında sorgulayıcı ve aktif vatandaşlar yetiştirmektir.

"Okuma ve yazma yeteneği, gereksinim duyulan bilgiyi bulma ve değerlendirme yeteneği ile toplumda üretken birey olarak çalışabilmektir."(Neeley, 2002:11)

Medya okuryazarlığı gelişmiş ülkelerde, katılımın sağlanması açısından son derece önemlidir. Toplumda eleştirel vatandaş olmanın gereklerinden birini de oluşturmaktadır.

Batılı ve Batılı olmayan ülkelerin medya okuryazarlığı ile ilgili görüş ayrılıkları yer almaktadır. Kanada, Avrupa ve Avustralyalı uzmanlar medya okuryazarlığının eleştirel, bağımsız bireyler yetiştireceği üzerinde duruken, Hindistan, Brezilya ve Güney Afrika'daki uzmanlar medya okuryazarlığının özgürleşme, toplumun gelişimi, toplumdaki marjinal gruplar için sosyal adaletin sağlanmasına yardımcı olduğuna vurgu yapmaktadırlar. (İnceoğlu, 2005: 6)

Türkiye'de medya okuryazarlığı alanında gerek kuramsal gerek uygulamada 2000'li yıllarda birtakım çalışmalar başladığı görülmektedir. RTÜK tarafından başlatılan 'simge sistemi' çalışması bu konuda önemli bir uygulamadır. "İzleyicinin, özellikle çocuk izleyicinin ekrana yansıyan akıllı işaretlerle uyarılmaları, program izleme konusunda yönlendirilmelerini amaçlayan bu çalışmanın ardından RTÜK tarafından 2003 yılında yapılan

İletişim Şurasında medya okuryazarlığı konusunun da tartışma gündemine alınması ve sonuç bildirgesinde yer verilmesi önemli bir başlangıç olur."(Güngör, 2011:307)

Medya okuryazarlığı eğitimi öncelikle çocukları ve gençleri medyanın olumsuz etkilerinden korumayı amaçlamanın yanı sıra medya metinlerinin nasıl doğru okunacağı hakkında bilgiler vermelidir. "Çocuktan hareket eden bir medya okuryazarlığı programı, çocuğun, medyada ağırlıklı olarak hangi ürünlerin tüketicisi olduğu, maruz kaldığı bu dünyayı nasıl algıladığı ve açıkladığı, hangi temalarda daha seçici olduğu, korku ve kaygı yaratan temalar karşısında ne tür başetme stratejileri geliştirdiği gibi bir dizi konuda bilgi ve gözlem gerektirir." (Paker, 2014: 148)

"Rus Psikolog Vygotsky fiziksel şartlar sağlandığı takdirde, öğrencinin medya eğitimini bireysel olarak da geliştirebileceğini, aynı zamanda öğretmen yardımının da önemli olduğunu ve bu süreçte öğretmen ve öğrenci arasındaki diyaloğun etkinliğine dikkat edilmesi gerektiğini savunur. Öğrenci okulda sadece medya iletilerini nasıl değerlendireceğini değil, aynı zamanda kendi medya metnini oluşturma şansına da sahip olmalıdır. Medya okuryazarlığı okullarda işlenen ders olmaktan öte, çocuğun günlük hayatına girmelidir. Ders esnasında değerlendirilecek medya metinleri öğrencilerin hergün TV'de izledikleri bir dizi, çizgi film ya da reklam filmi olmalıdır. Öğrencilerin önceden izledikleri metinleri çözümlemeleri, medyanın günlük hayatımızı nasıl tutsak aldığını anlamalarına da yardımcı olacaktır. Dersliklerde oluşturulan medya iletileri, diğer öğrencilerin yorumuna sunulmalıdır. Böylece tartışma ortamı oluşacaktır ve ilk aşamada bilgiyi alan çocuk bu bilginin ışığında kendi iletisini oluşturacak, iletisi hakkında diğer öğrencilerin yönelttikleri eleştiriler sonucunda farklı bakış açıları görecek, eleştirellik ve düşünce dünyasında bir adım öteye geçecektir. Ayrıca öğrencinin kendi kendini değerlendirmesi de ona katkı sağlayacaktır. (Buckingham, 2006:141-142)

Medya okuryazarlığının dört temel becerisi; erişim, çözümleme, değerlendirme ve üretimdir. Erişim, çözümleme ve değerlendirme becerileri bir nevi medya okurluğu; üretim becerisi ise medya yazarlığı olarak nitelendirilebilir.

Erişim becerisi çocukların medya araçlarına ve bu araçların içeriğine ulaşabilmelerini ifade etmektedir. Bu düzeyde bir medya okuryazarlığı eğitiminde çocukların medyayı, medya biçim ve araçlarını, bunların ne tür içeriklere sahip olduklarını fark etmeleri beklenmektedir. İhtiyaç duydukları bir bilgiye medyada hangi kaynaklardan ulaşabileceklerini, hangi kaynakları güvenilir olarak kabul edebileceklerini ya da internette arama motorlarını kullanarak bu bilgiye nasıl daha hızlı ve doğru bir şekilde ulaşabileceklerini öğrenmeleri bu beceriye örnek olarak gösterilebilir.

Çözümleme becerisi ise çocukların karşılaştıkları medya iletilerine yönelik bir hükme varmak için iletinin kaynağını, içeriğini ve amacını sorgulamalarını, eleştirel bir gözle incelemelerini içerir. Örneğin; karşılaşılan bir haber metninin doğruluğu/güvenirliği konusunda öğrenciler bu metni 'gerçek-görüş, ön yargı, kaynak kullanımı, bakış açısı, değerler vb.' unsurlara göre çözümlerler.

Değerlendirme becerisi ise çocukların karşılaştıkları medya iletilerini çözümleyerek ulaştıkları sonuçları iletinin üretildiği bağlam çerçevesinde "insan hakları, çocuk hakları, etik, sorumluluk, mahremiyet, gazetecilik ilkeleri, yayın ilkeleri" gibi ölçütlere göre değerlendirerek bir hükme varmalarını içerir. Örneğin; öğrencilerin çözümledikleri bir haber metnini, farklı haber kaynaklarından seçilen örnekleriyle karşılaştırarak doğruluğu/güvenirliği konusunda hükme varmaları bu beceriyle ilgilidir. Değerlendirme ve çözümleme becerilerinin eş zamanlı geliştiği göz ardı edilmemelidir.

Üretim becerisi de öğrencilerin farklı biçimlerde (yazılı, işitsel, görsel ya da çoklu olarak) kendi medya iletilerini oluşturmaları ile ilgilidir. Burada öğrenciler eğlence, bilgi verme ya da ikna etme gibi amaçlarla medya iletileri üretirler.(www.medyaokuryazarligi.org.tr, z.t.23.5.2015)

SONUÇ

Medya metinlerinin erişim yollarını bilme, eleştirel olarak çözümleme ve değerlendirme becerilerinin kazanılması medyanın toplum içindeki rolü ve öneminin daha iyi kavranabilmesini sağlayacaktır. Öncelikle medya okuryazarlığı eğitiminin temel amacı medyayı okuma becerisinin kazanılmasını sağlamaktır. Bilinçli bir medya tüketicisi olmak adına bu becerilerin kazanılması gereklidir.

Ülkemizde 2006 yılı öncesinde eğitim sistemi içerisinde medya okuryazarlığı dersi yer almamaktadır. Medya Okuryazarlığı Projesi RTÜK ve MEB işbirliği ile 2006-2007 eğitim-öğretim yılında yaşama geçirilmiştir. 2007-2008 eğitim-öğretim yılından itibaren ise medya okuryazarlığı dersi tüm Türkiye'deki ilköğretim okullarında 6, 7 ve 8. sınıflarda seçmeli ders olarak okutulmaya başlanmıştır. 2014 yılında tamamlanan yeni medya

okuryazarlığı ders programı ve öğretim materyali medya okuryazarlığını ailede başlayan ve hayat boyu gelişimini devam ettiren bir beceri olarak gören akademik bakış açısının pratiğe yansıması olmuştur.

Çocuk ve gençlerin televizyon programları arasından bilinçli seçimler yapmalarına rehberlik etmek, ana-babaların kitle iletişim araçlarının zararlı içeriklerinden çocukları koruma çabalarında desteklenmeleri ve bilgilendirilmeleri amacı ile 'Televizyon Yayınlarında Koruyucu Sembol Sistemi' adı ile 2000 yılında bir çalışma başlatılmıştır. İzleyici ve yayın kuruluşları ile sorumluluk paylaşımına dayanan ve üç aşama şeklinde geliştirilen sistem, son aşamasında Hollanda hükümetinin AB'ye aday ülkelere sağladığı teknik destek programı MATRA Projeleri bünyesinde yürütülen çalışmayla, 'Akıllı İşaretler' adı ile çok kısa bir sürede uygulamaya konulmuştur. (Avşar, 2015) Çocukları ve gençleri televizyonun etkilerinden korumak amacıyla uygulamaya konulan bu çalışmaların yanı sıra medya okuryazarlığı eğitimine de önem verilmelidir.

Günümüzde Avrupa ülkeleri, Amerika, Kanada, Avustralya ve İskandinav ülkelerinde hükümetlerin de desteğiyle ilköğretim düzeyindeki okullarda medya okuryazarlığı dersleri okutulmaktadır. Medya okuryazarlığı eğitimi bireyleri bilgilendirmenin yanı sıra eleştirel bir bakış açısı kazandırmayı amaçlamalıdır.

Medya okuryazarlığı derslerinde görsel işitsel iletişim araçları tanıtılır, bunların işleyişleri hakkında teknolojik bilgilerin verilmesinin yanı sıra kimler tarafından izlendikleri, ne kadar süreyle izlendikleri, etki alanları ve güçleri hakkında da bilgiler verilir. Ders kapsamında öğrencilere haber metinlerinin, görüntülerin, programların, reklamların nasıl hazırlandığı, nasıl kurgulandığı, hangi mesajların nasıl verildiği, neyi amaçladığı, mesajların verilmesinde teknik olanaklardan nasıl yararlanıldığı, hangi sembollerin kullanıldığı anlatılır. Öğrencilerin de öğrendikleri bilgiler çerçevesinde haber, program, film üretmeleri sağlanır. Ayrıca medyanın mülkiyet yapısı, medya üretiminin nasıl pazarlandığı, alıcısının/tüketicisinin kimler olduğu, medyanın kamuoyunu nasıl etkilediği, nasıl oluşturduğu konularında bilgiler verilir. Verilen eğitimle öğrencilerin medyayı okurken/izlerken "Bu haberin amacı nedir? Haberin kurgusu doğru mudur? Eksik olan unsurlar nelerdir ve neden eksiktir? Haberde olayın bu şekilde kurgulanmasından kim menfaat sağlayabilir?" gibi sorular yönelterek eleştirel bakış açısıyla, medyayı daha bilinçli olarak okumaları amaçlanır. (Avşar, 2015)

Dünyada küreselleşme süreci ve medyanın özelleştirilmesi medya okuryazarlığı gereksinimine daha fazla yol açmıştır. İletişim alanındaki teknolojik gelişmelerin hız kazanmasıyla birlikte medya insanların gündelik yaşamlarının çok önemli bir parçası haline gelmiştir. İletişim teknolojisi alanındaki gelişmeler ve yayıncılık alanında sınırların kaldırılması sonucu sınır ötesi yayınlar gündeme gelmiştir. Kültürel ürünlerin çok uluslu şirketler tarafından seri bir biçimde üretilmesi, ticarileşmesi ve medya aracılığıyla dünyanın dört bir tarafına dağıtılması özellikle yeni yetişen nesilleri olumsuz yönde etkilemektedir.

Bu bağlamda, medya okuryazarlığı dersleri her ülkenin eğitim müfredatında yer almalıdır. Medya okuryazarlığı eğitimi sayesinde çocuklar medya iletilerini daha bilinçli daha bilinçli bir şekilde değerlendirme yetisi kazanmaktadırlar. Ancak bu eğitimi veren öğretmenlerin niteliksel ve niceliksel olarak yeterli olması gerekmektedir. Dersi veren öğretmenlerin iletişim Fakültesi mezunu olmamaları bu dersin öneminin göz ardı edilmesine neden olmaktadır. Aksi takdirde medya okuryazarlığı eğitimi sadece programlarda yer alacak, asıl amacına ulaşamayacaktır.

Eğitim fakülteleri bu alanda eğitimciler yetiştirmeldir. Medya okuryazarlığı ile ilgili ders kitapları hazırlanmalıdır. Bu konuda akademik anlamda konferanslar, paneller ve seminerler düzenlenmelidir. Okuryazarlık gibi medya okuryazarlığının da belirli bir eğitim sonucunda kazanıldığı unutulmaması gereken bir gerçektir. Medya okuryazarlığı eğitimi bireylere medyayı doğru okuyabilme becerisini kazandırmanın yanısıra, bireylerin kültürel, toplumsal ve mesleki yaşamlarında birçok kazanımlar sağlayacak kişisel bir gelişim aracı da olacaktır.

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MESLEK EDINDIRME KURSLARININ İŞSIZLIK SÜRESINE ETKISI: YAŞAM ÇÖZÜMLEMESI YAKLAŞIMI

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Mesleki eğitim ve öğretim tüm dünyada önemli bir statüye sahiptir. Meslek edindirme kursları ile işsizlikten en fazla etkilenen ve bu nedenle dezavantajlı gruplar olarak görünen gençlerin, kadınların, engellilerin, eski hükümlülerin, uzun süreli işsizlerin ve işsizlik sigortası kapsamındaki işsizlerin iş piyasasında ihtiyaç duyulan mesleklerde yetiştirilerek istihdam edilebilirlikleri arttırılmaya çalışılmaktadır. Bu çalışmada "Türkiye İş Kurumu" tarafından verilen meslek edindirme kurslarının işsizlik süresine etkisi yaşam çözümlemesi ile incelenmiştir.

The Effect of Vocational Education on Duration of Unemployment: Survival Analysis Approach

Vocational education and training has an important place all over the world. With vocational training courses, the groups, such as, youth, women, the disabled, ex-convicts, the long-term unemployed and the unemployed under unemployment insurance, that are affected most from unemployment and look most disadvantaged, are planned to be placed in necessary positions in the labor market and their employability is planned to be increased. In this study, the effect of vocational training courses provided "Turkish Labor Agency" on the duration of unemployment is analyzed by survival analysis.

Keywords: vocational education, survival analysis, unemployment

THE EXAMINATION OF MATHEMATIC ANXIETY OF VOCATIONAL SCHOOL STUDENTS IN TERMS OF LEARNING STYLE AND MULTIPLE INTELLIGENCE

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ABSTRACT
The objective of this study is to reveal whether mathematic anxiety of the vocational school students differs according to the level of development of their learning style and intelligence fields by examining their multiple intelligence fields and learning styles and mathematic anxiety of the of the vocational school students. Survey model has been used in the study. The study has been conducted with 152 students who have education in the machine and metal technologies department of the vocational school of a state university in Turkey. As a result of the study, it has been determined that mathematic anxiety of the students is at middle level. It has been observed that the level of the kinesthetic, interpersonal and naturalistic intelligence of the students is developed and other intelligence fields are at medium level. The students have the most converging and the least accommodating learning style. It has been specified that mathematic anxiety of the students has not been differed according to their learning style. It has been observed that students with lower development level of mathematical and visual intelligence have more mathematical anxiety. Furthermore, it has been determined that students with well developed interpersonal intelligence have lesser mathematical anxiety. There is no significant differentiation in the mathematical anxiety of the students in accordance with the level of development in other multiple intelligence fields.

Key Words: Mathematic Anxiety, learning style, multiple intelligence fields, vocational school students.

INTRODUCTION

Mathematic anxiety is a private type of general anxiety (Brady and Bowd, 2005). In Tobias perspective (1993), mathematic anxiety shows itself as an emotional tension or anxiety in the school or daily life of the individual for the solution of mathematical problems, doing numerical transactions. Bekdemir (2009) states that mathematic anxiety is an unreasoning panic, rush, shame, evasion, failing and fear emotions that prevent solution, learning and success in brief doing math and that show physical indications and reveal while the individual does math or any incidents that require the use of math.

The effect of the mathematic anxiety that students have, had a significant effect on the success of the students on the math class. Anxiety has an important role for students to hold positive attitude towards the math class and enhance their successes (Peker and Mirasyedioğlu, 2003). It is expected that when the mathematic anxiety increases, the interest and success towards mathematics decrease (Taşdemir, 2013). Hembree (1990) stated that mathematic anxiety negatively affects the mathematic success. Ma (1999) reveals that there is a significant and negative relation between the anxiety of mathematics and mathematics success. In addition to these studies, it has been specified that students with high mathematics anxiety have lesser ability for calculation, lesser knowledge about the mathematics and lesser ability to discover the relations and private strategies within mathematics (Ashcraft and Faust, 1994). In the light of this information, we can think that individual with high

mathematics anxiety will fail in mathematical activities.

After the emergence of effect of the mathematic anxiety on the mathematic success, researchers focused on the reasons of the mathematic anxiety and variables that may relate with the mathematics anxiety. In this sense, sex has been the mostly researched variable. While some researchers specify that female students have higher mathematic anxiety than male students (Betz, 1978; Yüksel-Şahin, 2008), some researchers have not found significant differentiation (Dede and Dursun, 2008). Several variables have been researched that may be related with the mathematics anxiety. Some of the variables; class level (Dede and Dursun, 2008), schools of education (Doruk and Kaplan, 2013; Yenilmez and Özbey, 2006), attitude toward mathematics (Yenilmez and Özabacı, 2003), self-sufficiency perception towards mathematics (Doruk and Kaplan, 2012) It has been expressed that mathematics anxiety has environmental, mental and personal reasons (Hadfield and McNeil, 1994). In this study, it has been focused on whether mathematic anxiety of students of vocational school of higher education in terms of learning style and multiple intelligence that is their personal features. As a result of the literature review, there are limited numbers of studies towards the examination of the mathematical anxiety of the vocational school students (Bekdemir, 2009; Taşdemir, 2013). There is no study such as whether mathematic anxiety of students of vocational school of higher education in terms of learning style and multiple intelligence that is their personal features.

The objective of this study is to reveal whether mathematic anxiety of the students differs according to their learning style and the development level of intelligence fields by examining their multiple intelligence fields and learning styles and mathematic anxiety of the vocational school students. Answers for the following questions have been sought.

1. At what level is the mathematics anxiety of the students?
2. What is the distribution of the learning styles that the students have?
3. What is the level of multiple intelligence development of the students?
4. Does the mathematics anxiety of students differ according to the learning styles of their own?
5. Does the mathematics anxiety of students differ according to the level of development of multiple intelligence?

THE STUDY

Survey model has been based by adopting the quantitative search approach. Because, in survey model, there is a survey over whole of the universe or a group sample or sampling taken from it to have a general information about the universe in a universe that makes up of numerous elements (Karasar, 2002).

The research group of the study is the 152 students who have education in the machine and metal technologies department of the vocational school of higher education of a state university in the Aegean Region of Turkey in the 2014-2015 academic year. The reason why students of vocational school of higher education have been selected as research group is the notion that students of vocational school of higher education may have more mathematic anxiety in comparison to other students.

Data has been collected with three different data collection tools. Mathematics Anxiety Scale (MAS) that has been developed for the prospective teachers by Üldaş (2005) has been applied to the students to reveal their mathematics anxiety. MAS is a quartet liker style scale consisting of 39 articles and seven sub factors. The response choice of scale has been scored as "1= no anxiety, 2=less anxiety, 3= have anxiety, 4= relatively high anxiety". Internal consistency of the scale has been determined as .95. As a result of the research conducted, this value has been calculated as .93. "Learning Styles Inventory" has been used to determine the learning styles of the students (Diverging, Assimilating, Converging, and Accommodating) developed by Kolb (1985) and adopted by Aşkar and Akkoyunlu (1993). Multiple intelligence inventory of Özden (2003) has been applied to specify the multiple intelligence fields of students (Linguistic, mathematical, visual, kinesthetic, musical, interpersonal, intrapersonal and naturalistic intelligence). The expressed inventory has been translated into Turkish by adopting from the multiple intelligence inventory of Gardner and its validity and reliability have been conducted.

Descriptive and inferential statistics methods have been used for the data analysis. The points of the students from the measurement tools have been used for the mean and standard deviation values in a descriptive manner. The average range for determination of the mathematic anxiety levels of the students is as; “1.00-1.75=no anxiety”, “1.76-2.50=less anxiety”, “2.51-3.25= have anxiety”, “3.26- 4.00=relatively high anxiety”. Combined points obtained from the scale have been used to determine the learning styles of the students. The average of the total point obtained by the students to determine the level of development in intelligence fields has been used. Point average for determination of the level of development of intelligence of students has been as 0-

7=undeveloped, 8-15= less developed, 16-23=medium level developed, 24-31=developed, 32-40=well developed". One-way analysis of variance has been applied to the points to determine whether mathematic anxiety of the students differs according to their learning style and the development level of intelligence fields of the students in a inferential analysis. Tukey test has been used to determine the source of the difference determined as a result of the variance.

FINDINGS

Analysis applied to the data collected for the answers of the questions in the study and results and comments reached in relation to the findings obtained as a result of the analysis have been mentioned in this section.

Anxiety scores obtained from the anxiety scale to determine the level of the mathematic anxiety of the students have been analyzed descriptively. The mean and standard deviation values of the scores obtained from the scale have been used for the determination of the mathematics anxiety levels of the students. Table 1 indicates the mean and standard deviation values concerning the scores of the students from the anxiety scale

Table 1. Mean and Standard Deviation Values Concerning the Scores of the Students from the Anxiety Scale

N	Mean	Sd	Anxiety Level
152	2.36	.50	Less anxiety

When we examine the Table 1, the anxiety level of the students towards the mathematics has been determined as "less anxiety". According to that, we can say that mathematics anxiety of the students are on average level.

Learning style inventory of Kolb has been applied to reveal the learning styles of the students. As a result of the implementation, the distribution of the learning styles of the students has been shown in the Table 2.

Table 2. The Distribution of the Learning Styles of the Students

Learning Style	f	%
Converging	38	25
Accommodating	29	19.1
Assimilating	33	21.7
Divergent	33	21.7
No learning style	19	12.5
Total	152	100

When we examine the data in Table 2, it is determined that learning styles of the students are closely distributed. According to that, we can say that learning styles of the students shows a homogeneous distribution. When we examine the distribution of students according to the learning styles, it is revealed that students with converging learning style have the majority. The students who have divergent and assimilating learning styles that are equal in numbers are the second biggest group. It has been determined that the students have the least of the accommodating learning style. It has been revealed that 12% of the students have no learning styles.

Multiple intelligence inventory has been applied to the students for them to have information about their multiple intelligence. Table 3 indicates the scores of the students that they obtain from the multiple intelligence inventory.

Table 3. The Scores of the Students That They Obtain From the Multiple Intelligence Inventory

Multiple Intelligence	N	Mean	Sd	Level of development of intelligence
Linguistic	152	19.99	6.11	Medium
Mathematical	152	21.76	6.12	Medium
Visual	152	22.65	6.04	Medium
Musical	152	21.42	6.93	Medium
Kinesthetic	152	25.62	5.70	Developed
Interpersonal	152	25.38	6.10	Developed
Intrapersonal	152	21.93	5.75	Medium
Naturalistic	152	24.21	6.90	Developed

According to the average scores of the students from the multiple intelligence inventory, students have developed kinesthetic, interpersonal, naturalistic intelligence. It is revealed that other intelligence fields have been at "medium" level. According to that, we can say that interpersonal, kinesthetic and naturalistic intelligences of the students developed more than the other intelligence fields.

One-way analysis of variance has been applied to the anxiety points to determine whether mathematic anxiety of the students differs according to their learning style. Table 4 indicates the data of the analysis.

Table 4. One-Way Analysis of Variance Applied to the Anxiety Points of Students According to the Learning Style

Variance	Sum of squares	df	Mean square	F	p
Between groups	.051	4	.013	.049	.995
Within groups	38.081	147	.259		
Total	38.132	151			

When we examine the data on the Table 4, it has been determined that mathematics anxiety points of the students hasn't been significantly differed in statistical manners according to the learning styles of the students ($p>.05$). According to that, we can say that mathematics anxiety of the students does not differ as per their learning styles.

One-way analysis of variance has been applied to the points to determine whether mathematic anxiety of the students differs according to the level of development of their intelligence fields. As a result of the analysis conducted, it has been determined that scores of mathematics anxiety of the students have not significantly differed in statistical manner according to the development level of linguistic, musical, kinesthetic, intrapersonal intelligence and naturalistic intelligence respectively [$F(2,149)=.892$; $F(2,149)=.123$; $F(2,149)=.574$; $F(2,149)=1.468$; $F(2,149)=.221$, $p>.05$]. According to that, we can say that mathematic anxiety of the students does not differ according to the linguistic, musical, kinesthetic, intrapersonal and naturalistic intelligence. It has been determined that mathematic anxiety of the students differ according to the development level of the other intelligence fields. Table 5 indicates collectively the one-way analysis of variance results applied to the mathematics anxiety scores according to the development level of the mathematical, visual and interpersonal intelligence fields.

Table 5. The One-Way Analysis of Variance Applied to the Mathematics Anxiety Scores According to the Development Level of the Mathematical, Visual and Interpersonal Intelligence Fields

Multiple Intelligence	Variance	Sum of squares	df	Mean square	F	p	Significant difference
Mathematical	Between groups	6.531	2	3.265	15.396	.000	2>3>4
	Within groups	31.601	149	.212			
Visual	Between groups	2.237	2	1.119	4.643	.011	2>3, 2>4
	Within groups	35.895	149	.241			
Interpersonal	Between groups	3.241	2	1.620	6.920	.001	3>5, 4>5
	Within groups	34.891	149	.234			
	Total	38.132	151				

1= Undeveloped, 2= Less developed, 3= Medium level developed, 4= Developed, 5= Well developed

When we examine the Table 5, it has been determined that mathematical anxiety of the students according to the development level of the mathematical intelligence has been significantly differed in a statistical manner [$F(2, 149) =15.396$, $p<.05$]. The differentiation realized between the students whose mathematical intelligences have less developed, medium level developed and developed. It has been specified that the mathematics anxiety of the students with less developed mathematical intelligence has been more in comparison to the those whose mathematical intelligence have developed at medium level. Furthermore, it has been determined that mathematics anxiety of the students whose mathematical intelligence have developed at medium level have more mathematics anxiety in comparison to those who have developed mathematical intelligence. According to that, we can say that students with lower mathematical intelligence have more mathematics anxiety. In other words, we can say that students with higher mathematical intelligence level have lesser mathematics anxiety.

It has been specified that anxiety scores of the students have been significantly differed in statistical fashion according to the level of development of their visual intelligence [$F(2,149) =4.643$, $p<.05$]. This differentiation has been against to the students with less developed visual intelligence between the students with less developed

visual intelligence and students with medium developed intelligence and between the students with less developed visual intelligence and the students with developed visual intelligence. According to that the students with less developed visual intelligence have more mathematics anxiety than the students with medium level visual intelligence and the students with developed visual intelligence. It is possible to say that the students with less developed visual intelligence have more mathematics anxiety.

Finally, when we examine the mathematics anxiety scores of the students according to the level of development of the interpersonal intelligence it has been specified that there is a significant differentiation in statistical manner [$F(2,149) = 6.920$, $p<.05$]. This differentiation happens between the students with well-developed interpersonal intelligence and the students with developed interpersonal intelligence and the students with well-developed interpersonal intelligence and the students with medium level interpersonal intelligence. It has been specified that the students with well-developed interpersonal intelligence have significantly lesser mathematics anxiety scores in comparison to other students. According to that we can say that the students with well-developed interpersonal intelligence have lesser mathematics anxiety.

CONCLUSIONS

As a result of the examination conducted to find an answer to the first question of the research, it has been specified that mathematics anxiety of the students has been at the level of "less anxiety". It has been determined that anxiety scores average of the students have been on average value. According to that, we can say that mathematics anxiety of the students are on average level. The result of the study is in compliance with the students where mathematics anxiety of the vocational school students has been average (Bekdemir, 2009; Taşdemir, 2013).

The scores of the participants obtained from the learning styles have been examined to find an answer to the second question of the research. As a result of the examination, it has been specified that students have close learning styles. It has been determined that students have "converging" learning style the most (%25) and %21,7 have "assimilating" style and they have "diverging" learning style at the same ratio. It has been determined that the students have the least of the accommodating learning style. It's remarked that %12, 5 of the students have not learning styles. We can say that these students did not create any learning method specific for themselves. The result of the study supports the result of the studies where "accommodating" learning style has the least learning style for the university students in different departments (Gürsoy-Dikmen and Saracaloğlu, 2011; Okur et al., 2011; Ünal et al., 2013).

As a result of the examination conducted to determine the multiple intelligence fields of the students, it is revealed that their "Kinesthetic", "İnterpersonal" and "Naturalistic" intelligence are “developed” level, other intelligence fields are at “medium” level. According to that we can say that vocational school students can use their brain and body coordination effectively, they have high cooperative skills within group and have high interest in the creatures in the nature. We can think that most of the students have their education at a suitable department for their intelligence fields since their department required hand-arm coordination, coordinated work within the group and interaction with outer environment for their products.

It is tried to be specified whether scores of the students from the anxiety scale differ according to their learning styles and development level of multiple intelligence fields to find an answer to the fourth and fifth questions of the study. It has been determined that mathematics anxiety points of the students has been not significantly differed in statistical manners according to the learning styles of the students. According to that, we can say that mathematics anxiety of the students does not differ as per their learning styles. The result of the study supports the result of the studies where mathematics anxiety did not differ according to the learning styles (Coşkun and Yıldız-Demirtaş, 2015).

When we evaluate the mathematics anxiety of students according to the level of development of multiple intelligence fields; it is revealed that mathematics anxiety differs according to the level of development of the mathematical intelligence, visual intelligence and interpersonal intelligence. It has been determined that mathematic anxiety of the students does not differ according to the development level of the other intelligence fields. It has been specified that mathematics anxiety of the students differs between the students whose mathematical intelligences have less developed, medium level developed and developed. This difference is as “less developed> medium level developed >developed” and it is significant. According to that, individuals with developed mathematical intelligence have lesser mathematics anxiety, and students with less developed mathematical intelligence have more mathematics anxiety. We can say that as mathematical intelligence of the students decrease, their anxiety increase against mathematics. It is expected that students with high mathematical intelligence will have high self-sufficiency towards the mathematics as a result of the study. This result is in line

with the result of the study that mathematics anxiety negatively affects the mathematical success (Aschcraft and Faust, 1994; Ma, 1999; Miller and Mitchel, 1994). It has been specified that mathematics anxiety of the students differs according to the development level of their visual intelligence. This differentiation has been against to the students with less developed visual intelligence between the students with less developed visual intelligence and students with medium developed intelligence and between the students with less developed visual intelligence and the students with developed visual intelligence. According to that the students with less developed visual intelligence have more mathematics anxiety than the students with those with medium level developed visual intelligence and those with developed visual intelligence. When we think that mathematics is a discipline requiring visual intelligence, the students with less developed visual intelligence having more mathematics anxiety support the difference determined between the mathematics anxiety and mathematical intelligence. When we examine the mathematics anxiety of the students according to their development level of interpersonal intelligence, students with well-developed interpersonal intelligence have lesser mathematics anxiety in comparison to those with medium level interpersonal intelligence and those with developed interpersonal intelligence. This result of the study is a reasonable result since interpersonal dimension of mathematics education requires mutual interaction. It is an expected situation that individual that are open to mutual interaction are more successful in learning mathematics and therefore is positive towards the mathematics. Hadfeild and McNeil (1994) divided the reasons of mathematics anxiety into three groups such as environmental, mental and personal. They defined the environmental factors as negative class experience, family pressure, insensitive teachers, presenting mathematics within strict rules and no class participation. Jackson and Leffingwell (1999) specifies communication and language driven setbacks among the reasons of the mathematics anxiety.

The study has been conducted with 152 students who have education in the machine and metal technologies department of the vocational school of higher education of a state university in Turkey by adopting quantitative research approach. The reasons of the quantitative results obtained from the study can be researched in deep and detail by adopting qualitative research approaches. Other factors that are thought to affect the mathematics anxiety may be tested. When we think that mathematics anxiety affects negatively on the success of the students on the mathematics, the results of the studies benefit for prevention of mathematics anxiety of the students.

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EXAIMINING THE MEDIA LITERACY LEVELS OF VOCATIONAL TECHNICAL SCHOOL STUDENTS'

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ABSTRACT
The aim of this study is to exaime media literacy of students of different programme at Vocational Schools. Survey method was used in this study. Participants of study consist of students studying Sakarya University Kaynarca Seyfettin Selim Vocational School and Vocational School of Health Services. "Media Literacy Levels Determination Scale" developed by Karaman and Karataş (2008) was used. The findings demonstrate that students have idea about media literacy, analyze information getting from the media and response them. They also have ability to see the hidden messages and can judge that information in the media. The findings also show that here is no difference in the level of media literacy in terms of gender and type of programme. Another result is that there is no difference between the groups who take a course regarding media and do not take. From this results, some suggestions are given at conclusion part.

Keywords: media, media literacy, vocational school.

INTRODUCTION

Information access is easier nowadays because of technology and communication methods are developing rapidly. One of the information access methods is media with no doubt. The world in 21st century exhibits a structure controlled by media, driven life depended on technology and globalized more and more (Kellner and Share, 2007). Nowadays media has an effect on most of our lives and it takes a function to shape our lives. Although communication of individuals with each other, being aware of agenda, obtain information and update information; media, a part of daily life, makes information a part of daily life and effect individuals with various messages in different conditions (Yılmaz and Özkan, 2013). Media has some functions such as giving information, community, education, fun, protecting cultural values, inspection, criticizing, creating public opinion and presentation (Radio Television Supreme Council, RTÜK, 2007).

Media is both passing through the development process with changing and it effects and actually determines the socialization process with changing the type and nature of mass communication (Bilgili, 2006). While media's importance and effect on individual's social process increase, it is going to be a necessity to redefine the educational aims and goals. Especially the effect of media on children increases day by day. Nowadays not only children but also students from all age groups use media to obtain information. As well as media provides some opportunities, variability of media and the power of effecting individuals with this variability created the concept of media literacy (Kurt and Kürüm, 2010).

Media literacy is defined as an ability of accessing the messages take place in mass communication tools (television, internet, radio, newspaper, cinema, video, advertising etc) and analyzing, evaluating and transferring them. Media literacy is required to be accepted by students as not only reading the media product but also being active in media production process (Thoman, 2003).

According to Thoman and Jolls (2008), media literacy should be formed with three steps. In first step, the management ability of how to choose and how to spend time to various media sources should be instructed to the students. In second step, it is required to teach students to analyze the messages, inquire them and construct them with bringing critical thinking to students. In the third and last step, it should be provided to understand how media manages global consumption economy nowadays with analyzing social, political and economical experiences gained from media.

Yılmaz and Özkan (2013) examined the media literacy levels of students from Computer Education and Instructional Technologies and Preschool Education Departments. According to the findings media literacy levels of students from Computer Education and Instructional Technologies Department are higher. At the same time, the frequency of watching TV has an effect on students' media literacy levels too. Aybek and Demir

(2013) examined the relationship between the trend of critical thinking and media and television literacy. As a result, they found that the average of students' media and television literacy levels are high and their addiction levels are low. In addition, they found that there is a low positive relationship between students' general critical thinking trends and media literacy levels. Kartal (2007) got the result that students' behaviors of critical approach to media are in a certain level in his research the effect of media literacy on 10th grade students' perceptions of messages in TV series. Som and Kurt (2012) examined the media literacy according to various variables and media literacy levels of students from Computer Education and Instructional Technologies (CEIT). After the analysis, they found that media literacy levels of CEIT students are in an intermediate level. In addition, they found that media literacy levels of students significantly range according to their universities, grades, internet access, internet use, and internet use purposes.

Apak (2008) examined the primary school programs of Turkey, Finland and Ireland in case of Media Literacy Education with document analysis. It is seen that the earlier age for beginning media literacy education is in Ireland. In Turkey, researchers found that there are some missing parts in program and people concentrated to use media products in case of media perception. However, in Finland, they mostly concentrated on understanding and interpreting the media. Programs of countries are similar in case of instructional methods. Elma, Kesten, Dicle, Mercan, Çınkır and Palavan (2009) aimed to determine the attitudes of 7th grade students take the course of media literacy about this course. As a result, students specified that media tools do not care about protecting cultural and social values; media do not effectively perform its giving news and information duty. It was seen that materials used in lesson and discussions in classroom are enough but classroom activities ann instructional methods are not enough according to the students and they do not like the teaching style of teacher. In addition, it was determined that students share their course experiences with their family and friends and this sharing created a positive effect on them. Quin and McMahon (1993) determined that students are in a high level in case of analyzing the media and basic knowledge and skills of media analysis in their research of determining the effect of media literacy program in West Australia on students' analytic thinking skills. Hobbs and Frost (1999) studied about comparing the 9th grade students who take the courses media literacy integrated in and who do not take them. They determined that students taken the linguistic, social, medical and science courses integrated with media literacy are more successful than other students in case of realizing the target audience, economic goals of media messages and motivation strategies. Karaman and Karataş (2009) aimed to determine media literacy levels of 495 teacher candidates. They found that teacher candidates' media literacy levels are high and computer ownership, internet ownership, following newspaper/journal, frequency of watching TV and frequency of using internet have significant effect on media literacy level.

Media literacy skills are essential for students from all age groups. This is because individuals frequently use media to obtain information with the current development of communication technologies. An individual with media literacy can examine whether the presented information is right or wrong and this individual can understand whether the obtained information is beneficial or not for him/her. In this sense, it is important to know about how much students have media literacy skills.

Aim of the Study

Basic aim of this study is to determine the media literacy levels of associate degree students of vocational technical school. Research questions are given below in the scope of basic purpose:

1. What are the media literacy levels of vocational technical school students?
2. Do the media literacy levels of vocational technical school students vary according to their genders?
3. Do the media literacy levels of vocational technical school students vary according to their department?
4. Do the media literacy levels of vocational technical school students vary according to their situations of take any course related with media literacy before?

METHOD

This study aims to examine the media literacy levels of associate degree students of vocational technical school. Survey method was used to collect the data. Survey methods are research approaches aim to describe a situation with its own nature exists in past or now. Subject or individual that is used for the research is tried to be defined with its own conditions (Karasar, 2005).

Participants

Participants are students from Sakarya University, Kaynarca Seyfettin Selim Vocational Technical School and Medical Services Vocational Technical School in 2013-2014 semesters. Digital distributions of departments of students are given in Table 1.

Table 1. Properties of Participants

Değişkenler		f	%
Programmes	Computer Programming	79	28,3
	Child Development	130	46,6
	Business Management	37	13,3
	Finance	33	11,8
Gender	Male	83	29,7
	Female	196	70,3
Take a Course About Media	Yes	65	23,3
	No	214	76,7
Total		**279**	**100**

There is no sample in the research scope, instead totally 279 students participated to the study. 79 of them (28.3%) are computer programming, 130 of them (46.6%) are child development, 37 of them (13.3%) are business management and 33 of them (11.8%) are finance program students. 83 of participants (29.7%) are male and 196 of them (70.3%) are female students. In addition, 65 of participants (23.3%) took a course about media but 214 of them (76.7%) did not take any course about media.

Data Collection Tool

"Media Literacy Level Determination Scale" developed by Karaman and Karataş (2008) is used in this study. Scale consists of 17 items and 3 factors. These factors; "Having Information" consists of 7 items, "Analyzing and Creating Response" consists of 6 items and "Judgment, Seeing the Implicit Messages" consists of 4 items. Choices in scale are arranged and scored in an order of 1 for "Never", 2 for "Rarely", 3 for "Sometimes", 4 for "Usually" and 5 for "Always". Scale's Cronbach Alpha value is .084. Subscale Cronbach Alpha reliability coefficients are founded as .721 for "Having Information", .705 for Analyzing and Creating Response" and .680 for "Judgment, Seeing Implicit Messages". After application, internal consistency coefficient of scale applied to the vocational technical school students after application in this study is calculated as .916.

Data Analysis

Data collection tool was applied to the students by researchers. Maximum score is 5 and minimum score is 1 in the scale. Five evaluation intervals and criteria over the average value were defined to evaluate and interpret the media literacy of vocational technical school students (Table 2).

Table 2. Evaluation Criterions for Media Literacy Opinions

Evaluation Criteria	Given Ratings	Evaluation Range
Never	1	1,00 – 1,80
Rarely	2	1,81 – 2,60
Sometimes	3	2,61 – 3,40
Often	4	3,41 – 4,20
Always	5	4,21 – 5,00

Descriptive statistics such as arithmetic mean, percentage and frequency are used in data analysis. In addition, independent samples t-test and variance analysis are used in order to determine whether media literacy varies according to students' genders, departments or any course take situations about media. Significance level is taken as .05 in data analysis. SPSS 16.0 (Statistical Package for the Social Sciences) program is used for statistical analyses.

FINDINGS

Media Literacy Levels of Vocational Technical School Students

Media literacy levels of vocational technical school students are examined in three different dimensions; having information, analyzing and creating response and judgment, seeing implicit messages (Table 3).

