AN EXAMINATION OF VOCATIONAL SCHOOL STUDENTS' PERCEPTIONS TOWARD MOBILE LEARNING

Okan SARIGÖZ•

Abstract

Mobile learning means all kinds of learning or learning activities happening through mobile technologies such as desktop computer or laptop, tablet, internet and smart phone. The aim of this research is to determine the opinions of vocational school students about mobile learning by considering some demographic variables. The sample of the research constitutes 803 students studying at Çukurova University of Vocational School of Adana in 2015-2016 school years. General screening model and mixed model was used in the research. Such results have been reached in the research that the desired and current information can be reached to mobile devices, and productivity will be increased in the class including mobile devices, mobile devices will be effective on providing self-control, and forget fullness will be reducedin learning with mobile devices. Moreover, such results have been reached in the research that there is no a significant difference of opinions about mobile learning between the students in the 1st grade and the students in the 2nd grade depending on grade level variable, and female students have stronger views and more heightened perceptions regarding mobile learning than male students depending on gender variable.

Keywords: Mobile learning, E-learning, Technology, Perception.

INTRODUCTION

Mobile learning is a type of learning which appeared as a conclusion of co-evaluation of mobile informatics and e-learning fields, provides accession to e-learning content independently of a specific location, benefiting from services created dynamically and communication with others (Ağca & Bağcı, 2013). The numerical majority of devices used in mobile learning can be carried by individuals. Trifonova & Ronchetti (2003), define mobile learning as e-learning through portable devices that are capable of being carried at any moment in the daily life. A clear majority of mobile devices carried with batteries which can last long against energy consumption. This eliminates the problem of working at a desk in order to gain access to information. According to Dönmez, Gelibolu & İnceoğlu (2006), mobile learning is a learning system which provides learners with the opportunity to access learning content and to create interactive learning environments with the help of wireless devices and technologies whenever and wherever they want. The usage of mobile devices by teachers, students and all individuals over a certain age eliminates the problem of communication among individuals. Georgieva, Smrikarov & Georgiev (2005), define mobile learning as the use of portable devices providing learning materials and interaction between teacher and student, anywhere and anytime, in education.

According to Trifonova & Ronchetti (2003), mobile learning is e-learning through devices such as personal digital assistants and mobile phones that we can carry on a daily basis and that include the features of communication and computer. To Corlett, Sharples, Bull & Chan (2005), it should be benefited in theteaching-learning process from palmtop computers, cell phones, and tablet computers which have been gradually widely used thanks to the support of educational institutions.

Each individual is capable of using computer, internet and mobile devices according to their needs since their very early agein today's age of technology that technology and information become over loaded and widespread. Individuals do not take any course for technological knowledge at basic level, because using technological devices and especially devicesneeded, becomes obligation at the present time. According to Wang (2008), mobile devices and internet which are ones of the commonly used concepts in the process of offering education through technological tools in the era of fast-developing technology, have become alternative tools in the process of simplification of learning. Now a day, especially in developed countries, many individuals have internet enabled cell phones. This enables individuals to immediately connect to internet and access the desired information independently of time and place. Thanks to mobile devices, the access to information become independent of time and place (Jason, 2007; Oran & Karadeniz, 2007; Özkartal, 2015a-2015b; Bacanak, 2008; Hahn, 2008; Parsons & Ryu, 2006).

• Öğr. Gör. Dr., Akdeniz Üniversitesi Çocuk Gelişimi Bölümü okan.sarigoz@gmail.com

In order to access information, the usage of internet and smart phones by mobile technologies, portability and being independent of time and place able all individuals to relax in terms of doing research by lightening the burden of all researchers doing research or going to do research. Portability and wireless connection opportunity, two basic features of mobile technologies, provide quick proliferation of mobile learning and of mobile device usage (Georgiev, Georgieva & Smrikarov, 2006). Thanks to portability, workers or people who require information, save time in any case by moving at will or doing another job without remaining at a stable place. The feature of wireless connection enables individuals to do their other jobs and save time by setting them free in every sense.

Because widespread and the most preferred mobile devices start to fall behind in technology after a while, the features of mobile devicesremain incapable and become old-fashioned. For this reason, mobile devices are renewed day by day in terms of software and technology, and devices which are more modern, operate faster and have more features, begin to become preferred increasingly (Chen, 2013; Ciampa, 2014). This results in a serious competition among firms producing mobile devices. Therefore, firms producing mobile devices have to focus their energy on serious works in order not to fall behind in progress. All these developments considering the usage of mobile devices, both as device and in education, change and broaden the definition of technology and also of mobile learning in time. The development and change of mobile devices' features day by day cause that the definition of mobile learning becomes different or changes in time (Demir & Akpınar, 2016).