Table 3. Media Literacy Levels in Terms of Subscales

	Sub Factor	$\overline{X}$	sd
1	Have Information	4.01	.68
2	Analyzing and Creating Response	3.54	.81
3	Judgment and Seeing Implicit Messages	3.79	.85

It was found from the media literacy levels of vocational technical school students that they frequently have information with a mean of ($\overline{X}$=4.01), they can analyze and create response frequently with a mean of

($\overline{X}$=3.54) and they can judge and see implicit messages frequently with a mean of ($\overline{X}$=3.79). In addition, evaluating the whole scale, it can be said that students have media literacy skill with a mean of ($\overline{X}$=3.79).

Examining the Media Literacy Levels of Vocational Technical School Students According to Their Genders

It is examined whether media literacy levels of vocational technical school students vary according to their genders or not in the study and findings are given in Table 4.

Table 4. Media Literacy Levels of Vocational Technical School Students According to Their Ages

Sub Factor	Groups	n	$\overline{X}$	Sd	df	t	p
Have Information	Male	83	3.92	.72	277	-1.560	.120
	Female	196	4.06	.67			
Analyzing and Creating Response	Male	83	3.49	.79	277	-.626	.532
	Female	196	3.56	.82			
Judgment and Seeing Implicit Messages	Male	83	3.83	.82	277	.957	.600
	Female	196	3.76	.88			

There is not a significant difference in terms of gender variable in the having information [$t_{(277)}$=-1.560, p>.05], analyzing and creating response [$t_{(277)}$=-.626, p>.05], judgment and seeing implicit messages [$t_{(277)}$=.957, p>.05] subscales of media literacy scale. According to these findings, media literacy levels of vocational technical school students are similar.

Examining the Media Literacy Levels of Vocational Technical School Students According to Their Departments

It is examined whether media literacy levels of vocational technical school students vary according to their departments or not in the study and findings are given in Table 5.

Table 5. Media Literacy Levels of Vocational Technical School Students According to Their Departments

Sub Factor	Varyansın Kaynağı	S.S	sd	S.A	F	p	Significant Difference
Have Information	Intergroup	.790	3	.263	.558	.643	Yok
	Local group	129.912	275	.472			
	Total	130.702	278				
Analyzing and Creating Response	Intergroup	3.790	3	1.263	1.963	.120	Yok
	Local group	176.979	275	.644			
	Total	180.768	278				
Judgment and Seeing Implicit Messages	Intergroup	1.549	3	.516	.707	.549	Yok
	Local group	200.934	275	.731			
	Total	202.484	278				

There is not a significant difference in terms of students' departments in having information [F(3-275)=.558, p>.05], analyzing and creating response [F(3-275)=1.963, p>.05], judgment and seeing implicit messages [F(3-275)=.707, p>.05] subscales of media literacy scale. In other words, media literacy levels of vocational technical schools do not vary significantly according to their departments in all of the subscales of media literacy.

Examining the Media Literacy Levels of Vocational Technical School Students According to Their Situations of Previously Taking Any Course about Media

It is examined whether media literacy levels of vocational technical school students vary according to their situations of previously taking any course or not in the study and findings are given in Table 6.

Table 6. Media Literacy Levels of Vocational Technical School Students According to Their Situations of Previously Taking Any Course about Media

Sub Factor	Gruops	n	$\overline{X}$	Sd	df	t	p
Have Information	Take A Course	65	4.07	.65	277	.817	.415
	Dont Take A Course	214	3.99	.70			
Analyzing and Creating Response	Take A Course	65	3.62	.72	277	.989	.324
	Dont Take A Course	214	3.51	.83			
Judgment and Seeing Implicit Messages	Take A Course	65	3.86	.77	277	.697	.486
	Dont Take A Course	214	3.77	.88			

There is not a significant difference in terms of students' situations of previously taking any course about media in having information [$t_{(277)}$=-.817, p>.05], analyzing and creating response [$t_{(277)}$=.989, p>.05], judgment and seeing implicit messages [$t_{(277)}$=.697, p>.05] subscales of media literacy scale. According to these findings, media literacy levels of students previously took a course about media and students who did not are similar.

RESULTS AND RECOMMENDATIONS

It was found that media literacy levels of vocational technical school students are high level in this study of examining the media literacy levels of vocational technical school students. At the same time, students also have a high level of media literacy in having information, analyzing and creating response and judgment, seeing implicit messages subscales of media literacy. Karaman and Karataş (2009) found the result that media literacy levels of teacher candidates are high level. Som and Kurt (2012) found the result that media literacy levels of Computer Education and Instructional Technologies students are intermediate level.

It was found that media literacy levels of vocational technical school students do not vary according to their genders in terms of all subscales of the media literacy. Another result is that media literacy levels of students do not vary according to their departments. This result shows us that independent from their departments, students use media frequently on same level and for same purposes.

Another result in the study is that there is not a significant difference between students previously took a course about media and student did not. Based on this result, it can be said that it is necessary to review the media literacy courses given in vocational technical schools. In addition, according to this result all students follow media more conscious. Students are continuously in contact with media in all stages of education especially with the development of technology and internet. Because of this reason, students from any age group should be instructed about media literacy.

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MESLEK YÜKSEKOKULU ÖĞRETİM ELEMANLARININ YAPILANDIRMACI YAKLAŞIM YETERLİK DÜZEYLERİNİN BELİRLENMESİ

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Bu çalışmada meslek yüksekokulu öğretim elemanlarının yapılandırmacı yaklaşım yeterlik düzeylerinin kendi algılarına göre belirlenmesi amaçlanmıştır. Çalışmanın örneklem grubunu 2014–2015 eğitim-öğretim yılında İstanbul, Kocaeli, Bursa, Sakarya ve Yalova illerindeki meslek yüksekokullarında görev yapan ve random olarak seçilen 125 öğretim elemanı oluşturmuştur. Araştırmada veri toplama aracı olarak Karadağ (2007) tarafından geliştirilen "Yapılandırmacı Öğrenme İle İlgili Öğretmen Yeterliği Ölçeği" kullanılmıştır. Verilerin analizi, SPSS paket programı ile nicel veri analiz teknikleri kullanılarak yapılmıştır. Araştırmadan elde edilen bulgulara göre meslek yüksekokulu öğretim elemanları, kendilerini yapılandırmacı yaklaşım konusunda yeterli düzeyde gördükleri belirlenmiştir. Öğretim elemanlarının yapılandırmacı yaklaşım yeterlik düzeyleri mesleki alan, akademik unvan ve himmet yılı değişkenlerine göre anlamlı farklılıklar ortaya çıkarmıştır. Sayısal alan, yüksek lisans veya doktora sahibi, 15 yıl ve üzeri mesleki kıdeme sahip öğretim elemanları yapılandırmacı yaklaşımda kendilerini sırasıyla sözel alan, lisans mezunu, 15 yıldan daha az mesleki kıdeme sahip öğretim elemanlarına göre daha yeterli görmektedirler. Öğretim elemanlarının yapılandırmacı yaklaşım yeterlik düzeyleri cinsiyet ve üniversite değişkenine göre farklılık göstermediği belirlenmiştir.

Keywords: Yapılandırmacı yaklaşım, meslek yüksekokulu, öğretim elemanı

THE PLACE OF TOURISM EDUCATION IN VOCATIONAL TRAINING

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ABSTRACT
Vocational training of the workforce in the tourism sector forms part of the tourism policy and planning. The importance of education and especially vocational training is increasing. it is bound to conscious ,well-trained, competent and qualified staff who are able to share responsibilities to live an efficient and successful term for businesses.

Various research show that the need for trained skilled manpower in the tourism sector is important for each stage of the sector. Therefore, people at every stage of tourism education must be equipped with practical knowledge and skills. In the education due to the dynamics of sector, it must be a dynamic structure. In other words, one of the basic conditions to exist in an increasingly competitive environment is qualified manpower. This can only be achieved by effective and high-quality tourism education and training as well as working of graduates of tourism schools in the sector.

In the tourism sector, businesses and educational institutions should be in cooperation. Acting in partnership of vocational training decisions of the society and businesses that produces goods and services is an important step towards development and preserving of resources.

Keywords: Tourism, Tourism Education, Vocational Training.

INTRODUCTION

The rapid, continuous and multidimensional transformation process that the technological advancements have created in the economic, political and cultural structures of societies leaves profound effects on almost any country irrespective of the differences in their level of development.

Corresponding to the developments in science and technology there is a rising demand for qualified labor force. Driven from the notion that the best investment is the investment to human capital, the prioritized importance attached to human capital and quality to ensure the creation of a knowledge-based society constitutes the foundation of development itself. The most effective forms of human capital is vocational training and teaching which bears vital role in raising a society closely linked to employment and economy and also influential in the development and creation of present and future society. Raising competent and knowledgeable labor force adequately skilled to meet the needs of modern labor market and apply modern technologies contributes significantly to the development of national economy and ensuring social adaptation. The enhancement in the production capacity of any country's national economy, and the rise in the employability and competitive power in free international market and the climb in social welfare level are all correlated to the knowledge and skill level of the labor force or in other terms it all depends on the vocational training and teaching of individuals possessing advanced qualities and quantities.

Major tasks and duties are allotted to vocational training system to the end of raising talented labor force as one of the fundamental tools of economic and technological development.

In order to meet the need for skilled and technical labor force that emerged as a consequence of the changes witnessed in the world of science, technology and business several types of vocational training programs have been formed for different organizations and different stages of education. Vocational training as a reflection of its scope bears a dynamic character. Vocational training is a three-dimensional unity composed of reciprocally interacting bodies: business, human and training**.**

Vocational training is an educational process geared towards instilling the kind of knowledge, skills and business practices that will be needed in business life and refining individual talents.
Via Vocational Training;

- People can gain professional competency.
- People can gain higher quality.
- Present qualities of the labor force can be improved.
- The efficiency and quality in business life can be elevated.

In line with these statements it is feasible to take into account market-compliant joint customer programs while focusing on vocational training.

The training should be oriented towards production rather than consumption. Otherwise it is likely that the money spent for education will end up as a waste.

TOURISM EDUCATION WITHIN THE SCOPE OF VOCATIONAL TRAINING

Qualified labor force provided via vocational training bears importance in the development of countries and creation of better quality goods or services.

Lack of qualified labor force is a crucial problem for tourism industry as is the case for all the remaining sectors. One of the vital steps in the planning of tourism policies is identifying the demand for staff and forming the essential teaching-training system to meet such demand. International studies related to this subject put forth that 'vocational training' is the most challenging issue. The findings of researches conducted by World Tourism Organization (OMT) in different countries underline that tourism industry is in increasing need of vocational training and formation of administrative cadre. Particularly noticeable are developing countries in which the low level of vocational and technical knowledge and down quality of tourism services dissuades tour operators to organize trips to such countries. Entering into the tourism market in which there is ever-rising competition with a certain level of standard and quality service relies on creating a particular level of social awareness as well as training skilled and adequate numbers of personnel. The countries having internalized this necessity have been frequently applying 'on the job training' which relates to learning by doing principle of vocational training. It is even considered that such form of training should not be restricted with tourism education alone but be prioritized in the formation of the main policy of national education system and educational practices.

Tourism industry is a sector that can speed up financial and social development process, stabilize interregional imbalances, create larger domains of employment particularly by encouraging the participation of women and youngsters and keep the social peace alive while boosting social welfare.

In international market tourism is the battle for quality between goods and services. Quality calls for an adequate level of tourism awareness within society and demand for sufficient quantities of educated personnel within the industry. Since the employees in tourism industry are remarkably influential in the quality of national tourism training and education is, compared to other industries, a much more significant issue in tourism.

On the other hand the other components of tourism industry such as hotels –restaurants, travel agents, transportation vehicles, entertainment venues, and museum are the physical structures. What makes these structures meaningful is human force that can offer the service meeting the level expected by modern tourists.

Tourism industry agents in Turkey are particularly complainant about the problem they encounter in recruiting adequate number of qualified personnel. There are frequently witnessed negative incidents due to the poor foreign language skills of tourism personnel and defects in appropriate behaviors and technical knowledge background.

Entering into the tourism market in which there is ever-rising competition with a certain level of standard and quality service relies on creating a particular level of social awareness as well as training skilled and adequate ratios of personnel. It is on the other hand feasible to train the qualified personnel only via a high-quality tourism education.

TOURISM EDUCATION IN TURKEY

Tourism education is a vocational training conducted to raise the kind of tourism labor force capable of applying research and planning activities; that can fuel the efficiency of corporations and catch up with the new practices in the business sector.

When the issue is related to personal education, vocational training specifically, the required knowledge and skills for this sector are offered in the related educational institutions. In Turkey the earliest date of tourism education goes back to year 1961-1962 in Ankara. The earliest tourism education institutes formerly named as 'School of Lodging' spread in 1975 as 'Hotel Management and Tourism Vocational High Schools'. Currently these schools are termed as Vocational and Technical Anatolian High Schools affiliated to the General Directorate of Vocational and Technical Training.

In higher education level the first programs in tourism are dated to year 1965 with the establishment of Ankara Commerce and Tourism Higher Teacher Education School which also entailed a tourism department within its

organization. The school was incorporated into Gazi University in 1982 and continued to offer education as Faculty of Vocational training - Commerce and Tourism Education department. In 1992, the department operated as Gazi University Faculty of Commerce and Tourism Education. In the subsequent years different programs on tourism were opened in a variety of universities; departments providing tourism education in associate and graduate degrees were set up and these departments multiplied in different names and graduated higher numbers of students in due course.

In Turkey two distinctive forms of tourism are offered currently within the scope of general tourism: formal and non-formal tourism education.

A. Formal Tourism Education: School education geared towards receiving a diploma.

It is feasible to claim that the key objectives of formal tourism education within the scope of vocational training are to provide basic training to the prospective employees in tourism industry, to instill tourism awareness and philosophy to the trainees, to teach management techniques and foster the compliance with worldly-recognized approach and to train senior tourism administrators who can grasp new concepts, insights and technologies.
Educational institutions providing formal tourism education consist of vocational tourism schools offering education in Secondary Education and Higher Education level. Till year 2014, Vocational Tourism Education in Secondary Education level was offered in,

- Girls' Technical and Vocational High Schools
- Predominantly in Vocational Schools of Tourism and Hotel Management

Nonetheless within the context of restructuring of vocational and technical secondary education system led by the Ministry of National Education (MEB), the schools previously titled in Turkey as industrial vocational high schools, vocational high schools of tourism and hotel management, trade vocational high schools, girls' technical and vocational high schools and medical vocational high schools were grouped under one single name: Vocational and Technical Anatolian High School. The qualified labor force demanded in the sector is trained in these schools. In particular, Vocational and Technical Anatolian High School of tourism are the training and teaching institutions educating qualified labor force for the reception, service and kitchen offices in the hotels, restaurants and miscellaneous lodging facilities. The applied training programs in these institutions are at basic vocational training level. The objective is to gain the students basic vocational skills in the specific programs they attend.

Institutions offering formal tourism education in higher education level are;

- Vocational Colleges
  . 2-year diploma program in Tourism and Hotel Management (associate degree)
- Undergraduate Colleges
  . 4-year Tourism Faculties
- Universities offering post graduate education
  . Masters and PhD programs.

Among tourism educations offered in different levels of higher education institutions are associate degree programs affiliated to vocational colleges. Associate degree programs cover a 2-year period. In Vocational Colleges tourism education is executed in tourism and hotel management programs. The objective in these programs is, by enabling the students to combine knowledge and experience, to acquire the qualities required from intermediate staff in the sector.

Undergraduate education in higher education level is extended to 4 years and the main objective in this education is to train junior administrators in tourism industry. In Turkey tourism education in undergraduate level is offered in faculties of tourism.

The main objective in postgraduate tourism education is to train the administrators and researchers capable of solving complex social, financial and technical problems of modern tourism and possessing the skills of abstraction, synthesis and judging by analyzing the efficiency of various factors.

B. Non-Formal Tourism Education:

Teaching and training activities that are executed by a range of establishments offering certificates for the attendees are within the scope of non-formal tourism education. These are short-term vocational courses given by state as well as private institutions. The population benefiting from non-formal vocational training services is basically the newly employed youngsters or juveniles having missed the opportunity of continuing secondary education or adults aspiring to learn a profession. Additionally individuals having already registered as students

to a formal educational institution but willing to develop themselves in the direction of personal interests are also eligible to attend non-formal vocational training bodies. As we analyze the general objective of this form of tourism education it surfaces that the main motives are infusing tourism awareness into the individuals, developing affection and tolerance by preserving the creative sources of tourism, providing the moral and ethical training on the equal and fair service to tourists and forming a behavior style founded on the pillars of genuine love and hospitality.

In Turkey the corporations and institutions offering non-formal tourism education are;

- Ministry of Culture and Tourism,
- Ministry of National Education,
- Ministry of Labor and Social Security,
- Professional Organizations
- Faculty of Open University,
- Social corporations,
- Universities,
- Municipalities,
- Unions,
- Private education centers,
- Establishments

To sum up, both formal and non-formal vocational trainings are responsible with training junior labor force who can provide a number of services demanded by tourism managements and also raising mid-level labor force that can be defined as intermediary staff and senior labor force that can be employed as administrators, researchers and planners in the state and private corporations related to tourism industry.

Nonetheless there are certain deficiencies and faults in the vocational tourism education offered in Turkey. There is a widespread perception that something is wrong in raising the sufficient quality and quantity of personnel for tourism industry and that existing tourism education institutions fall short in meeting the prevalent demand. The failure of current education system to prioritize the wills of business life and meet the demands of work life in the expected speed and variety are the most significant factors pulling the effectiveness of education down.

To the aim of correcting the problems listed hereinabove tourism businesses and educational institutions in tourism are required to stand united. Businesses are the users of staff who receive the vocational training provided to the market. To put this differently labor market holds the position of claimer of educated personnel. The demand for individuals having received vocational training can surface only with the employment of such staff. The correlation between the negative –positive factors in employment and overall efficiency is crystal clear in the eyes of employers. Thus in order to transform labor force having received vocational training into qualified and efficient staff further emphasis should be rendered to demanded branches in education upon gathering the views and suggestions of business world. In that case the united co-action of vocational training bodies in society and businesses manufacturing goods and services would stand as a major step in terms of development as well as saving of resources.

CONCLUSION

In order to ensure the development of tourism industry the phenomenon of a deep-rooted tourism education and problem of educated personnel gain increasing importance each day. So as to attain the envisaged objectives particular care should be paid to employ qualified personnel in touristic establishments, raising the social awareness on tourism and recognizing the fact that this education is equally important as the investment to tourism. The success and efficiency of Turkish tourism which has recently entered into a stage of advancement is only possible with the joint efforts of all institutions offering tourism service.

The main objectives of vocational tourism education are; enhancing the efficiency in tourism sector which, as a service-based industry, relies heavily upon skilled labor force; refining the humanitarian aspects of staff providing direct service to clients; setting a balance between authority-competency and responsibility of the personnel; gaining the kind of skills enabling the personnel to solve encountered problems and control the outcomes. Such education can attain its objective only with the cooperation of relevant institutions.

While the service quality and efficiency of the personnel employed in tourism industry play primary role it should be kept in mind that it is a must to provide a responsible teaching and training system that can rise above the quality of tourism labor force.

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MESLEKİ EĞİTİMİN TARİHİ SÜRECİ

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Bireyin eğitimi, özellikle mesleki eğitimi söz konusu olduğunda, kendisine bu alanda gerekli bilgi ve beceriler, ilgili öğretim kurumları tarafından kazandırılmaktadır. Bu bağlamda, ülkemizdeki meslek eğitimi, 13.yüzyılda yaygın eğitim kurumu olarak Ahilikle başlamış ve örgün meslek-sanat okullarının açıldığı 1860'lı yıllara kadar sürmüştür. 19.yüzyılın başlarında batıda endüstri sahasında meydana gelen devrim niteliğindeki değişikliklere ayak uydurabilmek için mesleki eğitimde de yeni arayışlara gidilmiştir. Cumhuriyet'le birlikte, mesleki eğitim sisteminde çok önemli yer tutan Meslek Liseleri, hem iş ve meslek alanlarına eleman yetiştiren, hem de öğrencileri yükseköğretime hazırlayan kurumlar olmuştur. Günümüzde ise mesleki eğitim, Türkiye'nin istihdam ihtiyaçlarına göre, sektörün talebine cevap verecek şekilde, genç işgücünü nitelikli eleman olarak yetiştirmeyi amaçlamaktadır.

Keywords: Mesleki eğitim, Eğitim kurumu

METACOGNITIVE LEARNING AND STUDENTS' SELF-IMPROVEMENT IN HIGHER EDUCATION

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ABSTRACT
Researchers in the field of educational psychology have long promoted the importance of metacognition for regulating and supporting student learning. This paper is a report on the findings of a study concerned with assessing students' metacognition in the learning process. The study attempted to clarify the relationship between metacognitive learning and students' motivation for self-improvement. The participants were 331 undergraduate students in helping professions (health and social care and educational services) of Tomas Bata University in Zlín. The results showed that metacognitive learning does not depend on the branch of study or study year and remains consistent during the course of study, i.e. in bachelor's and master's degree studies. The largest deficit was recorded in the rate of adaptation to specific teaching situations. In addition, we found that motivation for self-improvement is a strong predictor of metacognitive learning. The findings from this research may support training programs instructing students on how to adopt effective metacognitive skills and strategies and learn how to perform well if they have better control of their learning.

INTRODUCTION

The new millennium was ushered in by a dramatic technological revolution. We now live in an increasingly diverse, globalized and complex media saturated society. If we strive to prepare students for the future, we have to embrace a new culture of learning where individuals are expected not only to be adaptive, but also innovative, creative, self-directed and self-motivated (Maňák, 2005). Education must be open and "unfinished", providing students with necessary competencies for further study (learning to learn), motivation for further education and understanding the importance of further learning for one's own existence (Greger & Černý, 2007). This shift means that the acquisition of thinking skills has become a major education objective in recent years. New strategic documents dealing with the new educational aims (National Research Council, 2011; Binkley 2010) define the skills of the 21st century. These skills consist of cognitive skills as well as interpersonal and intrapersonal skills. Students need to adopt new ways of thinking and working and have tools for working and living in the changing world which means a person needs to acquire a number of competencies e.g. how to develop and improve oneself to think about one's thoughts and learning (metacognition) and to be able to control this process (self-regulated learning). Metacognition is becoming more and more important.

The „Thinking about thinking" theory was first described by Flavell in 1970's as metacognition. Metacognition is essential in the self-regulated learning of students and is defined as knowledge of one's own cognitive processes (knowledge of how I learn or act) and as the regulation of those processes by a subject who learns and acts in various situations. Metacognition is understood as students´ set of skills and competencies to be aware of one's own cognitive (learning) activities, to plan, monitor and assess methods they use when learning (Švec & Hrbáčková, 2010). Cognitive psychologists at the end of the 20th century emphasized the importance of metacognition as a crucial part of an intelligent person's behaviour and thus expanded the definition of intelligence with a phenomenon our academics were only slightly familiar with. However, this term was used as early as the 1970s (Flavell, 1979) and described the way to understand one's own thinking processes and human skills to control them.

Fisher (1997) links metacognition with the intrapersonal type of intelligence. According to him, intrapersonal intelligence is probably the most important aspect of human intelligence as it is related to the application of all other types of intelligence. It may be defined as a person's capacity of self-reflection, awareness of one's strengths and weaknesses, emotions and thinking processes, which all together form knowledge of the self (Shepard, Fasko, & Osborne, 1999). According to Flavell (Dawson, 2008) the knowledge of one's own cognition and learning relates to knowledge of the self (person variable), knowledge of the nature of a task (task variable) and knowledge

of strategies (strategy variable). Later, the above mentioned terms were linked to declarative, procedural and contextual knowledge, which may all be labelled as metacognitive knowledge.

Metacognition does not only include knowledge of human cognitive processes (metacognitive knowledge) but also monitoring, controlling and regulating processes of one's own cognitive processes which are linked to metacognitive skills (Brown, In Desoete, Royers, & Buysse, 2001) and metacognitive strategies. Metacognitive strategies (Susimetsä, 2006) are methods used by a learner to regulate and reflect on cognitive processes. They include the skills of a subject to analyse his/her own equipment (pre-conditions) for successful learning and skills and competencies to alter learning methods and to adopt new effective learning techniques corresponding with learning situations and one's own learning style (Švec, 2005). Desoete (2001) defines metacognitive skills as a set of skills to predict (orientation), plan, monitor and assess one's own cognitive process. The skill of prediction includes an analysis of successful learning requirements. Planning includes well-thought-out action - thinking about how, when and why to carry out the task and monitoring can be regarded as one's own checking („on-line") of the effectivity of cognitive strategies use. Assessment is defined as retrospective („off-line") judgement about one's results and learning progress. According to Nelson and Narens (1994), self-monitoring and self-regulation correspond to two different levels of metacognitive processing that interact very closely. Self-monitoring refers to keeping track of where the pupil is with his/her goal of understanding and remembering (a bottom-up process). In comparison, self-regulation or control refers to central executive activities and includes planning, monitoring, and evaluating his/her behaviour (a top-down process). The substance of metacognitive processing is reflection (awareness of these methods, assessment of their importance and meaning, possibly of the advantages in the process of further learning). „Reflectiveness implies the use of metacognitive skills (thinking about thinking), creative abilities and taking a critical stance. It is not just about how individuals think, but also about how they construct experience more generally, including their thoughts, feelings and social relations" (OECD, 2005).

The development of metacognition is a highly individual process and it may develop in a different way but it is obvious that it is socially mediated (Larkin, 2010). Metacognitive structures take a long time to shape and in their final stage, they are general and formal. A psychological idea is that reflections of various stimuli are collected in an internally represented form and they build a hierarchy of principles applied even to situations which were not included in the original learning process. It is not clear whether metacognition is general by nature or rather task and domain specific. Research by Schraw et al. (1995) revealed that monitoring skills are general by nature, whereas Kelemen, Frost, & Weaver (2000) provided evidence against such a general skill. Also Veenman et al. (2004) obtained strong support for the generality of metacognitive skills. It seems that metacognition initially develops in separate domains, and later on it becomes generalized across domains (Veenman & Spaans, 2005).

Part of professional training focused on working with people (and care for them) is not just cognitive development, but also non-cognitive. For professionals working in the helping professions, it is very important to work on themselves, to improve, assess their strengths and weaknesses, learn and think about their own development. These skills, although partly implicit (tacit), are necessary to develop and cultivate. The development of metacognition is not usually included in the higher education of students. It is expected that students will master these skills automatically.

We believe that the development of metacognitive thinking (learning) should be an integral part of the preparation for a profession. Metacognitive intervention should be specific (with respect to the individual development of students) and should be based on a detailed analysis of the level of these skills and knowledge, to what extent students use metacognitive skills in the learning process. In our research, we did not focus primarily on finding the level of meta-cognitive knowledge, but metacognitive skills, because we assumed that this knowledge is reflected in metacognitive skills (manifestations of metacognitive skills presuppose that the student has some metacognitive knowledge). The findings from this research may support training programs instructing students on how to adopt effective metacognitive skills and strategies and learn how to perform well if they have better control of their learning.

THE STUDY

In our research we focused on finding what the level of metacognitive skills is (direction, self-reflection and adaptation) for students in the helping professions (health and social care and educational services). We investigated the relationship between metacognitive learning and students' motivation for self-improvement and what the differences in the levels of metacognitive skills are according to the degree of self-improvement. At the same time, we also examined to what extent motivation for self-improvement predicts metacognitive learning. We were also interested in whether metacognitive learning varies depending on the stage or year of study and the studied subjects.

The research sample consisted of 331 student teachers (n = 181) and non-medical health care fields students (n = 150) in full-time studies at Tomas Bata University in Zlín. These fields were Social Education, Adult Education, General Nursing, Midwifery and Health and Social Worker. The fields studied were largely represented by women (n = 309) compared to men (n = 22), which corresponds to the real representation of men in the helping professions.
To collect data, we used a 15-item-self-evaluation questionnaire *The Metacognitive Learning Scale* (MLS) focused on metacognitive learning, i.e. the level of metacognitive skills, which was supplemented with questions aimed at ascertaining the motivation of students for self-improvement (3 items) . The MLS questionnaire was divided into three areas: *Direction* (6 items), *Self-reflection* (5 items) and *Adaptation* (4 items). Two tools used in earlier studies to measure metacognitive skills served for the construction of each item, i.e. the *Motivated Strategies for Learning Questionnaire* (Pintrich et al., 1991) and the *Metacognitive Process Questionnaire* (Hrbackova & Hladik, 2011). Responses were recorded on a 5-point Likert-type scale (1 = minimum agreement; 5 = maximum agreement). Higher values indicate a higher level of metacognitive skills. The questionnaire included 2 reverse items that were recoded in evaluating the results.
To determine the construct validity of *The Metacognitive Learning Scale*, exploratory factor analysis was used. Based on the scree test analysis, a 3-factor structure was chosen. An analysis of the principal components, i.e. orthogonal factor rotation was done, using the Varimax norm method. We concentrated on items with a factor loading greater than or equal to .50. We have generated three factors with a total common variance = 39.91 % and with a Cronbach coefficient of $\alpha = .75$. 1. The *Direction* factor (n = 6 items). Factor loadings vary in the range from .52 to .67. The factor explains 17.67 % (eigenvalue = 4.52) of the total common variance. 2. The *Self-reflection* factor (n = 5 items). Factor loadings range from .52 to .73. The factor explains 12.81 % of the total common variance (eigenvalue = 1.76). 3. The *Adaptation* factor (n = 4 items). Factor loadings were observed in the range from .51 to .63. The value of variance is 9.43 % (eigenvalue = 1.31). By removing items with factor loading below .50, the 22-item vision was reduced to a 15-item 3-factor version of *The Metacognitive Learning Scale*.
The created factors are indicators of metacognitive learning in which students regulate their own learning process. The first factor *Direction* expresses a certain direction and focus for their own learning, it includes knowledge (knowing), what should be done and how it should be done. It expresses one's own control over learning. The second factor *Self-reflection* represents the real assessment of one's own abilities, it involves a certain oversight over oneself (with a healthy self-criticism). The third factor *Adaptation* refers to the ability to adapt their learning to the particular conditions (teaching situation), i.e. if necessary, to change their practices and make the most of the analyzed situations.
The measured factors concur with the theory of intelligent thinking, described by Binet & Simon (1916). According to this theory, intelligent thought comprises three distinct elements: adaptation, criticism, and direction. The factor *Adaptation* is considered an important part of intelligence, and played a significant role in later definitions and theories of intelligence. The factor *Criticism*, or the ability to monitor and critique one's own thinking and problem solving is an important part of the definition of metacognition. The factor *Direction* is an important part of the concept of *Personal navigation* (Sternberg & Spear-Swerling, 1998). Broadly speaking, personal navigation (PN) refers to a person's control of his or her voyage through life. PN involves finding a direction in life, maintaining this direction when appropriate and changing it when appropriate, moving in the direction at a velocity that is appropriate for the circumstances, using navigational aids in order to maintain the desired direction and overcoming the obstacles that inevitably present themselves in any voyage. Personal navigation is more about using one's intelligence effectively than it is about intelligence itself.
When analyzing the dependence of metacognitive learning on students' motivation for self-improvement, we worked with the categories of motivation (low, medium and high degree of motivation). The degree of motivation, which corresponded to a value lower than 2, we identified as a low level of motivation for self-improvement. The degree of motivation, which corresponded to a value higher than 4, we identified as a high level of motivation for self-improvement. Other values (higher than 2 and lower than 4) we identified as the average level of motivation.
To analyze the data we used a t-test, a Person's correlation coefficient, a one-way between groups multivariate analysis of variance (MANOVA) and linear regression. We also tested the preconditions for the use of tests at the same time. This means that we tested the normality and homoscedasticity (Levene's test). The data was processed through the SPSS program, ver. 21.

FINDINGS

The metacognitive learning of students in the helping professions reaches the highest level (Table 1) in the area of self-reflection (M = 3.63, SD = .58). 50% of students have a level of self-reflection in the interval 3.2 - 4 (on a scale of 1-5).

Tab. 1: The level of metacognitive skills and motivation for self-improvement

	Minimum	Maximum	Mean	SD
Direction	1.50	5.00	3.40	.69
Self-reflection	1.80	5.00	3.63	.58
Adaptation	1.00	4.75	2.39	.65
Metacognitive skills	1.84	4.53	3.25	.46
Self-improvement	1.33	5.00	3.50	.70

The results show that the extent of direction reaches a higher level (M = 3.40, SD = .69), unlike adaptation, where we see a relatively low value (M = 2.39, SD = .65). 50% of students exhibit a rate of adaptation in the interval of 2 - 2.75 (Figure 1). The results suggest that students benefit from more consistent learning procedures that do not change much. This may be due to the fact that they do not need to change their practices and adapt them to specific learning situations or utilize learned procedures and they do not know other strategies that would be more effective in the specific learning situation.

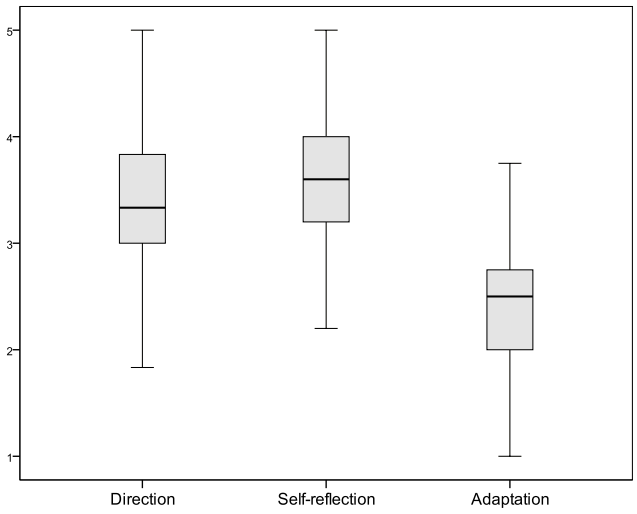

Fig. 1: Rate of direction, self-reflection and adaptation

The motivation of students for self-improvement reaches an average value of M = 3.5 (SD = .70). When we analyzed whether this motivation varies depending on the level of study, branch of study or year of study, we found that these incentives did not differ significantly between bachelor's and master's degree students (p = .29), in each year of study (p = .79), or depending on the studied field (p = .08). We found that this also applies in the case of metacognitive learning that develops independently of the level of study (p = .78), and also does not change during the course of study (depending on the year of study, p = .93) and remains comparable with student teachers and health profession students (p = .11).

	Direction	Self-reflection	Adaptation

Self-improvement	.524*	.352*	.343*

Tab. 2: The relationship of metacognitive skills with the motivation for self-improvement

*the correlation is significant at the .001 level of significance

We found that metacognitive learning (partial metacognitive skills) significantly correlates with students' motivation for self-improvement. The more the students are motivated to improve and work on themselves, the more they use metacognitive learning (and vice versa). Motivation for self-improvement is most associated with the focus ($p < .001$) on learning (Table 2). Likewise it is also true that the more the students need to improve, the more they reflect on their own learning process ($p < .001$) and adapt their learning methods to the specific teaching situation ($p < .001$).

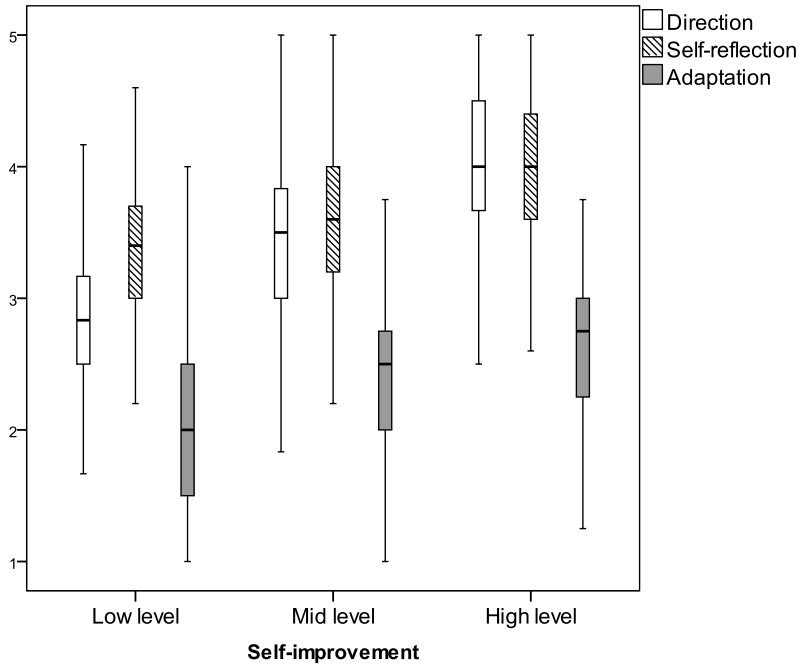

Fig. 2: The level of metacognitive skills by level of self-improvement

When comparing the metacognitive learning of students with low, medium and high levels of motivation for self-improvement (Figure 2), we can say that the level of metacognitive skills differs significantly in the combined dependent variables ($F = 19.98$, $p < .001$). The lowest levels of metacognitive skills are achieved by students with the lowest motivation for self-improvement (Table 3), these differences are significant for all metacognitive skills ($p < .001$). Students with a low motivation for self-improvement achieve lower levels of direction ($M = 2.82$, $SD = .60$), lower rates of self-reflection ($M = 3.31$, $SD = .58$) and a lower rate of adaptation ($M = 2.11$, $SD = .74$). Conversely, students with a high rate of motivation for self-improvement achieve significantly higher levels of metacognitive skills than students with medium and low levels of motivation for self-improvement ($p < .001$). Students who have high motivation to improve themselves, are significantly more focused on their learning ($M = 3.97$, $SD = .59$), are capable of a higher degree of self-reflection ($M = 3.99$, $SD = .58$) and are also able to adapt their learning to the specific teaching situation higher rate ($M = 2.77$, $SD = .73$).

Tab. 3: The differences in the level of metacognitive skills according to the level of self-improvement

	Self-improvement	Mean	SD
Direction	*Low level*	2.82*	.60
	Mid level	3.41*	.61
	High level	3.97*	.59
Self-reflection	*Low level*	3.31*	.58
	Mid level	3.63*	.53
	High level	3.99*	.58
Adaptation	*Low level*	2.11*	.74
	Mid level	2.38*	.55
	High level	2.77*	.73

*p < .001, the stated differences are significant among all groups

It can be seen from the analysis (Table 4) that the motivation for self-improvement is a significant predictor of the metacognitive learning of students in the helping professions (p < .001). The model explains 34% of the variability of the dependent variable, i.e. metacognitive skills (R^2 = .336, β = .58). It is evident that the need for students to improve themselves in the learning process plays an important role in the use of metacognitive skills while learning.

Tab. 4: Predictor of partial metacognitive skills

Predictor	Metacognitive skills	B	SE_B	β	R^2
Self-improvement	*Direction*	.512	.046	.524*	.274
	Self-reflection	.291	.043	.352*	.124
	Adaptation	.315	.048	.343*	.117
	Metacognitive learning	.386	.030	.580*	.336

*p < .001

Motivation for self-improvement is to the greatest extent determined by the process of focus (R^2 = .274, β = .52) on learning (explaining 27% of the variability of the dependent variable, i.e. direction). Self-improvement is also a significant contributor to the formation of other metacognitive skills, i.e. the rate of self-reflection (R^2 = .124, β = .35), and the rate of adaptation (R^2 = .117, β = .343). It means that the level of metacognitive skills is to some extent dependent on the motivation for self-improvement. The motivation of students for self-improvement determines the rate of direction, self-reflection and the rate of adaptation of students during the course of learning. If students are motivated to improved themselves and work on themselves, they will most likely achieve a higher level of metacognitive skills.

Students who have a greater tendency to improve and work on themselves also know how exactly to proceed in learning (what they should do and how they should do it). They are also more proficient in assessing themselves. This means that they have more insight about themselves and able to realistically assess their capabilities (including healthy self-criticism). Students who are more motivated to improve themselves, also have the ability to adapt their learning to the particular conditions (teaching situation) and if necessary, change their practices and make the most of the analyzed situations far more than those students who are less motivated to improve

themselves. The motivation for self-improvement is reflected in the metacognitive learning process, influences the rate of direction, the rate of self-reflection and the rate of adaptation of the students.

CONCLUSIONS

The research results show that the level of self-reflection within metacognitive learning reaches its highest level among students of helping professions. This means that the selected helping professions students have the skills to realistically assess their own abilities necessary for learning. On the other hand, most students show a deficit in the rate of adaptation. The results suggest that students benefit from more consistent learning procedures that do not change much. The question remains why students achieve a lower rate of adaptation. This may be due to the fact that students use stereotyped practices that they do not want to change or have no reason to change them. This resistance to change can have many causes. One of them could be lower academic aspirations, the demands of study or the motivation (tendency) for self-improvement. Students who have a need to do something with themselves and work on their own development can better regulate their own learning and think about their learning far more prudently than students who do not have this need.

The results showed that metacognitive learning does not depend on the branch of study or study year and remains consistent during the course of study (they achieve a comparable level in bachelor's and master's degree studies). Similarly, the motivation for self-improvement develops independently of the level of study, does not change during the course of study (depending on the year of study) and remains comparable with student teachers and health profession students.

The results show that metacognitive learning depends on the rate of motivation of students toward self-improvement. The more the students are motivated to improve and work on themselves, the more they use metacognitive skills (and vice versa). Motivation for self-improvement itself is most associated with the focus on learning. Likewise it is also true that the more students need to improve, the more they reflect on their own learning process and adapt their learning methods to the specific teaching situation. It is evident that the need for students to improve themselves in the learning process plays an important role in the use of metacognitive skills while learning.

Students with a low rate of motivation for self-improvement achieve lower levels of direction, lower rates of self-reflection and a lower rate of adaptation. Conversely, students who have high motivation for self-improvement are significantly more focused on their learning, are capable of a higher degree of self-reflection and can also better adapt their learning to the specific teaching situation than students with a medium and low level of motivation for self-improvement.

The motivation for self-improvement is a significant predictor of the metacognitive learning of students of the helping professions. If students are inclined towards their own self-development, their efforts are also reflected in their own learning process. This effort largely affects their ability to focus on learning, realistically assess themselves (including a healthy self-criticism), and also to adapt their learning to the particular conditions (teaching situation) and if necessary, change their practices and make the most of the analyzed situations. The study results point to the fact that the motivation for improvement leads to more control over their own learning process and a higher level of metacognitive skills.

In the preparation of future workers for the helping professions, it is beneficial to focus on the development of self-regulated learning. This development goes hand in hand with the motivation of students to improve and work on themselves and their own development. A wide range of influences can affect the rate of motivation of students, but if it is a means to increase metacognitive learning, then it is necessary to devote raised attention to it in vocational training. A very important aspect may be the analysis of the internal needs of the students, highlighting the aspect of usability and meaningfulness of studying (in connection with the application of theoretical knowledge and connectivity with practice). Motivation to improve oneself and one's learning can also be related to the perceived and real demands of study and causal attributions of students (perceptions of the causes of success and failure). Students should be aware of ways to improve and what strategies they can use in learning and how to regulate their learning process. In the preparation of university students a so-called metacurriculum may also be included, i.e. including information on how to learn the subject and manage learning in the curriculum of the particular subject. This preparation can significantly affect students' motivation to engage more fully in their own learning process and to encourage further self-development.

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METAPHORS ABOUT HISTOLOGY EDUCATION IN STUDENTS OF FACULTY OF MEDICINE

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ABSTRACT
Metaphor researches, especially used in training studies are used in many areas. The purpose of our study is to determine how medicine students perceive “histology” phenomenon and which factors affect their perception. Our study was conducted with the participation of 300 students from Kocaeli University Faculty of Medicine Class I grader in the academic year 2014- 2015. Students’ gender, age, dwelling during educational life, the reason for selecting the faculty of medicine were questioned and students were asked to produce a metaphor for the concept of histology in the questionnaire. The result of evaluating the questionnaires 200 (100 male, 100 female) students’ metaphors were taken into account. Because the answers were empty or not convenient for purpose, the 100 metaphors of students were not evaluated. The study is based on voluntary participation. It was asked to complete the sentences in the questionnaire "Histology is similar / like ..... ; because ..... ". The students have produced 151 metaphors. The number and percentage of produced metaphors are calculated. Metaphors are divided into eight sections according to the aim at the explanation. The metaphors mostly produced by students were picture, anatomy, parts of the whole and etc.
Our mission as Kocaeli University Faculty of Medicine the Department of Histology is to provide enough firm infrastructures about histology acknowledge both with theoretical and practical training and doctors, who can improve themselves with the universal values and who have the ability to provide community-based health services. So, we believe that the metaphors, produced by our students will be useful for us about, how we must conduct our lessons.

Key words: Metaphor, histology, students of faculty of medicine

INTRODUCTION

Metaphors are figures of speech for telling a thing to be told by likening and comparing methods. And this also is defined as figures of speech in the glossary of the Turkish Language Association (TDK, http://tdk.gov.tr/). Metaphor is a technique to teach things which are not known and a tool proven to be effectual to keep the things which are taught in mind. Metaphor is a very powerful learning and teaching tool (http://metafor.nedir.com/). Using metaphors in education; eases learning scientific concepts and keeping them in mind for a long time, improves scientific thinking and problem solving abilities, ensures abstract concepts which are difficult to understand to be made more concrete, improves the thinking capabilities and creativeness of those who learn and ensures the active contribution of students to the educational environment (Aktekin, 2010). Therefore, metaphor researches are mostly used in departments related to education (primary school teaching, visual arts teaching, computer teaching, etc. (Aktekin, 2010; Kalyoncu, 2012; Gültekin, 2013). Here in our study, by using the metaphor technique, we aimed to determine the feelings and thoughts of the students who take histology education in the 1st class of the Medical Faculty about the histology lessons.

METHODS

Study Group:

This study which is based on the voluntary contribution of the students in Kocaeli University was realized during the 2014- 2015 academic year with the contribution of totally 300 students in the 1st class of the Medical Faculty. In the questionnaire forms where the age and the gender of the student, the reason to choose the Medical Faculty, where he/she dwells during the education life and the geographical region where he/she comes from were questioned and they were asked to produce metaphors related to the concept of histology. In consequence of evaluating the questionnaire forms, the metaphors of 200 students (100 male and 100 female) were taken for consideration and the metaphors of 100 students were not taken for consideration because they were not intended for the aim of the study or the forms were left blank.

Collecting the Data:

In order to provide convenience for producing metaphors, in the beginning, explanations were made and examples were given to the students. In the questionnaire, they were asked to complete the sentence "Histology is like…….. or similar to…… because, ……". In the questionnaire form, at the same time, the ages and the genders of the students, the reasons to choose the Medical Faculty, where they dwell during their education life and the geographical regions where they come from were questioned too.

Analysis of the Data:

In order to analyze of the collected data, the produced metaphors, together with the other questionnaire answers, were written in the SPSS program and prepared as a list (Kocaeli University SPSS Program). The number and the percentage of the produced metaphors were calculated. It was seen that 151 metaphors were produced by the students. Evaluating the metaphors according to the explanation parts, they were divided into 8 categories (Aktekin, 2010). The number and the percentage of each category were calculated.

FINDINGS

151 metaphors out of 200 metaphors which were evaluated as valid were determined.

The metaphors produced by the students were evaluated together with the explanation parts and divided into 8 categories. After that, the classification transaction was again evaluated by two persons from different fields and the categories became definite. The majority of the metaphors gathered in the "explore/discover" category while the least of the metaphors gathered in the "flown-away-feeling/unhealthy pleasure" category. The categories and the number and the percentage of students in each category are given in Table 1.

Table-1: The metaphor categories the students of medical faculty have about the concept of histology education.

The metaphor categories	**Frequency (F) Percentage (%)**
Disappear /Unknown situation	12 (6%)
Hopeless struggle	25 (14%)
Pain&Pleasure	28 (14%)
Explore/Discover	75 (37,5%)
Guidance/An investment in knowledge	23 (11,5%)
Finding a solution to a problem	10 (5%)
Pain	20 (10%)
Flown-away-feeling/unhealthy-pleasure	7 (3,5%)

In consequence of the evaluation of the questionnaire, the main reason for the students to choose the Medical Faculty is the option "by my own will" with a percentage 33%. The "job guarantee" option takes ranked the second with a percentage 18%. The reasons for the students to choose the Medical Faculty are given in Table 2.

Table-2: The reasons for the students to choose the medical faculty.

Reasons of choosing the medical faculty	**Frequency (F) / Percentage (%)**
My family request	28 /14%
My family lives here/nearby	2 /1%
I own will	134 /67%
Job guarantee	36 /18%

When we evaluate the categories in which the Metaphors are gathered according to genders, it became evident that the 43% of the female students and the 32% of the male students see the histology lesson as a lesson which adds to exploring/discovering; and 9% of the female students and the 19% of the male students see the histology lesson as a lesson which gives pain and pleasure at the same time. The category where the answers of the female students were observed to be less is flown-away-feeling/unhealthy pleasure category with a percentage 0% while the category where the answers of the male students are less is "finding a solution to a problem" category with a percentage 5%. The distribution by gender of the metaphor categories is shown in Table 3.

Table-3: The distribution by gender of the metaphor categories.

CATEGORIES * GENDER Crosstabulation					
			GENDER		Total
			MALE	FEMALE	
CATEGORIES	Disappear /Unknown situation	Count	6	6	12
		% within GENDER	6,0%	6,0%	6,0%
	Hopeless struggle	Count	14	11	25
		% within GENDER	14,0%	11,0%	12,5%
	Pain&Pleasure	Count	19	9	28
		% within GENDER	19,0%	9,0%	14,0%
	Explore/Discover	Count	32	43	75
		% within GENDER	32,0%	43,0%	37,5%
	Guidance/An investment in knowledge	Count	11	12	23
		% within GENDER	11,0%	12,0%	11,5%
	Finding a solution to a problem	Count	5	5	10
		% within GENDER	5,0%	5,0%	5,0%
	Pain	Count	6	14	20
		% within GENDER	6,0%	14,0%	10,0%
	Flown-away-feeling/unhealthy-pleasure	Count	7	0	7
		% within GENDER	7,0%	0,0%	3,5%
Total		Count	100	100	200
		% within GENDER	100,0%	100,0%	100,0%

When we examined the geographical regions of students who joined the study, 51% of them came from Marmara Region (102 people). At least number of student was observed in abroad category. Geographical regions of students was shown at Table-4.

Table-4: Students' numbers and rates according to geographical regions which they came from.

Geographical Region	**Number and Rate**
Mediterranean Sea Region	13 (6,5%)
Black Sea Region	31 (15,5%)
East of Anatolia Region	16 (8%)
Central Anatolia Region	9 (4,5%)
South-East of Anatolia Region	11 (5,5%)
Aegean Region	10 (5%)
Marmara Region	102 (51%)
Abroad	8 (4%)

DISCUSSION AND CONCLUSION

Metaphor is a process of constituting a connection between the information in mind which gives permission for perception of a subject from the point of view of another subject (Erarslan, 2011; Gomleksiz, 2013). According to Lakoff and Johnson (2005) who are known with their studies on Metaphorical Thought, "Metaphor is a process of understanding and experiencing a thing from the point of view of another thing and expressing a material of thinking with another shape of human comprehension (Aydın et al., 2010; Lakoff, 2005). Metaphor is not only a verbal figure but in the same time, it is a figure of thinking." In the traditional social psychology, metaphor is a good way to express the thoughts which have not yet been put in words (Aktekin, 2010; Kramsch, 2003). Three basic and prerequisite items have been defined for the metaphor definition to be realized: 1) The subject of the metaphor, 2) The source of the metaphor and 3) The features which are thought to be attributed

from the source of the metaphor to the subject of the metaphor (Aybek, 2012; Forceville, 2002). When the metaphor "Histology resembles visual arts" is evaluated according to this classification, the source of the histology metaphor is the art and the subject of the metaphor is the visual quality of it. It has been accentuated that; just as the comments made in visual arts without knowing the basic knowledge related to that art stand very superficial, everything which can be said about the medical science without knowing the basic knowledge like histology shall stand superficial.

When the metaphor studies related to education are examined, in undergraduate educations; we have encountered metaphorical studies made on science teaching, computer teaching, sociology, culture, etc. As stated in those studies, people, with only a single metaphor and very meaningfully, can express their subconscious feelings about a fact which they cannot directly say or express. Also in our study, when metaphors related to histology were asked, we clearly determined the thoughts of students with metaphors like building drawings, visual arts and puzzles, etc.

Metaphor researches which are made about healthcare field, generally related with working conditions (Krieger, 2011). However there are some metaphor studies which are not about the working conditions as Aybek et.al. from Pamukkale University, who made metaphor researches with medical faculty students' opinions about doctor notion. Our study is about histology which is a part of medical education, not about the working conditions as Aybek et al.

In this study, when we examined the metaphors which were produced by students, 12 students (6%) in Disappear/Unknown situation, 25 students (12.5%) in Hopeless struggle, 28 students (14%) in Pain & Pleasure, 75 students in Explore/Discover, 23 students (11.5%) in Guidance& An investment in knowledge, 10 students (5%) in Finding a solution to a problem, 20 students (10%) in Pain, and 7 students(3.5%) in Flown-away-feeling & unhealthy pleasure groups were found.

As we evaluate the students' purpose of choosing the faculty of medicine, 28 of them (14%) chose the faculty of medicine according to family's demand, 2 of them (1%) chose the faculty of medicine for dwelling their family near the faculty, 134 of them (67%) chose the faculty of medicine for self-demand, and 36 of them (18%) chose for job guarantee.

The most student accumulation was found in discovery&expose category. These results suggest that students come to the faculty of medicine willingly, they have dominantly requests to help people and discover new things. When we evaluate the purpose of choosing the faculty of medicine, the extreme number of student who choose the faculty of medicine willingly, supports our opinion.

Besides, the mission of Kocaeli University Faculty of Medicine is to raise competent medical doctors who have the ability of giving community-based health service and who have global values, make researches of universal scientific value, regarding the requiries of the region and the country, supply high-quality health service, regarding scientific development and principles of qualified medicine, develop community health and be pioneer in solving environmental problems, as having the responsibility of a public organization (http://tip.kocaeli.edu.tr/int/index.php).

When we evaluate the categories in which the doctor candidates produced metaphors about the histology notion, the most metaphor-contained categories coincide with the medical faculty mission.

As we categorized the students according to their geographical region; 13 of them (6,5%) came from Mediterranean Sea Region, 31 of them (15,5%) came from Black Sea Region, 16 of them (8%) came from East of Anatolia Region, 9 of them (4,5%) came from Central Anatolia Region,11 of them (5,5%) came from South-east of Anatolia Region, 10 of them (5%) came from Aegean Region, 102 of them (51%) came from Marmara Region and 8 of them (4%) came from abroad.

As it is understood from the results, since the Histology lesson is based on visual quality and it is elaborate, a variety of metaphors has occurred because of the difficulties which the students have in those lessons. Starting from this point of view, we believe that the medical students should be informed a little more before they meet with histology. The abilities of the students to produce knowledge and to conceptualize and to express can be improved by ensuring them to produce metaphors (Erarslan, 2011). Thus, for the sake of adding to their education to become competent physicians who can improve themselves, metaphor studies should be increased.

For the strength of the base of the histology lesson, we should improve the teach ways of the theoretical and the practical lessons according to the metaphors which the students shall produce.

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METAPHORS OF MEDICAL STUDENTS ABOUT EMBRYOLOGY EDUCATION

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ABSTRACT
Metaphor can be defined as characterization of a phenomenon in familiar terms. Metaphor researches were used in training studies especially. In our study we aim to get information about the embryology phenomenon of medical students, and to determine the influencing factors of this phenomenon with their reasons.
Our study was composed of participation of 100 students from Abant Izzet Baysal University Faculty of Medicine Class II grader in the 2014- 2015 academic year. The result of evaluating the questionnaires 100 (30 male, 70 female) students' metaphors were taken into account. The data were evaluated according to age, gender, the place where they stay during the educational life and the reason for selecting the faculty of medicine. In order to detect metaphors the forms were given to the students as "Embryology is similar/like .....…, because ……" and requested to complete the sentence with the reasons. The number and percentage of produced metaphors were evaluated. The results of the questionnaire show that there are 75 metaphors used by the students and the metaphors are classified into 8 different categories after the evaluation. According to the findings of the study, the mostly produced metaphors were life, seed, miracle, etc. Consequently, metaphors can be used as a powerful research tool in the understanding and explanation of personal perceptions of embryology education among the students of medicine faculty. Therefore, metaphors help us to develop of educational methods and devices for embryology lessons.
Keywords: Metaphor, embryology, medicine students

INTRODUCTION

Metaphor, coming from Greek word "metaphora", composed of meta: among and pherin: carrying, means "carrying over" (Lakoff and Johnson, 2010). Metaphors are used to make more effective means and to express an opinion on another concept. Metaphor can be defined as a concept characterized by the familiar terms. Metaphors are not only figures of speech, but also create an essential mechanism of the mind that allows modelling and reification of prior experience. Metaphors can be used as powerful educative tools (Perry and Cooper, 2001; Zhao, Coombs, and Zhao, 2010). People with using metaphors, can embody a concept or event, and be able to express their thoughts and feelings more clearly (Aktekin, 2010). Using a metaphor helps people for what they actually tell (Gluksberg, 2003). There is a unity and internal consistency of metaphors to provide understanding the hidden opinions. Metaphors can be stimulative and evocative to reveal the relationships that may not be understand from the direct questions (Leavy McSorley and Bote, 2007). Metaphors can be seen as important elements of thinking and talking about complex phenomena. With using metaphors and visual images, educators will have a deeper mentality about their roles, responsibilities, nature of education and teacher-student relations. There are many useful metaphors. Looking upon the problems about education as a mother, father, gardener or a doctor, advices about how should a person progress. Metaphors help teachers which want to develop their teaching strategies (Çelikten, 2006). Metaphors are used in many areas of education. There are various complex dimensions of the educational system. Metaphors in this system has an important place in the evaluation of these complex dimensions (Yılmaz, 2007). Metaphor studies mostly found in educational areas like teaching. However, there is a few research about the medical areas. And the concept of metaphor

study of the embryology education could not be found in the literature. There are many arguments about the quality of medical education and educational methods all over the world (http://tdkterim.gov.tr/; Gluksberg 2003). In Mersin University, at Faculty of Medicine, at Department of Anatomy, Prof. Dr. Mustafa Aktekin have been used metaphor method (Çolak S, 2014; Kalyoncu, 2012; Gültekin, 2013). In basic medical education, embryology course has a very important place. The knowledge of human embryology is related with clinical medicine and necessary to medical students, gynecologists, pediatric surgeons and pediatrists. Therefore, students must be trained well in the subjects given in this course. The level of learning the knowledge of this course is very important for the further studies and courses of students. Based on these informations, the aim of this study is to determine the feelings and opinions of medical students about embryology course with using metaphor method.

THE STUDY

Our study is confirmed by second year of 100 Medicine Faculty students from Abant Izzet Baysal University in academic year of 2014-2015. The study is based on voluntary participation. The age of the participants was between 18 to 28 years old with the majority (n=83, or 83 percent) in the 19-21 age bracket. While evaluating the surveys, metaphors of 100 students (30 male, 70 female) were taken into account. There were considerably more female (n=70, or 70 percent) than male (n=3, or 30 percent) students among the participations. Data were evaluated according to the age, gender, the place where they stay during the educational life, the geographical region where he/she comes from and the reason why he/she prefer medicine faculty. To identify the metaphors we gave forms to the students as like "Embryology is similar/like to…….. because,……" and we asked to complete the sentences with their reasons. The number and the percentages of the metaphors were calculated. As a result of the survey, 75 metaphors were produced by the students and these metaphors were evaluated with their reasons and classified into 8 different categories (Aytekin, 2010). Some metaphors were categorized easily. The reasons of the metaphors were helpful for evaluation of hardly categorized metaphors. The categories we used were; dissipation-unknown, hopeless struggle, bitter and sweet, discovery-detection, lead-intelligence, scope out, distress and feeling of flying-unhealthy pleasure. The collected questionnaires formed data source of study. The number and the percentage of the categories were calculated and statistical analysis of data carried out using SPSS program.

FINDINGS

The evaluations of the categories were concretized by two people from different fields and the categories became definite. Metaphors were divided into 8 different categories and the number of the students are given in Table 1 with percentages and categories of metaphors. The majority of the metaphors gathered in the category of "Discovery-Detection" while the least metaphor gathered in the category of "Feeling of flying/Unhealthy pleasure". The mostly produced items of "Discovery-Detection" metaphor were life, seed, miracle, etc.

The Metaphor Categories	**Frequency (F)**	**Percentage (%)**
Dissipation-Unknown	10	10%
Hopeless struggle	15	15%
Bitter and Sweet	12	12%
Discovery-Detection	28	28%
Lead-Intelligence	9	9%
Scope out	9	9%
Distress	11	11%
Feeling of flying-Unhealthy pleasure	6	6%

Table 1: Number and percentages of the metaphor categories about embryology education.

According to the results of the surveys' evaluation, 71% of the students chose "with my own request" at first option about preferring medicine faculty and 20% of them chose "with my family request" at second while "because of my family living here/nearby" option became at last with 0%. Reasons of choosing the medicine faculty are given in Table-2.

Reasons about choosing the medical faculty	**Frequency (F)**	**Percentage (%)**
My family request	20	20%
My family living here/nearby	0	0%
My own request	71	71%
Job guarantee	9	9%

Table-2: Number and percentages of the reasons about choosing medical faculty by the students.

If we evaluated the metaphors according to the gender, 30% of the female students and 23,3% of the male students saw the embryology lesson as explore and contributing to reveal. The three categories where the answers of the male students were

Methaphors		Gender		Total
		Male	Female	
Dissipation-Unknown	Count	2	8	10
	% within metaphors	20,0%	80,0%	100,0%
	% within gender	6,7%	11,4%	10,0%
	% of Total	2,0%	8,0%	10,0%
Hopeless struggle	Count	6	9	15
	% within metaphors	40,0%	60,0%	100,0%
	% within gender	20,0%	12,9%	15,0%
	% of Total	6,0%	9,0%	15,0%
Bitter and Sweet	Count	2	10	12
	% within metaphors	16,7%	83,3%	100,0%
	% within gender	6,7%	14,3%	12,0%
	% of Total	2,0%	10,0%	12,0%
Discovery-Detection	Count	7	21	28
	% within metaphors	25,0%	75,0%	100,0%
	% within gender	23,3%	30,0%	28,0%
	% of Total	7,0%	21,0%	28,0%
Lead-Intelligence	Count	2	7	9
	% within metaphors	22,2%	77,8%	100,0%
	% within gender	6,7%	10,0%	9,0%
	% of Total	2,0%	7,0%	9,0%
Scope out	Count	4	5	9
	% within metaphors	44,4%	55,6%	100,0%
	% within gender	13,3%	7,1%	9,0%
	% of Total	4,0%	5,0%	9,0%
Distress	Count	3	8	11
	% within metaphors	27,3%	72,7%	100,0%
	% within gender	10,0%	11,4%	11,0%
	% of Total	3,0%	8,0%	11,0%
Feeling of flying-Unhealthy pleasure	Count	4	2	6
	% within metaphors	66,7%	33,3%	100,0%
	% within gender	13,3%	2,9%	6,0%
	% of Total	4,0%	2,0%	6,0%
Total	Count	30	70	100
	% within metaphors	30,0%	70,0%	100,0%
	% within gender	100,0%	100,0%	100,0%
	% of Total	30,0%	70,0%	100,0%

Table-3: Distribution of number and percentages of the metaphor categories by gender

observed to be less is “Dissipation-Unknown, Bitter and Sweet and Lead-Intelligence” categories with a percentage 6,7 % at the same time while the category where the answers of the female students were less is “Feeling of flying-Unhealthy pleasure” category with a percentage 2,9. The distribution of the metaphor categories by gender is shown in Table-3

CONCLUSIONS

The essence of the metaphors is using something to explain a phenomenon. Students can use their traits and forms of their phrases to evolve new understanding and concepts. Educators can use the metaphors needed to reflect ideas about their lessons (Boostrom, R.1998). Metaphor is not just a figure mentioned; it is also a figure of thought (Kramsch C. 2003). As one of the most important perception tool, investigating the metaphors is important because of uncover the underlying of beliefs and assumptions about students and education and the roles made by educators

in the class (Ben-Peretz, M., Mendelson, N., Kron, F.W. 2003). When we examine the metaphor studies about education, in bachelor degrees most of the studies are seen in departments of science teacher, computer teacher and formation education. As it is mentioned, in this studies also showed that people express their subconscious emotions and any phenomenon which they can not say directly, with metaphors in significant.

The first aim of this study was to explore the dimensions of the students' perceptions of embriyology education. In our study we want metaphors about embryology lesson from medicine faculty students and they explain the embryology with life, seed and miracle. Embryology lesson requires visual, three dimentional thinking and because of its detail cause variety in metaphors. Therefore, we think that medicine faculty students should be informed more before they face with embriyology lesson. Clinical practice should be brought to the laboratory course, embryology course shoud be repeated at the beginning of clinical training and students should be encouraged to participate in scientific laboratory studies. AlsoThere is need to review the embriyology course content. Knowledge production with conceptualization and expression skills of the students can be developed by providing them to produce metaphors (Aybek H, 2012). Making this type of researches repeatly in certain periods to medicine faculty students, and disseminating in all faculties at the country will be a directive for medical education. Using various of metaphors will be useful in medical education in next studies. Metaphor studies are important in order to contribute to attain the candidate of doctors. In conclution, to teaching the concepts more concretely in embryology lesson, metaphors provide positive addition to remove the learn difficulties in medicine faculty students.

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METHODOLOGICAL NOTE ON EXPERIMENTS IN ECONOMIC EDUCATION

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ABSTRACT
Field experiments as opposed to the laboratory experiments take place in natural setting. As a result, generalization of results should be much easier depending on type of the field experiment. On the other hand, the cost of field experiment might be its low internal validity, where the control over variables might be weaker. This might lead to the presence of confounding variables, affecting consequently dependent variables. Recently, rising interest in economically educated public by many institutions has led many researchers to test possible effects of economic education on behaviour of individuals on real market. This paper will try to answer to what extent is the laboratory experiment adequate as a good instrument for testing effects of economic education on achievement of optimum outcomes in a comparison with field experiment. The paper concludes that both methods should be seen as complements.

Keywords: Field Experiment, Laboratory Experiment, Internal Validity, External Validity

JEL classification: B4, I20, Z00

INTRODUCTION

Experimental economics is relatively new discipline, which is more frequently used in order to address important economic phenomena like testing effects of economics education. Common consideration across social sciences is the extent to which results might be generalized to the field. This is also important issue for experimental research findings, with a common question whether behavior inside laboratory is a good approximation of the development in the real world. On the other hand, researchers have at their disposal field experiments as another form of experimental testing outside the laboratory. Methodological studies are typically less attentive to external validity issue, which is however especially challenge in case of experimental economics. This paper aims to tackle the most important methodological issues related to external validity and compares to what extent is the laboratory experimentation a good instrument for testing effects of economic education in a comparison with field experiment. The paper concludes that both instruments should be seen rather as complements.

Internal and External Validity Issues

Laboratory experiment allows to control environment, in which random allocation of subject sample to controlled or experimental group allows for a direct identification of examined phenomena, (Howitt & Cramer, 2008). Standardized experimental procedures thereby contribute to more reliable outcomes with a high internal validity. Additionally, the effect of confounding variables is significantly reduced. However, frequently mentioned critique is that an experiment does not reflect real world and therefore its utilization for economics is rather weak. Several experimental economists deal with external validity issue and argue that there is no need for experiments to be realistic as long as they try to test and compare theories, (Plott, 1982), or that the setting of realistic assumptions is reliant on the type of the experiment, whether theoretical experiment or test-bed experiment is the case, Schramm (2005). Additionally, Guala (2005) notes that laboratory simplification of reality may paradoxically cope with problems of scale, where some phenomena are too big or too small to be examined in their natural fields. Furthermore, also right amount of variation with one varying factor ceteris paribus is advantage of laboratory environment as opposed to natural environment, where we simply pretend that certain factors do not change. Additional argument is that laboratory experimentation, as a simplification of reality, is in line with economic modelling. Well known knowledge is that a replication of complexities of the real world is rather counterproductive and ability to examine given phenomena significantly declines, (Friedman, Sunder, 1994).

Field experiments represent alternative option to the laboratory experimentation. The so called natural field experiment, where subjects don´t know that they are part of an experiment, represents the purest form for estimation of the treatment effect of interest. Thereby, Hawthorne´s effect, (where subjects know that they are being observed by experimenter), might be significantly eliminated. Furthermore, natural setting of field experiment allows to weaken partially common criticism of low external validity present in laboratory experiment. Thereby, outcomes of field experiment are easier to generalize. On the other hand this may lead to presence of confounding variables, threatening thereby internal validity.

The next section will discuss to what extent is a generalization of an experimental knowledge desirable and how a clear delineation of functions of laboratory experiment may strengthen validity of experimental outcomes.

Delineation of External Validity

Definitions of external validity vary substantially and many experimental economists tend to focus on other methodological issues, typically downplaying relevance of external validity as suggested by Plott (1987, 1999) despite its significance. Generally, simple notion of external validity refers to the extent to which results might be generalized, but according to Lucas, (2003) following definition should briefly outline its substance:

"External validity refers to whether the results of a study can be legitimately generalized to some specified broader population", (McTavish and Loether 2002, p.133)

"External validity concerns the extent to which causal inferences…can be generalized to other times, settings, or groups of people." (Monette, Sullivan, and DeJong 2002, p.236)

The other possibility to clarify concept of external validity is to use a method of contrast with respect to internal validity. Internal validity (in line with tradition of deductive reasoning and modeling in economics) is the case when some particular cause effect relation, together with interaction of certain factors, has been properly secured by the experimenter. More technically, results of an experiment E are internally valid if the experimenter attributes the resulting effect Y to a set of factors X "and X is really a cause of Y in E. On the other hand, external validity is the case if X causes Y not only in E, but also in a set of other circumstances F, G, H…", (Guala, 2005, p.142). This definition is however less demanding from the point of view of Levitt and List (2007a) and Kessler, Vesterlund, (2010). According to them, this definition only refers to the qualitative relationship between two variables, which holds only across similar environments. In contrast, quantitative concept of external validity requires that the relationship between two variables in one design should be applicable also in other comparable settings. Most experimental studies lack this higher standard feature, which should capture the world at large.

To sum it up, external validity in view of Campbell (1979) involves generalizing to (particular target persons, settings and times) and across (types of persons, settings and times).

If we are to evaluate adequacy of field experiment or laboratory experiment, it depends on whether internal or external validity is preferable. In this sense we slightly face trade-off of ability to generalize to wider population versus ability to establish relevant causal effect with isolation of confounding variables.

Parallelism and Generalization

Parallelism, as one of important precepts outlined by Smith (1982), is sufficient to transfer experimental outputs to the other environments: "Propositions about the behaviour of individuals and the performance of institutions that have been tested in the laboratory microeconomies apply also to non-laboratory economies where similar ceteris paribus conditions hold."(Smith 1982, p.936).

What are then limits of this precept towards generalization of experimental knowledge into the field? Question arises to what extent the laboratory experiment should mirror real world versus theoretical model. On the one hand, too much complexity of a field built into the laboratory experiment may threaten to distinguish causes and effects. On the other hand, too much adherence towards assumptions of a formal model may be met with the problem of artificiality. Consequent loss of connection with real world development is inevitable as emphasized by radical localism, (Guala 2002). Notwithstanding, we may question adequacy of radical localism, whose view is that experimental outcomes are not applicable outside the walls of the laboratory. As Lucas (2003) notes, it is impossible to measure objectively many concepts in the social science and empirical investigation is conducted in concrete settings defined by a time and place (Cohen 1980), while the aim of the experiment is to produce general knowledge. As a result, it is impossible to produce general knowledge in the absence of theory. In other words, highly realistic experimental design may increase informational value of output, but it is impossible to generalize knowledge to new settings without theory. Additionally, without proper theoretical framework, internal validity of experiment might be weaker and therefore causality under the test non-existent.

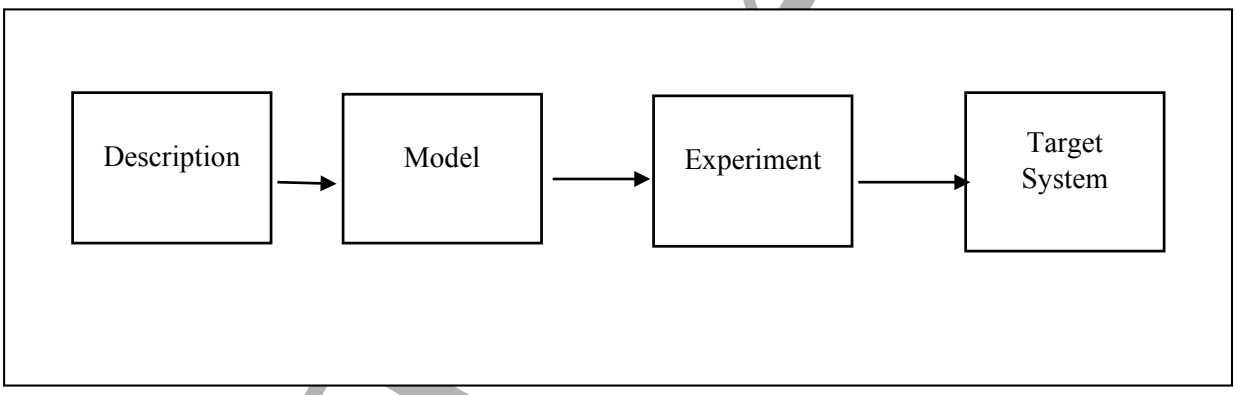
One of the solutions how to increase external validity of experimental results might be to turn to field experiments in which external validity is secured more due to the connection with real world. Its undisputable advantage might be summarized accurately by the following statement:
„Relative to traditional empirical economics, field experiments provide an advantage by creating exogenous variation in the variables of interest, allowing us to establish causality rather than mere correlation. Relative to a laboratory experiment, a field experiment gives up some of the control that a laboratory experimenter may have over her environment in exchange for increased realism.," (List, Reiley, 2008, p.1). On the other hand field experiments may contain too many confounding factors, which is impossible to eliminate in the real world, threatening thereby internal validity.

Experiments and mediators

Firstly, experiments are understood as mediators towards long path leading from the formulation of hypotheses about the world towards their final application. If the role of experiments with respect to mediators will be closely clarified, it will enable to understand its relationship with respect to external validity and identify potential weaknesses.

The following Figure defines more closely the role of experiments in scientific research. The target system in economics is typically real world entity, difficult to control fully by economists. The closer examination of a target might be however done via experiment. Firstly, model is used to deliver a theoretical idea about the economy. Consequently, a concrete hypothesis is formulated based on the model, with possible considerations what would happen if some changes were made to a key variable. However, the hypothesis is not tested in direct relation to a target, but experiment serves as a method for verification of a given phenomenon. The role of experiments is two-folded. Firstly, they may replace models altogether or they may complement them if they seem too abstract or incomplete. It is important to note that experiments are only mediators and are not targets themselves. They are just a mid-step, which is supposed to help bridge the gap between ideas and domain of application. Since experiments are consider as a substitute or complement to models we may preconceive that they work in many ways like models. This is also emphasized by Guala (2005) who states that changing initial assumptions of model with consequent observation what will follow from these changes is the same, regardless of whether it is done by theorists or experimenters in the lab. The crucial difference between model and simulation of experiments lies in its relationship to target. If we consider the relation experiment versus target system, it is based on deep and material level, whereas the relationship between simulation and target system is based on formality and abstraction. This suggests that experiment should possess more of external validity than model, however not too much in order to substitute for target system and not too much to lose all theoretical background, which is important for application of acquired general knowledge in different settings.

Fig. 1 – The route from theoretical hypothesis to the real world



Source: Guala, (2005).

So far the discussion above outlined an experiment as a mediator. The role of mediator within the experiment was not specified so far. Mediator basically represents the way through which the experimental treatment affects the outcome, (Salganik, 2013). For instance, according to Gerber and Green (2012), vitamin C represents the mediator in the relationship between limes and scurvy, however it took long time to researchers to discover the responsible mediator which actually prevents scurvy, (Carpenter, 1986). Basically it provides us with information why the observed effect happened. However, it is difficult sometimes to isolate given mediator and thereby identify "why". As a result, the explanatory power of experiment might be limited in terms of validity. When experimenters establish causal chain with respect to mediator, they have to cope with its measurability and manipulation, (Spencer, 2005). In most experiments it is hard to experimentally manipulate the mediator. As a result experimenters mostly apply "measurement-of-mediation" design. In this case experimenters the mediator is simply measured by conducting survey questionnaires.

On the other hand, if we are talking about natural field experiments, setting up experimental design with isolation of confounding variables is out of question. So we may ask what distinguishes field experiments as mediators from laboratory experiments. Crucial difference with respect to laboratory experiments lies according to Salganik (2014) in the possibility to affect the mediator inside the field experiment. Apparently, both manipulation and measurement of the mediator is difficult in the field. Measurement of the mediator is not doable due to

impossibility to conduct survey with participants. Also manipulation of the mediator is impossible out of the laboratory. As an example might serve experiment of Word et al (1974), where a placebo pill with different labels was used to manipulate tension among participants, which would be too difficult to apply in a field with so many participants.

Aforementioned discussion suggests that both field experiment and laboratory experiment have its drawbacks. The former with respect to internal validity since it is impossible to measure and manipulate the mediator, and the latter with respect to external validity due to its artificial lab nature. As a result, it is advisable to see both methods as complementary.

Type of an Experiment

Many methodological studies suggest that the level of external validity present in an experimental design depends on the type of experiment. For instance, Kessler, Vesterlund (2010) highlight that external validity is more important for experiments aimed to search for empirical regularities compared to a theory testing experiments. Similarly, Smith (1982) indirectly states that more attention regarding parallelism should be paid to experiments that do not aim at testing theories. This view is also supported by Schramm (2005), where the external validity required depends on the goal of the experiment. Compared to the previous studies he provides thorough analysis of experiments, according to the intensity of external validity needed. Theory testing experiments, in which category most of the experiments fall according to him (after rough categorization of 69 papers, where 33 papers fall in category testing theories), do not require external validity at such level, like other types of experiments. In this case internal validity is preferable to external, mainly because of ambitions not going beyond the walls of laboratory in terms of generalization. Fehr and Falk (2003) also argue that for the sort of experiments, which aim to test a theory or find a failure, evidence is important exactly for theoretical framework, but not for a closer understanding of the real world. Theory stress tests and experiments searching for empirical regularities are more important in terms of external validity. Finally, category of experiments aimed to advise policy makers is highly demanding in terms of external validity. This suggests that validity of laboratory outputs is matter of separate evaluation of each experiment supporting thereby Smith´s view, (Smith 1985) that external validity issue is rather empirical thing and it is up to the critics to falsify parallelism of any specific experimental output.

Also in case of field experiment the type of experiment denotes its closeness to more realistic assumptions. According to Harrison and List (2004, p.5) there are six factors, which determine the field context: the nature of the subject pool, the nature of the information individual bring to task, the nature of commodity, the nature of the task or trading rules applied, the nature of the stakes and the environment in which the subjects operate." Artefactual experiment represents sort of laboratory experiment, which uses non-standard subject pool, particularly subjects from the market of interest. According to Levitt and List (2007b) this could reduce bias, which may arise in the lab due to the sample, which differs in systematic ways from the field. As a result, outcomes might be more generalizable. Furthermore, depending on experimental design, one can obtain divergent experimental outcomes. Example might be an experiment, which requires more abstract and cognitively challenging task, incompatible with market experience of professionals. Naturally, students outperform professionals in this case, which was proved by studies like Burns (1985) or Carpenter and Seki (2005). This confirms that external validity required is derived from type of experiment, (whether theoretical or more practical).

On the other hand, market experience matters in some sort of experiments and non-standard sample is highly desirable in this case. As an example might serve laboratory experiment of Palacios-Huerta and Volij (2006), where male professional soccer players are in line with minmax model, whereas results of students are much further from the theory.

Secondly, framed field experiment contains realistic component of the commodity, task, stakes or information drawn from the real market of interest. As Levitt and List (2007b) point out typically the stakes in the laboratory experiment are much lower than in the real word environment. As a result, incentives of subjects and their consequent strategy might be affected. On the other hand, cognitive costs in the laboratory might be higher or lower than in the real world. For instance if we consider students, who are supposed to solve highly abstract task in the laboratory, cognitive costs for solving such a task might be much higher than is actually worth it as opposed to the field. Furthermore, if we compare it with players in the field, those have more at stake, more resources at their disposal and are not restricted by short time interval like in an experiment. Moreover, they can discuss possible strategies.

Lastly, natural field of experiment occurs in natural environment, where subjects do not know that they are under scrutiny. This sort of experiment is combination of experimental method with real data. One interesting feature of natural field experiment is longer time horizon. Laboratory experiments are usually designed for short time period in hours as opposed to field. There might be significant differences in outcomes depending on length of time horizon. Lewitt and List (2007b) mention as an example study of Gneezy and List (2006), where hot decision making, typical for short run period, might significantly deviate from long run cold decision making. This is demonstrated on gift exchange experiment, in which workers effort in the first hours of job in gift treatment is substantially higher than in the non-gift treatment, however difference ceases out after few hours.

Even if we are talking about the field experiment, the same conditions hold as in case of laboratory experiment about proportion of required external and internal validity. Although basically requirements are posed on higher external validity in case of laboratory experiment and higher internal validity in case of field experiment, the final proportion is primarily dependent on type of experiment.

Experiments and its generalization "to" and "across"

As already noted above, external validity differs with respect to generalization "to" and "across" population, settings and times. It is crucial to distinguish between these two aspects, since it puts different requirements on the nature of external validity.

"Generalizing to" a larger population is consistent with a view of qualitative characteristic of external validity, where generalization is expected to be applied. When "generalizing to" a larger population, it is believed by opponents that experiments using samples of undergraduate students (so-called non-probability sample) suffer from low external validity, because it is impossible to apply findings to a larger population, (so called probability sample), (Kessler, Versterlund, 2010). Few arguments speak against this statement. Coming back to discussion related to "type of the experiment", mostly experiments tend to test theoretical relationships. If the purpose is to test theoretical principle, it should apply not only to non-probability, but also to probability sample. Moreover, probability population exhibits characteristics of more homogenous population as noted by Lucas (2003), thereby reducing variance in experimental measures and probability of false results. In this case low external validity is out of the consideration. Secondly, some theories don´t dispose a larger population, to which experimenters are supposed to generalize, since it makes proposition unbounded by the specifics of population parameters. Lastly, the most important argument mentioned in the beginning is about impossibility to generalize knowledge to other setting without proper theoretical backgrounds.