The effective usage of mobile devices, internet, computers, smart phones, and tablets in private companies and especially in educational institutions, provides founding new educational institutions that offer the education about it. Nowadays, many offices award a certificate of training in software, programming and the effective use of technology related to mobile learning, a new dimension in education. Also, many offices request a certificate oftraining in software, programming and the effective use of technology from applicants who apply for a job.

METHOD

The Problem Sentence

At what level are the views and perceptions of vocational school students about mobile learning?

The Purpose of the Research

The aim of this research is to determine the views and perceptions of vocational school students about mobile learning by considering the demographic variables of gender, grade level, type of program, age, and school graduated. In the research, the effort was made to bring forward various recommendations regarding mobile learning by benefiting from the students' views and opinions.

The Population and the Sample

The population of this research constitutes all students studying in the programs at Çukurova University, and the sample of the research constitutes 803 students studying in the programs of Computer Programming (CP), and of Child Development (CD), and of Accounting and Tax Applications (ATA), and of Fashion Design (FD), Radio and Television Programming (RTP), and of Interior Design (ID), and of Construction Technician (CT) in Vocational School of Adana at Çukurova University.

The Research Model

This research was done with the aim of determining the views and perceptions of vocational school students about mobile learning by considering the demographic variables of gender, grade level, the type of program, age, and school graduated. For this purpose, the surveys and scales, used in the researches on the subject, were scanned by the researcher, and a new 'Survey of Mobile Learning', based on the development study of mobile learning attitude scale made by Demir & Akpınar (2016), was developed by the researcher and used in the research. At first, a field study was done for the survey used in the research, and then open ended questions about the subject were asked to the vocational school students, and from the answers given to these questions, a sketch of 29-item survey was created. After necessary analytical studies, the 22-item survey was formed by removing 7 items from the survey, and after the opinions of five academic members experts in the field of educational sciences about the survey were received, and the survey was put into final form by making required regulations.

Validity and reliability studies of 'The Survey of Mobile Learning' used in the research were conducted and Cronbach's Alpha internal reliability coefficient of the 22-item survey was determined as 0,804. The answers of students participating in the research to the survey depending on the demographic variables were calculated by using Anova test which is an F test, t-test and one-way variance analysis with the help of SPSS 20 statistical software package. The survey used in the research consists of five point likert type 22 items including (1) Strongly Disagree, (2) Disagree, (3) Undecided, (4) Agree, and (5) Strongly Agree. Overall assessment of the survey used in the research was determined sasses follows (Sarıgöz & Özkara, 2015; Sarıgöz, Dönger & Cengiz, 2015; Sarıgöz & Demiralay, 2015; Cengiz, Sarıgöz & Dönger, 2015):

$$RO = \frac{HV - LV}{NO} = \frac{5-1}{5} = 0.8$$

RO: Range of Options	1.00 – 1.80: Strongly Disagree
HV: The Highest Value	1.81 – 2.60: Disagree
LV: The Lowest Value	2.61 – 3.40: Undecided
NO: Number of Options	3.41 – 4.20: Agree
	4.21 – 5.00: Strongly Agree

'General Screening Model' which is one of the descriptive screening methods and 'Mixed Model' were used in the research. General screening model is the screening arrangements carried out on a group, sample group or a paradigm or the entire universe in order to draw conclusion about the universe composed of numerous elements (Karasar, 2010). General screening model is a research model used to specify the types of information such as people's attitudes, beliefs, values, habits and opinions (Mcmillan & Schumacher, 2001). Mixed model includes collecting qualitative and quantitative data regarding same basic facts in a study or a series of studies, and analysing and interpreting the collected data (Leech & Onwuegbuzie, 2007).

FINDINGS

In this part of the research, findings and interpretations based on the students' views and perceptions about mobile learning are presented. In accordance with the purpose of the research, 'The Survey of Mobile Learning' was applied to the students, and the answers of the students to the survey were tabulated and interpreted.