If on the other hand generalization is made across the population, different requirements about external validity hold. Generalizing across population is consistent with more demanding view of quantitative characteristic of external validity. Neither the choice of probability population nor the choice of non-probability population might help to generalize across populations, since finding from a sample itself have no informational value regarding other populations. As Lucas (2003) points out there is no reason to believe that survey with a sample of adult Americans could generalize across population better than experiment comprised of female freshman when examining whether a higher status is related to higher self-efficacy. No methodological procedures allow for generalization across population.

The only solution is to generalize via theory. If we consider generalization across the settings at first sight it may seem that the test in more natural environment is more generalizable than a test in more artificial environment. If we consider example of field experiment aimed to study interaction in class of high-school students, it might be generalizable to other sort liberal arts high school students, which is however of no significance. On the other hand, there is no reason to believe that these results from field might be generalized to a group of friends or family, (Lucas 2003). This suggests that it is not possible to generalize beyond the particular populations not depending on whether the laboratory experiment or field experiment is the case. As a result, the level of external validity is comparable. The only option to generalize across settings is to find connection via theoretical backgrounds again.

Paradoxically, in case of generalization to and across, the artificiality is helpful tool which may strengthen not only causation of examined phenomena in terms of internal validity, but also contributes to more probable generalization trough eliminating irrelevant variables, as noted by Greenwood, (1982).

Economic Education Experiments

Several field experiment studies tried to verify the impact of economic education on individual behavior, among them Bernheim and Kotlikoff (2001), Carpena et al. (2011), mostly leading to the conclusion that the provision of economic education improves the basic decision-making of consumers. A few studies were conducted with respect to the effect of economic education on a firm's decision-making and outcomes like Karlan and Valdivia (2010), Bruhn and Zia (2011) or Drexler, Fischer, Schoar (2011), generally concluding that the economic training on firm-

level contributes to significant improvement in consequent economic outcomes of entrepreneurs. However, there are also field experiments which do not confirm significant effect of educatory programs on economic literacy of high school student sample like Becchetti et al (2013). On the other hand, Luhrmann (2012) finds positive effect of training programs on financial attitudes of students such as saving propensity, etc.

Also laboratory experiments are used to identify possible effects of economic education. For instance, Bakshi (2009) evaluates the performance of economically educated subjects with respect to their coordination in the economy with multiple Pareto-ranked equilibria. However, the evidence is not strong enough that individuals with economic training have better foresight. A more frequent convergence of subjects towards inefficient equilibrium over time is observed. Burke, Manz (2011), find trough laboratory experiment that people endowed with higher levels of economic education are able to formulate inflation expectations based on better set of chosen information. Meta-analysis of Fernandes et al (2014) covering 168 papers, examines potential effect of economic education on achievement of optimum outcomes with conclusion that its role is rather narrowed, which holds even for lab-experimental studies.

This suggests that the effect of economic education is not straightforward and validity of experimental outcomes is exposed to several factors.

In line with previous discussion, it appears that manipulation and measurement of mediator in case of the laboratory experiment is possible. Let´s suppose we want to measure the effect of introduced educatory program on achievement of optimum outcomes by individuals. The mediator in between these two variables is acquired economic literacy. The laboratory provides unique opportunity how to measure or manipulate this mediator. The first possibility is to let the mediator be fixed and just employ different samples, either students or professionals and observe potential effects of economic education on optimum outcomes trough this mediator, accompanied by conducted question survey. The second possibility is to affect mediator trough some educational procedure, which ensures that subjects are endowed by appropriate economic knowledge. As a result, we can observe behaviour of subjects in ex ante experiment, in which they are not endowed by economic knowledge and in ex post experiment, in which they are endowed by economic knowledge. As noted already above, there is rather limited possibility to measure and manipulate mediator in case of field experiment. In this sense, the lab offers unique opportunity and consequent comparison with field experiment in real world environment. On the other hand, experimental strategy in the laboratory is solely in hands of experimenter, who exogenously induces the roles as List (2011) claims. If applied on economic education, some individuals in the laboratory experiment are given economic knowledge trough educational procedure, others not. In contrast, subjects in the field are endogenously selected by the market. For instance in List (2011), dealers in the sport cards show field experiment are endowed with intense trading experience. Their ability to think in economic terms is naturally acquired by experience on the market. This ensures realistic setting of experiment, which compensates for possible drawback in the laboratory.

Secondly, if we are to talk about the type of experiment, it seems that students sample is not always appropriate for testing effects of economic education. As a supporting argument might serve meta-analysis of Frecchete (2011), which claims that students mostly exhibit better performance with respect to highly abstract tasks. On the other hand, they are lagging behind in experiments, which require advanced market experience. In our case it implies, that student sample is mostly adequate in cases of highly theoretical laboratory experiments, whereas it loses in field experiments which require some advanced knowledge. In this case students´ skills in the field market converge to skills of the least experienced subjects as claimed by Lewitt and List (2007b). Still it is worth to say that it might be difficult to examine some highly theoretical phenomena in the field due to inability to get the data. Thus, laboratory offers unique opportunity how to test some highly abstract economic education models, (for instance testing effects of economic education on subjects who suffer from money illusion and their ability to see through the veil of nominal values, like in case of experiment of Bakshi (2009)).

Thirdly, if we talk about ability to generalize and apply Lewitt and List (2007b) study on our case with economic education, we may claim that the laboratory environment enables us to identify what variables may potentially influence the level of economic literacy. On the other hand, it is impossible to identify how the level of economic literacy might affect outcomes on particular market. As a result, the main value added of laboratory experiments could be seen in their ability to artificially identify factors affecting the level of economic literacy and in simulation of hypothetical cases, which may possibly happen.

Both field experiments and laboratory experiments have its advantages and drawbacks as we can see from previous discussion. This suggests rather complementary role of field and laboratory experiment.

Thereby we may observe recently growth of studies, which try to combine both approaches (field and laboratory experiments), strengthening thereby validity of experimental outcomes.

For instance, Jakiela et al (2010) combine data from laboratory and field experiment to examine the causal impact of greater human capital in terms of education on respect for acquired property rights. Direct impact of educatory

programs on individual outcomes is proved by both methods. This suggests that combined approach of lab and field is highly promisable and both methods should be rather seen as complements in research. Brugiavini et al (2014) study the effect of acquired economic education on financial literacy and consequent investment attitudes. The study applies also combination of laboratory and field experimental approach, which confirms examined effect.
As a result it seems that recent development goes in a direction, where the role of field and laboratory experiment is considered as complementary in line with Lewitt and List (2009).

CONCLUSION

The aim of this paper was to evaluate to what extent is the laboratory experiment adequate as a good instrument for testing effects of economic education on achievement of optimum outcomes in a comparison with field experiment.
Firstly, various definitions of external validity were outlined. We argue that the level of external validity primarily depends on the way of delineation of the laboratory experiment and field experiment and has to be considered also with respect to internal validity. Consequently, explanatory power of field and laboratory experiment was discussed in terms of generalization, generalization "to" and "across" and its role with respect to mediator. Additionally, type of experiment was mentioned as the crucial factor, which decides about the size of sufficient external validity.

Lastly, discussed problematic was applied on experiments, which examine potential effects of economic education. Feasibility of field and laboratory experiments was compared with respect to its ability to measure or manipulate the mediator, with respect to type of an experiment and exogenous or endogenous selection of the sample.

It appears that the laboratory provides unique opportunity how to measure or manipulate the mediator, in our case the level of economic education. In contrast this is almost impossible in the field. Also, it shows up that its artificiality might be helpful in order to identify factors affecting the level of economic literacy and simulate hypothetical phenomena. On the other hand, field experiments offer helpful hand in generalization of knowledge acquired in the laboratory.

To conclude, afore-mentioned discussion suggests that neither field, nor laboratory experiment is superior to the other and they should rather be seen as complements.

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MIDDLE SCHOOL STUDENTS' PERCEPTIONS ABOUT CONCEPTS OF "SPORTS" AND "MATHEMATICS": RELATIONSHIP OF SPORTS AND MATHEMATICS

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ABSTRACT
The purpose of this study is to analyze the perceptions of middle school students about "sports" and "mathematics" concepts and to show how the possible correlation between mathematics and sports is perceived by the students. For this purpose, the researchers developed a data collection tool entitled as "Sports and Mathematics (S&M)". This data collection tool consists of one yes-no question and 4 open-ended questions. Then, this developed data collection tool was applied to students who are studying at a public middle school in Kandıra, city of Kocaeli. In this sense, the study was carried out with 117 middle school students. While the data obtained from open-ended questions were analyzed with content analysis. In conclusion, it was appeared that middle school students define sport as health and entertainment and mathematics as intelligence and universality. In addition to this, it was determined that students think that there is a correlation between sports and mathematics. It was ascertained that the students defined this correlation as making calculations, geometry and numerical expressions.

Keywords: Sports, mathematics, perceptions of middle school students

INTRODUCTION

Human beings are moving creatures and they have to move. Thanks to sports, people who live in this necessity from the time of their existence perform the superior examples of their moving abilities and their movements. In this sense, the definition of sports from a historical perspective is as in the following; it is a disciplined and cooperative game style which raises the fighters and based on competition and racing (Erkal, 1978). Turkish Language Association defines sport as (TDK, 2015); all the actions performed individually or in groups according to certain rules for improving body and mind. In another definition, sport is defined as a physical activity based on competition which is performed in a limited time and space with special equipments for having a record (Ertan, 2012). In addition to this, sport is seen as the training instrument of body, soul and mind (Yazıcı, 2014).

It is known that sport directly effects the development of human body and brings some features together with it such as love, friendship, tolerance, peace, sincerity and perseverance. While sport supports the ensuring of peace and the development of international relationships, it also contributes to the protection of public health (Sunay, 1998). Besides, it can be said that it directly or indirectly contributes for the purpose of improving self-confidence, taking responsibilities, being creative, performance, health and social features (Grössing, 1991). Sport, as it fulfills the "movement" needs of individuals, can be preferred for reasons like playing games, having fun, socializing and gaining a statue (Ertan, 2012). Under the light of all these stated benefits, together with the New Age, sport entered schools first in Italy and later in French, Spain and Germany. It was particularly thought as one of the ways of raising more successful individuals with national conscious at schools. For this reason, it was highly supported (Erdemli, 1990; Fişek, 1983). At this point, sport was started to be expressed as Physical education at schools. The Law about implementing Physical Education lessons at schools legislated in the Boston state of United Stated of America in 1853. The law forced all children at primary schools to participate in a certain physical education process every day (Heper, 2012).

When it is considered in this sense, the priority of the sports performed both in and out of schools can be sometimes games, sometimes performance, sometimes health and sometimes the other purposes (Demirhan, 2003). Among the other purposes, it can be thought that sport may positively affect the perceptions of students towards other lessons. Besides, it is stated that establishing a connection between the benefits of physical education and the basic learning fields of the 21st century such as critical thinking, problem solving, information

analysis skills, is an essential necessity (Bailey, 2006). In addition to this, mathematics as another lesson which includes these basic learning fields is attracting attention. In this sense, sport, mathematics and analyzing the correlation between these two concepts are seen as important. Within the framework of this importance, when weekly timetable of primary schools (elementary and middle) in our country was analyzed, it was seen that there are Physical Education and Sport lesson for two hours per week for all the grades in middle schools (5^{th}, 6^{th}, 7^{th} and 8^{th} grades) and also Mathematics lesson for 5 hours per week (MEB, 2015). At this point, it was thought to analyze the perceptions of middle school students towards sports, mathematics and the correlation between these two concepts.

Within the scope of this perspective, when literature on this topic was analyzed, it was seen that there are studies about locomotors skills of pre-school children, body image perception and body satisfaction (Kerkez, 2004; Kerkez, Tutal & Akçınar, 2013), the body lives of students in the environments of physical education lessons (Koca, Güven, Bulgu & Demirhan, 2003), the factors affecting the achievement in physical education lessons (Yoncalık, 2009), the analysis of bodily/kinesthetic intelligences according to their cases of doing sports and by gender (Erturan & Göde, 2008), attitudes towards physical education and sport lesson (Erhan & Tamer, 2009; Hünük & Demirhan, 2003; Kangalgil, Hünük & Demirhan, 2006; Özer & Aktop, 2003; Şişko & Demirhan, 2002), the academic achievement and personal features of students who do sports regularly and who do not (Saygılı, Atay, Eraslan & Hekim, 2015). In their studies, Tarakçı and Kaplan (2006) analyzed the effect of social activities on the mathematics achievement in students with hearing impairments. Akyüz (2013) analyzed the correlation between mathematics achievement and the time allocated by students to extra-curricular activities However; it was noticed that the meaning of sport from the eyes of middle school students was not analyzed. In addition to this, any study about the perceptions of middle school students about the correlation between mathematics and sport was not recognized. For this reason, it was decided to focus on this point. So, it is thought that a gap in literature about this topic will be resolved. In this regard, the purpose of this study is to analyze the perceptions of middle school students about the concepts of "sport" and "mathematics" and to show the possible correlation between mathematics and sports is perceived by students. Within the scope of this objective, the answers of the following questions were searched.

1. Do middle school students do sports in their free times?
2. What is "sports" according to middle school students?
3. What is "mathematics" according to middle school students?
4. Is there a correlation between "sport" and "mathematics" according to middle school students?
5. How do middle school students perceive the possible correlation between mathematics and sport?

METHOD

Research Design

In this study, qualitative research design was employed. Qualitative studies are the researches in which perceptions and events are displayed in a realistic and holistic way in their natural environments and it involves the analysis of the worksheets collected in this study. The analysis of the written material about the phenomenon or phenomena in question is stated as document analysis (Yıldırım & Şimşek, 2008). In this regard, in this study the data collection documents of middle school students were used as documents and they were qualitatively analyzed.

Study Group

The study was carried out with 117 students who are studying in a public middle school in Kandıra county of Kocaeli city. It was determined that 58,12% of the study group is female (n=68) and 41,88% is male students (n=49). 14,53% of the students are 5^{th} graders (n=17), 24,79% of them are 6^{th} graders (n=29), 29,06% (n=34) are 7^{th} graders and 31,62% of them are 8^{th} graders (n=37).

Data Collection Tools and Collecting Data

The data was collected by using the data collection form entitled as "Sport and Mathematics (S&M)". This data collection form is composed of one yes-no question and 4 open ended-questions. Also in the form, the questions for learning the demographic features (gender, grade levels, etc.) of students were used. The purpose preparing open-ended questions was to identify the perceptions of students about sport, mathematics and sport+mathematics phenomena.

S&M was carried out with students who are studying in public school in Kandıra county of Kocaeli city between 08.12.2014 and 12.12.2014. As a result of this, 121 S&M were filled. 40 minutes were given students to fill in this form.

Data Analysis

First of all, all the collected data was analyzed one by one by the researcher. As a result of the analyses, it was decided not to evaluate 4 of the 121 S&M. After this decision, the data regarding the open-ended questions were evaluated by using content analysis. The purpose of the content analysis is to gather similar data around specific themes and to organize and interpret them in a way that readers can understand. In this sense, first the data of the study were coded. At this point, the researcher should analyze the collected data, divide them into meaningful parts and try to explain what each part means conceptually (Yıldırım & Şimşek, 2008). For this reason, code lists were created by the researchers through reading the data separately. The code lists were compared and different codes were discussed. Later on, it is necessary to find the themes which explain the data in general by considering the created codes (Yıldırım & Şimşek, 2008). The codes were gathered by considering the code lists created in this study and the themes were created by the researchers separately. At this point, the consensus in the evaluation of the researchers was calculated by using the formula set by Miles and Huberman (1994) as "*Agreement Percentage = [Agreement / (Agreement + Disagreement)] x 100"*. In this regard, it was decided that the agreement percentage of the researchers regarding the themes changed between 0,92 and 0,96. Later on, the themes were presented to the readers in an organized way. For the interpretation of the findings, the themes were presented on the basis of frequency (f) and percentage (%) by digitalizing the data. NVivo 10 software was employed in content analysis.

FINDINGS

The first research problem was determined as *"Do middle school students do sports in their free times?"*. It was determined that only 9 (7,69%) of the 117 participating students do not do sports in their free times. It was seen that the remaining 108 (92,31%) students expressed that they do sports in their free times. It was concluded with the following findings as a result of the analysis for determining which sports the students who said "I do sports" do in their free times. It was identified that both male and female students generally do the following sports; football, basketball, volleyball, chess and tennis. In addition to this, it was seen that swimming, running and table tennis are preferred by less students. It was determined that skipping rope, boxing, cycling, badminton, weight lifting and gymnastics are preferred by only one. According to this;

The second research problem was determined as *"What is "sports" according to middle school students?"*. The findings appeared as a result of the collected data are as in the following.

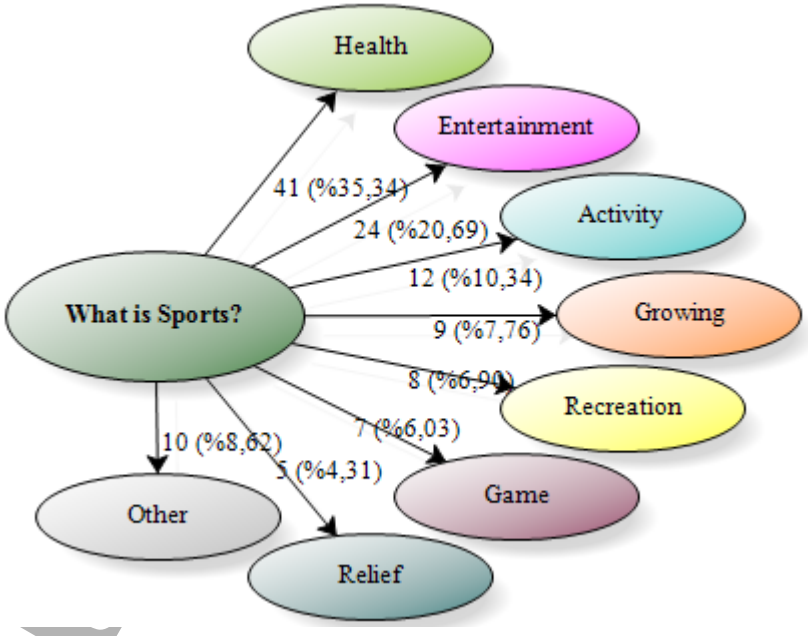

Fig. 1. What is sports?

When Figure 1 is analyzed, it is seen that middle school students stated their opinions about sports on seven different themes. In this sense, it was determined that middle school students express their opinions mostly on 'health' theme. It is seen that 41 (35,34%) students prefer expressions about health for defining sports. For example it was determined that they made definitions as in the following; *"Sports makes us to be healthy",*

"Sports is a branch of health, it is health", "When people do sports, they feel fresh, sports is health", "The body and bones of a person who does sports develops and becomes healthier", "For me, sports is both health and training". After that, it is seen that students express their opinions on "entertainment" theme. It was determined that 24 (20,69%) students preferred expressions about entertainment for defining sports. For example it is seen that they made definitions as in the following; *"Sports is entertainment", "It is natural and entertaining", "For me, sports is having fun", "Entertainment, an alternative for recreational activities"*.

When we continue to analyze Figure 1, it is seen that students express their opinions on the "activity" theme for the third place. It was determined that 12 (10,34%) students preferred expressions about activity for defining sports. For example, it was seen that they made definitions as in the following; *"Physical activities", "Sports is doing entertaining activities", "Sports is an activity which makes people feel good and at the same time which is necessary for the body"*. In addition to this, it was identified that students for the fourth place expressed their opinions on "growing" theme. It was seen that 9 (7,76%) students preferred expressions about growing. For example, the following expressions were used; *"For me, sports is the ability to improve oneself. People improve both their body and mind by doing sports. For example, if we play chess, we improve our mind and if we play basketball, we become taller", "Sports is self-improvement"*. As for the fifth one, there were definitions which are suitable to recreation theme. For example, they made definitions as; *"For me, sports is doing recreational activities"*.

It was determined that students focused on the game theme for the sixth place. In this sense, it was seen that 7 (6,03%) students used expressions about game for defining sports. For example, they made definitions as in the following; *"Sports is a game", "It is a game played for entertainment"*. 5 (%4,31) students preferred expressions about relaxing for defining sports. For example, there were expressions as in the following; *"It means feeling good for people and having fun. It is something for getting rid of all the tiredness and distracting mind"*.

When Figure 1 is analyzed, it is seen that the definitions of 10 (8,62%) did not fall into these seven themes. The fact that students have focused on different points about sports is the reason of this. For example, it was seen that they made definitions like; *"Sports is love which makes your soul young", "I think sports is something good", "For me, doing sports is about whether or not loving sports"*.

The third research problem was identified as *"What is "mathematics" according to middle school students?"*. The findings obtained as a result of the data analysis were given in Figure 2.

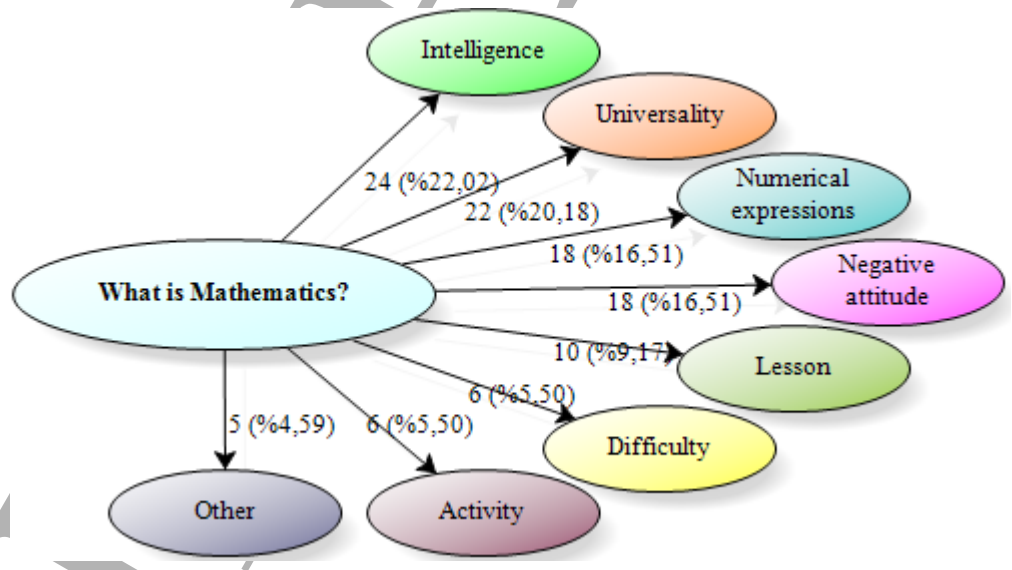

Fig. 2. What is mathematics?

When Figure 2 is analyzed, it is seen that the students give answers in seven different themes for the "what is mathematics?" question. In this sense, it was determined that 24 (22,02%) students focused on "intelligence" theme and preferred expressions about intelligence for defining mathematics. For example, it was seen that they made definitions like; *"For me it is a lesson which socially contributes our intelligence", "It helps us to improve our intelligence", "Mathematics improves our intelligence, displays our intelligence", "It is a unit of intelligence", "Mathematics is a lesson which reveals our intelligence", "It is a mind game for brain"*. Later on,

it was determined that 22 (20,18%) students emphasized "universality" theme and it was seen that students used expressions about universality for defining mathematics. For example, they made definitions like; *"We use mathematics in most of the parts of our lives. There cannot be a world without mathematics", "We need mathematics in every part of our lives", "Our life and experiences are composed of mathematics, Mathematics is with us everywhere", "Mathematics is always with us, against us in everything and everywhere"*.

When Figure 2 is analyzed, it is seen that 18 (16,51%) students focused on numerical expressions theme. In this sense, it was determined that students preferred definitions about numerical expressions for defining mathematics. For example, it was seen that they made definitions like; *"It consists of numbers", "Mathematics is a lesson about numbers", "Mathematics is a lesson which is carried out numerical operations", "Mathematics is a lesson which has equation and numbers with algebraic expressions in it"*. It was determined the opinions of 18 (16,51%) students were related with "negative attitude" theme. It was seen that students used negative expressions for defining mathematics. For example, it was seen that they made definitions like; *"Mathematics tortures you", "I hate mathematics and feel asleep", "It is boring"*. It was determined that 10 (9,17%) students perceived mathematics as only a lesson. While 6 (%5,50) students discussed mathematics in difficult theme, 6 (5,50%) students discussed mathematics in activity theme. It is seen that the definitions of 5 (4,59%) students fall into other theme. When these definitions were analyzed, it was determined that they could not be related with other themes. For example, they made definitions like; *"Mathematics is a part of my comfortable breathing"*.

The fourth research problem was identified as *"Is there any correlation between "sports" and "mathematics" according to middle school students?"*. In this sense, the findings obtained are as in the following.

Table 1. Is there any correlation between sports and mathematics?

Grades	No comment	Yes	No	Total
5	1	10	6	17
6	0	16	13	29
7	1	24	9	34
8	0	18	19	37
Total	2 (%1,71)	68 (%58,12)	47 (%40,17)	117

When Table 1 is analyzed, it is seen that one student from the 5th and 7th grade did not answer the question stated as "Is there any correlation between sports and mathematics?". It was determined that 10 of the 5th grade students said yes, 6 of them said no to this question, 16 of the 6th grade students answered as yes, 13 of them answered as no, 24 of the 7th grade students answered as yes, 9 of them answered as no and 18 of the 8th grade students answered as yes and 19 of them answered as no. When it is generally analyzed, it is seen that 68 (58,12%) students answered as yes and 47 (40,17%) students answered as no. Under the light of these findings, the answer of the fifth research question stated as *"How do middle school students perceive the possible correlation between mathematics and sport?"* is as in the following.

When the answers of students who thought (68; %58,12) that there is correlation between sports and mathematics were analyzed, it was determined that it was determined that 9 students did not make any explanation about the correlation in-between. It was seen that the answers of the remaining 59 students fell into 6 different themes. This can be seen in Figure 3.

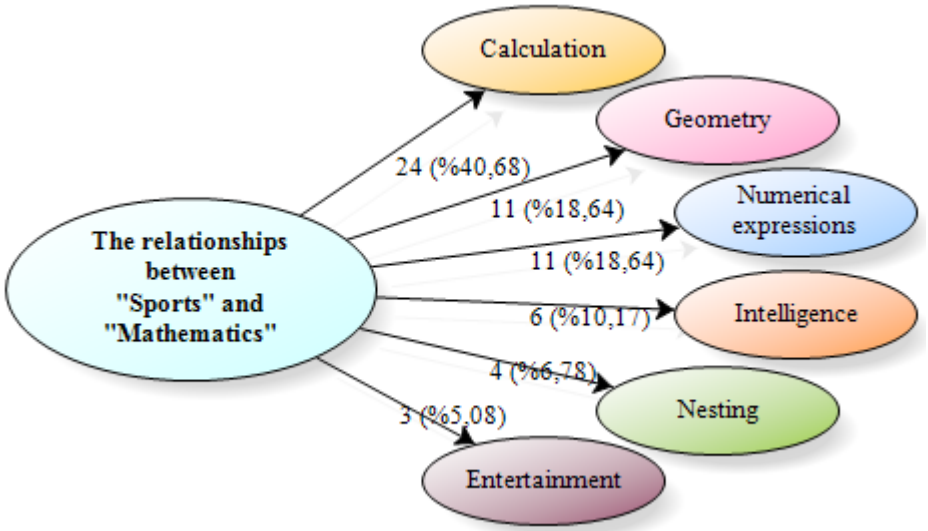

Fig. 3. The relationships between sports and mathematics

When Figure 3 is analyzed, it is seen that the correlation between mathematics and sports gathered into "calculation" theme. It was determined that 24 (40,68%) students focused on the expressions about calculation regarding the correlation in-between. For example, it was identified that they made definitions like*; "While playing volleyball, you calculate to which side you will throw the ball", "You think that you will make a shot and you calculate the distance", "While playing basketball or scoring in a game, we make calculations as in the mathematics lessons"*. Secondly, it was determined that they focused on the "geometry" theme. It was seen that 11 (18,64%) students used expressions about geometry for explaining the correlation in-between. For example, they made explanations like; *"We throw the ball according to angles while we are making a shot with the basketball", "We use mathematics while doing sports. If we hit this ball to the wall, we can ask will it bounce back with a 60^0 angle?", "When you say mathematics, first sports comes to my mind, because in sports, in football for instance, we should consider mathematics, because we consolidate the tactics with mathematics."*

Similarly, it is seen that 11 (18,64%) students focused on numerical expressions theme for explaining the correlation in-between. For instance, the made explanations like*; "I think there is a correlation between them, because we use numbers in everything", "It is accepted as1 when you score in tennis, basketball, football etc and there are numbers in mathematics You throw the ball in volleyball and basketball and you score. This shows that there is a correlation between mathematics and sports"*. It was determined that 6 (10,17%) students focused on the theme about intelligence for explaining the correlation in-between. For example, they made explanations like; *"Chess is a sport. We improve our minds when we play it. While we are subtracting a number from another number, we use our mind. In other words, for me, there is a connection between them", "For me, there is a connection between mathematics and sports, because sports require intelligence. For instance, when you are face to face with goalkeeper in football, if you don't know what to do, you cannot do what you want"*.

It was identified that four (6,78%) students expressed that mathematics and sports are nested within each other for explaining the correlation in-between. It was seen that 3 (5,08%) students focused on entertainment theme. For example, it was determined that they made explanations like; *"For me, we do a kind of mind sports while solving mathematical questions. Besides, while doing sports, we do mathematics when calculating our goals, baskets and all our score. In addition to that, if we do not have mathematics and sports, the integrity of life is ruined", "The have some common points, they are both entertaining"*.

CONCLUSION, DISCUSSION AND IMPLICATIONS

In this study, first whether or not middle school students do sports in their free times were analyzed. In this sense, it was appeared that most of the students participating in this study (92,31%) do sports. It was determined that they generally do sports like football, basketball, volleyball, chess and tennis. At this point, it can be said that the sports required by male students require a few equipments and for this reason they do sports more often.

Second in this study, it was aimed to find out how sports is perceived by middle school students. In this sense, it was appeared that middles school students explained sports with heath and entertainment themes. Sports can be defined within the scope of this study as *"all the movements that individuals do entertainingly for being healthy"*. Physical education lesson and sports activities are seen important in primary schools in terms of improving motor skills of students, enabling them to acquire positive behaviors, providing them opportunities to

put sports into their habitual actions (Yenal, Çamlıyer & Saracaloğlu, 1999). It can be said that students recognized this importance as they defined sports as health in this study. Özer and Aktop (2003) stated in their studies that people who participated in lifelong sports activities think that they will lead a healthier, happier and more qualified life. Sports is seen as the main education instrument for raising a healthy generation. In addition to this, the happiness of individuals depends on being completely and permanently healthy. In order for people to lead a healthy life, doing sports is seen very important (Yetim, 2000). As it is seen, the correlation between sports and health is significant. In this sense, it can be said that the result obtained in this study is supporting this correlation. In addition to this, it was seen that students focused on becoming thin in their definition of sports with health theme. It was determined that they defined sports as *"it is becoming thin for being healthy"*. It is known that inactive and sedentary life style increases the risk of obesity in children (Jago, Baranowski, Baranowski, Thompson & Greaves, 2005; Janz, Levy, Burns, Torner, Willing & Warren, 2002). In addition to this, it can be said that students perceived sports properly.

The other objective of this study is to find out how mathematics is perceived by middle school students. At this point, it was appeared that students defined mathematics with intelligence and universality themes. In this sense, mathematics can be defined in this study as *"numerical operations which individuals face with every moment of their lives and contribute to the improvement of their minds"*. In a study which was carried out by Şengül and Katrancı (2012a), it was concluded that elementary school students focused on universality of the mathematics. In addition to this, Şengül and Katrancı (2012b) founded out in their studies that prospective primary school mathematics teachers focused also on the universality of the mathematics. In this regard, it can be said that these studies are parallel. At this point, it is thought that the universality aspect of mathematics is a concept that can be used for explaining mathematics.
It is also aimed to discover in the study whether or not students who defined sports and mathematics think that there is a correlation between these two concepts. At this point, it was appeared that more than half of the students (58,12%) think that there is a correlation between sports and mathematics. When they were asked to define this correlation, it was appeared that students explained this correlation with calculation, geometry and numerical expression themes. In this sense, the correlation between sports and mathematics can be defined in this study as; *"There is a correlation between sports and mathematics. This connection requires calculation and geometry knowledge. Besides, the numerical expressions in sports are related with mathematics"*.

Taşmektepligil, Yılmaz, İmamoğlu and Kılcıgil (2006) concluded in their studies that sports did not have a negative effect on lessons. Saygılı, Atay, Eraslan and Hekim (2015) found in their studies that students who do sports regularly have better personal features in terms of being extrovert and open than student who do not do sports regularly. In addition to that they concluded that the academic achievements of students who have better personal features in terms of being extrovert and open are better than others. Tarakçı and Kaplan (2006) revealed that when social activities are added to the learning process of students with hearing impairments, it was appeared that they have more motivation for the learning process, they have more self-confidence, they participate in the lessons more, they have more fun and they develop positive attitudes like enjoying the lesson. In addition to this they also determined that they became more successful in mathematics lessons Field, Diego and Sanders (2001) expressed that sports activities contributed positively to the academic achievements of the students. It can be said from the result of this study which stated as "there is a correlation between sports and mathematics" that sports do not have a negative effect on the achievements of students in mathematics lessons. However, it is seen that this thought should be analyzed more extensively. Because, Akyüz (2013) found in his study that there is a negative correlation between mathematics and sports. For this reason, it is predicted that analyzing which lessons have a correlation with sports will contribute to the literature.

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MIGRATION STUDIES AND COLLABORATIVE LEARNING IN AN INTERCULTURAL ENVIRONMENT: EVALUATING THE PROJECT "SONO UN MIGRANTE"

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ABSTRACT
The purpose of this paper is to evaluate the outcomes of the Erasmus Intensive Programme *Sono Un Migrante*, financed by the Italian Erasmus LLP Authority and realized by the University of Salerno in the academic year 2013/2014. Through innovative educational methodologies, based on multimedia technologies and collaborative learning, the project was aimed at building a shared knowledge about migration and strengthening a sense of European identity among participants. The paper reviews the results obtained from the IP evaluation, with particular reference to participants' awareness of international migration and the individual and social skills developed by learners.

1. INTRODUCTION

The combination of e-learning and collaborative learning is often referred to as a tool to facilitate learning in educational settings in which the user has special characteristics, such as education for prisoners (Diana, 2013). Incorporating the use of ICT technologies into the process of collaborative learning can be very beneficial in terms of knowledge and experience. Moreover, an intensive use of ICT technologies in a collaborative learning environment can rapidly improve students' awareness of a common problem, as well as their ability to manage it and to find viable solutions (Ehlers, 2011, 2013). This can be especially true when the common educational task at stake is strongly related to political and social debates on such issues as race, ethnicity, religion, multiculturalism, and above all migration: all of them seem to be of great value in the making of the social identity of youth people in today's Europe. The aim of this paper is to evaluate an interdisciplinary experience of (ICT-aided) collaborative learning in an international environment, the Erasmus Intensive Programme *Sono Un Migrante* (SUM), financed by the Italian Erasmus LLP Authority and realized by the University of Salerno in the academic year 2013/2014. As we said in a previous paper, which was written just before the end of our educational experience.

The more general purpose of our IP is to develop communities of practice that focus not only on learning, but on the social construction of knowledge useful to the community in the perspective identified by Scardamalia and Beretier (Bereiter, 2002; Scardamalia, 2002). Following these authors, we intend to push the stakeholders of educational systems to reconceptualize learning activities and to think of European schools and universities as learning communities producing valuable, critical knowledge for their students and for the wider societal context. This is therefore an example of collaborative learning in a sociological discipline in an intercultural context. In our opinion, the project raises issues of great interest for teaching sociology – and, more generally, social sciences – in a time when the need for the internationalization of university activities is becoming widespread, and the quest for a learning society is becoming more urgent (Kuhn, 2007) (Diana, Maddaloni, Melillo, Moffa, 2015, p. 516).

In this paper, we will provide some elements to assess whether these objectives of our initiative have been achieved. In Section 2 we will briefly discuss the assessment methodology employed. In Section 3 we will highlight the outcomes of the evaluation procedure, with reference to the students' attitudes towards immigrants (section 3.1), their attitudes towards the European Union (section 3.2), and the degree of satisfaction achieved by students in relation to the knowledge they acquired and the experience they lived. Finally, we will try to make some remarks on migration studies and (ICT-aided) collaborative learning in the more general context of tertiary education.

2. METHODOLOGY

The project evaluation was carried out through structured questionnaires submitted to participants at the beginning and at the end of the project. The *ex-ante* questionnaire was mainly aimed at:

- exploring participants' motivations and expectations;
- investigating participants' opinions and attitudes about the issues of migration and socio-territorial identity;
- assessing respondents' opinions and attitudes towards the EU.

The *ex post* questionnaire was aimed at:

- assessing the effects of the project on participants' awareness of international migration;
- evaluating the effects of the project on participants' attitudes toward the EU;
- investigating the effects of the project on participants' individual and social skills.

The questionnaires were administered anonymously to all 42 students who took part in the project. The participants were mostly women (72.5%) than men (27.5%) and they were aged between 19 and 37. Participants came from different European countries – Italy (50%), Romania (15%), France (12.5%), Cyprus (10%), Spain (10%), and Greece (2.5%). In accordance with the interdisciplinary approach that inspired the project, the students came from different degree programs: participant students were following mostly curricula of Political and Social Sciences (63.4%), but also curricula of Economics (14.6%), Humanities (11.9), and Law (2.4%). For the majority of participants (61.9%), the Intensive Program was the first experience of international mobility.

3. MAIN FINDINGS

3.1. ATTITUDES TOWARDS IMMIGRANTS

In the *ex-ante* questionnaire this dimension was investigated through a battery of *items*, containing different sentences about immigrants. The students were asked to give a score using a *Cantril scale* – from 0 (max disagreement) to 10 (max agreement) – to express their level of agreement with each statement. The items of the battery were also counterbalanced, i.e. alternating positive and negative opinions toward immigrants, in order to reduce the possibility of having response set.

Tab. 1 - *In the box below, there are some statements that we often hear when it comes to the EU. For each of them, please, express your level of agreement. You can use a scale from 0 to 10, where 0 means maximum disagreement, 10 maximum agreement. Of course, you can use any intermediate score. Please, answer in each row:*

	Mean	*SD*
Immigrants help to raise awareness of my country in the world	7,5	17,4
Immigrants do useful jobs that my fellow countrymen do not want to do	7,4	2,3
Immigrants contribute to the cultural enrichment of my country	6,9	2,5
Immigrants must have the right to vote	6,1	3,2
The spread of immigrants is a good opportunity for the dialogue among religions	6,0	2,8
Immigration is useful to renew our society	5,9	2,5
In my country, the national laws are too favorable to immigrants	5,0	2,7
In my country, there are too many shops owned by immigrants	4,8	3,0
Immigrants have values too different from mine	4,2	2,8
First we need to help our poor fellow countrymen and, only after, poor immigrants	4,1	3,2
Immigrants must preserve their traditions, even if they go against our constitutional principles	3,8	3,4
In my country, since immigration has increased, crime (drugs, prostitution etc.) also increased	3,6	3,1
The new rich in my country are all immigrants	2,8	2,4
Immigrants can bring dangerous diseases	2,8	2,8
Immigrants bring terrorism in my country	2,4	2,8
If immigrants want to live in our country, they have to live in distinct areas	1,3	2,4

In line with other research (Hainmueller and Hiscox, 2007; O'Rourke and Sinnott, 2006; Card, Dustmann and Preston, 2005) which show that determinants like young age and high education promote a more favorable attitude toward immigrants, data analysis shows an extensive attitude of openness and solidarity towards immigrants by our respondents (Tab. 1). This attitude is evidenced by the high average scores expressed in reference to the items: *Immigrants help to raise awareness of my country in the world* (7,5); *Immigrants do useful jobs that my fellow countrymen do not want to do* (7,4); *Immigrants contribute to the cultural enrichment of my country* (6,9). In contrast, lower average scores are attributed by respondents to the items that are negatively oriented towards

immigration, as *Immigrants can bring dangerous diseases* (2,8); *Immigrants bring terrorism in my country* (2,4); *If immigrants want to live in our country, they have to live in distinct areas* (1,3).

The most important items were proposed again in the *ex post* questionnaire, in order to assess the effects of the project on participants' opinions (Tab. 2). Data comparison shows some significant differences, especially in reference to positive items, as *Immigration is useful to renew our society* (from 5.9 to 6.7); *The spread of immigrants is a good opportunity for the dialogue among religions* (from 6 to 6.5) and *Immigrants must preserve their traditions, even if they go against our constitutional principles* (from 3.8 to 4.5). In other words, the attitude of our respondents, already characterized by openness and tolerance towards immigrants at the beginning of the project, seems to be further strengthened because of the participation in the project itself and its activities. Data comparison also shows a decrease, at the end of the project, in the agreement with items that refer to "local attitude" as: *In my country, the national laws are too favorable to immigrants* (from 5 to 4.5) and *If immigrants want to live in our country, they have to live in distinct areas* (1.3 to 0.9). An interesting exception is represented by an increase (+1.4) in the agreement with the item *Immigrants have values too different from mine*. This variation can be interpreted assuming that the in-depth study of issues related to immigration helped participants to develop a critical sensibility, understanding the complexity of socio-cultural integration issues.

Tab. 2 - *In the box below, you will find a list of sentences about immigration. For each sentence, please, tell us how much you agree with it. You can use a scale from 0 to 10, where 0 means maximum disagreement, 10 maximum agreement. Of course, you can use any intermediate score. Please, answer in each row:*

	Mean ex ante (a)	*Mean ex post (b)*	*Diff. b-a*
Immigration is useful to renew our society	5,9	6,7	+0,8
Immigrants do useful jobs that my fellow countrymen do not want to do	7,4	6,6	-0,8
The spread of immigrants is a good opportunity for the dialogue among religions	6,0	6,5	+0,5
Immigrants help to raise awareness of my country in the world	7,5	5,8	-1,7
Immigrants have values too different from mine	4,2	5,6	+1,4
In my country, the national laws are too favorable to immigrants	5,0	4,5	-0,5
Immigrants must preserve their traditions, even if they go against our constitutional principles	3,8	4,5	+0,7
In my country, since immigration has increased, crime (drugs, prostitution etc.) also increased	3,6	3,7	+0,1
If immigrants want to live in our country, they have to live in distinct areas	1,3	0,9	-0,4

3.2 ATTITUDES TOWARDS EUROPEAN UNION

The issue of a European common identity is one of the most important challenges that the EU is called to face. In particular, for a long time a main concern of most scholars (Haste and Hogan, 2006; Dalton, 2008; Stoker, 2006; Pirie and Worcester, 1998 in Horvath and Paolini, 2013) has been young generation's weak sense of citizenship and political participation because of the crisis of traditional identities. However, current studies (Harris, Wyn and Younes, 2010; O'Toole, Marsh and Jones, 2003; Sloam, 2013 in Horvath and Paolini, 2013) have shown that the image of young people not at all interested in politics is quite incorrect. On the contrary, they seem to be very interested in political and institutional issues (Horvath and Paolini, 2013) and to have a stronger European identity (Eurobarometer, 2014). These trends are confirmed by our research. Within this section, some items from Eurobarometer survey and European Social Survey have been proposed, in order to allow a comparison between results. In the *ex-ante* questionnaire, the attitudes toward the EU were investigated through a specific section, containing a set of multiple choice questions (Tab. 3;4;5;6;7). Data analysis shows that, in general, our participants had a positive image of the European Union (64.2%) and declared themselves *interested* in issues related to the EU (85.7%). In line with the results presented by Eurobarometer (2014), our participants (69%) stated that their country benefited from the entrance into the European Union and they were quite favorable to the extension of the European integration process. Asked about the best tools to participate in the EU public life, our respondents, again in line with the Eurobarometer survey (2014), indicated in first place *Vote in the European elections* (48,8%) followed by *Participate in discussions on the Internet / social media of the European institutions* (34,1%); *Be a member or a supporter of European associations* (31,7%) and *Exercise the right of European citizens' initiative* (22%).

Tab. 3 - *Generally speaking, what image do you have of the EU?*

	a.v.	*%*
Quite positive	24	57,1
Very positive	3	7,1
Neither positive, nor negative	7	16,7
Quite negative	8	19,0
Total	*42*	*100*

Tab. 4 - *In general, how much do you feel interested in the issued concerning the EU?*

	a.v.	*%*
Very interested	19	45,2
Quite interested	17	40,5
A little interested	5	11,9
Not interested	1	2,4
Total	*42*	*100*

Tab. 5 - *In your opinion, has your country received benefits from its membership in the European Union?*

	a.v.	*%*
Yes, it has received benefits	29	69,0
No, it has not received benefits	10	23,8
I do not know	3	7,1
Total	*42*	*100*

Tab. 6 - *In your opinion, which of the following methods are the best to ensure that your voice counts in Europe? (You can choose at most two answers)*

	Table N %	*Table Responses %*
Vote in the European elections	48,8	29,0
Participate in discussions on the Internet / social media of the European institutions	34,1	20,3
Be a member or a supporter of European associations	31,7	18,8
Exercise the right of European citizens' initiative	22,0	13,0
Write directly to the European Institutions	12,2	7,2
Other	9,8	5,8
Write to your MEP (Model European Parliament)	7,3	4,3
I do not know	2,4	1,4
Total		*100*

Tab. 7 - *Thinking about the European Union, some people say European unification should go further. Others say it has already gone too far. Using the scale below, what number best describes your position?*

Minimum	*Maximum*	*Mean*	*Std. Deviation*
2	10	6,15	2,2

In the same section of the *ex-ante* questionnaire, a battery of sentences about advantages and disadvantages of European integration process was displayed (Tab. 8). Within this section, some items from Ause survey have been proposed, in order to allow a comparison between results. Data analysis confirms an overall favorable attitude towards the EU.

In particular, in line with other contributions about the topic (Felisini, 2012; Bontempi and Bettin, 2008) , *mobility* (8,5) was perceived by our interviews as the main advantage of the European integration process. Moreover, high average scores were accorded to other positive statements like *EU supported knowledge, research and scientific progress" (7,6) and EU promoted the integration of different cultures* (7,4). In contrast, negative items received quite low average scores: *EU made cultural identities and traditions disappear* (4,0); *EU produced and increase in drug trafficking and crimes" (3,2) "EU created problems of integration between different cultures* (3,1).

Tab. 8 - *I think that the process of European integration has:*

	Mean	*SD*

Facilitated mobility of students within Europe	8,5	1,8
Supported knowledge, research and scientific progress	7,6	1,8
Promoted the free movement of goods and services by the creation of a common market	7,5	1,7
Promoted the integration of different cultures	7,4	2,1
Promoted the defense of basic human rights	7,1	2,3
Supported democracy	6,7	2,4
Caused a loss of power of the smaller countries	6,6	2,3
Increased jobs transferring to countries where labor is cheaper	6,2	2,4
Caused an increase in prices	6,2	2,8
Encouraged employment through greater labor force mobility	5,9	2,4
Increased economic prosperity through the adoption of a strong and stable currency	5,3	2,8
Favored immigration without control	4,1	3,1
Made cultural identities and traditions disappear	4,0	2,6
Increased drug trafficking and crimes	3,2	2,6
Created problems of integration between different cultures	3,1	2,5

As for the previous section, the most significant items were also inserted in the *ex pos*t questionnaire, in order to compare results and analyze the project effects on participants' opinions and attitudes toward the EU (Tab. 9). The comparison between *ex ante* and *ex post* data shows that the starting participants' opinions toward the European Union were substantially confirmed and strengthened by attending the project activities. An interesting exception was represented by the variation of the negative item *EU has created problems of integration between cultures*, which increased from 3.1 to 4.2. This difference can be explained by assuming that the in-depth study of the immigration topic and the comprehension of its related issues made the young participants more aware of the weakness and difficulties in managing the phenomenon by the EU.

Tab. 9 - *I think that the process of European integration has:*

	Mean ex ante (a)	*Mean ex post (b)*	*Diff. b-a*
Facilitated mobility of students within Europe	8,5	8,5	0
Supported knowledge, research and scientific progress	7,6	7,3	-0,3
Promoted the integration of different cultures	7,4	7,2	-0,2
Promoted the defense of basic human rights	7,1	7,1	0
Supported democracy	6,7	6,9	+0,2
Caused a loss of power of the smaller countries	6,6	5,8	-0,8
Favored immigration without control	4,1	4,6	+0,5
Created problems of integration between different cultures	3,1	4,2	+1,1

3.3. OPPORTUNITIES AND SKILLS

As shown by respondents' answers (Tab. 10), the participation in the project was perceived, above all, as an opportunity to *meet new people from different countries* (9,2) and *live a new experience*, different from their everyday life (8.6).

Participants considered the project as a chance for *testing themselves in a new context* (8.2) and *improving the knowledge of another language* (8.1) while *having fun* (8.1). Moreover (Tab. 11), respondents stated that the project contributed to expand their *knowledge of other cultures* (7.6) and their *knowledge about migration* (7.4).

The project was favorably perceived by participants, especially in terms of development of interpersonal skills, as the *ability to adapt to changes* (8.4) and *to get along with different kinds of people* (8.3).

Moreover, respondents believe that participation in the SUM project contributed to develop their *linguistic skills* (7.7); their *ability to present ideas / report them to an audience* (7.7); their *ability to come up with new ideas and solutions* (7.6) and their *ability to work productively with others* (7.5).

Tab. 10 - *Taking part in this project gave me the opportunity to:*

	Mean	*SD*
Meet new people from different countries	9,2	1,3
Live a new, different experience	8,6	2,0
Prove myself in a new context	8,2	2,1
Have fun	8,1	2,1
Improve my knowledge of another language	8,1	1,5
Improve my CV	7,9	2,0
Acquire new skills	7,7	2,3
Experience different educational methods	7,6	2,0
Satisfy my personal interest in the issue of migration	7,6	2,2
Deepen topics that are not addressed in depth in traditional university programs	6,9	2,6
Feel more "European"	6,9	3,0
Enhance job opportunities for the future	6,9	2,1
Visit a foreign country	5,5	4,3

Tab. 11 - *To what extent, do you think that the project has provided you with each of the following skills?*

	Mean	*SD*
Ability to adapt to changes	8,4	1,7
Ability to get along with different kinds of people	8,3	1,7
Linguistic skills	7,7	2,1
Ability to present your ideas/report them to an audience	7,7	2,1
Knowledge of other cultures	7,6	1,9
Ability to come up with new ideas and solutions	7,6	2,0
Ability to work productively with others	7,5	1,9
Knowledge about migration	7,4	2,5
Attitude to critical thinking	7,3	2,4
Ability to coordinate the work of other people	7,3	2,0
Ability to clearly express your ideas	7,3	2,2
Ability to negotiate your ideas	7,2	2,0
Computer skills	4,8	3,3

In order to assess the project effects on participants' knowledge about migration, this item was assessed both *ex ante* and *ex post* (Tab. 12). The comparison between the two scores shows a significant change: knowledge on migration goes from 5.3 (before the project) to 8.3 (after the project), demonstrating the effectiveness of the educational activities. Both the interdisciplinary perspective and (ICT-based) collaborative learning approach were effective in promoting the understating of a complex and multidimensional phenomenon like migration.

Tab. 12 - *How would you rate your knowledge of the topic Migration?*

ex ante		*ex post*	
Mean	*SD*	*Mean*	*SD*
5,3	2,3	8,3	1,2

At the end of the project (Tab. 13), respondents feel more *sociable* (7,8); *tolerant* (7.8); *open minded* (7.7), *self-confident* (7.4) as they were more *aware of their abilities and limitations* (7.6).

The comparison between the set of items included both in the *ex-ante* questionnaire (for the assessment of expectations) and in the *ex-post* questionnaire (for the assessment of satisfaction) shows that participants' expectations, particularly high at the beginning of the IP activities, have been altogether fulfilled (Tab. 14). In particular, the expectation to *Meet people from different countries*, that was perceived by our respondents as one of the most important factors in the decision of taking part in the project, was fully satisfied (from 9.1 to 9.2). The comparison between the *ex-ante* and *ex post* results highlights other positive changes, in particular with respect to the items *Prove myself in a new context* (from 7.9 to 8.2); *Have fun* (from 7.3 to 8,1) and *Improve my CV* (from 7.2 to 7.9).

These results underline that participants considered the project as an opportunity to test and increase their set of skills testing themselves in a new and challenging situation.

At last, the positive change in reference to the item *Feel myself more European* (from 6.2 to 6.9) is particularly significant as it shows that the project has achieved one of its main goals: strengthening the European sense of belonging and citizenship among participants.

Tab. 13 - *After the project, to what extend do you feel more (from 0 to 10):*

	Mean	*SD*
Sociable	7,8	2,4
Tolerant	7,8	2,4
Open minded	7,7	2,2
Aware of your abilities and limitations	7,6	2,0
Self confident	7,4	2,0
Mature	7,4	2,3
Creative	7,1	2,7
Inquiring	7,1	2,2
Flexible	7,1	2,4
Independent	7,0	2,5
European	6,4	3,1

Tab. 14 - *Taking part in this project gave me the opportunity to:*

	Mean ex ante (a)	*Mean ex post (b)*	*Rank ex ante*	*Rank ex post*	*Diff. b-a*
Meet new people from different countries	9,1	9,2	1	1	+0,1
Live a new, different experience	8,6	8,6	2	2	0,0
Prove myself in a new context	7,9	8,2	6	3	+0,3
Have fun	7,3	8,1	7	4	+0,8
Improve my knowledge of another language	8,2	8,1	4	5	-0,1
Improve my CV	7,2	7,9	8	6	+0,7
Experience different educational methods	8,0	7,6	5	8	-0,4
Deepen topics that are not addressed in depth in traditional university programs	7,2	6,9	9	9	-0,3
Feel myself more "European"	6,2	6,9	11	10	+0,7
Enhance job opportunities for the future	7,2	6,9	10	11	-0,3
Visit a foreign country	5,9	5,5	12	12	-0,4

4. CONCLUSIVE REMARKS

As a final remark, we would say that our research findings seem to confirm and strengthen the idea that learning in small groups is an appropriate way to make students not only benefit, but also enjoy the learning experience (Griffiths, 2000, p. 74). IP students – as well as most of teachers – strongly appreciated what the educational project intended to do, in terms of knowledge and skill as well as inter-cultural collaboration and identity building. We can also say that our approach, based on problem-based learning (where «all learning of new knowledge is done within the context of the problems»: Hughes and Overton, 2000, p. 232), seems to have helped participant students to acquire both new individual skills and an improved ability to work together (*ibidem*). Moreover, these educational results were obtained in an international environment.

Therefore, the educational methodology we used in the SUM project has proven to be a useful tool to achieve – albeit, perhaps, not in the same measure – the educational goals at stake in the making of a learning society on an EU (thus, inter-national, inter-cultural) scale. According to the evaluation findings we discussed in this paper, all participants students seem to have improved their level of knowledge, skills, personal development, and collaborative attitude. Of course, according to some scholar these results can be criticized for their seemingly implicit adhesion to neo-liberal ideology (Jarvis, 2007, pp. 96-121; see also Maddaloni, 2007). Nevertheless, we believe that – despite this ideological underpinnings – ICT-based collaborative learning can contribute to the building of a new European identity and citizenship.

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MODIFIED EXPLANATION OF JAVA OBJECT CONSTRUCTS HELPING WITH THEIR UNDERSTANDING

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ABSTRACT
Most textbooks and courses explain the basic object oriented (OO) constructs in a very similar way. Extensive experience with teaching different kinds of courses at various levels, from primary and secondary schools to universities and retraining courses for professional programmers shows that many students have difficulties with this traditional approach to the explanation of basic OO constructs. The paper shows a little modified approach to this explanation that is based on the *Architecture First* methodology and that may lead to a better understanding of these constructs.

Keywords: OOP, architecture first, teaching, introductory courses

INTRODUCTION
The Object Oriented Programming (OOP) is a fundamental paradigm of modern programming languages. Over the last 15 years we have been teaching OOP at computer clubs to students from primary schools as well as from high schools, grammar schools and universities. At the same time we have been teaching industry-based courses to retrain professionals from structured programming paradigm to OOP and to improve their knowledge and skills. As a result, we gained the experience with teaching a wide range of students from complete beginners to students with advanced knowledge of programming obtained from textbooks or other courses.
In our university we use the Java language in the introductory courses. Therefore we concentrate in this article on Java courses and textbooks, although we encounter similar problems in textbooks and courses dealing with other programming languages. Often we can use the modifications we suggest for teaching Java in these languages, too.

Both beginners and advanced programmers experience the problems with mastering certain object oriented constructs. We have succeeded in modifying the typical explanation of OO constructs so that the beginners improve their understanding and the advanced programmers learn how to avoid poor programming habits acquired as a result of incorrect understanding of OOP.

Summary of perceived problems
Almost all Java textbooks explain the basic object oriented constructs in the way that is more or less borrowed from older C++ textbooks. However, such explanation involves many definitions that are difficult to understand for the beginners. From their point of view these constructs are often inconsistent and confusing.
In addition to these basic constructs several secondary constructs are explained as the new ones, but using a slightly modified explanation, we can explain the secondary constructs as natural extension of those basic ones. Moreover, we can refer to the constructs that students have already mastered. This slight modification can improve the understanding of both sets of constructs. Furthermore, this decreases the number of problems that the students may encounter when using these constructs in their programs.
Our experience has shown that it is useful to explain the following topics in a slightly different way than textbook authors have done so far:

- what the term *object* means,
- the difference between objects and classes,
- the difference between instances and class members,
- the concept of the `interface`,
- the constructors and the construction of objects,
- the keyword `this`,
- the class inheritance.

In the following sections we deal with each of the above mentioned topics and show the modification of explanation that proved useful in our attempts to improve understanding of the subject matter.
We have compared our method with the following textbooks Arnold, Gosling & Holmes (2005), Barnes & Kölling (2011), Briant (2011), Burd (2014), Deitel & Deitel (2011), Eckel (2006), Fain (2004), Horstman (2007), Horstman & Cornell (2012), Horstman (2013), Liang (2014), Morelli & Walde (2006), Savitch (2011), Schildt (2011), Schildt (2014), Sierra & Bartes (2009), Winder & Graham (2006), Wu (2009), Zakhour, Kannan & Gallardo (2013) and Zukowski (2002). We can divide these textbooks into three groups:

- Barnes & Kölling (2011), Horstman (2007), Horstman (2013), Sierra & Bartes (2009) and Wu (2009) mainly concentrate on explanation of the best programming practices. They intend to teach how to think and how to program in a *true* object oriented way.
- Arnold, Gosling & Holmes (2005), Eckel (2006), Horstman & Cornell (2012), Schildt (2011), Zukowski (2002) – mainly teaching the language with its APIs. Teaching the art of programming is secondary.
- The remaining texts declare that they teach OOP; however the style of explanation and the discussed topics indicate that they belong to the second group.

We note that the objective of this article is not to review the above mentioned textbooks, but to use them as examples of the traditional way of explanation of object oriented constructs and compare them with the proposed approach. We are not going to enumerate the explanations of the topics in the above mentioned textbooks, but we focus on summarizing these approaches.

EVERYTHING IS AN OBJECT

The textbooks explain the term *object* in two ways:

- most of them explain it using *real* world examples,
- the others do not explain it and assume that it is a generally known term which does not need a special explanation.

In both cases students meet similar problems. Their general understanding is that an *object* is something tangible; they have not come across the idea that objects are used also for representing abstract ideas (e.g. beauty, size, direction, connection, interruption, calculation, etc.). None of the analyzed textbooks use such objects in early examples.
If the students meet such objects in a program for the first time, it takes some time until they accept the fact that abstract ideas can be also represented by objects.
We have discovered that it is useful to explain to students at the very beginning that in object oriented programming everything that can be expressed by a noun, including the abstract terms mentioned above is treated as an object. Some students may be confused by it for a while, and they find it difficult to describe an abstract term by means of an object. Therefore, we explain that in programs each object is represented with a set of data items (attributes) that describes the object. From the program's point of view the object is just this set of attributes and it does not matter whether the set represents a *physical* object or an abstract idea.
Most students quickly understand that besides the attributes that characterize cars, chairs, animals or other physical objects they can equally define attributes that characterize colors, directions, beauty, connections and other abstract terms. To facilitate this understanding, we have to use objects of this kind often at the very beginning of the course. Among suitable candidates for these *abstract* objects are, for example, the characteristics of graphical objects such as colors or directions.

CLASSES VERSUS OBJECTS

In most textbooks the class is explained as an abstraction describing some properties of a group of objects, which we call instances of their parent class. Authors often explain that the class serves as a blueprint or a template for the objects that the program uses. Some authors note that we can look at the class as a factory capable of creating objects on demand.
Students sometimes struggle with understanding the difference between classes and objects, especially when we introduce static attributes and methods. Our experience shows that students understand this topic better, when we explain that classes are also objects (we treat everything that can be named by a noun as an object, therefore the classes should also be treated as objects). Students, which have already their first experience with abstract objects, as a direction, color or beauty, have no significant problem with accepting that the classes are also objects.
This concept is (unintentionally) endorsed also by IDE *BlueJ*, which we use in our introductory programming courses. In *BlueJ* we work with classes and objects in a very similar way. Classes as well as their instances are represented by rectangles, whose context menus display all messages that can be sent to the corresponding object (a class or an instance). The only difference is that classes are shown in the class diagram while instances are shown in the object bench. Thus the students find this explanation consistent with their experience.
We explain that several languages (e.g. Smalltalk) classify the classes as standard objects (and therefore they allow e.g. to save these objects in variables), however it leads to a little complicated architecture of the class

hierarchy; and therefore the authors of Java and similar languages implement the classes in a different way, which is much understandable for an ordinary programmer. In these languages the classes are special objects with special properties:

- They are the only objects that can create new objects called instances of their mother class. When advanced students complain that other objects can also create new objects, we explain, that these "other objects" can only return objects that are originally created by certain class. A new object can be created only by its mother class.
- In Java language and similar languages the classes are the only objects that are not instances of any class. We should address the classes in programs directly by their names; however, we cannot assign a class to a variable.
- Classes are represented by a special kind of objects – the class-objects. In Java the class-objects are instances of the `Class` class. When we want to save the class for certain future use, we should save its class-object. However, we should keep in mind that this class-object is not the class itself; it is just the representative of its class.

It is quite astonishing how this small difference in explanation helps to students to understand the term class and how it helps them to solve some more complex problems.

Introduction of classes as a special kind of objects helps also in the explanation of other topics:

- Students have fewer problems with understanding the difference between the class and the instance members (attributes and methods), and they can use both almost from the beginning of the course.
- Students understand more easily the rules for loading a class by a `ClassLoader` and later on it helps them to understand better the principles of inheritance.

INSTANCE MEMBERS VERSUS CLASS MEMBERS

Within typical style of explanation many students have problems with understanding the difference between the static and instance members. The textbooks, which try to explain not only the syntax and libraries, but also the art of programming, therefore place the explanation of static members often far behind the first introduction of objects and their members.

However, when we utilize the basic rule that the classes are similar objects as their instances, the students have no problems to accept that the classes need also their members – attributes and methods. Here *BlueJ*, which inspects both kinds of objects in the similar way, helps again (see figure 1). Thus we can start to use both kinds of members very soon.

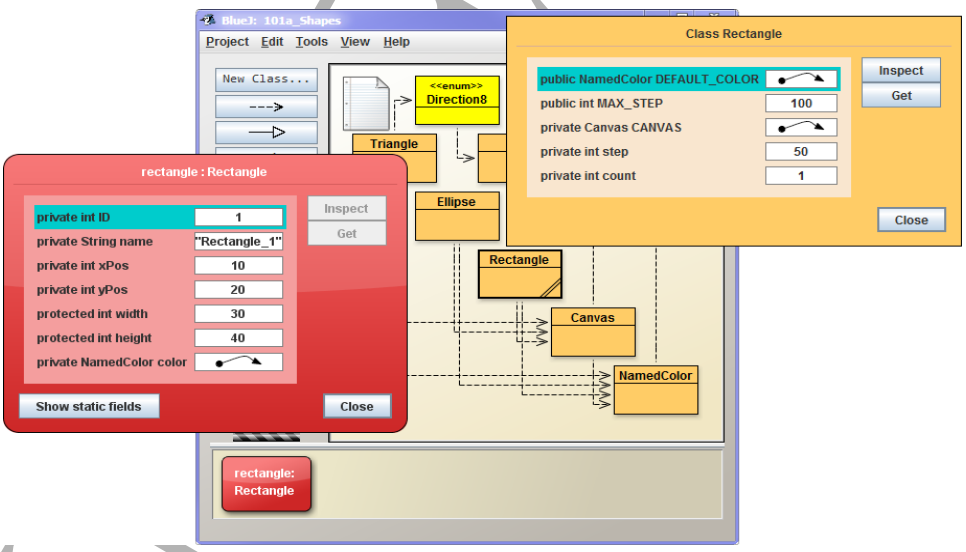

Figure 1: *Inspection of class and its instance*

During our courses, when we leave the interactive mode, where the code is written by the code generator, and start writing the code "by hand" (Pecinovský & Kofránek 2013), it emerged that it is very useful to split up the source code into two parts: the first one engages in the class members and the second one in the instance members.

The standard conventions split up the code into parts engaging in properties (attributes, fields) and behavior (methods) where the class and instance members are often mixed. However, this organization seems to be very confusing for the beginners. The code is much clearer for them, when it is firstly split up into class and instance

sections and only then each of these sections is further split up into subparts for fields, constructors, and methods.

INTERFACES AND INTERFACE TYPES

Programming groups' managers often complain that most graduates in software engineering and computer science perfectly know how to implement the given interface; however, they are not able to recognize the situations, where certain interface should be introduced in the developed architecture.
It seems that this is a consequence of too late introduction of this programming construct in the courses. Take into mind several facts:

- The classic book Gamma, Helm, Johnson & Vlissides (2005) together with many others instruct: *"Program to an interface, not an implementation."*
- Java language (and many other languages, too) incorporates the programmatic construct `interface` that can represent the general interface as a kind of the data type in the program.
- The *Early Bird* pedagogical pattern in Bergin (2012) encourages: *"Organize the course so that the most important topics are taught first. Teach the most important material, the "big ideas", first (and often). When this seems impossible, teach the most important material as early as possible."*

Naturally, this leads to a recommendation to incorporate the interface data types and their implementation into the explanation as early as possible. In addition we should explain not only how to implement the interface, but also the reasons why the interfaces are incorporated into the project architecture.
In our courses we explain interfaces together with their purpose and usage in the second lesson, just after the introduction of objects and classes. We also start very soon assigning homework where students should design interfaces of their own to complete the project successfully.

DESIGN PATTERNS EXPLANATION

The next important subjects, we should explain from the very beginning, are the design patterns. (We can again mention the *Early Bird* pedagogical pattern.) We introduce the basic concept in the first lesson and we start using it and teach how (and why) to use it from the second lesson together with the explanation of the interface.
In fact we start to solve our problem with using the *Servant* design pattern and as a consequence the necessity to use (and therefore also to explain) the interfaces.
Starting from the second lesson we introduce the next design pattern (or several design patterns) in almost each lesson, because we need it (them) for solving the current problem.
Thanks to so early introducing and continuous using of design patterns the students accept them as something common and they naturally use them in their programs from the very beginning.

THE KEYWORD/PARAMETER `THIS`

Another topic whose understanding sometimes causes problems is the keyword `this`. The textbooks differ in its explanation. We can divide these explanations into three groups:

- The explanations from the first group do not mention the meaning of the keyword `this` separately. They only explain what does it mean the expression
  `this.something`
- The explanations from the second group explain that *Java defines* the *keyword* `this` *that can be used inside any method to refer to the current object* or that it *is useful when you need to refer to the instance of the class from its method* or something similar. Not a mention about the connection of the keyword `this` with the method parameters.
- The explanations from the third group explain that beside the explicit parameters there is also the implicit one. Its name is **`this`** and it contains the reference to the invoking object.

Only the third group of explanations describes the real nature of `this` and can fluently continue with explanation that the expression
`instance::method`
determines a lambda expression, of which the first parameter is the method's implicit parameter `this`. The others have to introduce `this` in the role of the first parameter as a new programmatic construction.

CONSTRUCTOR

The next topic causing sometimes problems is the definition and properties of constructors. Almost all textbooks follow the original description published in Strustrup (1991), which says: *"Constructor is identified by having the same name as its class."* The text does not specify if the constructor is or is not a method.
The above mentioned textbooks differ in the explanation of what is a constructor.

- Arnold, Gosling & Holmes (2005) and Horstman (2007, 2013) explain that a constructor is not a method and therefore it may not return anything. Accepting this explanation leads us to assign the responsibility for returning the new object to the `new` "operator"[1].
- Others define the constructor as a special kind of a method having the same name as its class. But they still tell nothing about the returning values.

However, nobody explains why the reflection, exceptions and almost all debuggers use the name `<init>` for the constructor. The approaches to this problem can be again divided into three groups:

- The textbooks from the first group do not contain any mention about the possibility to meet the identifier `<init>` by debugging or in stack trace description (these textbooks do not contain any stack trace with this identifier).
- The textbooks from the second group show this identifier in some stack trace description, but they ignore its strangeness and do not contain any mention what the strange identifier is like.
- The textbooks from the third group reveal, that in debuggers and the stack trace descriptions the constructors are named **`<init>`**, but they do not discuss the difference between this name and the name introduced in the first explanation of constructors.

When we look at the constructor syntax we can interpret it in two ways:

- as the method identified by its class name and declaring no return type,
- as the method identified by the empty string and declaring its class as its return type.

Taking the constructor as the method with the name equal to its class and not declaring the type of its return value, we should introduce a new construct `this(…)` serving for invoking another constructor and transfer the responsibility for the initialization of the created object to it.

On the contrary when we use the explanation that the constructor is a method with an empty name, we can explain the construct `this(…)` as a natural extension of the known rules. This explanation is closer to the actual implementation. Therefore it appears that it is more efficient to explain constructors in this way and explain them as the methods with special properties:

- In Java the internal name of constructors is `<init>`. However, this name (deliberately) violates the rules for identifiers and therefore in the source code the constructors are declared as methods, the names of which are empty strings (methods with empty names).
- The constructor must return a reference to the newly created object. This reference is obtained from the hidden parameter `this`, which is initialized by the caller. Because the returned value is known *a priori*, the language syntax theoretically does not need the statement

  ```
  return this;
  ```

  In fact, we may not write it, it is inserted by the compiler on our behalf to prevent mistakes.
- The constructor can be used only for the initialization of the newly allocated memory and therefore it can be invoked only by the `new` "operator" or by another constructor of the same class. In the latter case the invocation statement must be the very first statement of the calling constructor body to ensure that the memory is not yet initialized.

After the above explanation the students understand the explanation of the following syntactic rules much better. We explain:

- Constructing of a new object proceeds in two steps:
  - Firstly, the `new` "operator" is called with a parameter defining the name of the class, whose instance we want to create (the parent class). This parameter determines the size of the memory allocated for the created object and it also specifies other information needed for creating the object (e.g. the reference to the mother class). Additionally, the allocated memory is filled with zeroes and/or compile-time constants.
  - Secondly, the "empty-string" method (constructor) is invoked with the argument `this` pointing to the allocated memory and possibly also with other arguments. The constructors' task is to initialize this memory so that it would correctly represent the object.

  We can outline the described behavior by writing the statement in two lines:

  ```
  new ClassName    //Invoking the new "operator", memory allocation
  (/*parameters*/); //Invoking the contructor
  ```
- As we have noted, the constructor can be used only for initialization of the newly allocated memory. If it is invoked by another constructor, this invocation must be really the first statement in its body. Nothing may precede it, nor an opening brace.
- If the constructor delegates its responsibility for initializing the object to another constructor, it should qualify this invocation by `this` as we are used to do with normal methods. However, in this case we do not write the *dot*. Thus, instead of writing

  ```
  this.(/*parameters*/);
  ```

[1] De iure the `new` is not an operator, however, many teachers and programmers understand it so.

(we know, that constructor's source code name is the empty string) we write only
`this(/*parameters*/);`

When we explain constructors in this way, the students more easily understand the statement `this(…)` as a tool for delegating the responsibility for initializing the object and they also understand what the `<init>` appearing in exception messages or debugger windows means.

This explanation establishes a good basis for the following explanation of static initializers and invocation of `super` constructor. Everything fits logically together.

When the above explanation is used the students sometimes complain that the object is not created by the constructor but by the `new` "operator". We can use the following analogy: "Who makes cups?" They answer: "A potter." Then we explain that the allocated memory serves similarly as potter's clay and that the constructor processes this memory similarly as the potter processes the clay. Using this analogy, we regard the constructor as the author of the created object.

INHERITANCE

The most common problem with teaching inheritance is that it is taught too early. Some textbooks deal with it immediately after the first introduction of objects and classes.

For now we ignore the rule that if we want the students to acquire the knowledge of the OO paradigm well, we should not explain the concept of inheritance until we explain the concept of interface (a general interface as well as the Java construct `interface`). These problems are discussed in Pecinovský, Pavlíčková & Pavlíček (2006), Pecinovský & Pavlíčková (2007) and Pecinovský (2009a) during explaining the *Design Patterns First* methodology, which was the precursor of the *Architecture First* methodology used now. From the textbooks mentioned at the beginning of this paper only Horstman (2007) explains the `interface` before the inheritance.

When explaining the inheritance all the above mentioned textbooks clarify that a child should represent a special kind of its parent. However, particular textbooks do not put the same emphasis on it. Mostly, they mention this rule only at the beginning of the explanation of inheritance and then they show only how we could use the inheritance to avoid writing an additional code. Unfortunately, the majority of programming textbooks do not present bad examples of inheritance usage at all. This would warn the reader of using a bad design in proper time.

After such explanation the students often remember only that the inheritance serves for reusing the code and they also use it only for this purpose.

We discover that the inheritance should be explained in two phases: firstly the inheritance of interfaces, and only much later the inheritance of the implementation.

When touching the inheritance for the first time, we should explain that there are three kinds of inheritance (Lalond & Pugh (1991)):

- **Inheritance of interface** (in Lalond & Pugh (1991) *subtyping*) occurs when a child inherits the entire interface from its parent, i.e. the signature as well as the contract. As a consequence, an instance of a subtype can stand in for an instance of its supertype.
  However, a compiler ensures the inheritance of the signature only. Maintaining the contract is the programmer's job. Subtype implementation details are totally irrelevant for it; all that matters is that it has the right behavior so that the parent can be formally substituted by the child.
- **Inheritance of implementation** (in Lalond & Pugh (1991) *subclassing*) – it is an implementation mechanism for sharing both code and representation. The subclass inherits all the implementation from its superclass (it is the compiler's job). The subclass can change the behavior that does not fit its requirements, and it can also add new members. Here, the danger is that the overriding code and/or the new members violate the parent's contract.
- **Natively understood inheritance** (in Lalond & Pugh (1991) the "*is-a" relationship*) talks about our assumption that one kind of object is a special case of another. An inconsistence may appear at this place when the implementation differs from our inherent assumption. E.g. mathematicians tell us, that a map is a special kind of a set – it is a set of ordered pairs (key, value). However, in the Java standard library the set is implemented as a special kind of a map.

The experience proved that we should postpone the explanation of class inheritance as late as possible. The reason for postponing this explanation is to provide enough time for exercising the usage of interfaces. The students should learn not only how to implement the given interface, but they also should master how to recognize situations, in which incorporating an interface in their design is useful.

At this point it is helpful to introduce the *Decorator* design pattern and to prepare at least one project, where using this pattern is more effective than the frequently (and improperly) used inheritance of classes. There are two reasons why to introduce this pattern:

- The advanced students who mastered inheritance in a previous course (or from a textbook) are provided with situations where the class inheritance is not the best solution. It also helps to improve students' attention to the ongoing explanation.

- We prepare the background for the following explanation of class inheritance.

If our lessons follow the *Design Patterns First* methodology (Pecinovský & Kofránek 2013), an introduction of the *Decorator* design pattern does not present a problem since the students already know several design patterns and they understand their importance.

As the next step we remind to students that in addition to the heretofore used inheritance of `interfaces` (the language construct) there is also the class inheritance. This inheritance combines the inheritance of the parent class interface with the inheritance of the parent implementation. We explain that the inheritance of implementation is internally handled as if the subclass were designed according to the *Decorator* design pattern. In other words, the inheritance of implementation is *de facto* an application of the *Decorator* design pattern in which the decorator (a child) acquires both the implementation and the interface from the decorated object (a parent). The compiler prepares a hidden constant attribute named `super`, in which a reference to the *decorated object* is held. Additionally, the compiler also ensures the automatic delegation of all inherited methods to the `super`.

For the decorated "`super`" object we introduce the term *parent subobject*. In contrast to the standard decorator the constructor of a child does not take its parent (`super`) as a parameter, but it creates the parent subobject by calling a parent's "empty-string" method (a constructor):

```
super (/* parameters */);
```

where, similarly to the statement `this()`, we omit the *dot*.

We explain that the parent subobject must be created before the rest of the child object is initialized to allow the rest using the inherited members. Thus the child constructor has two alternatives:

- delegating its responsibility for initialization to one of its peers by the statement `this()` or
- starting with creating the parent object, i.e. calling its constructor by the statement `super()`.

The only exception is the situation, when we want to call the parameter-less parent constructor – then the compiler is able to insert its call for us behind the scene.

So far we did not create the parent subobject in our classes explicitly, because the compiler implicitly has used the parameter-less parent constructor. We may immediately show, that identical behavior can be obtained by adding the `super();` statement into our original classes.

Our experience shows that the explanation that follows these rules is much comprehensible for the students than using the traditional approach. Especially, the concept of overriding, which was difficult to understand for many students, is now clear and intelligible for most of them. Several programmers attending our retraining courses have commented that thanks to this explanation they finally fully understand the class inheritance.

We should not forget to remind to students that the three kinds of inheritance must not be interfered. They should fit together. In case of class inheritance, the compiler is able to ensure only the inheritance of the implementation and the signature. The inheritance of the contract is the responsibility of the programmer.

RESULTS AFTER APPLICATION OF THE PRESENTED SUGGESTIONS

This methodology has been tested in several student groups whilst in other groups the introductory programming course was running in the classic way. In the succeeding semester the students of these groups jumbled with the students of other groups when enrolling for new subjects. After passing another semester, all students have been asked to fulfill anonymous web questionnaire. 81 students were willing to fill out the questionnaire which was more than half of the questioned persons.

Inside the preliminary questions there was the question asking for the attended course. According replies to this question we can divide the answering students into three groups:

- The students from the first group attended the courses using the above described methodology and continued in programming courses, where they could meet with students from other courses or even cooperate with them. We will mark this group as `1-1`.
- The students from the second group did not attend the above described courses; however, they meet the students from these courses in further semester and cooperated with them. We will mark this group as `0-1`.
- The students from the third group attended the courses using the above described methodology, but did not continue with programming courses and compared their knowledge and skills with their colleagues in their companies. We will mark this group as `1-0`.

The questionnaire contained 12 questions. Three of them touched evaluation of the described methodology. Answers to these questions are in Tables 1 to 3.

The Table 1 contains answers to the question "*Do you think this kind of explanation can help to students to better understand the relation between the developed program and the simulated reality?*"

Table 1:

	1-1	0-1	1-0	Sum
It will harm very much	0%	0%	0%	0%
It will rather harm	0%	0%	14%	4%
It will neither help, nor harm	11%	17%	14%	12%
It will help a bit	62%	67%	45%	58%
It will help very much	17%	17%	23%	19%
Hardly to assess	9%	0%	5%	7%

The Table 2 contains answers to the question "*According to your opinion: Compared to other groups and with regards to the used concept of teaching did the students from the selected groups learn:*"

Table 2:

	1-1	0-1	1-0	Sum
Considerably less	0%	0%	5%	1%
Rather less	9%	17%	14%	11%
Approximately equally	8%	0%	27%	12%
Rather more	32%	33%	14%	27%
Substantially more	38%	33%	5%	28%
Hardly to assess	13%	17%	36%	20%

The Table 3 contains answers to the question "*Compared to students who attended courses of programming in the classic way, is your ability to formalize the handled problem and design the corresponding architecture of the developed program:*"

Table 3:

	1-1	0-1	1-0	Sum
Considerably smaller	2%	0%	9%	4%
Rather smaller	0%	0%	5%	1%
Approximately equal	13%	50%	32%	21%
Rather bigger	49%	33%	27%	42%
Considerably bigger	23%	0%	0%	15%
Hardly to assess	13%	17%	27%	17%

SUMMARY

This paper was written in response to problems that many students have experienced with understanding the object oriented concepts. It shows that by changing the way of explaining certain OO specific constructs we can improve the comprehensibility of these concepts.

It recommends the use of objects that represent abstract concepts from the very beginning of explanation. Subsequently, the class should be explained as a special kind of object with special features – e.g. that it is the only object that can create new objects – its instances. By writing the source code of the class, it is very useful to strongly separate the definitions of the class members and the instance members.

Further, it recommends to explain the concept of interfaces as the kind of data type at the beginning of the course to allow students to learn not only how to implement them, but also how to incorporate them into the design of the new project. The introduction of interfaces allows early incorporation of design patterns into explanation.

Next it suggests revealing that `this` is an implicit parameter of constructors and instance methods to make the follow-up explanations easier and more logical. Similarly it suggests explaining the constructor as a method whose name is an empty string and which can be used only for initializing a newly allocated memory. It shows how this change makes some other constructs more logical.

Special attention is paid to inheritance. It suggests postponing the explanation of class inheritance far after the explanation of `interface`, and simultaneously preceding it by the explanation of the *Decorator* design pattern. The knowledge of *Decorator* design pattern facilitates understanding of the concept of class inheritance. In addition, the paper recommends explaining the three kinds of inheritance and emphasizing that the compiler

ensures only the inheritance of signature, while providing the correct inheritance of the contract is the programmer's responsibility.
Finally, the paper shows that students appreciate the modified explanation and most of them feel that this modified methodology mediates them a better knowledge of OOP paradigm and thus also a better base for the program design.