Table 1: t-test analysis results of the vocational school students' answers to the Survey of Mobile Learning according to gender variable

Gender	N	$\overline{X}$	Ss	Sd	t	p
1.Female	411	92.983	4,536	801	2,722	,007
2.Male	392	92,135	4,279			

p<0,05

When the data in Table 1 was examined, from the answers of the vocational school students participating in the research to the Survey of Mobile Learning, it was determined that there is a statistically significant difference (p<,05) between female and male students in favour of female students in terms of their opinions about mobile learning depending on gender variable. In the light of the data obtained from the research, it can be said that female students have stronger views and more heightened perceptions regarding mobile learning than male students.

Table 2: t-test analysis results of the vocational school students' answers to the Survey of Mobile Learning according to the variable of grade level

Grade Level	N	$\overline{X}$	Ss	Sd	t	p
1st Grade	405	92,719	4,546	801	,964	,335
2nd Grade	398	92,417	4,309			

p>0,05

When the data in Table 2 was examined, it was determined that there is no a statistically significant difference (p>,05) between the students in the 1st grade and the students in the 2nd grade in terms of their opinions about mobile learning depending on the grade level variable. In the light of the research data, it can be said that the students in the 1st grade and in the 2nd grade have similar views and perceptions regarding mobile learning.

Table 3: Anova test analysis results of the vocational school students' answers to the Survey of Mobile Learning according to the type of program variable

Type of Program	N	$\overline{X}$	Ss	Variance Source	Sum of Squares	Sd	Mean Square	F	p	Significant Difference (Tukey)
1)CP	228	93,66	4,24	Wit. Gr.	615,17	6	102,53	5,396	,000	
2)CD	115	91,56	4,93	Btw. Gr.	15123,75	796	19,00			1-2
3)ATA	151	92,72	4,13	Total	15738,92	802				1-5
4)FD	75	92,61	3,83							1-6
5)RTP	73	91,47	4,91							
6)ID	80	91,31	4,26							
7)CT	81	92,84	4,28							
Total	803	92,57	4,43							

p<0,05

When the data in Table 3 was examined, from the answers of the students participating in the research and studying in various programs, it was determined that there is a statistically significant difference between the students studying in the programs of Computer Programming (CP), and of Child Development (CD), and of Radio and Television Programming (RTP), and of Interior Design (ID) in favour of the students studying in the program of Computer Programming (CP) depending on the type of program

variable [$F_{(5,396)}$, $p_{(,000)}$; $p < ,05$]. Therefore, it can be said that the students studying in the program of Computer Programming have stronger views and more heightened perceptions regarding mobile learning than the students studying in the other programs.

Table 4: Anova test analysis results of the vocational school students' answers to the Survey of Mobile Learning according to the variable of school graduated

School Graduated	N	$\overline{X}$	Ss	Variance Source	Sum of Squares	Sd	Mean Square	F	p	Significant Difference (Tukey)
1)Science H.S.	32	92,00	4,94	Wit. Gr.	59,34	3	19,78	1,008	,389	
2)Anatolia H.S.	476	92,48	4,30	Btw. Gr.	15679,57	799	19,62			
3)Voc. H.S.	152	93,10	4,42	Total	15738,91	802				
4)Others	143	92,48	4,76							
Total	803	92,57	4,43							

p>0,05

When the data in Table 4 was examined, it was determined that there is no a statistically significant difference (p>,05) between the students graduated from Science High School, Anatolian High School, Vocational School, and Other High Schools in terms of their opinions and perceptions about mobile learning according to the variable of the school graduated.In the light of the research data, it can be said that the students graduated from various schools have similar views and perceptions regarding mobile learning [$F_{(1,008)}$, $p_{(,389)}$; $p > ,05$].

Table 5: Anova test analysis results of the vocational school students' answers to the Survey of Mobile Learning according to age variable

Age	N	$\overline{X}$	Ss	Variance Source	Sum of Squares	Sd	Mean Square	F	p	Significant Difference (Tukey)
1)18-20	214	91,96	4,26	Wit. Gr.	202,22	3	67,41	3,466	,016	
2)21-23	313	92,88	4,33	Btw. Gr.	15536,70	799	19,45			
3)24-26	155	93,19	4,42	Total	15738,92	802				3-1
4)27-over	121	92,04	4,85							
Total	803	92,57	4,43							

p<0,05

When the data in Table 5 was examined, from the answers of students who participated in the research and are in different age groups, it was determined that there is a statistically significant difference between the students in the age ranges of 18 to 20, and of 24 to 26 in favour of the students in the age range of 24 to 26 depending on the age variable [$F_{(3,466)}$, $p_{(,016)}$; $p < ,05$]. Therefore, it can be said that the students in the age range of 24 to 26 have stronger views and more heightened perceptions regarding mobile learning than the students in the other age groups.