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MOTIVATION LEADING TO EATING DISORDERS AMONG YOUNG FEMALE ATHLETES

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ABSTRACT
A part of teaching of physical education and sports is the issue of certain risks that are related to physical activities. One of those serious issues could be an eating disorder among young female athletes. This topic is focused on the motivational problems that lead to a development of those disorders. Qualitative research used interview, focused on the issue of eating disorders, complete the questions on the evaluation of the relationship of food intake and sport. The subject of our study was a group of 7 girls who have lately actively competed in sports /tennis, athletics-long runs, modern gymnastics and biathlon/.
Our results confirmed that an environment in both sports club and "sports family" itself, had become a decisive factor in triggering the disorder. Those physically active girls began to perceive "modulated" food intake as an essential part of their everyday lifestyle. They feared the increasing weight, because in their minds only a slim/skinny figure, at this age, would be a necessary precondition for achieving better results.

INTRODUCTION

In a contemporary society, understanding the quality of life of individuals, including their lifestyle, is mostly associated with an "ideal" figure. If some health problems occur, depending on eating habits, in the majority of our population, they are usually associated with an enormous increase of a highly risky obesity. Very often we forget about problems at the other end of the nutritional spectrum - when an individual tries to decrease the required amount of energy intake of food, it results in developing eating disorders such as anorexia nervosa or bulimia nervosa (Ma, 2011; Preti et al., 2009; Rosen, 2012). These disorders affect mainly women with initial symptoms of the disorder in adolescence, but in recent years they have more often started to affect children (Jongenelis, Byrne, & Pettigrew, 2014) and surprisingly men as well (Hudson, Hiripi, Pope, & Kessler, 2007; Reas & Stedal, 2015).

Anorexia nervosa is characterized by the effort to minimize the food energy intake. Firstly, individuals start to reduce the intake of sweets and fat meals, but gradually it leads to a drastic limitation of intake of any kinds of food and eventually even drinks. Usually such "affected" women try to reduce their weight and therefore become extremely emaciated, almost cachectic. It is very interesting that these women seem to be very active, being able to exercise even several hours a day. Speaking of restrictive subtype of anorexia nervosa we don't find (as a contrary to purgative subtype) any periods of overeating and vomiting or abuse of laxatives and diuretics. The main goal for patients suffering bulimia nervosa is also to reduce the food energy intake, but they are gradually unable to fulfill their goal. These situations lead to eating habits associated with periods of secret overeating, which eventually ends with induced vomiting or, in worse scenarios, with using vomit inducing drugs. The desire to eat is so big for these women, that even repeatedly induced vomiting does not reduce their weight. On the contrary, these patients exhibit normal weight or even overweight. Bulimia nervosa could be divided into two

subcategories — one associated with vomiting and the other one without it (Fairburn & Harrison, 2003; Housková, Papežová, & Haluzík, 2010). Some authors describe risk factors leading to eating disorders as parts of psychosocial and biological fields (e.g. Papežová, 2010; Steinhausen, Jakobsen, Helenius, Munk-Jorgensen, & Strober, 2015). For our study purposes, we find very interesting situational and family factors, risk environment, dissatisfaction of our own body and perfectionism. It is clear, that a repeated pressure at a certain situation, in a family or sports environment, could be a significantly negative impulse. Unfortunately, some studies have shown that even sports environment could be the origin of an eating disorder. Constantly repeated discussions between athletes (sportswomen) and coaches or parents about their weight and an intense determination of a sports environment to bring the girl to excellent achievements at all costs, those two could very well be essential factors in triggering the eating disorder. The relationship between sports activities and a possible development of the eating disorder is described in some studies. Increasing numbers of those disorders among active girls are described by Anderson and Petrie (2012). On the other hand, the relationship is not as clear among boys (DiPasquale & Petrie, 2013; Martinsen & Sundgot-Borgen, 2013) and some studies have even indicated that sport does not affect the development of the eating disorder (e.g. Martinsen, Bratland-Sanda, Eriksson, & Sundgot-Borgen, 2010). If there were any reasons that led athletes to develop eating disorders, it was always about trying to keep specific, for a particular discipline appropriate, figure that could allow them to achieve the best performance (Sundgot-Borgen, 1994; Sundgot-Borgen & Torstveit, 2004)

THE STUDY

For our data collection, we used qualitative research method that has been proven in the previous research by Staňková (2008). The interview was focused on the issue of eating disorders and was supplemented by questions that helped evaluate the relationship between eating disorders and sports. The entire structure of the interview was based on recommendations from Hendl (2008) and used both open and closed methods of questioning. Anonymously controlled interview was focused on areas, such as general awareness of the girls, awareness of their own bodies, influence of the sports environment and family and media and other aspects of the relationship between eating disorders and sports. The subject of our study was a group of 7 girls who all live in Ustí region and have lately actively competed in sports /4x tennis, 1x athletics-long runs, 1x modern gymnastics and 1x biathlon/. All seven girls have participated in national competitions and two of them stated that they were able to compete with the worlds' best. All the girls faced certain forms the eating disorders during their previous active years /3x anorexia nervosa, 2x bulimia nervosa, 2x both anorexia nervosa and bulimia nervosa/.

FINDINGS

Questions about risk factors in psychosocial and biological fields have confirmed, that our respondents demonstrated very good awareness of problems about eating disorders and all confirmed, that during their illness they started to show even bigger interest in such issue. During that period of time they perceived and evaluated their bodies as much stronger and had "excessive" demands for the thinness of their bodies. Six of those girls were under negative influence of their parents and friends involving their "alleged overweight".

When evaluating the relationship between eating disorders and sports we found these essential data:

a) Sports environment, for the majority of respondents, changed the understanding of a "good standard, normal figure". The girls exhibited a shifted perception of a normal figure towards thinness, slenderness. For example, Body Mass Index evaluation proved that two girls, during their active years, showed values, that ranked their figure as normal or even skinny /BMI 22.0 a17.5/, but they thought that for them and for the sports discipline, the optimal value for their performance should be even lower /BMI 19.4 a 17.0/.

b) We also found a significant risk influence of their social environment. Sports environment with coaches, but in most cases with parents (in one case, father was also a coach) repeatedly motivated or otherwise forced those girls to change eating habits in order to reduce the energy intake, that would lead to their body changes, weight reduces and a better ability to perform better.

c) The majority of the girls stated, that during sporting activities they subjectively perceived the ongoing weight loss as very positive. Their main goal was to perform better, but also to get a feeling of a prettier body /or a combination of both/. The respondents also stated, that during sporting activities they learned to eat differently and better than general population. They reported, that they learned to control the composition of the consumed food and use certain sports nutrition supplements.

d) Additional information about a course of treatment of eating disorders are also interesting. During a period of the treatment, athletes were banned from sporting activities, but some of them secretly continued with training. The main reason for such actions was a fear of increasing weigh, where "secretly realized exercises help them burn even more fat on their bodies".

We can therefore say, that sports environment is assumed to be not only one of possible factors, but also one of essential factors, which could trigger eating disorders among young female athletes. The whole social

environment in both sports club and "sports" family itself have become a decisive risk factors in triggering the disorder. The perceiving of "modulated" food intake, as an important factor in shaping bodies to achieve better results, has become a part of their everyday lifestyle. Repeated suggestions, comments as well as mocking from sports environment, coaches and sadly also from parents have all become highly likely a primary factor in development of the disorder. This situation resulted in a different understanding of the "normal figure" in terms of successful realization of a sporting activity. There may be a certain aspect of a perfectionism as an evaluation of their behavior not only in relation to sporting activities, but also to evaluation of their own bodies. This kind of behavior of elite athletes is also mentioned in a study from e.g. Sundgot-Borgen and Torstveit (2004). Based on a study from Maloney and Kranz (1997), perfectionism is understood as a key factor when dealing with bulimia nervosa, because these patients cannot accept a personal failure. In this case, even an evaluation failure of our own physical appearance. These affected women and girls want to be perceived as perfect human beings and great athletes, which eventually develops a vicious circle of a bulimia, so-called "unhappy perfectionism".

CONCLUSIONS

Our findings document a close relationship between an intense sporting activity and eating disorders. Basic motivational factor that can trigger this disorder is generally a sports environment, which perceive a certain "suitability" of a body as a necessary precondition for achieving a better performance. This idea is carried out not only by individuals, who influence sports and life activities of young female athletes /especially coaches, teammates and parents/, but also by those very girls. The pursuit of a certain perfection, when evaluating their bodies, still pushes them not only to "modulate" the food energy intake, but often also to increase the energy expenditure by doing other physical activities. These findings lead us to believe that it is necessary to establish certain systems of actions /for example, other forms of education, web presentation about these problems presented by sports clubs/. All this could result in a better knowledge of eating disorders not only among coaches, but also all individuals /including parents/, who influence lives of young female athletes.

It is also appropriate to supplement information about current attitudes of those monitored girls toward sports. We could assume that after a fully recovery, all girls would "condemn" sporting activities, as key factors in developing relatively serious health problems. However, their attitudes toward physical activities prove, that they are currently not only eating properly, but also are "actively engaged" in sports with a great joy.

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MULTI-MEDIA CULTURE

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ABSTRACT
Literacy is determined as to know how to write and read in the 20th century and it is one of the development criteria for the countries. Recently literacy includes visual, computer, health, and technology literacy beside traditional literacy. These concepts turn out as 'media literacy' Media literacy education helps to develop critical thinking and active participation in our media culture. The goal is to give youth and adults greater freedom by empowering them to access, analyse, evaluate, and create media.

Today information about the world around us comes to us not only by words on a piece of paper but more and more through the powerful images and sounds of our multi-media culture. Although mediated messages appear to be self-evident, in truth, they use a complex audio/visual "language" which has its own rules (grammar) and which can be used to express many-layered concepts and ideas about the world. Not everything may be obvious at first; and images go by so fast! If our children are to be able to navigate their lives through this multi-media culture, they need to be fluent in "reading" and "writing" the language of images and sounds just as we have always taught them to "read" and "write" the language of printed communications.

In the last 40 years, the field of media literacy education has emerged to organize and promote the importance of teaching this expanded notion of "literacy." At its core are the basic higher-order critical and creative thinking skills e.g. knowing how to identify key concepts, how to make connections between multiple ideas, how to ask pertinent questions, formulate a response, identify fallacies-- that form the very foundation of both intellectual freedom and the exercising of full citizenship in a democratic society. This study presents literature review about determination of media literacy and the process of media message interpretation.

Keywords: literacy, culture, media effects

INTRODUCTION

Contemporarily, people are learning and living interactively within the multimedia environment where words and sound are prevailing. During this process role nad significance of media and actors are increasingly changing. All media messages, television shows, newspapers, movies, advertisements, etc. are made or constructed by people. One of the most important media messages, closely examining and "taking part" media messages to understand how they work. Constructing a media message can help us understand who created the message, and who is intended to receive it. It can reveal how the media maker put together the message using words, images, sounds, design, and other elements. It can expose the point of view of media makers, their values. It can also uncover hidden meanings intended or unintended. There is no one "correct" way to deconstruct a media message each of us interprets media differently, based on our own knowledge, beliefs, experiences, and values. Just be prepared to explain your interpretation. Media environment, to make sense of the media messages that bombard us every day, and to express ourselves using a variety of media tools and technologies. We are flooded with messages from the media. We cannot possibly pay attention to all of them or even to a majority of them; we must screen out most of them. To help us do this screening with the least amount of mental effort, we use a default form of processing the messages; that is, we stay in a state of automaticity. While we are in this state, we

automatically screen out messages without thinking about the process until a particular message triggers our attention.

No one can deny the influence that television and the electronic media have had on children and young people in contemporary society (Heath and Gilbert, 1996, p. 378). A common person in the city usually wakes up checks the television news or newspaper, goes to work, makes a few phone calls, eats with their family when possible and makes his decisions based on the information that he has either from their co-workers, news, television, friends, family, financial reports, etc. What we need to be aware is that most of our decisions, beliefs and values are based on what we know for a fact, our assumptions and our own experience. In our work we usually know what we have to do based on our experience and studies, however on our daily lives we rely on the media to get the current news and facts about what is important and what we should be aware of. We have put our trust on the media as an authority to give us news, entertainment and education. However, the influence of mass media on our kids, teenagers and society is so big that we should know how it really works (Goffman, 1974).

But who owns the media, which are the companies or people that shape our values, beliefs and decisions? The media is basically dominated by international big companies. They own the major entertainment theme parks, entertainment movies, television and radio broadcast networks and programing, video news and sports entertainment. They also own integrated telecommunications, wireless phones, video games soft wares, electronic media, the music industry and more. Years ago there was more diversity in companies, but they have merged so now they are just a few and they have the power to shape the opinion and beliefs of us and our kids. So its important to be aware of what your kids are exposed to every day and you should also try to look at things from different perspectives and not just from the one the media gives you (Kimberly, 2007).

THE POWER OF MEDIA

Nowadays, media has become a central and indispensable part of the life. In the last 50 years the media influence has grown exponentially with the advance of technology, first there was the telegraph, then the radio, the newspaper, magazines, television and now the internet. We live in a society that depends on information and communication to keep moving in the right direction and do our daily activities like work, entertainment, health care, education, personal relationships, traveling and anything else that we have to do (Wicks, 1996).

Many political scientists, educators, and criminologists and much of the general public, is that the media do have influence and, in fact, provide our cultural training ground. We learn from the media what our role expectations are in society. Often these role messages are confusing, inaccurate, and distorted. Often they are not counter balanced with an opposing point of view. Media environment is constantly improving. New communication technologies, publishing sector and newly produced technologies are esteemed mostly by the young. In the present day, standard technological skills are not sufficient. Especially, the young are using media message to address adults and peer.

How does mass media influence young people and children? The media makes billions of dollars with the advertising they sell and that we are exposed to. We buy what we are told to be good, after seeing thousands of advertisings. We make our buying decisions based on what we saw on television, newspapers or magazines to be a product we can trust and also based on what everyone else that we know is buying and their decision are also based on the media. These are the effects of mass media in teenagers, they buy what they see on television, what their favourite celebrity advertise and what is acceptable by society based on the fashion that the media has imposed them.

As there are benefits to using the tools of mass media, which the age of science and technology has brought inside our homes; there are also grave negative effects of their overuse, on the physical and mental health of children and adolescents. While the most important physical problems are eating disorders and obesity, the most important psycosocial problems are reduced school performance, learning difficulties, antisocial and aggressive behavior, sexual behavioural problems, desensitisation to violence, nightmares, sleeping disturbances, anxiety, depression, post-traumatic stress disorder and fears of harm coming to them. Time to buy the stuff they buy and look like they look. Another negative influence in teenagers that has grown over the last years are obesity. There are millions of adolescents fighting obesity, but at the same time they are exposed to thousands of advertisements of junk food, while the ideas image of a successful person is told to be thin and wealthy.

EFFECTS OF VIOLENCE IN THE MEDIA

When we watch television or a movie we usually see many images of violence and people hurting others. The problem with this is that it can become traumatic especially in our children as we see it more and more.

Our kids that are starting to grow and are shaping their personality values and beliefs can become aggressive or they can lose a sense of reality and fiction of what they are seeing. Another problem is that real war is used as a form of entertainment by the media, we should make our kids and teen aware that war is not a form of entertainment and that there is no win or lose like in video games, in real war everyone lose.

MEDIA INFLUENCE PUBLIC OPINION

The media has a huge impact on society and also in public opinion. They can shape the public opinion in different ways depending of what is the objective. The media's influence on shaping perceptions, beliefs and attitudes. While research disagrees on the extent and type of influence, it is unquestionable that media experiences exert a significant impact on the way we understand, interpret and act on our world (Levo-Henriksson, 2007). Other ways to influence are with polls and trends, especially in political campaigns. The candidates that can pay for more television and media exposure have more influence on public opinion and thus can receive more votes.

WHAT IS MEDIA LITERACY?

As mentioned above, media has a deep negative impact on the society mainly on the young and children. Media literacy is required in order to resist to the negative impact of media, to gain critical thinking ability and mostly to increasingly activating democratic participation. Thus, it is to answer the question what media literacy is. Media literacy is a process to avoid the negative impacts of media. Media education is aiming to reduce the negative impacts of media. Mass media is embodying positives and negatives for children and the young.

Media literacy aims to increase individuals' critical skills of media culture, enhance media resistance, and strengthen active uses of media for a democratic self-expression and participation. Media literacy is concerned with 'cultivating skills in analysing media codes and conventions, abilities to criticize stereotypes, dominant values, and ideologies, and competencies to interpret the multiple meanings and messages generated by media texts' (Kellner & Share, 2005, p. 372). However, according to the National Tele media Council (Silverblatt & Eliceiri, 1997), it also refers importantly to issues of production: 'the ability to choose, to understand within the context of content, form/style, impact, industry and production—to question, to evaluate, to create and/or produce and to respond thoughtfully to the media we consume.

The idea of media literacy emerged in the early 1990s in the US, as a way of improving 'citizenship' and increasing 'citizen' understanding in the political process through greater understanding of media processes. literacy, according to Quigley (1997, pp. 41–42), could affect the capability of audiences to make decisions and make them voiceless. Media literacy, consequently, which had begun as an idea in the education sector, was greatly expanded to include other groups and other fields of studies. According to Silverblatt and Eliceiri (1997, p. 48), media literacy is defined as a critical thinking skill that enables audiences to decipher the information that they receive through the channels of mass communications. It empowers them to develop independent judgement of media content.

For Potter, media knowledge is important for developing media literacy; developed media literacy requires strong knowledge structures that consist of knowledge about effects, content and industries of the media, as well as an understanding of experiences of the real world and the self. Actors need to develop a personal locus of knowledge of the media and real world to participate in meaningful decision making. The personal locus comprises of goals, drives and consciousness dimensions (Potter, 2004, pp. 97–102). At the personal locus, person analyses strengths, weaknesses and options for issues across information sources, in order to determine the best decision. Competency and skills can be seen as a tool that assists people in dealing with a wide range of media information. It also enhances selectivity. Potter (2004, p. 124) suggests that media literacy has seven primary skills: analysis, evaluation, grouping, induction, deduction, synthesis, and abstraction. Media literacy, according to Potter (2005, p. 27), is an active strategy of strengthening media knowledge and increasing the awareness of media exposure to reduce the influence of the media. The more people made choices about the media, the higher level of media literacy the person obtains (Potter, 2004, p. 97).

Livingstone emphasizes that reading and writing abilities and critical analytical ability is still the base for all known Literacy. Livingstone argues for three main objectives with what she called the Media and Information literacy;
1. Democracy, participation and active citizenship
2. Knowledge economy, competitiveness, and choice
3. Lifelong learning, cultural expression, and personal fulfilment. Literacy should, it is argued by these critics, be conceived as both an individual accomplishment or a social and cultural practice (Livingstone, 2007, p.101).

Media literacy contributes to the critical and expressive abilities that are relevant to a full and meaningful life and a skilled, creative and ethical society. This is because, according to Livingstone, our environment includes media with many pictures / symbols that are interpreted, and this provides the framework for our choices, skills and values that are relevant to our daily lives. Livingstone stresses that the aims of media education are what she calls "deliberant framed" to cover both the structure which supports skills but also of individual talents. Skills must be taken both as an individual and in "a social and cultural practices.

Media literacy education helps to develop critical thinking and active participation in our media culture. The goal is to give youth and adults greater freedom by empowering them to access, analyse, evaluate, and create media (Cappello, Felini & Hobbs, 2011).

CONCLUSION

To be a functioning adult in a mediated society, one needs to be able to distinguish between different media forms and know how to ask basic questions about everything we watch read or hear. As children grow and are able to distinguish the world of fantasy from the real world they live in, they can explore how media are put together by turning the sound off during a cartoon and noting

the difference it makes, or even create their own super hero story using a home video camera and easy to use editing software on the family computer. When students begin to use the internet to research school projects, they can compare different websites and contrast different versions of the same information in order to detect bias or political "spin."

Sometimes a media "text" can involve multiple formats. Uncovering the many levels of meaning in a media message and the multiple answers to even basic questions is what makes media education so engaging for kids and so enlightening for adults (Thoman and Jolls , 2005 , p.16).

In a global media culture, people need two skills in order to be engaged citizens of a democracy: critical thinking and self-expression. Media literacy in stills both of these core skills, enabling future citizens to sort through political packaging, understand and contribute to public discourse, and, ultimately, make informed decisions in the voting booth.

Media literacy teaches the skills we need to navigate safely through this sea of images and messages for all our lives.

We live in a multimedia world. This is reason; the importance of information in society and the need for lifelong learning. Information processing and information services are at the core of our nation's productivity but the growth of global media industries is also challenging independent voices and diverse views. Media education can help teachers, students and us understand where information comes from, whose interests may be being served and how to find alternative views.

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MUSIC TEACHER'S USE OF TECHNOLOGIES IN TEACHING IN STATE-FUNDED SCHOOLS IN CATALONIA

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ABSTRACT
The arrival of technology in music classrooms opened up a whole new horizon of opportunities. Music teachers have at their disposal a pedagogic resource that can be used as much for learning about technology as learning with technology. In this article, we present a part of the results derived from a research project on the digitalisation of music classrooms in state-funded schools in Catalonia. A survey was produced to set out the current state of incorporation of technologies in music classrooms in Catalan schools. The questionnaire was sent to 1,371 schools, of which 35.1% responded. The results are focused on music teacher's use of educational technology in music classrooms, of which we would highlight that only 49,5% of teachers use technology resources in teaching every day; the ICT equipment most frequently used by music teachers is for generic technology rather than specific music educational technology; and the use of technologies in music education processes is focussed mainly on activities in which the teacher defines and controls the learning environment.

Keywords: *Specialist music teacher, educational technology, music education, elementary schools.*

INTRODUCTION

Information and communication technologies are an indistinguishable part of the landscape of modern society. Their presence in all circles of society has influenced the transformation, development and improvement of people's lives (Castells, 2002) and has shaped new paradigms. Proof of these changes can be found in the way in which information and knowledge are accessed, how social and cultural relationships are formed, the way we communicate with people, the manner in which work is conceived and organised and, of course, the means of teaching and learning.

The explosion of technologies in the field of education is leading to the emergence of changes which are inevitably *"turning the world of education on its head - everything from the curriculum and teaching to organisation and interpersonal relationships between the different actors on the educational stage"* (López, 2002, p.10). Educational institutions have not had a reputation for innovation, but the 21st Century school cannot escape the fact that *"technology is part of the modern world"* (Duro & Aguerrondo, 2008, p.147). Consequently, it is becoming increasingly necessary for schools to incorporate technologies in the classroom in a conscious way, thereby empowering pupils in their acquisition of knowledge, skills and attitudes in the arena of digital competencies (Generalitat de Catalunya, 2010).

LITERATURE REVIEW

Towards a new model of school: digitalising classrooms.

Using technology in learning and teaching processes is nothing new. From a historical point of view, schools have been incorporating many different technological innovations in the classroom, albeit in a fairly informal way, since the beginning of the last century (Novelino, 2008), although it was not until the 1980s, with the arrival of the personal computer and computer-assisted teaching, that most local, regional and/or national education authorities around the world began to include technology integration initiatives in their education policies (OECD, 2009). Spain exemplifies this with the initiation in 1985 of the process of introducing computing into non-university education. Through the Ministry of Education and Science's Atenea plan, the autonomous communities with their devolved educational competencies began to implement their own specific programmes. In the case of Catalonia, the Department of Education initiated the Education Information Technology Plan (Programa d'Informàtica Educativa) in 1986 to promote and co-ordinate the integration of technologies in non-university teaching (Área, 2006; PIC, 2007). However, it is only since the implementation of the Education Act known as LOE (an acronym which stands for Ley Orgánica de Educación) which came into force in Catalonia with the Decree 142/2007 of 26th June - containing explicit references to the development and implementation of technology in all stages mandatory education - that the majority of schools have really started to integrate it into the teaching and learning processes and different governments have instigated classroom digitalisation programmes with the goal of aiding digital literacy among pupils and improving the quality and efficiency of learning in schools. Examples of the latter include the Escuela 2.0 programme, the EduCat 2.0 project and the Cultura Digital en la Escuela plan.

Beyond the educational policies orientated to driving the incorporation of technologies in the classroom, authors

such as Hepp (2008), Tedesco (2008), Cabero (2007) and Dirr (2004) have noted a number of reasons why schools must boost the use of technologies in the classroom:

- They constitute an important study tool that helps pupils acquire the skills and knowledge necessary to achieve digital competence. It is worth highlighting that these skills and knowledge are one of the eight basic competencies established in the curricula for the obligatory stages of primary education in Catalonia: *"Information processing and digital competence"*. Development of these competencies is considered essential for pupils to develop as part of their basic education and so form the basis of the Catalan primary school curriculum. Furthermore, in 2013 the Department of Education in Catalonia published a paper entitled *"Basic digital competencies",* which covered in detail the development and achievement of digital competencies in primary education (Generalitat de Catalunya, 2013).
- They combine the written and spoken word via image and sound, which generates new means of transforming communication codes.
- They open up new opportunities in teaching and learning processes (e.g., communicating, handling and exchanging information with peers).
- They help deepen knowledge of a particular topic and to better understand the material via unlimited access to relevant sources of information.
- They are an aid as much for individual learning as collaborative group learning.

Technology and music education: a scene in transformation.

As for the field of music education, it would seem there is a reasonable consensus among the scientific community that *"music technology today is not a passing fad, but an established part of the educational scene"* (Webster, 2002, p.416). *"The evolution of music has occurred in parallel with the scientific and technological developments. Composers and performers of all different stylistic periods have undergone in their performances the technical innovations that the society have put them within reach"* (Fuertes, 1997, p.32). These innovations gave rise to, on one hand, the introduction of technical improvements in the design of the instruments - e.g., the spring-loaded hammer - or the emergence of new instruments - e.g., the Hammond organ -; on the other side, the incorporation of new resources in the equipment of music classrooms - e.g., the laptop or the IWB.

Focussing on the music classrooms, music teachers now have at their disposal a pedagogic resource that can be used as much for learning about technology as learning with technology. In this context, authors such as Torres (2011), Kassner (2010), King (2006), Merrick (2009), Graesser, Chipman and King (2008), Goble (2008), Crow (2006), Savage (2005), Reninger (2000) and Fuertes (1997) have endorsed the importance of using technologies in music teaching and learning processes:

- They are an aid for teaching performances and constitute a tool that improves learning processes and facilitates the management and organisation of the lesson planning (Torres, 2011).
- They afford: (a) to expand the instructional time, (b) to engage students in meaningful and directed instruction, and (c) that each student work at his or her own pace (Kassner, 2010).
- They help pupils to improve learning processes (King, 2006; Merrick, 2009).
- *"Technologies encourage active learning, knowledge construction, inquiry, and exploration on the part of the student"* (Graesser, Chipman & King, 2008, p.211).
- They encourage student participation in creative learning processes (Goble, 2008).
- They open up the possibility that students with a very low level of music theory create music compositions (Crow, 2006).
- They stimulate student's creativity, imagination and musical innovation (Savage, 2005).
- They open up new opportunities in teaching and learning processes (Reninger, 2000).
- The arrival of these media in educational practices has meant that the teaching of music is now intrinsically linked to the new ways society finds of making and listening to music (Fuertes, 1997).

To sum up, the studies presented in this subsection highlight the major benefits that technologies can bring to music education, not only as support tools for teaching performances, but also for their ability to foster improvements in the quality and effectiveness of learning processes. On the basis of these arguments, the findings of this study may potentially provide insights into improving the implementation of technology in music classrooms in state-funded schools in Catalonia. The information derived from the study could be useful for the education authorities in adjusting their classroom digitalisation programmes and to all music teachers who wish to implement technology in teaching and learning processes.

METHOD

This study is part of a wider research - entitled *"The Digitalisation Of Music Classrooms In Schools In Catalonia: Study Of And Proposal For A General Framework For Integrating Technology In Music Education"*- that aims to study the digitalisation of music classrooms in state-funded schools in Catalonia in

order to set out the current state of incorporation of technologies. With regard to the methodological approach, this study is of a descriptive nature and so aims to obtain a detailed and exact view of music teacher's use of technologies in teaching in state-funded schools in Catalonia. Díaz (2002, p.6) argues that the purpose of a descriptive research project is to *"provide a definition of reality, examining a phenomenon in order to characterise it in the best way possible and in order to differentiate it from another phenomenon."* Borg and Gall (196, p.175) stated that "*descriptive studies* involve a detailed description of the characteristics of an educational phenomenon*."*

Participants.

The target population in this study was all schools in Catalonia. However, given *"the difficulties - for reasons of both timeliness and accessibility - entailed to carry out a research that considers all possible individuals in the target population"* (Latorre, Del Rincón & Arnal, 1996, p.78), a representative sample was chosen. The sample was selected using a purposive non-probability sampling based on two criteria: (a) accessibility to schools and (b) representativeness of the sample selected. On the basis of these arguments, it was not considered appropriate to include private and co-funded schools in the study since the sample is intended to be homogeneous with regard to investment in technology in music classrooms.

Data collection and analysis.

An online questionnaire divided into five sections was produced to gauge the current state of technology incorporation in music classrooms. It was developed using elements from various questionnaires that reflect the aim of the tool. This guaranteed both the suitability of each of the elements making up the evaluation tool (Mertens, 2005; quoted by Hernández, Fernández & Baptista, 2010) and also the validity of the evaluation tool through its conceptual representativeness (Hernández, Fernández & Baptista, 2010):

- The first section comprised five items that aimed to characterise the sample of schools.
- The second section included twelve items connected with the identity of the specialist music teacher that works in state-funded schools in Catalonia.
- The third section included seven items relating to the use of technology in the music classroom.
- The fourth section comprised two items that aimed to analyse music teacher's vision regarding to: (a) the investment in technological equipment in state-funded schools in Catalonia and (b) classroom digitalisation programmes instigated by education authorities.
- The fifth section included one item that aimed to offer the opportunity to the specialist music teacher to clarify any of the issues covered in the questionnaire, if necessary.

In addition to these five dimensions, the questionnaire contained an informational section with instructions that referred how to fill in the questionnaire.

Regarding to its execution, a common procedure was established with the aim that all schools had the same conditions when filling in the questionnaire. Equally, an internal test was done before to send the questionnaire to schools with the purpose to check the proper functioning of the online questionnaire. Data were collected over a two-month period (October through November 2011). The questionnaire was sent to 1,371 schools, of which 35.1% responded. Data obtained from the questions of the survey were then analysed by using descriptive statistics.

FINDINGS

ICT equipment in music classroom.

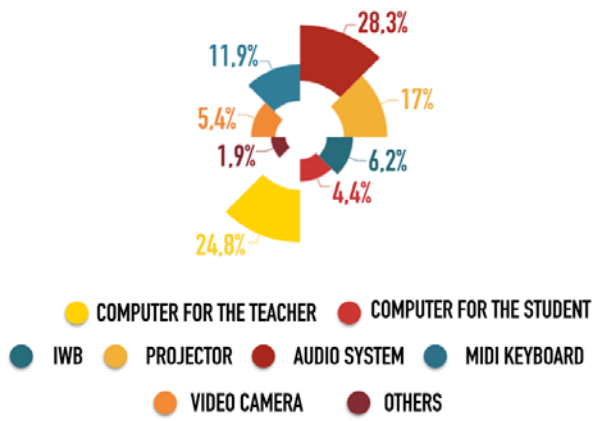

Figure 1: ICT equipment in music classroom.

Music teachers reported that the ICT equipment most frequently found in music classrooms is generic technology which can be used as much for music education as, where necessary, for other subjects in the curriculum [Figure 1]. For example, the three most common devices being a music system (28.3%), a computer for the teacher (24.8%) and a projector (17%). On the other hand, it appears to be much more unusual to find equipment specifically designed for music, such as the MIDI keyboard. In fact, only one in every nine music classrooms are equipped with a MIDI keyboard (11.9%).

ICT knowledge and skills.

Figure 2: Knowledge and Skills in ICT.

55.8% of music teachers reported having a basic level of knowledge and skills in ICT [Figure 2], 38.8% reported having an advanced level, 3.3% reported having an expert level and 2.1% reported having a beginner level. The data obtained echoes the study performed by the Department of Education (Generalitat de Catalunya, 2012), albeit in different investigative contexts to the current study - elementary and secondary school teachers.

Training courses in educational technology for music.

Figure 3: Training courses in educational technology for music.

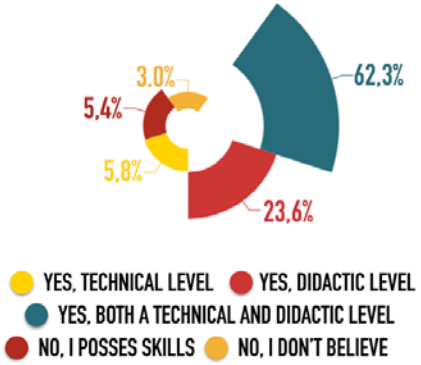

Figure 4: Training in the use of music educational technology.

53.5% of music teachers reported having taken a specific course in the use of music educational technology [Figure 3]. However, 62.3% believe they lack training in the use of music educational technology on both a technical and didactic level, 23.6% believe they lack on a didactic level, 5.8% believe they lack on a technical level and 5.4% believe that they posses skills in the use of music educational technology. On the other hand, only 3% of music teachers reported that they do not believe necessary to be trained in the use of music educational technology [Figure 4].

Predisposition toward integrating technology into their teaching.

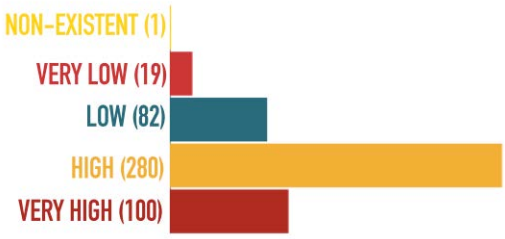

Figure 5: Predisposition toward integrating technology into their teaching.

58.1% of music teachers indicated they have a very high predisposition toward integrating technology into their teaching, 20.7% indicated they have a high predisposition, 17% indicated they have a low predisposition, 3.9% indicated they have a very low predisposition and 0,2% indicated they have a non-existent predisposition [Figure 5]. According to Ramírez, Cañedo and Clemente (2012), if a teacher has a positive attitude towards technological resources, s/he will more likely be pre-disposed to integrate them into teaching processes. On the

other hand, teachers who view technology as a way of keeping pupils occupied will not implement it in their teaching processes as they do not see the value of using technologies in learning (Ertmer, Addison, Lane, Ross & Woods, 1999).

Use of technology in music teaching.

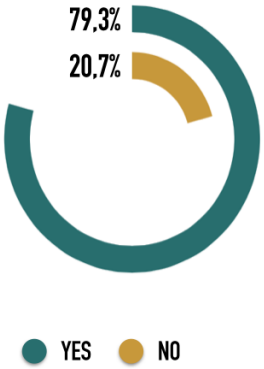

Figure 6: Use of technology in music teaching.

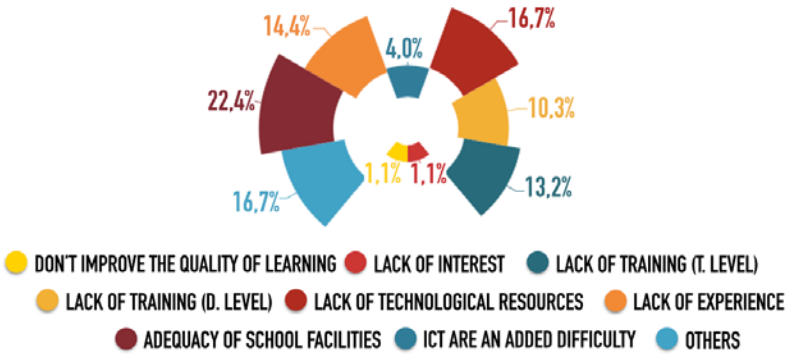

Figure 7: Reasons why music teachers do not use technology in music teaching

79.3% of music teachers affirm to use technological equipment and 20.7% affirm they do not use them [Figure 6]. Focussing on the reasons why music teachers do not use technology in music teaching, 22.4% reported the adequacy of the school facilities, 16.7% reported lack of technological resources, 14.4% reported lack of experience in the use of music educational technology, 13.2% reported lack training in the use of music educational technology on a technical level and 10.3% reported lack training in the use of music educational technology on a didactic level [Figure 7].

Educational level in that technology is used.

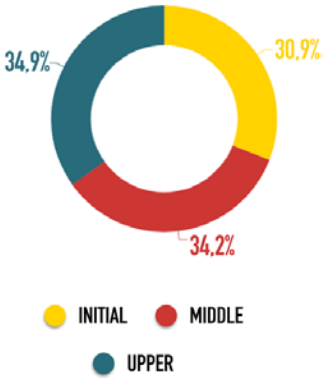

Figure 8: Educational level in that technology is used.

There is a slightly upward tendency based on the use of technology resources and the educational level [Figure 8]. 30.9% of music teachers indicated they use technology resources in the initial cycle of the elementary education, 34.3% indicated they use in the middle cycle and 34.9% indicated they use in the upper cycle.

Frequency of using technologies in music classroom.

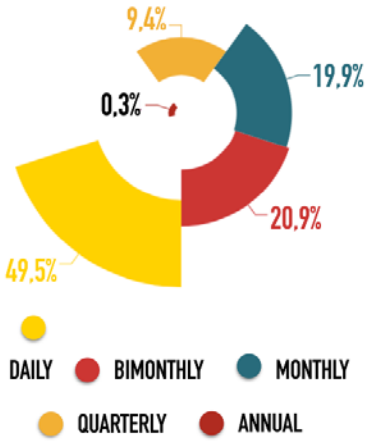

Figure 9: Frequency of using technologies in music classroom.

49,5% of music teachers affirm that use technological equipment every day, 49,5% of music teachers affirm that use technological equipment every day, 20.9% of music teachers use technological equipment bimonthly, 19.9% of music teachers use technological equipment monthly, 9.4% use technological equipment quarterly and 0.3% use technological equipment annual [Figure 9].

Musical activities that involve technology.

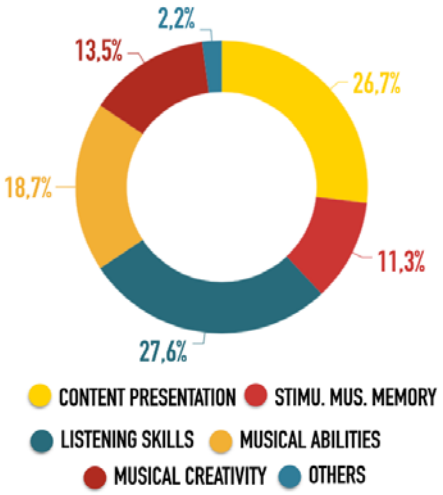

Figure 10: Musical activities that involve technology.

The use of technologies in music education processes is focussed mainly on activities in which the teacher defines and controls the learning environment [Figure 10]. For example, 26.7% of music teachers affirm to use technology during activities of listening skills, 26.7% during the presentation and/or explanation of contents, 18,7% during activities related to training of musical abilities, 13.5% during activities related to musical creativity and 0.2% during others activities.

Investment in technology resources in schools.

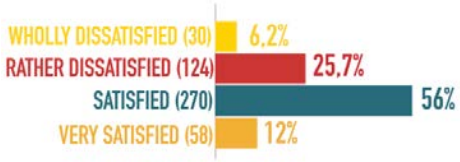

Figure 11: Investment in technology resources in schools.

56% of music teachers affirm that they are satisfied with the level of investment in technology resources at their school, 25.7% affirm that they are rather dissatisfied, 12% affirm that they are very satisfied and 6.2% affirm that they are wholly dissatisfied [Figure 11].

Classroom digitalisation programmes instigated by education authorities.

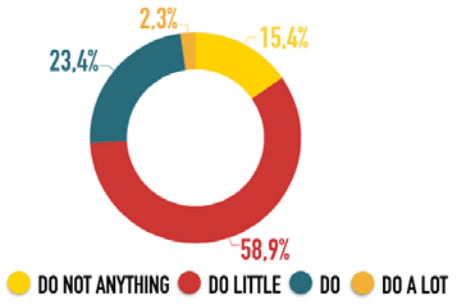

Figure 12: Classroom digitalisation programmes instigated by education authorities.

58.9% of music teachers believe that technology promotion programmes do little to encourage effective use of

technology in educational processes, 23.4% believe that technology promotion programmes do to encourage effective use of technology in educational processes, 15.4% believe that technology promotion programmes do not anything to encourage effective use of technology in educational processes and 2.3% believe that technology promotion programmes do a lot to encourage effective use of technology in educational processes [Figure 12]. The data obtained echoes the study performed by TICSE 2.0 (2011), which reported that at least two-thirds of teachers believe that technology promotion programmes do little to encourage effective use of technology in educational processes.

CONCLUSIONS

Educational technology in music classrooms is still an underused resource in many Catalan schools. The data obtained highlight that specialist music teachers working in state-funded schools in Catalonia show a positive attitude to using technology in learning processes despite the fact that technology have been introduced without the teacher being given adequate training, either in how to use them in teaching or how pupils can use them in learning. So, "*it would be a mistake to assume that simply introducing technology into the classroom will lead to innovation and changes in methodology*" (Generalitat de Catalunya, 2010, p.5). In other words, the incorporation of technology in educational processes requires music teachers to adequately meet the challenges arising from the arrival of technology in the classroom (Área, Gros & Marzal, 2008; Salazar, 2005; Canales & Marquès, 2007). Otherwise, theoretical approaches will remain but good intentions (Canales & Marquès, 2007).

Despite the significance of the study, several limitations were detected while conducting this research. Firstly, the complexity of the study has resulted in a rigorous study which is indicative of the state of use of educational technologies in music classrooms in state-funded schools in Catalonia but which is not comprehensive. Secondly, it is possible that certain people were excluded from the research: (a) music teachers with a very low level of digital literacy which may have prevented them from being able to participate in the online questionnaire; (b) music teachers who may have encountered technical difficulties when filling out the questionnaire, despite an internal test being performed prior to execution to ensure it collected data correctly; and (c) music teachers who were either not interested in expressing their opinion or reluctant to do so.

Notwithstanding these constraints, some implications for practice can still be drawn from the results of this study. Firstly, the training courses in educational technology for music currently offered by the Department of Education in Catalonia fall short of the demands of specialist music teachers working in Catalan schools. The data obtained highlight the need for the Department of Education to review and adjust the training programme providing specific music educational technology courses. Secondly, the attitudes, beliefs and previous experiences of teachers play a decisive role in the process of adoption of technology in the classroom. Teachers, after all, play a pivotal role in any process of change in schools (Área, Gros & Marzal, 2008; Salazar, 2005). Thirdly, technology is not an end in itself but a means to aiding and promoting digital literacy among pupils and improving the overall quality and effectiveness of learning. As other authors have pointed out (Bautista, 2004, Generalitat de Catalunya, 2010), technology should be *"at the service of learning and knowledge"* (Generalitat de Catalunya, 2010, p.5). It follows, therefore, that "the specialist music teacher should interpret and develop the curriculum according to his or her own vision of how music ought to be taught and the pedagogic principles underlying music methods, and does not merely act as executor of the decisions of others" (Barniol, 2004, p.26). On this premise, the introduction of technology into the classroom should not be seen as a replacement for traditional methods but as the arrival of a means of advancing and promoting knowledge, abilities and attitudes in the field of musical and digital competencies.

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NÂBÎ'NİN ŞİİRİNİN HİKMETİ

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SUMMARY
Nâbî who was one of the most important representatives in 17th century Dîvân poetry, is the symbol of saying in hikemî style. His ecole's name is Nâbî school. According to him, poetry should be based on contemplation. It should not make reader walk in dream world. It shoul make reader think on truth, teach "hikmet". The Word "hikmet" has a few meanings. Nâbî used this words' all meanings in his poets. Nâbî spoke on merit and morals in his book named "Hayriyye" which was written for his son. He wrote about creation and funtioning of the universe in his Dîvân. They are all about the word "hikmet".
Nâbî influenced many poets after him with his style. He is an important poet for Dîvân poetry. Because he showed that Dîvân poetry did not disconnected from real life and did not only consist nightingale's love to rose

Key Words: Art, poetry, "hikmet", Nâbî, hikemî style, education.

ÖZET
17. Yüzyıl Dîvân şiirinin en önemli temsilcilerinden biri olan Nâbî, şiirde hikemî tarzda söyleyişin sembolü olmuştur. Nâbî mektebi olarak da adlandırılan bu ekole göre şiir tefekküre yönelik olmalı, okuyan kişiyi sadece hayal dünyasında dolaştırmayıp, hakikat üzerinde düşündürmeli, ona hikmeti öğretmelidir. Birkaç anlama sahip olan hikmet kelimesi, Nâbî'nin şiirlerinde tevriyeli bir kullanıma sahiptir. Şair, oğlu için nasihat diliyle yazmış olduğu "Hayyriyye" adlı mesnevide hikmetin erdem, ahlak kelimeleriyle ilişkisini yansıtır. Dîvânında yer verdiği bazı beyitlerinde ise, yaratılış ve kâinatın işleyişi gibi konularla hikmetin ilim, bilgelik gibi manalarını işler.
Üslubuyla kendisinden sonra birçok şairi etkilemiş olan Nâbî, Dîvân şiirinin gerçek hayattan kopuk, kendi içerisinde oluşturduğu kalıpların dışına çıkamayan, sadece bülbülün güle olan aşkını anlatan bir dünyasının olmadığını göstermesi bakımından, önem taşımaktadır.

Anahtar kelimeler: Sanat, şiir, hikmet, Nâbî, hikemî tarz, eğitim.

GİRİŞ

Klasik edebiyatımız söz konusu olduğunda, onu oluşturan metafiziği göz ardı ederek, Divân şiirinin dünyasına tam anlamıyla girebilmek mümkün görünmemektedir. Bir sanat olarak Divân şiiri, bir yönüyle toplumun aynası olmasının yanı sıra, toplumu meydana getiren insanların bilinçlerinde gerçekliği nasıl kavradıklarının dışa vurumunu da, çağımızın okurlarına gösterir. Sanatın, insanın varlık ve evren tasavvurunun yapılana yansıması[1] tanımından hareketle, şiirin örtülü bir şekilde sunduğu hakikatleri anlamlandırma çabası, bizi bu noktada, klasik dönemde yaşamış insanın varlığı tanımlayış biçimini bilmeyi gerektirir. Bu doğrultuda hakikat kavramı etrafında dolaşma gayreti, hikmet kavramını doğrudan karşımıza çıkarır.

Hikmet, din ve felsefe alanlarında kullanılan geniş anlamlara sahip bir terimdir. Klasik sözlüklerde "hükm" masdarından türeyerek "yargıda bulunmak, engellemek, alıkoymak, gemlemek, sağlam olmak" anlamlarını verir. Cevherî, hikmet sahibi hakîm kişinin "işleri gereği gibi sağlam ve kusursuz yapan" anlamı ile "âlim ve ilmî hüküm sahibi" anlamlarını vermekte, Tehânevî ise "hikmet ilmi" tabirini felsefe manasında kullanmaktadır. İslam dünyasında hikmet kelimesinin felsefe anlamında kullanılması tercüme faaliyetlerinin başlangıç döneminde görülmektedir. Bazı müslüman âlimler felsefeyi hikmetin kendisi değil, "hikmet sevgisi" anlamındaki Grekçe "phila-sophia" kelimesinin anlamından hareketle, hikmetin talep edilmesi ve araştırılması olarak anlamışlardır (Kutluer, 1998: 503-506).

İbn Sînâ hikmeti, metafizik anlamında kullanmıştır. O, hikmetin amacını, insanın ulaşabileceği nihaî bilgiyle nihaî sebepleri kavramak olarak anlatmaktadır. Bu yönüyle hikmet ilimlerin en yükseğidir. Filozof başka bir eserinde tabî ilimleri de hikmetin kapsamı içine alır. İbn Sînâ hikmeti şu şekilde tanımlamıştır: "Beşerî gücün elverdiği nispette insanî nefsin kavramları tasavvur etmek, nazarî ve amelî doğruları tasdik etmek suretiyle kemâle ermesidir". Farabî, hikmetin bilgisinin insana gerçek mutluluğun ne olduğunu, amelî hikmetin de bu mutluluğu elde etmenin yollarını bildirdiğini söyler (Kutluer, 1998: 506-507).

[1] Cihan Okuyucu, *Divan Edebiyatı Estetiği*, LM Yayınları, İstanbul, 2004, s. 53

İbnü'l-Arabî'ye göre hikmet, eşyanın sabit ilkelerinin veya bu ilkelere dayalı olan düzenin verilmiş bilgisidir ve bu çok değerli, özel bir bilgidir. Bu tanım İbn Sînâ'nın hikmet tanımını hatırlatmakta, hikmetin amacının varlığı olduğu gibi bilmek olduğu fikrini karşımıza çıkarmaktadır. (Kutluer, 1998: 509) Felsefe ve tasavvufun birleştiği bu noktada hikmetin Osmanlı entelektüel geleneği içinde izlerini görmek mümkündür. 16. yy. Osmanlı düşünürlerinden Taşköprizâde Ahmed Efendi, hikmetin felsefe ile özdeş olduğunu belirterek, hikmetin üstatları arasında antik Yunan'dan Eflâtun ve Aristo gibi filozofları saymakla birlikte; Fârâbî, İbn Sînâ ve Fahreddin er-Râzî gibi isimlerin de hikmetin İslâm dünyasındaki temsilcileri olduğunu söylemektedir (Kutluer, 1998: 509).

Tasavvuf alanında hikmete büyük ölçüde önem verilmiştir. Hatta İbn Arabî ve Konevî gibi bazı sûfîler hakîm olarak da anılmışlardır. (Demirli, 2009: 11) Büyük sûfîlerden Kaşânî "Letâifu'l-a'lâm fî işarâtı ehli'l-ilhâm" adlı eserinde hikmetin tanımını yaparken şu ifadeleri kullanmıştır: "Eşyanın sırlarını öğrenmek, sonuçların sebeplerle irtibatını anlamak, gereken şeyi gerekli şartlarıyla gerektiği gibi bilmek. Hikmeti bilip gereğiyle amelin nasip edildiği kimse, hikmet sahibidir" (Kaşânî, 2004: 222).

Hikmetin felsefe ve tasavvuftaki manalarını paralel doğrultuda değerlendirmek mümkündür. Aradaki farkı bilgiyi elde ediş yollarında aramak gerekmektedir. Her iki disiplin de varlığın ve eşyanın sırlarını bilme gayretini ve bu doğrultuda ahlakî değerleri önceler.

Bakara Sûresi 269. âyete[2] dayanarak, hikmetin bazı düşünürler tarafından ilim ve amel uygunluğu olduğu şeklindeki yorum, hikmetin güzel ahlak ve öğütle ilişkili olarak değerlendirilmesine sebep olmuştur. Söz konusu âyetle kastedilenin Kuranî ahlak olduğunu söyleyen Zemahşerî gibi âlimler de bulunmaktadır. Buna göre hikmet eşyanın hakikatini bilmek ve güzel işler yapmaktır. Başka bir ifadeyle hikmet sadece doğruyu bilmek değil aynı zamanda doğruyu yapmaktır (Kutluer, 1998: 504).

Buraya kadar hikmet kavramına dair derlemeye çalışılan bilgi ve görüşler, hikmetin klasik dönemde nasıl kavrandığını bizlere göstermeye yardımcı olmaktadır. Bu kavrayışın yansımaları toplumların kimliklerinin oluşmasında önemli bir etkiye sahip sanatta ve onun kollarından biri olan şiirde mevcuttur. Diğer bir değişle toplumların hikmet anlayışları, sanat ve şiir düşünüldüğünde, toplumların meydana getirdiği medeniyeti oluşturan saiklerdendir.

Doğu medeniyeti ile Batı medeniyeti kıyaslandığında, ortaya konan eserler göstermektedir ki, batının görsel sanatlardaki ihtişamını, doğu medeniyeti söze dayalı sanat olan şiirde gösterir. Doğu toplumlarında şiire bir nevi kutsiyet atfedilmiştir. Bu doğrultuda Arapçada "sezmek, bilmek"[3] anlamlarına gelen şi'r kelimesinin hikmet kavramı çerçevesinde düşünülmesi kaçınılmazdır. Cahiliye şairlerini uyarıcı mahiyetteki ayete[4] rağmen, "şüphesiz bazı şiirler var ki hikmettir" hadisi, İslam düşüncesinde şiirin hikmetle bir arada anılması gerektiği görüşünü yansıtmaktadır. (Kutluer, 1998: 505).

Nâbî'nin şiirlerinin hikmet kavramı bağlamında incelendiği bu makalede, yukarıdaki tanım, görüş ve değerlendirmelerden hareketle bir çözümleme yoluna gidilmiştir. Çözümlemenin daha iyi anlaşılması adına, öncelikle Nâbî'nin felsefe ve tasavvufa nasıl baktığına değinmek gerekmektedir.

Nâbî'nin tasavvufa itibar eden bir şair olduğu, şiirlerinde yer verdiği bazı atıflarla görülmektedir:
Ma'rifet zînetidür insânun
Pestdür mertebesi nâdânun (Hayriyye, 332. Beyit, s.63)
Buna dair en önemli işaret, Divân'ında yer alan İbn Arâbî için yazdığı methiye kasidesidir. Meserret Diriöz "Nâbî Divânı" adlı çalışmasının "Nâbî ve Tasavvuf" bölümünde, şairin şiirlerindeki bazı beyitlerin ancak tasavvufla izah edilebileceğini bildirmektedir. Şair yine bir tasavvuf büyüğü olan Abdülkadir-i Geylânî, Mevlânâ Celâlüddin-i Rûmî gibi tasavvuf büyüklerini öven manzumeler de kaleme almış ve onlara olan saygısını belirtmiştir. Nâbî'nin tasavvufu bilen ve ona itibar eden bir şair olduğu rahatlıkla söylenebilir, fakat bir müntesib olduğunu veya amelî olarak tasavvufun içinde yer aldığını söylemek için net kaynaklar yoktur (Diriöz, 1994: 288-291).

Nâbî,'nin tasavvufa olan olumlu yaklaşımı, felsefe için söz konusu değildir. Hayriyye adlı eserinde oğlu için tavsiyelerde bulunurken, aynnı zamanda onun felsefeden uzak durması gerektiğini de söyler:
Matlabun eyle meâlî-i umûr

[2] "Kime hikmet verilmişse ona pek çok hayır verilmiştir." *Ku'an-ı Kerîm ve Açıklamalı Meali*, Türkiye Diyanet Vakfı Yayınları, Ankara, 1993, s.44
[3] F. Steingass, *Arabic- English Dictionary*, Cornell University Library, London, s.544
[4] Eş-Şuara 26/224-227

Vâdi-i felsefeden eyle ubûr (Hayriyye, 305. Beyit, s.59)
Hikmet ü felsefeden eyle hazer
Evliyâ nüshasına eyle nazar (Hayriyye, 325. Beyit, s.62)
Yukarıdaki beyitte hikmetin felsefe manasında kullanılmadığını görmekteyiz. Nâbî, İslam düşünce dünyasında yeri geldiğinde hikmetin temsilcileri arasında sayılan Eflâtun'u, aşağıdaki beyitte hikmetler dağıtan biri olarak görmektedir. Diğer beyitte ise, övdüğü kişinin aklını yüceltmek için Aristo'ya aklın ve faziletin temsilcisi olarak işaret eder.
'İllet-i âşûb sârî oldugın dehre görüp
Hum-nişîn oldı Felâtûn-ı hikem-fermâ gibi (Divan, Gazel 850/4, s. 1097)

O dânâ-yı hıredmend a'lem-i eshâb-ı devlet kim
Aristo mekteb-i fazlında bir şâk'ırd-i ahmakdur (Dîvân, Tarih 116/6, s.317)
Dîvân şiiri geleneği içerisinde, şairlerin asıl meramlarını anlatabilmek için Antik Yunan düşünürlerini âlim olarak tasvir etmeleri sıklıkla karşılaşılan bir husustur. Buna rağmen bu husus, Nâbî'nin felsefe karşısındaki menfî duruşuyla çelişmemektedir. Zira bu isimlerin Nâbî'nin şiir dünyasında aklı ve ilmi temsil eden, sembolik bir karşılıkları vardır.
Nâbî, aşağıdaki beyitte ise oğluna, şüphe etmenin sakıncalı olduğu telkininde bulunmaktadır:
Olma şek mezlakasında güm-râh
Ulemâdur ulemâ-i bi'llâh (Hayriyye, Beyit 330, s.62)
Nâbî'nin bazı beyitlerde felsefeye olumsuz bir gözle nazar etmesi, 17. yy Osmanlı düşüncesinin dayandığı, sosyal, siyasi tavrın ve dönemin itikadî anlayışının etkisiyledir diyebiliriz.

Dîvân şiirinde hikmetin farklı anlamlarıyla yansımalarını görmek mümkündür. Ayrıca bu makalede, Nâbî'nin şiirleri, hikmet kelimesinin tevriyeli kullanımı göz önünde bulundurularak da değerlendirilmiştir. Kelimenin bütün karşılıklarını, Divân şiirini esas aldığımızda düşünmemiz mümkündür. Özellikle edebiyatımıza bu yönüyle damgasını vuran şairimiz Nâbî'nin, bu alanda bir ekol oluşturacak şekilde şiirlerine hikmetin nüfûz etmesi, üzerinde durulması gereken bir husustur.

Eski edebiyatımızda ekol sahibi olan nadir şairlerden biri olan Nâbî, kendisinden sonra yaşamış şairler üzerinde derin bir etkiye sahiptir. Şairin poetikasına genel özellikleri itibariyle baktığımız zaman, şunları sıralamamız mümkündür: Onun hikemî tarz ya da hikemiyat diye adlandırılan tefekkür ve hikmete yönelik şiirinin özelliğini, genel olarak, devrini çok yakından ilgilendiren sosyal ve siyasi olayların bilgece ele alınması, halkın dilinde yıllarca söylenen atasözleri ve deyimler, öğütler veren ayet ve hadisler, insanların günlük hayatlarındaki adet ve gelenekler, kelâm-ı kibarlar… gibi konular oluşturur (Yorulmaz, 1998: 43).

Nâbî, şiire dair görüşlerini, iyi bir şiirin nasıl olması gerektiğini, eserlerinde yer yer bizlere bildirmektedir:
Söz odur âleme senden kala bir darb-ı mesel (Dîvân, Müfred 35, s.1255)
Ona göre şiir tefekküre dayalı olmalıdır. Okuyan kişide sadece bazı hayaller uyandırmayıp, aynı zamanda onu düşünceye sevk etmeli ve hakikat ile hikmet öğretmelidir. Yazılan bir şiirin amacının bu olması lazım gelir. Aksi takdirde lirik şiir dilber dairesinden dışarı çıkamaz, zülüfle sünbül, gül ile bülbül, içki ile kadehi aşamaz (Yorulmaz, 1998: 44). Nâbî şiir yazmaktaki amacını aşağıdaki beyitte, şu şekilde dile getirmektedir:
Teveccüh itmez idüm şi're Nâbiyâ bu kadar
Beyân-ı sırr-ı hikem olmayaydı mazmûnı (Dîvân, Gazel 858/5, s.1104)

Nâbî, şiirin ima ettiği gerçeğin ancak hikmet sırrının beyanı olduğu takdirde, bir itibarının olabileceğini anlatmaktadır. Hem sağlam ve mantıklı bir temele dayanan, hem de açık ve sade bir söyleyişe sahip olan Nâbî'nin şiirinin kilit noktasını, insanı tefekkür yoluyla kuşatan hikmet ve hakikat, akıl ve mantık oluşturur. (Yorulmaz, 1998: 46)

Hikmet kelimesi, Nâbî'nin "Hayriyye" isimli eserinde, "özlü söz, öğüt verici söz" manalarıyla kendini gösterir. Bu eser şairin oğlu Ebu'l-Hayr Mehmed Çelebi için yazdığı bir mesnevîdir. Nâbî burada, bir yol gösterici rehber rolünde oğluna nasihatler verirken onun dinî ve ahlakî bilgileri öğrenmesini ister. Nâbî'nin bu eserini, o dönem Osmanlı toplumunun ahlakî durumu ve devletin çöküşü ile irtibatlandırmak da yanlış olmaz (Yorulmaz, 1998: 36-37).

Nâbî'nin Hayriyye adlı eseri, kendi ifadesiyle oğluna ve onun nezdinde Osmanlı toplumuna "nazm-ı nasîhat"[5]dir. İslâmın şartları, namaz ve oruç gibi ibadetlerin fazileti ve yüceliği gibi dini bilgilerin yanı sıra, ahlâkî öğütler de kitapta yer almaktadır:

[5] Nâbî, *Hayriyye*, Beyit 95, s.30

Secdede hamzede-i âdâb ol
Nokta-i dâire-i mihrâb ol (Hayriyye, Beyit 138, s.36)
Gazab u hiddet ü kin gösterme
Kimseye çîn-i cebîn gösterme (Hayriyye, Beyit 533, s.90)
Meskenet hasletin eyle a'dâd
Ol mülâyim-dil ü dervîş-nihâd (Hayriyye, Beyit 551, s.93)
Ne kadar câhun olursa âlî
Dâmenün buseden olsun hâlî (Hayriyye, Beyit 572, s.96)
Nâbî Hayriyye adlı eserinde genel itibariyle tokgözlülük, cömertlik, iyilik, güzel huy, sabırlılık, hikmet ve tıbbın gerekliliği, hayır-dua gerekliliği, vb. güzel hasletleri öğütlerken; müzevirlik bozgunculuk, içki âlemlerine bulaşma, idarecilik ve fakirlere zulüm, paşalık sevdası, laf taşıma, vb durumlar için de uyarıcı ifadeler kullanmıştır.

Nâbî kelimenin "bilgelik ve felsefe" manalarıyla, şiirlerinin hikmetini bize göstermeye devam eder. Özellikle metafizik bahsindeki varlık ve oluş konusu, Nâbî'nin hikmet anlayışı çerçevesinde şiirlerinde önemli yer tutar. Yaratma, oluş-bozuluş ve âlemin işleyişi üzerine düşünceleri, İslamî bakış açısının dışında değildir. Bütün mevcûdat tek bir hakikatten var olmuştur. Allah, varlığın başlangıcıdır (Mengi, 1991: 43).
Hamd ol Allahu 'azîmü'ş-şâna
Mübde-i dâire-i imkâna (Hayriyye, Beyit 1, s.17)
İnsan ve bütün varlık âlemi, Allah'tan geldi ve dönüş de Allah'adır. Beyitte ayrıca, klasik düşüncedeki daire metaforunun Nâbî'nin şiirine yansıması da görülmektedir. Âlemin, daire benzetmesiyle mümkün bir varlık olduğunun ifadesi, Nâbî'nin felsefî bir terim olan "mümkünü'l-vücûd" terimini bilinçli bir şekilde kullandığını göstermektedir. Benzer ifade aşağıdaki beyitte bu sefer, varlığı başkasına muhtaç olmayan, zâtından dolayı var olan anlamındaki "Vâcibu'l-vücûd" terimi ile birlikte kullanılmıştır:
Zihî Vâcib ki itmiş mümkinün îcâdını îcâb
Kemâk-i rahmetinden eylemiş ma'dûm iken ihyâ (Dîvân, Kaside 1/12)
Varlık sürekli bir oluş halindedir. Hareket, değişim ve başkalaşım, bu âlem için zorunludur. Bu âlem için başlangıçlar ve sonlar vardır.

Bir şair olarak Nâbî'nin eğitime, toplumun düzenine, ahlakî değerlere, erdeme, metafiziğe, devrin nazarî ve tabî ilimlerine, bâtında sırlı olan hakikate, kısacası hikmet kavramının kuşattığı bütün manalara verdiği kıymet, diğer Divân şairleriyle kıyaslandığında kendisini ayrı bir şekilde değerlendirmemize olanak sağlar. Sanat, sonlunun ötesindeki sonsuzluğu bulma çabası ve hakikate değme özlemi olarak değerlendirildiğinde, Nâbî'nin sanatı bu tanıma karşılık gelir.

Sonuç itibariyle Nâbî, geniş anlamıyla hikmete gerektiği değeri veren, bunu eserlerinde yoğun bir şekilde hissettiren bir şairimizdir. Onun bu bakışını oluşturan ise klasik kültürümüzü şekillendiren metafizik anlayışıdır. Kendi çağında, eserlerini meydana getirirken bu anlayışla hareket eden şair, hikmet-eğitim ilişkisini içinde bulunduğu çağın koşullarında en iyi şekilde değerlendirerek kullanmıştır.

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NEEDS AND EXPECTATIONS OF ORGANIZATIONS TOWARDS EDUCATIONAL AND COMMUNICATIONS TECHNOLOGY

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ABSTRACT
The Department of Educational Technology, Faculty of Education Kasetsart University Thailand is mandated to regularly update the curriculum to produce graduates with expertise on production, development, and research as well as management of technology and modern communications for instruction. This mandate highlights values and virtues to lead in the development of information technology, media, and communications. This paper primarily aimed to explore the needs and expectations of public and private organizations towards graduates in the fields of technology and communications studies at the Master and Doctorate levels. In general, the samples of this study included executives and supervisors in 50 public and private organizations. Online questionnaires about the appropriate attributes of educational and communication technologists that organizations need were used to collect data. In addition, the expectations of organizations regarding the technology and communications studies curriculum at the Master and Ph.D. levels were determined. Findings revealed that the needs of organizations included concept specialization particularly on the creative use of modern technology, expertise in the field, ability to work, integrated, knowledgeable, had a vision and exemplifies the values of honesty and loyalty to the organizations. Research results would be useful in improving the teaching and learning curriculum of the Department of Education Technology and Communications in accordance with the needs and expectations of different organizations in Thailand.

Keywords:needs, expectations, organizations, educational technology

INTRODUCTION

According to needs should generally be more objective than either wants or demands (Cooper, Rosemarie; Dempsey, Paula R, 2015). These are likely to be at least partially based on reason or logic. These are elements that are instrumental. If people do not have their needs met, they may tail to achieve a goal. Expectations are the standards against which a service provider's performance should be judged. In Thailand, the National Social and Economic Development Plan (The National Social and Economic Development Plan No. 11 C.E. 2012-2016) aims to enhance the economy by developing production and services based on knowledge and creativity. Creating economic security by promoting the use of information and communications technology in professional development includes supporting the development of creative media to create new values. In addition, this aimed to keep pace with the current changes including the development of a workforce with the knowledge and capability to build a creative economy. Education and training have very important roles in acting as the creator of qualified workers to meet the needs of the labor market in the country (Piriya Pholphirul, 2014). Both public and private organizations emphasized the needs and expectations to encourage personnel to work more efficiently and show high productivity. It aimed to give people in Thailand the potential to create and accumulate knowledge. The guidelines in the development and creation of learning resources support the factors contributing to lifelong learning and significant impact on curriculum development in order to have access to all sources of knowledge thoroughly and do not discourage discrimination. In this regard, educational communications and technology should play vital role in improving the learning contexts for the 21st century. The impact of external circumstances to develop proactive programs need to be tailored to the potential and can be adjusted according to changing economic trends. The curriculum is based on standards and quality assurance that sought to be at par with the standards set for universities in Thailand and in other countries. This also aimed to modernize the course content and improve research directions.

STUDY

This study determined the needs and expectations of departments and external organizations in Thailand. The samples of the study included administrators and heads in both public and private sectors, and personnel appointed as commissioner of educational communications and technology. Online questionnaires were developed with a PollRunner application which included three main issues: 1) respondents' work description in the organization; 2) needs of the organization; and 3) expectations for the technology and communication programs at the Master and Doctorate levels. Initial results showed that 58 percent of respondent belonged to government organizations, 21 percent in private businesses, 15 percent in corporations, 4 percent in state enterprises, and 2 percent as independent entities (Fig.1).

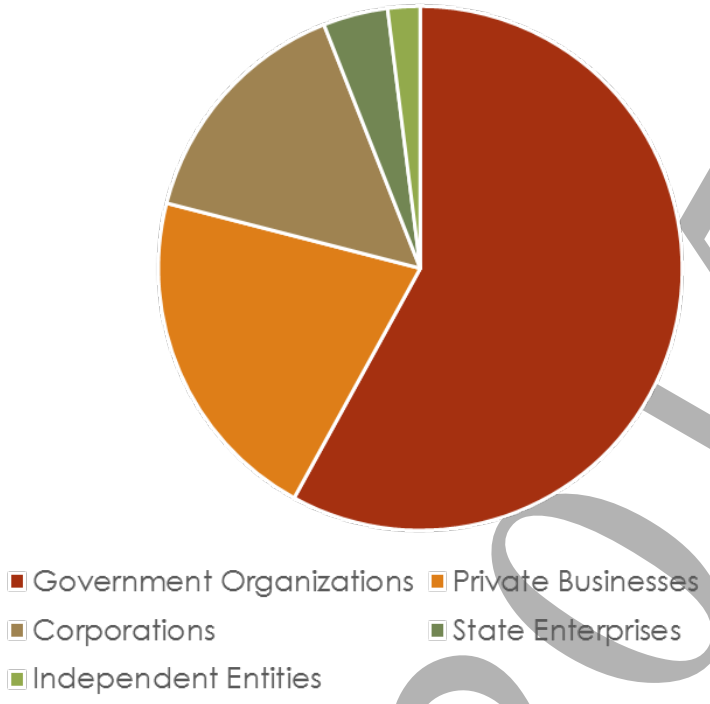

Fig.1 Respondents of the study

Data obtained from the questionnaire were analyzed and grouped. Organizations' needs were classified as follows:
1. Expertise in the field
2. Ability to work
3. Integration

Meanwhile, expectations of the organizations with regard to educational communications and technology graduates were categorized into the following:
1. Knowledgeable
2. Have a vision
3. Exemplifies honesty and loyalty

FINDINGS

Research results showed that organizations were interested on having personnel who had a Master and/or a Doctorate degree. There were numerous positions in government organizations that support educational communications and technology. This was followed by those employed in private entities. These organizations preferred many factors in terms of personnel, technology, and communication studies.

Six expertise in field were identified. These were: 1) knowledge on media production; 2) knowledge and skills on graphic, web, and applications design, and in other specialized programs; 3) good communication skills; 4) leadership abilities and professionalism; 5) good understanding of education concepts; and 6) creativity and skills in using up-to-date tools and technologies (Fig. 2). These expertise should be able to apply in the job properly.

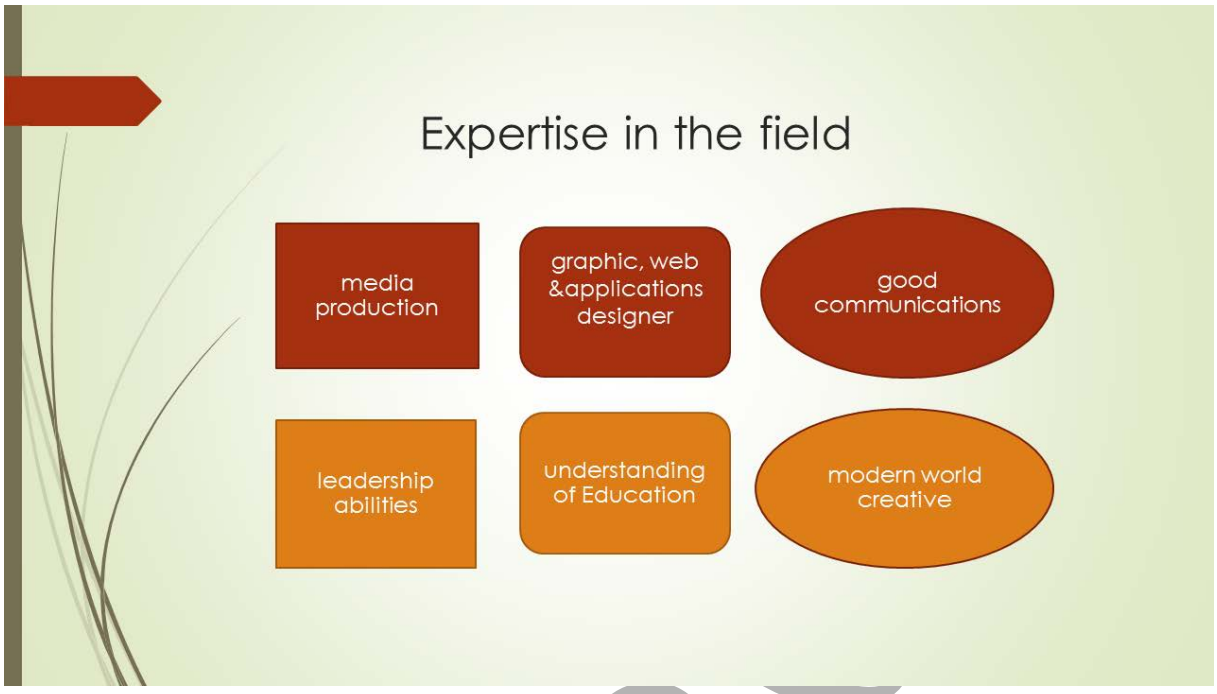

Fig.2 Expertise in the field

Ability to work pertains to the use of up-to-date technology and communications units. These included factors such as fast communication and effective system media development and innovation that apply theories and practices; knowledge and application of educational communications and technology that involve creative ideas; and development time and production efficiency.

Integration dealt with creativity in planning and in operation systems. Fig. 3 shows the different factors that should be considered in integration. Appropriate technology should be applied to benefit the organizations especially with goal-oriented services in harmony with spiritual responsibility. Loyalty to the public is always seeking new knowledge. A better understanding of the work and think like do in new things. Good communication skills refers to the method of disseminating the needed information. Proper application of technology include having initiatives and courage to think about new and bold ideas. Lastly, excellent knowledge and skills in using technology also served as another factor in integration.

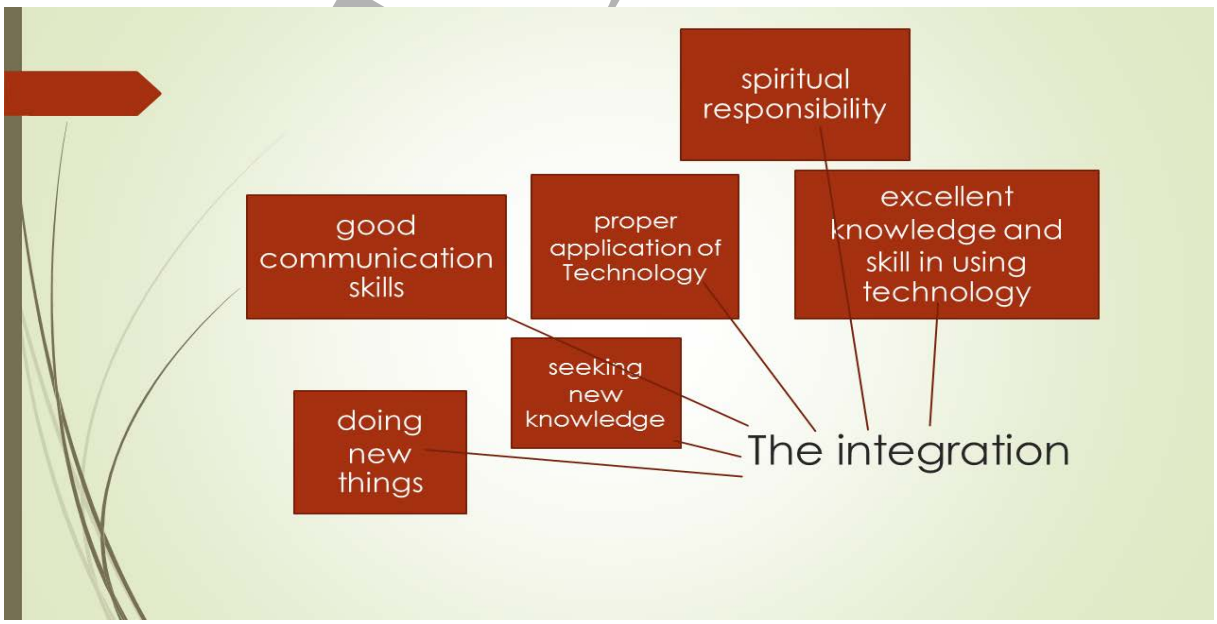

Fig.3 Integration in organizations

Expectations toward graduate programs in educational communications and technology primarily included the knowledge and expertise in handling new technology and applying various methods and tools of communication. These expertise included skills in using the media properly and the knowledge on media production and development; proficiency in using different materials for various applications; well-versed in the discipline and in using applications; innovative in applying principles and theories related to educational communications and technology.

Fig. 4 shows the different factors identified with regard to visions on the effective use of technology. These factors included: 1) Media applications as well awareness to the activities of the organizations; 2) Creative and progressive ideas; 3) Development to keep pace with current changes; 4) Proficient in foreign languages; 5) Disseminate knowledge in the field of technology adoption; 6) Technology development and innovation to further enhance the patent and copyright; and 7) Competency in research, technology, and communication studies.

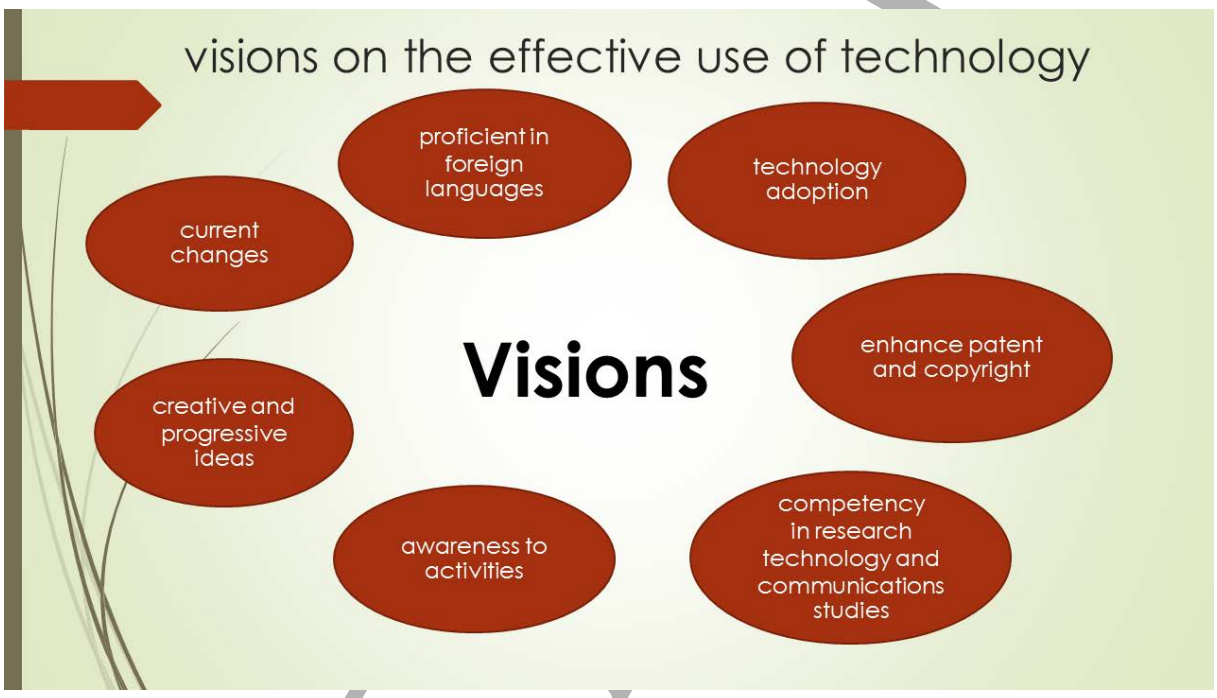

Fig. 4 Visions on using educational and communications technology

This study highlighted the importance of the values of honesty and loyalty to the organization. In addition, Ph.D. graduates should have the expertise in proposing new and relevant theories. The educational communications and technology program has also established a link with professionals abroad. This contributed in the enhancement of applications, analytical and innovative educational communications and technology skills, pursuing new knowledge, creativity, establishing principles that guide the actions and activities in order to achieve the objectives, developing modern media, as well as knowledge transfer. The department addresses these issues by enhancing students' foreign language capabilities, knowledge on technology use, expertise in design, development and innovation as well as an application that can benefit the organizations.

CONCLUSIONS

The Department of Education Communications and Technology has a primary goal of teaching and conducting research to develop students' work to the serve society. The department regularly improves the curriculum and instruction to address several issues. Some of these issues included the design of technology and system development that have the ability to communicate and pass on knowledge to others; creativity and application of the duties properly; and keeping up with the pace and with the changing needs of the global society. With the expertise and experience in using the learning tools and technologies, problems would be properly addressed. In addition, this study also found out that values such as honesty, discipline, and ability to work with others are very important factors to one's success. The needs and expectations of organizations with regard to graduates of Master and Doctorate programs on educational communications and technology were as follows: expertise in the field, ability to work, integrated (Melissa E. Pierson, 2014) knowledgeable, had a vision (Peter R. Albion, Peggy

A. Ertmer, 2002, Matthew Koehler, Punya Mishra, 2009) and exemplifies the values of honesty and loyalty to the organizations (Maaja Vadi , Krista Jaakson, 2006). Thus, the Department of Educational Technology, Faculty of Education, Kasetsart University aimed to regularly update its courses in the graduate program. The curriculum to be taught in 2016 is essential in addressing the needs and expectations of various organizations in Thailand.

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The National Social and Economic Development Plan No. 11 C.E. 2012-2016 Office of the National Economic and Social Development Board Prime Minister's Office.

NEW APPROACH TO THE TOPIC LIPIDS IN SECONDARY SCHOOLS

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ABSTRACT
The article is focused on an issue of Food chemistry and nutrition in secondary school curriculum. We propose a new approach to a topic Lipids in relation to food chemistry and nutrition and process this topic as an educational material for an interactive whiteboard. The topic is seen as a cross-cutting and its content is based on the knowledge gained from analyses of secondary school chemistry and biology textbooks. Analyses showed that textbooks include substantial shortcomings in their content in relation to the food chemistry and nutrition issue. Although textbooks contain enough terms that might be related to the researched topic, their interaction with nutrition and diseases related to nutrition is minimal. The proposed content of the thematic unit Lipids is based not only on analysis of textbooks but also on the results of extensive surveys of the World Health Organization and on recommendations of recognized nutritionists and doctors. Lack of knowledge of secondary schools students about nutrition problems and diseases associated with nutrition was also confirmed by the results of our questionnaire survey conducted among students at the end of third grade grammar schools.
Complete newly designed content of topic Lipids is processed as an educational text for secondary or elementary school teachers. It has three parts: Lipids as an ingredient of food, Digestion and metabolism of lipids and Proper nutrition, diet and diseases associated with nutrition. To each part is processed motivational-educational learning material designed to work with an interactive whiteboard. Each part is also processed as a PowerPoint presentation which can be provided as educational material for students.