Table 6: Arithmetic averages and skill levels of the answers of the students participating in the research to the Survey of Mobile Learning

MOBILE LEARNING SURVEY ITEMS	$\overline{X}$	Skill Level
15. Mobile learning enables me to reach current information all the time.	4.49	Strongly Agree
8. Mobile devices increase productivity in the classroom.	4.48	Strongly Agree
10. Mobile devices provide self-control.	4.47	Strongly Agree
9. Mobile learning reduces forgetfulness.	4.33	Strongly Agree
20. Mobile learning improves social interaction.	4.33	Strongly Agree
3. I recommend using mobile devices in all classrooms.	4.30	Strongly Agree
11. Mobile learning is a powerful reinforcer.	4.29	Strongly Agree
7. Mobile devices increase motivation.	4.27	Strongly Agree
13. I have knowledge and skill of using mobile devices.	4.26	Strongly Agree
16. I reach information immediately thanks to mobile learning.	4.24	Strongly Agree
14. Group studies become more productive with mobile devices.	4.21	Strongly Agree
6. Mobile learning accelerates learning.	4.20	Agree
17. Mobile learning provides saving time.	4.17	Agree
12. I communicate with my friends immediately through mobile devices.	4.16	Agree
4. Mobile learning increases interest in learning.	4.14	Agree
21. Mobile learning arouses my curiosity in every field.	4.11	Agree
18. Mobile learning provides learning in every environment.	4.07	Agree
1. Lessons are more efficient thanks to mobile learning.	4.06	Agree
5. I take pleasure in using mobile devices.	4.06	Agree
2. Lessons improve the attention with the help of mobile technologies.	4.03	Agree
19. Mobile learning determines my knowledge acquisition method.	3.98	Agree
22. Mobile devices make the feedback easier.	3.91	Agree

General Arithmetic Average: 4,208 (Agree)

The arithmetic averages of the answers of the vocational school students to the Survey of Mobile Learning are sorted from highest to lowest in Table 6. From the arithmetic averages of the answers of the students to the Survey of Mobile Learning, it was determined that article 15 stating *'Mobile learning enables me to reach current information all the time.'* ($\overline{X}$ =4,49), and article 8 stating *'Mobile devices increase productivity in the classroom.'* ($\overline{X}$ =4,48), and article 10 stating *'Mobile devices provide self-control.'* ($\overline{X}$ =4,47) are the items with the highest arithmetic averages in the survey. In the light of the students' answers given to the survey items, it can be said that the students will reach the desired and current information immediately by using mobile devices, and that productivity will be increased positively in the class including mobile devices, and mobile devices will be effective on providing self-control, and forget fullness will be reduced in learning with mobile devices.

From the arithmetic averages of the answers of the students to the Survey of Mobile Learning in Table 6, it was determined that article 22 stating *'Mobile devices make the feedback easier.'* ($\overline{X}$ =3,91), and article 19 stating *'Mobile learning determines my knowledge acquisition method.'* ($\overline{X}$ =3,98), and article 2 stating *'Lessons improve the attention with the help of mobile technologies.'* ($\overline{X}$ =4,03) are the items with the lowest arithmetic averages in the survey. In the light of the answers given to the survey items, it can be said that the students have low averages of some items in terms of their views and perceptions regarding mobile learning, for example, they do not receive feedback via mobile devices in general, and they usually determine learning methods according to their own thoughts during knowledge acquisition, and mobile devices do not improve the attention as desired.

CONCLUSIONS AND RECOMMENDATIONS
Conclusions

From the answers of the students participating in the research to the survey items, it was concluded that there is a statistically significant difference between female and male students in favour of female students in terms of their views and perceptions about mobile learning according to gender variable. In the light of the data obtained from the research, it can be said that female students have stronger views and more heightened perceptions regarding mobile learning than male students.

From the answers of the students participating in the research, it was concluded that there is no a statistically significant difference between the students in the 1st grade and the students in the 2nd grade in terms of their views and perceptions about mobile learning depending on the grade level variable. In the light of the research data, it can be said that the students in the 1st grade and in the 2nd grade have similar views and perceptions regarding mobile learning.

From the answers of the students participating in the research and studying in various programs to the survey items, it can be said that there is a statistically significant difference between the students studying in the programs of Computer Programming (CP), and of Child Development (CD), and of Radio and Television Programming (RTP), and of Interior Design (ID) in favour of the students studying in the program of Computer Programming (CP) depending on the type of program variable.