INTRODUCTION

Extensive research conducted by the World Health Organization (WHO) in 53 countries in Europe show that poor diet, overweight and obesity cause many civilization diseases, including cardiovascular disease and cancer, the two leading causes of death in Europe [WHO 2013a]. WHO describes an excessive fat intake, low intake of fruits and vegetables and a growing obesity problem as the biggest problem. 66 percent of an adult population in the Czech Republic are overweight and almost 33 percent are obese. It is the highest of all European countries [WHO, 2013b]. Overweight and obesity problem is not only a problem of adults, but also of children and adolescents. Therefore WHO recommends focusing on schools and improve the health and nutrition of school-age children and adolescents.

Diet and healthy nutrition is nowadays a very popular topic. Children and adults are confronted with this issue practically every day in the ubiquitous commercials and it is discussed in various mass media. For the majority of population can be very difficult to assess, which information is true, which misleading or false. How one of the most popular Czech leading nutritionist and medical doctor professor Svačina [2008] highlights: It is a reality, that in all the bookstores, pharmacies and on Czech internet, the unscientific information prevail over scientific, which makes the whole situation much more complicated. Therefore, the topic of Food Chemistry, Nutrition and diet-related diseases should be regularly added to the school teaching.

The content of education in the Czech Republic is based on Framework Educational Programs (FEP). They are, however, very general and schools precisely speaking teachers create according FEP their own school educational program. Their concrete form is based primarily on textbooks. As part of the completed dissertation titled Food Chemistry and Nutrition in teaching in secondary schools, we conducted an extensive analysis of the most widely used school textbooks of chemistry and biology, which investigates both qualitative and quantitative extent of the inclusion of this theme in their contents. The analysis revealed that while textbooks contain enough terms that are related to the researched topic, their connection with nutrition and diet-related diseases is minimal.
Detailed analyzes have been published in the following articles: Topic Lipids in teaching at secondary schools in relation to food chemistry and nutrition [Třeštíková & Klímová, 2014a]; Food chemistry and Nutrition in biology textbooks of secondary education [Třeštíková & Klímová, 2014b]; Food chemistry and Nutrition in chemistry textbooks of secondary education [Třeštíková & Klímová, 2013]; Food Chemistry and Nutrition in Educational Framework Program for Grammar School and in secondary school textbooks [Třeštíková, 2013].

Because a key factor in the diet are especially lipids, we decided to design and process new topic Lipids in relation to Food chemistry, nutrition and diseases associated with nutrition for secondary schools teaching. Basis for the proposal is the analysis of FEP for Grammar School, analysis of school textbooks of biology and chemistry, demands of modern society and the recommendations of recognized dieticians and doctors and, ultimately, the aforementioned World Health Organization. The topic has been processed newly as an educational text for teachers supplemented by educational materials for teaching of students with using interactive whiteboards and also as teaching materials in the form of PowerPoint presentations.

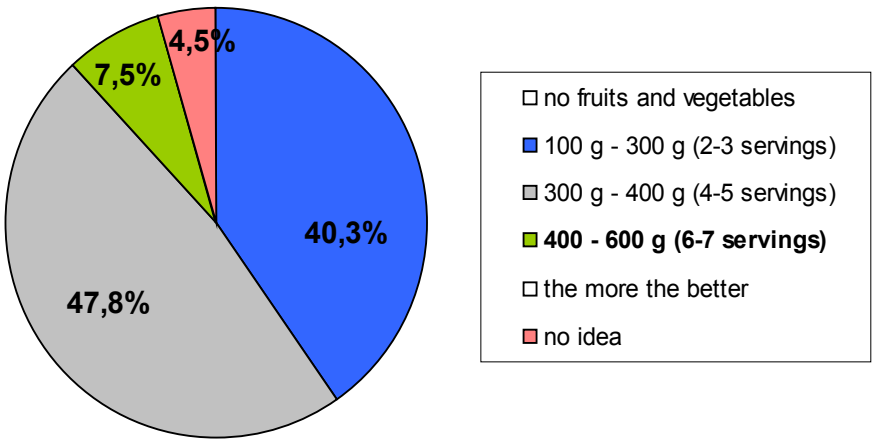
THE STUDY and FINDINGS

Research

To get an idea about a knowledge of secondary school students and their interest in the topic of Food Chemistry, nutrition and diseases connected to the nutrition, we have created a questionnaire consisting of 13 questions, some of them are made of more sub-questions. Eight of the questions have tested the knowledge in the field of the Right nutrition, diet and the diseases connected to the nutrition, others were to check, if the high school students have gained any information connected to the nutrition, if so, in which quantity, in which subject and also how highly they are interested in this topic. The questionnaire was handed out to the students of the third grade of grammar school, where it was assumed that these skills should already have. It was also meant to validate our hypothesis, that the grammar school students have a lack of knowledge in the field of Right nutrition, diet and diseases connected to the nutrition, even though there are interested in this topic. We have tested 67 students from 2 various grammar schools. The results confirm our hypothesis. Students of grammar schools have a little and in most cases incorrect knowledge about a knowledge about nutrition and the diseases associated with it. In the following text we are presenting two examples of two quiz questions.

The wording of question: *What is the recommended amount of fruits and vegetables in any adjustment that we should eat every day according to the principles of good nutrition?*

The correct answer, meaning 400-600 grams was chosen only by 7.5% of students questioned, the rest of the other students think that the recommended amount is less, or they do not know at all, see [Graph 1].



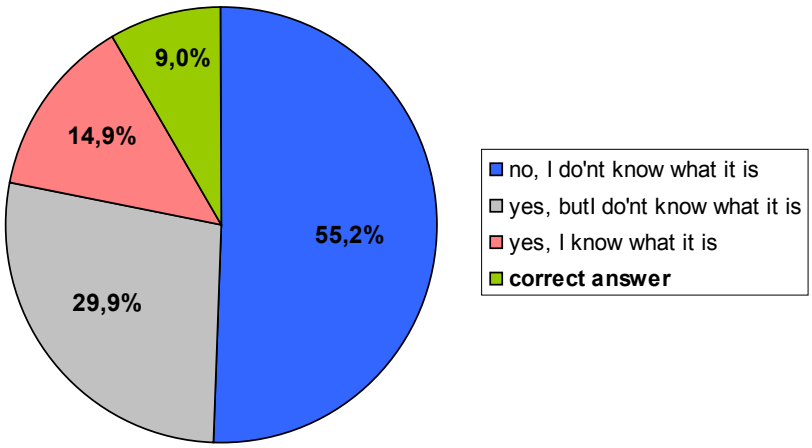
Graph 1: Recommended daily intake of fruits and vegetables – answers of students

The second example is a question relating to diseases connected to nutrition.

The wording of question: *Have you ever got in touch with the term metabolic syndrome? If so, briefly explain.*

Only 9 % of all students questioned really knows that metabolic syndrome is a set of diseases (resp. risk factors), which often occur together and lead to the development of atherosclerosis and its associated complications, usually associated with obesity and type 2 diabetes, see [Graph 2].

In the part of questionnaire detecting an interest of a given issue most of the student mention that they are interested in this topic and the find it useful.



Graph 2: Do you know what is metabolic syndrome? – answers of students

Educational text for teachers

As concluded from the analysis of textbooks, teachers do not have a comprehensive source of information on the issue of Food chemistry, nutrition and its related diseases. It is therefore difficult for them to pass on this information to the students in the practical context. For this reason we have created an educational text for teachers, which consists of three basic parts:

- Lipids as an ingredient of food
- Digestion and metabolism of lipids
- Proper nutrition, diet and diseases associated with nutrition

First part, *Lipids as an ingredient of food*, mainly deals with the chemical nature of lipids contained in food. Various types of lipids are given to the association with nutrition connecting chemical knowledge with practice. A significant part is devoted fatty acids being a basic building stone of simple lipids (homolipids). Fatty acids are divided traditionally into saturated and unsaturated, in connection to the Food chemistry an attention is paid to the cis-unsaturated fatty acids ω-3 and ω-6 and also to the *trans* unsaturated fatty acids. It provides the benefit of these acids for human, their health usefulness or harmfulness, and also examples of foods in which the respective representatives of fatty acids occur. In the case of simple lipids, is given emphasis on triacylglycerols (triglycerides) - solid fats and liquid oils, their chemical, physical and nutritional properties. Composed of heterolipids select particularly phospholipids. Their eminent representative known in the food industry such as E 322 lecithin, which is contained mainly in the egg yolk. Important representative is derived lipid cholesterol, which is also addressed in the second part of the educational text. At the end of the first part includes a chapter on treatment of fat and its effect on food quality. We have included information on refining, hydrogenation or transesterification of lipids.

Second part of the educational text focus on *Digestion and lipid metabolism*. Here is a connection of chemical and biological aspect of these processes. While digestion is being usually part of the grammar school curriculum in a Biology, metabolism is usually a domain of Chemistry. Students often do not see any link between these processes, that is the reason why there is explained the educational text, the metabolism of lipids also includes thein digestion as a first stage of lipid catabolism, which follows the absorption and transport of lipids. Further there is included beta oxidation of fatty acids and lastly the Citric acid cycle and Electron transport chain. The sequence of these catabolic pathways leads to the formation of ATP as energy "tender" of organism. In relation to the transport of lipids an attention is paid to the cholesterol and its transportation together with the other lipids in the particles called lipoproteins. It clarifies often erroneously interpreted nature of ”good” and “bad” cholesterol, which then relates to the transportation mechanism of cholesterol in lipoproteins and a fact, that cholesterol is just one. A chapter is completed with its own schemes of β-oxidation of fatty acids, lipolysis or scheme of synthesis of ketone bodies, being an alternative way of energy intake under a certain conditions.

Third part deals with mainly with the biological contend and it is dedicated to the proper nutrition, diet and diseases associated with nutrition. It contains an information about how to build a proper diet with the help of food pyramid and the general nutritional recommendations. We get to know the most common diets and their effect in the in the prevention or treatment of selected diseases. We get an information about alternative nutrition

directions, especially vegetarianism, its advantages and risks. In the charter dedicated to diseases we deal with a Metabolic syndrome and its basic components – obesity, overweight; hyperglycemia, insulin resistance, diabetes; dyslipidemia, atherosclerosis, cardiovascular disease and hypertension.

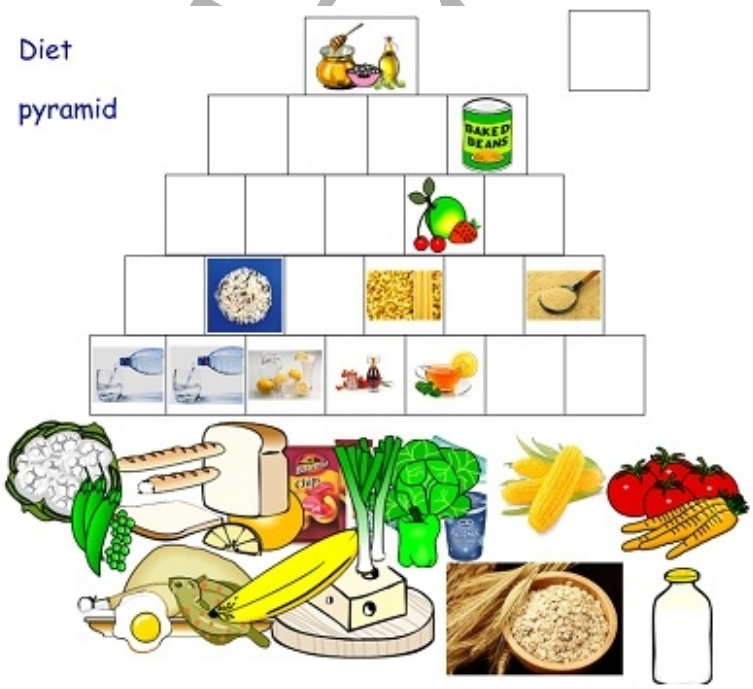
Digital learning materials

To each of the three basic components of the educational text for teachers was created educational materials for students, designed to work with an interactive whiteboard.

The interactive whiteboard (IWB) is a modern educational technology allowing effective instruction full of various learning activities [Dostál, 2011]. IWB's promising benefits to learning and instruction have led to its increased popularity and attractiveness as expressed by a number of researchers [Smith, Higgins, Wall & Miller, 2005; Türel & Johnson, 2012]. Benefits of using IWBs have been recognized by both students and teachers [Northcote, 2010]. The potential benefits of IWBs for teaching are: flexibility and versatility, multimedia presentation, efficiency, supporting planning and the development of resources, modelling ICT skills and interactivity and participation in lessons [Smith, Higgins, Wall & Miller, 2005]. Using IWBs also increases the motivation of students and improves their attention. On the other hand, using IWBs brings in real-life educational setting also some problems and issues. One of the most frequent issues raised by both teachers and students is the need for adequate training in order to use IWBs to their full potential [Smith, Higgins, Wall & Miller, 2005]. Other commonly difficulties cited by teachers relate to the preparation of a lesson incorporating an IWB. If ready-made products are used, then minimum time is necessary [Dostál, 2011].

In my small survey conducted in two Prague grammar schools among students and by personal consultation with their teachers, the use of IWB is significantly restricted just for the use as a projection screen. Most of the surveyed students said they used the interactive whiteboard interactively in teaching for the first time in the verification of my materials. Teachers have justified this fact especially higher time than a common education and lack of time for creating interactive materials. Several students said that during the same time period they discuss less curriculum using an interactive whiteboard than in normal lessons. However, most of the students evaluated the use of interactive whiteboards as being very positive.

Teaching materials for interactive whiteboards were created in the SMART Notebook program. The examples of interactive pages intended for the student´s work during their school lesson we present in the following pictures with the descriptions of activities [see Picture 1 and Picture 2].



Picture 1: The example of interactive page in the chapter The proper nutrition – Food pyramid.
Students gradually collect the pictures of the various food and move them to the relevant floor of the food pyramid. Meanwhile they discuss about a structure and contend of the given pyramid floors, learning to orientate and understand the pyramid.

Picture 2: The example of interactive page in the chapter The proper nutrition – Food composition. According to the energy contend student divide the food ingredients into macronutrients and micronutrients. Student drags a term to one of the vortexes, during an incorrect classification the term is moved back by vortex, when a classification is correct, the term is absorbed by vortex.

Based on the recommendation by teachers, in whose classes were the materials tested on the group of student, the PowerPoint presentations were created. They contain information mentioned in the interactive materials and may be provided to the students as a information background pro the home study instead of textbook. Unlike the educational texts for teachers they are not so detailed and it depends on each mentor, if he chooses to amend it further or to use it in its original form. It can also be used for teaching in case that it is impossible to use an interactive whiteboard or if the teacher prefers this type of learning. If the interactive materials are not used, the PowerPoint presentation can be complemented with the practical involvement of students. For example a creation of Food pyramid from pictures that students cut from ubiquitous advertisement flyers showed a very good result. Students can also bring to school a specific food packages and discuss their composition ore the appropriate inclusion in the diet.

CONCLUSIONS

Our aim for the creation of analysis focusing on the representation of the Food chemistry issue, proper nutrition and diseases associated with nutrition in the Framework Educational Programs (FEP) and the grammar school textbooks were the recommendations of leading Czech nutritional specialists and doctors, the results of an extensive survey of World Health Organization and, ultimately, almost daily meeting with the students with this issue in everyday life. It turned out that although the information about this field is very actual and needed, it has very limited representation in the student´s textbooks. This may also cause detected students' lack of knowledge of this issue. Based on this findings we have proposed and created newly the topic of Lipids for a grammar school teaching. We have connected the usually taught chemical and biological base of this issue in the filed of Food chemistry, nutrition and diseased connected to nutrition. We believe that our materials will be a benefit for education in secondary schools, will give important and interesting information and perhaps become the basis and inspiration for the creation of new school textbooks.

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NUTRITION AND DIETETICS BACHELOR PROGRAM ACROSS EUROPE

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In the last decades, in all developed countries, there is a high concern for maintaining people health, starting from the consideration of investment in preventing, instead of treating. The Nutrition and Dietetics Bachelor program is the first step in forming professionals in this field, able to provide specialized and scientific informations. The aim of this work was to analyze different Bachelor Programs from Europe regarding curriculum, disciplines, duration and fees. For this 7 Bachelor programs from Denmark, Cyprus, Spain, Romania and Switzerland were analyzed. Even if European Federation of the Associations of Dietetitians sets recomandations for the education of dietitians, every country has different perspectives, therefor evaluating these differences is becoming more interesting.

Keywords: Nutrition and Dietetics; Bachelor Program; curriculum; ECTS; Europe.

SEKİZİNCİ SINIF ÖĞRENCİLERİNİN SORUMLULUK DUYGULARI İLE SORUMLULUK DAVRANIŞLARI ARASINDAKİ İLİŞKİ

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ÖZET

Sakarya'da öğrenim gören sekizinci sınıf öğrencileri ile gerçekleştirilen bu araştırma öğrencilerdeki sorumluluk duyguları ile sorumluluk davranışları arasındaki ilişkiyi ortaya koymayı amaçlamaktadır. Tarama modelinde gerçekleştirilen araştırmanın evrenini Sakarya ilinde öğrenim gören sekizinci sınıf öğrencileri oluşturmaktadır. Araştırmanın örneklemi ise amaçlı örnekleme yöntemi ile belirlenmiş, 8. Sınıfta öğrenim görmekte olan 324 öğrenciden oluşmaktadır. Toplanan veriler SPSS'e aktarılmış ve ortalama, standart sapma, bağıl değişim katsayısı, t-testi, tek yönlü varyans analizi ve regresyon analizi istatistiksel işlemleri yapılmıştır. Analiz sonuçlarına göre, sorumluluk duygusu ile sorumluluk davranışı arasında oldukça anlamlı bir ilişki bulunmuştur, sorumluluk duygusu ile sorumluluk davranışları arasında cinsiyetlere ve okul türüne göre anlamlı bir fark bulunamamıştır.

Anahtar Kelimeler: Sorumluluk duygusu, sorumluluk davranışı, öğrencilerde sorumluluk, öğrenci davranışları

GİRİŞ

Bir toplumun uluslararası ortamda varlığını sürdürmesi ve söz sahibi olmasında eğitilmiş insan gücüne gereksinim duyması kaçınılmazdır. Bununla birlikte, bir toplumun geleceğinin iyi yetişmiş ve karakter sahibi insanlara bağlı olduğu bir gerçektir ve insanların iyi bir karaktere kendiliğinden sahip olmaları pek mümkün değildir. Bu yüzden öğrenim çağına gelmiş her bireyin uygun ahlaki kararlar ve davranışlar sergilemesine yardımcı olacak değerler ve becerilerle donatılması eğitimin temel hedefleri arasında yer almaktadır (Çelik, 2010).

Çocukları değerler konusunda eğitmek ailede başlayan ve okulda devam eden bir süreçtir. Gün geçtikçe eğitim sistemlerinde daha fazla yer almaya başlayan değerler, değerler eğitimi, değerlerin korunması vb. gibi pek çok konu aslında insanoğlunun yaşamını mutlu, huzurlu ve sağlıklı bir şekilde devam ettirebilmesi için hayati bir öneme sahiptir. Öğrencilere kazandırılması gereken en önemli değerlerden biri de "sorumluluk" duygusudur. Sorumluluk; kişinin kendi davranışlarını veya kendi yetki alanına giren herhangi bir olayın sonuçlarını üstlenmesidir. Sorumlu davranış ise, diğer insanlara saygı göstermeyi, dürüst davranmayı, öz kontrollü davranmayı ve öz saygıyı içerir. Zaman içinde gelişen, düşünce ve davranışlarımızla ortaya koyduğumuz bir beceridir. Doğan (2001) sorumluluğu; kişinin yüklendiği işten ötürü gerektiğinde hesaba çekilme durumunu, mesuliyeti; sorumsuzca davranışı da, mesuliyetsizlik olarak tanımlamıştır. Cüceloğlu (2002)'na göre ise sorumluluk; kişinin sınırları içerisinde gördüğü olaylardan ve şeylerden hesap vermeye hazır olması anlamına

gelmektedir. Sınıf içi rehberlik uygulamalarında ise sorumluluk, başkalarının haklarına saygılı olmak ve kendi davranışlarının sonuçlarını yüklenmek, olarak tanımlanmaktadır (Selçuk ve Güner, 2001).
Sorumluluk nedir? Sorumluluk sahibi kişinin özellikleri nelerdir? Hayatımızın her yönünde olup bitenlerle ilgili sorumluluğu kabul ediyor muyuz? Yaptıklarımızın nedeninin ve kaynağının kendimiz olduğu gerçeğini kabul ediyor muyuz? Gerçekten sorumlu olabilseydik, bu yaşantımızda bir fark yaratır mıydı? Seçimlerimiz ve eylemlerimizin sonuçları için sorumluluk alıyor muyuz? Olayların akısı için sorumluluğu kabul ediyor muyuz? Sorumlu olabilme yeteneğimizi ne kadar yükseltebiliriz? Bu sorular yaşamımızın her aşamasında "sorumluluk" kelimesini kullandığımızı ve çevremizin de bu davranışı bizden beklediğini göstermektedir (Özen, 2001).

Anne baba çocuğundan sürekli, davranışlarında sorumlu olmasını, hatalarının sonucunu almasını, ev islerindeki görev paylaşımını yapmasını ister. Öğretmen öğrencilerinin ders çalışma sorumluluğuna sahip olmasını ve sınav sonuçlarının kendilerine ait olduğunu kabul etmelerini bekler (Gençtan, 1988; Önal, 2005). Oysa çocuklar sabah yataklarından kalktıklarında bir anda sorumluluk sahibi bireyler olmazlar. Kişisel özellikler belirleyici olsa da; sorumluluk duygusu genel olarak süreç içinde öğrenilen ve kazanılan bir beceridir. Hayat ile ilgili öğrenilen tüm diğer beceriler gibi, sorumluluk sahibi olmak için de pratik yapmak gerekir. Sorumluluk duygusunu geliştirmek için anne-babanın; yaşına, cinsiyetine ve kişisel özelliklerine uygun görevleri çocuğun yapmasına fırsat vermesi, istenilen davranışlar için model oluşturması ve çocuğun gösterdiği olumlu davranışları pekiştirmesi gerekir (beyazpsikoloji.com, 2013). Sorumluluğun kazandırılmasında; aile içinde çocuğa karsı gösterilen davranış, aile içi iletişim, ailede uygulanan disiplin anlayışının yeri büyüktür. Sorumluluk öğrenilebilen bir beceridir. Bu nedenle çocuklara yaşlarına ve yeteneklerine uygun sorumluluklar verilerek, yaptıklarının sonuçlarını görmeğe kabul etme davranışı kazandırılmalıdır. Sorumluluk kazandırabilmek için çocuğa, küçük yaslardan başlayarak yasına göre, bazı konularda kendi kararını kendinin vermesi ve sorumluluğun ona bırakılması gerekmektedir. Anne-baba, yanlış karar vereceğini düşünerek, çocuk yerine karar vermektense, yine kendi kontrolünde; birkaç uygun kıyafet arasından seçim yapmasına, yemekte ne yemek istediğini seçmesine, harçlığını nasıl harcaması gerektiğini kendisinin belirlemesine izin verilmesi çocuğun kendi hayatıyla ilgilikonularda gelecek yaşantısında sorumluluk kazanmasını sağlayacaktır (Önal, 2005).

Sorumluluk duygusu yeterince gelişmemiş yetişkin ve gençler, kararalmak ve vermekten kaçarlar. Birey kendi yaşantısını ilgilendirecek ve sonuç olumlu veya olumsuz olabilecek kararların bir başkası tarafından alınmasını tercih eder. Bu durumda; çevremizdeki bireylerin çoğunlukla yaptığı "bu kararı su kişi verdi, ben tercih etmedim, öğretmenim beni yönlendirdi" gibi cümleler kurarak sorumluluktan kaçmaktır. Bireye, bir başkasının sorumluluk alması daha kolay ve risksiz gelmektedir (Önal, 2005).

Sorumluluklar birbirlerine bağlı halkalardır. Bu halkalardan biri koptuğunda problemler ortaya çıkmaya baslar. Ürün ortaya koyan insan, bu ürünü gerçekleştirirken yapması gereken görevi ihmal eder veya başkasına yaptırırsa, ürün ile ilgili kalitesizlik yaşanır ve sorumlu kişi manen ya da madden cezalandırılır. Köknel (1986: 93) toplumda kendine bir yer ve rol arayan gencin özerklik ve sorumluluğun sınırlarını iyi bilmezse, genel olarak dört grupta toplanabilecek davranış ve eylemleri benimseyeceğini belirtmiştir. Bu davranış ve eylemler;

1) Tam boyun eğerek içinde bulunduğu çevrenin diğer kişilerine benzer ve onların uzantısı olur.
2) Çevreden gelen tüm etkilere karşı çıkar ve baş kaldırır.
3) Çevrenin etkilerine aldırmaz, alabildiğine özerklik peşinde sorumsuz yasar.
4) En sağlıklı yol olarak da; olumlu bir özdeşleşmeyle gerçekçi ilişkilerkurup kendisinin ve toplumun gelişmesinde katkısı olabilecek biçimde, bilinçli çaba içine girer.

İnsanlar pek çok şeye karşı sorumluluk hissetmeli ve hissettiği bu sorumluluğu da davranışa dökebilmelidir. Ancak artık çocuklara hem bazı davranışları kazandırmak hem de kazanılan davranışların kalıcılığını sağlamak gün geçtikçe zorlaşmaktadır. İnsanın duyguları, heyecanları, korkuları, ilgileri gibi psikolojik özellikleri davranışlarını etkiler. Çünkü duygular ferdi yaşayışın bütününe ve içerde yaşanan her ruhsal olaya yön verecek güçtedir. Böyle olunca duyguların kişinin çevresine ve çevre şartlarına uymayı sağlayan faaliyetlerinde itici güç görevini yürüttüğünü söyleyebilir. Bu ise duygunun insanın hem davranışlarının ayarlanmasında hem de fiillerinin ortaya çıkmasında önemli bir etken olduğunu gösterir (Kuyucu, 2012). Yapılan pek çok çalışmada duyguların davranışları nasıl etkilediği vurgulanmaktadır. Örneğin, duygular; değer yargıları, risk tahminlerini etkilemekte, seçilen aktiviteden, geçmişteki yaşananlardan ve genel olarak yasamdan tatmin olma gibi tutumları da etkilemektedir. Bu noktadan hareketle bu araştırmada "Sekizinci sınıf öğrencilerinin sorumluluk duygularının, davranışlarına olan etkisini" ortaya çıkarmak amaçlanmıştır.

1.1. Problem Cümlesi

Sekizinci sınıf öğrencilerinin sorumluluk duyguları ile sorumluluk davranışları arasında ilişki var mıdır?

1.1.1.Araştırmanın Alt Problemleri

1. Sekizinci sınıf öğrencilerinin sorumluluk duyguları ve sorumluluk davranışları cinsiyetlerine göre farklılık göstermekte midir?
2. Sekizinci sınıf öğrencilerinin sorumluluk duyguları ve sorumluluk davranışları öğrenim gördükleri okul türlerine (özel/ devlet) göre farklılık göstermekte midir?
3. Sekizinci sınıf öğrencilerinin sorumluluk duyguları ve sorumluluk davranışları arasında nasıl bir ilişki vardır?

YÖNTEM

2.1. Araştırma Modeli

Bu çalışma tarama modelinde gerçekleştirilen betimsel bir araştırmadır. Bu model olayların, objelerin, varlıkların, kurumların, tutumların ve çeşitli alanların ne olduğunu betimlemeye ve açıklamaya çalışan araştırmalarda kullanılan bir modeldir (Kaptan, 1995; Balcı, 2005).

2.2. Araştırmanın Evreni

Araştırmanın evrenini Sakarya ilinde 2013-2014 yılında öğrenim gören sekizinci sınıf öğrencileri oluşmaktadır. Sakarya ilinde 2013-2014 yılında öğrenim gören kız öğrenci sayısı 7844 iken, öğrenim gören erkek öğrenci sayısı ise 7499'dur. Toplam öğrenci sayısı ise 14643'tür.

2.3. Araştırmanın Örneklemi

Araştırmanın örneklemi, olasılık dışı örnekleme türlerinden olan, amaçlı (purposive) örneklemeye göre belirlenmiştir. Bu örneklemenin temeli, araştırmanın amaçları doğrultusunda bir evrenin temsilci bir örneği yerine, amaçlı olarak bir ya da birkaç alt kesimini örnek olarak almaktır (Sencer, 1989). Araştırmanın örneklemini, Sakarya Büyükşehir sınırları içerisinde yer alan Adapazarı Erenler ilçesine bağlı 'A' Ortaokulu, Adapazarı Hendek ilçesine bağlı 'B' Ortaokulu ve Adapazarı Serdivan ilçesine bağlı özel 'C' Ortaokulunda okuyan sekizinci sınıf öğrencileri oluşturmaktadır. Örneklemde iki devlet okulu ve bir özel okul yer almaktadır. Örneklemde yer alan öğrenci sayıları tablo 1'de görüldüğü gibidir.

Tablo 1. Örneklem Tablosu

Okul Türleri	Kız Öğrenci	Erkek Öğrenci	Toplam
A Okulu	71	90	161
B Okulu	40	38	78
C Okulu	46	39	85

2.4. Veri Toplama Araçları

Araştırmada "Demografik Bilgi Formu" ve Özen (2013) tarafından geliştirilen 'Sorumluluk Duygusu ve Davranışı Ölçeği' uygulanmıştır.

2.4.1.Sorumluluk Duygusu ve Davranışı Ölçeği (SDDÖ)

Özen (2013) tarafından geliştirilmiş olan Sorumluluk Duygusu ve Davranışı Ölçeği (SDDÖ) sosyal durumlar karşısında, duyulan sorumluluk bilincini değerlendirmek amacıyla hazırlanmıştır. Bu ölçek 18 sosyal durum karşısında yaşanan sorumluluk duygu düzeyi ve buna bağlı olarak sorumluluk davranış düzeyinin derecelendirilmesinden oluşmaktadır. Her madde, hem sorumluluğun duygu boyutunu, hem de davranış boyutunu değerlendirmeye yöneliktir. Duygu boyutu sosyal durumlarda yaşanan sorumluluk duygusunu ifade ederken, davranış boyutu da bu duyguya bağlı olarak gerçekleşen sorumluluk davranışının yaşanma sıklığını ifade eder (Özen,2013). Ölçeğin cevaplanmasında 4 dereceli yanıt şıkları duygu düzeyi için "Her Zaman Sorumluluk Duyarım"dan, "Hiç Bir Zaman Sorumluluk Duymam"a doğru giden şekilde olup, duyguya bağlı davranış düzeyi için; "Her Zaman Sorumlu Davranırım"dan, "Hiç Bir Zaman Sorumlu Davranmam"a giden şekildedir (Özen,2013). Ölçekten alınabilecek en düşük puan 18, en yüksek puan ise 72'dir (Özen,2013). Ölçeğin Cronbach Alpha güvenirlik katsayısı duygu boyutu için .85, davranış boyutu için .77 olarak bulunmuştur (Özen,2013).

2.5. Verilerin Toplanması ve Analizi

Araştırmacılar tarafından 2013-2014 eğitim öğretim yılı içerisinde toplanan veriler, gözden geçirildikten sonra SPSS programına girilmiştir. Veriler analiz edilirken bağımsız iki grubun ortalamalarını karşılaştırmak için bağımsız gruplar t-testi yapılmıştır. Ayrıca iki değişkenden birinin diğerine olan etkisini belirlemede kullanılan basit doğrusal regresyon analizi istatistiksel işlemi gerçekleştirilmiştir.

BULGULAR VE YORUMLAR

Araştırmanın bu bölümünde alt problemlere yönelik gerçekleştirilen analizler sonucunda elde edilen bulgulara yer verilmektedir.

3.1. "Sekizinci sınıf öğrencilerinin sorumluluk duyguları ve sorumluluk davranışları cinsiyetlerine göre farklılık göstermekte midir?"

Tablo 2'de öğrencilerin cinsiyetlerine ve öğrenim gördükleri okul türlerine göre "sorumluluk duygusu" ve "sorumluluk davranışları" arasında gerçekleştirilen t-testi sonuçlarına yer verilmiştir.

Tablo 2. T-Testi Sonuçları

Değişkenler			N	$\overline{X}$	ss	t	P
Cinsiyet	Sorumluluk Duygusu	Kız	157	59,31	7,98	,157	,875
		Erkek	167	59,47	10,30		
	Sorumlu Davranışları	Kız	157	56,88	7,88	1,008	,314
		Erkek	167	57,78	8,04		
Okul Türü	Sorumluluk Duygusu	Devlet	239	59,7	8,23	1,233	,219
		Özel	85	58,33	11,60		
	Sorumlu Davranışları	Devlet	239	57,93	8,08	2,223	,027*
		Özel	85	55,71	7,44		

*p<0,05

Tablo 2'de görüldüğü gibi öğrencilerin cinsiyet değişkeni açısından sorumluluk duygularında farklılıkların bulunup bulunmadığını belirlemek amacıyla gerçekleştirilen T- testi sonuçlarına göre "t=0,157" ve "p=875" değerleri, yine sorumluluk davranışları için "t=1,008" ve "p=314" değerleri elde edildiğinden, cinsiyet değişkenine göre hem sorumluluk duyguları hemde sorumluluk davranışları arasında anlamlı bir farkın olmadığı belirlenmiştir.

3.2 Sekizinci sınıf öğrencilerinin sorumluluk duyguları ve sorumluluk davranışları öğrenim gördükleri okul türlerine (özel/ devlet) göre farklılık göstermekte midir?

Tablo 2'deki t-testi sonuçları incelendiğinde öğrencilerin sorumluluk duygularının, öğrenim gördükleri okul türlerine göre "t=1,233" ve "p=0,219" olduğundan anlamlı bir farklılık göstermediği belirlenmiştir. Ancak öğrencilerin öğrenim gördükleri okul türlerine göre sorumluluk davranışları arasında "0,05" düzeyinde anlamlı bir farkın bulunduğu belirlenmiştir (t=2,233" ve "p=0,027). Aynı tablodan ortalamalar incelendiğinde devlet okullarında öğrenim gören öğrencilerin ortalamalarının ($\overline{X}$ =57,93) özel okullarda öğrenim gören öğrencilerin ortalamasından ($\overline{X}$ =55,71) daha fazla olduğu belirlenmiştir. Elde edilen bu bulgulara göre devlet okullarında öğrenim gören öğrenciler özel okullarda öğrenim gören öğrencilere göre daha fazla sorumlu oldukları davranışları gerçekleştirdikleri söylenebilir.

3.3. Sekizinci sınıf öğrencilerinin sorumluluk duyguları ile sorumluluk davranışları arasında bir ilişki var mıdır?

Tablo 2'de öğrencilerin cinsiyetlerine ve öğrenim gördükleri okul türlerine göre "sorumluluk duygusu" ve "sorumluluk davranışları" arasında gerçekleştirilen t-testi sonuçlarına yer verilmiştir.

Tablo 3: Regresyon Analizi Tablosu

R	R^2	Düzeltilmiş R^2	Standart hata		Katsayılar			t	sig
					Standart Olmayan B	Std. Hata	Standart Beta		
,654[a]	,428	,426	6,035	Sorumlu Davranış	23,822	2,186		10,898	,000
				Sorumluluk Duygusu	,564	,036	,654	15,520	,000

Tablo 3'de ise 'Sorumluluk Duygusu' ve 'Sorumluluk Davranışı' arasındaki ilişkiyi ortaya koyan regresyon analizi sonuçları verilmiştir. Tabloya göre öğrencilerin 'Sorumluluk Duygusu' ile 'Sorumluluk Davranışları" arasında "p=0,00" olduğundan "0,05" düzeyinde anlamlı bir ilişkinin bulunduğu belirlenmiştir. Analiz sonucunda elde edilen "R^2" değerinin "0,428" olması nedeni ile öğrencilerin sorumluluk duygularının sorumlu davranışlarının "%428"ini açıkladığı söylenebilir. Tablodan elde edilen diğer bir bulgu ise sorumluluk duygusuna öğrenciler hiç sahip olmasalar dahi sorumlu davranışlarının ortalaması "23,822"dan başlamaktadır. Başka bir ifade ile öğrencilere hiçbir şekilde sorumluluk duygusu kazandırılmasa bile bu düzeyde sorumlu davranışlarının ortalaması "23.822"den başlamaktadır. Eğer birimsel olarak ifade etmek gerekirse öğrencilerde "sorumluluk duygusu" bir birim artırıldığında, sorumlu davranışları da "0,564" birim artmaktadır.

SONUÇ VE ÖNERİLER

5.1. Sonuçlar

Araştırmada 157'si kız, 167'si erkek toplam 324 öğrenciden elde edilen verilere göre, öğrencilerin cinsiyetlerine ve öğrenim gördükleri okul türlerine göre "Sorumluluk Duyguları" ve "Sorumluluk Davranışları" arasında anlamlı bir farkın bulunup bulunmadığı ve ayrıca "Sorumluluk Duygusu" ve "Sorumluluk Davranışı" arasındaki ilişki incelenmiştir. Elde edilen bulgulara göre aşağıdaki sonuçlara ulaşılmıştır:

1. Öğrencilerin cinsiyetlerine göre sorumluluk duygusu ve sorumlu davranışları arasında anlamlı bir fark yoktur.
2. Öğrencilerin öğrenim gördükleri okul türlerine göre sorumluluk duyguları arasında anlamlı bir fark yoktur. Ancak öğrencilerin öğrenim gördükleri okul türlerine göre sorumluluk davranışları arasında anlamlı bir fark söz konusudur. Devlet okullarında öğrenim gören öğrencilerin ortalaması özel okullarda öğrenim gören öğrencilerden daha yüksektir. Bu da göstermektedir ki devlet okullarında öğrenciler, özel okullardaki öğrencilerinden daha fazla sorumu davranışlar göstermektedir.
3. Ayrıca ulaşılan bir diğer sonuç ise "Sorumluluk Duygusu' ile "Sorumluluk Davranışları" arasında anlamlı bir ilişkinin bulunduğudur. "Sorumluluk Duygusu" "Sorumluluk Davranışı"nı "% 42,8" oranında açıklamaktadır. Başka bir ifade ile öğrencilerde sorumluluk duygusu arttıkça öğrencilerin sorumlu davranışları gerçekleştirmesi de doğru orantılı olarak artmaktadır.

5.2.Öneriler

- Toplumdaki diğer değerler ve bu değerlerin duygu ve davranış boyutu incelenebilir.
- Bu araştırmada uygulanmış olan "Sorumluluk Duygusu ve Sorumluluk Davranışı" ölçeği daha üst sınıflara uygulanmak için geliştirilebilir.
- Sorumluluk duygusunun yaş, aile, yaşanılan yer gibi farklı değişkenlerle olan ilişkisi araştırılabilir.
- Sorumluluk davranışının kazandırılmasının aile ve toplum sağlığı açısından önemi hakkında araştırmalar yapılabilir.

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ÖĞRETMEN ADAYLARINDA EGO DURUMLARININ TÜKENMIŞLIĞI YORDAMA GÜCÜ(THE PREDICTIVE POWER OF EGO STATES ON BURNOUT IN TEACHER CANDIDATES)

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Bu çalışmada öğretmen adaylarında ego durumlarının tükenmişliği yordama gücü incelenmiştir. Araştırmada genel tarama modellerinden ilişkisel tarama modeli kullanılmıştır. Araştırmaya Pamukkale Üniversitesi Eğitim Fakültesi'nde farklı bölümlerde öğrenim gören 332 öğretmen adayı katılmıştır. Veri toplama araçları olarak Ego Durumları Ölçeği ile Maslach Tükenmişlik Ölçeği kullanılmıştır. Verilerin analizi için Pearsonkorelasyon katsayısı ve Linear regresyon analizi teknikleri kullanılmıştır. Analizler duygusal tükenmişliğin eleştirel ebeveyn, altın çocuk ve asi çocuk ego durumları ile pozitif, koruyucu ebeveyn ve yetişkin ego durumları ile negatif; duyarsızlaşmanın eleştirel ebeveyn, doğal çocuk ve asi çocuk ego durumları ile pozitif, koruyucu ebeveyn ve yetişkin ego durumları ile negatif; düşük akademik yeterliliğin ise koruyucu ebeveyn ve yetişkin ego durumları ile negatif yönde ilişkili olduğunu göstermiştir. Ayrıca yapılan regresyon analizleri sonucunda eleştirel ebeveyn, yetişkin, altın çocuk ve asi çocuk ego durumlarının duygusal tükenmişliği; eleştirel ebeveyn, yetişkin ve asi çocuk ego durumlarının duyarsızlaşmayı; yetişkin ego durumunun ise düşük akademik yeterlilik tükenmişliğini anlamlı derecede yordadığı görülmüştür. Çalışmada elde edilen bulgular eğitsel açıdan tartışılmış ve ilgililere önerilerde bulunulmuştur.

Keywords: Durumları, Öğrenci Tükenmişliği, Öğretmen Adayları