From the answers of the students who participated in the research and were graduated from various schools to the survey items, it was determined that there is no a statistically significant difference between the students graduated from Science High School, Anatolian High School, Vocational School, and Other High Schools in terms of their opinions and perceptions about mobile learning depending on the variable of the school graduated. In the light of the research data, it can be said that the students graduated from various schools have similar views and perceptions regarding mobile learning.

From the answers of students who participated in the research and are in different age groups to the survey items, it was determined that there is a statistically significant difference between the students in the age ranges of 18 to 20, and of 24 to 26 in favour of the students in the age range of 24 to 26 depending on the age variable. Therefore, it can be said that the students in the age range of 24 to 26 have stronger views and more heightened perceptions regarding mobile learning than the students in the other age groups.

From the arithmetic averages of the answers of the students participating in the research to the survey items, it was determined that the desired and current information will be reached immediately thanks to mobile devices, and productivity will be increased in the classrooms including mobile devices, and mobile devices will be effective on providing self-control, and forget fullness will be reduced in learning with mobile devices are the items with the highest arithmetic averages in the survey. Therefore, in the light of the students' answers to the survey items, it can be said that mobile devices largely solve the students' problems about acquiring knowledge and reaching information, and also, they are effective on information storage.

From the arithmetic averages of the students' answers to the survey items, it can be said that the students have low averages of some itemsin terms of their views, for example, they do not receive or need feedback via mobile devices, and they determine their knowledge acquisition methods individually, and mobile devices do not always gather the attention.

The general arithmetic average of the answers of the students participating in the research to the survey items coincides with (4.20; Agree) just under expected (4.21-5.00; Strongly Agree). In the light of the answers given to the survey items and of the conversations with the students, it can be said that the students are not conscious of mobile learningas desired and do not have desired perceptions during acquiring knowledge via mobile devices.

Recommendations

How to benefit from technology in modern world, and how to use mobile devices, and how and what way to gain access to the information should be given to students through additional courses in their fields. Moreover, the possibility of using all technologies not only for information but also for many areas such as communication and socialization should be explained to students through courses or activities.

The world is changing rapidly. Technology has very important place in this change. One of the keys of lifelong learning policies that have become widespread, especially in recent years in Europe, is becoming information and technologically literate people. Thus, all students should be technologically literate since primary school. Lessons about technology literacy and the effective use of technology should be added to the curriculum at each grade level beginning from primary school.

Information about technology should be given to all individuals studying at university or graduated from it, and especially working or in a certain age group. Trainings, seminars and symposia which will be offered, should include practicesin order that this information become useful.

Required trainings and in-service trainings in technology literacy, the access to information by using technology, the use of technology, mobile learning and socialization by using technology should be provided to teachers working at schools, academicians, educators or all the people who need, and all individuals should be trained.

Meetings about the subjects such as technology literacy, mobile learning, and the use of technology should be held both qualitatively and quantitatively and also in the style of interview with all people studying at schools ranging from primary school to university, and working or not working, and different researches should be done by receiving all individuals' opinions about technology. If there are incomplete or inaccurate subject matters or situations at the end of the researches done, these deficiencies should be remedied through various trainings.

REFERENCES

AĞCA, K. Rıdvan & BAĞCI, Hakkı (2013). "Mobil Öğrenme Araçlarının Kullanımına İlişkin Öğrenci Görüşleri", *Eğitim ve Öğretim Araştırmaları Dergisi*, C. 2, S. 4, s. 295-302.

BACANAK, Ahmet (2008). *Fen ve Teknoloji Dersi Performans Değerlendirme Formlarına Yönelik Oluşturulan Web Tabanlı Programın Etkililiğinin Araştırılması*, Yayınlanmamış Doktora Tezi, Trabzon: Karadeniz Teknik Üniversitesi, Fen Bilimleri Enstitüsü.

CENGİZ, M. Şirin, SARIGÖZ, Okan & DÖNGER, Ahmet (2015). "Evulation of Pre-Service Teachers' Ideas About Brainstorming Method in Terms of Some Veriables", *The Journal of Academic Social Science*, V. 3, I. 12, p. 251-263.

CHEN, B. Xiaobin (2013). "Tablets for Informal Language Learning: Student Usage and Attitudes", *Language, Learning & Technology*, V. 17, I. 1, p. 20-36.

CIAMPA, Katia (2014). "Learning in a Mobile Age: An Investigation of Student Motivation", *Journal of Computer Assisted Learning*, V. 30, I. 1, p. 82-96.

CORLETT, Dan, SHARPLES, Mike, BULL, Susan & CHAN, Tony (2005). "Evaluation of a Mobile Learning Organiser for University Students", *Journal of Computer Assisted Learning, V.* 21, p. 162-170.

DEMİR, Kadir & AKPINAR, Ercan (2016). "Mobil Öğrenmeye Yönelik Tutum Ölçeği Geliştirme Çalışması", *Eğitim Teknolojisi Kuram ve Uygulama*, C. 6, S. 1, s. 59-79.

DÖNMEZ, Onur, GELİBOLU, M. Fikret, & İNCEOĞLU, M. Murat (2006). "Eğitim Teknolojisinin Yeni Yüzü Mobil Öğrenme", *International Educational Technology Conference*, 19-21 April, Famagusta, North Cyprus.

GEORGİEV, Tsvetozar, GEORGİEVA, Evgenia & SMRİKAROV, Angel (2006). "M-learning - a New Stage of E-Learning", *International Conference on Computer Systems and Technologies-Compsys Tech*, V. 4, I. 28, p. 1-4.

GEORGİEVA, Evgenia, SMRİKAROV, Angel & GEORGİEV, Tsvetozar (2005). "A General Classification of Mobile Learning Systems", *International Conference on Computer Systems and Technologies, CompSysTech*, V. 6, p. 6-14.

HAHN, Jim (2008). "Mobile Learning for the Twenty-First Century Librarian", *Reference Services Review, V. 36*, I. 3, p. 272-288.

JASON, G. Caudill (2007). "The Growth of m-Learning and the Growth of Mobile Computing: Parallel developments", *International Review of Research in Open and Distance Learning*, V. 8, p. I. 2.

KARASAR, Niyazi (2010). *Bilimsel Araştırma Yöntemi*. Ankara: Nobel Yayın Dağıtım.

LEECH, L. Nancy & ONWUEGBUZIE, J. Anthony (2009). "A Typology of Mixed Methods Research Designs", *Quality & Quantity: International Journal of Methodology*, V. 43, p. 265-275.

MCMILLAN, H. James & SCHUMACHER, Sally (2001). *Research in Education: A Conceptual Introduction*. New York: Longman.

ORAN, M. Kemal & KARADENİZ, Şirin (2007). "İnternet Tabanlı Uzaktan Eğitimde Mobil Öğrenmenin Rolü", *Akademik Bilişim 2007*, 31 Ocak–2 Şubat, Kütahya: Dumlupınar Üniversitesi.

ÖZKARTAL, Mehmet (2015a). "Turkish Mythology and its Place in Education of Art", *International Journal of Turkish Education Sciences*, V. 3, I. 5, p. 83-98.

ÖZKARTAL, Zeki (2015b). "A Cultural Heritage Yılankıran Fountain of Isparta", *Akdeniz University Faculty of Fine Arts Journal*, V. 8, I. 15, p. 26-36.

PARSONS, David & RYU, Hokyoung (2006). "A Framework for Assessing the Quality of Mobile Learning", *Proceedings of the 11th International Conference for Process Improvement, Research and Education (INSPIRE)*, 17-27 Nisan 2006, UK: Southampton Solent University.

SARIGÖZ, Okan & DEMİRALAY, Raziye (2015). "Evaluation of Attitudes of the Students towards Lifelong Learning", *The Journal of International Social Research*, V. 8, I. 41, p. 994-999.

SARIGÖZ, Okan, DÖNGER, Ahmet & CENGİZ, M. Şirin (2015). "The Evaluation of the Teachers' Views About Environmental Education and Issues", *International Peer-Reviewed Journal of Humanities and Academic Science*, V. 4, I. 14, p. 54-76.

SARIGÖZ, Okan & ÖZKARA, Yasin (2015). "Öğretmen Adaylarının Eleştirel Pedagoji ve İlkeleri Hakkındaki Görüşlerinin Bazı Değişkenler Açısından İncelenmesi", *Uluslararası Sosyal Araştırmalar Dergisi*, C. 8, S. 39, s. 710-716.

TRİFONOVA, Anna & RONCHETTİ, Marco (2003). "Where is Mobile Learning Going?" *World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education*, V. 1, p. 1794- 1801.

WANG, T. Hua (2008). "Web-Based Quiz-Game-Like Formative Assessment: Development and Evaluation", *Computers & Education*, V. 51, p. 1247–1263.