Study on the use of mobile devices in schools: the case of Turkey Estudo sobre o uso de dispositivos móveis nas escolas: o caso da Turquia

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Abstract

This paper reflects on how to promote mobile educational technology by using tablet PCs in classes in private schools. We conducted a review of the studies available at Council of Higher Education (Yüksek Öğretim Kurulu-YÖK), that provides a thesis online database¹. This analysis shows time and location pose problems while reaching the information at school based learning. So, teachers and students prefer mobile learning as it enables them to reach the information in an easier and faster way. *Keywords:* mobile learning, educational technology

Resumo

Este artigo apresenta uma reflexão sobre como promover a tecnologia educacional móvel usando tablets na sala de aula, em escolas privadas. Foi realizada uma revisão dos estudos disponíveis no Conselho de Ensino Superior turco (Yüksek Öðretim Kurulu-YÖK), onde se encontra uma base de dados de teses online¹. Esta análise mostra que o tempo e a localização causam constrangimentos no acesso à informação. Assim, os professores e estudantes preferem a aprendizagem móvel, pois permite aceder a informação de forma mais fácil e rápida.

Palabras clave: mobile learning; tecnologia educativa

Introduction

Today's society, in which the information is valuable, is called as information society or information age. It is possible with the education, the vital base for everything, to keep up with this society in today's life where the information is really important. We see the effects of technology on all areas these days. It cannot be ignored that technology is related with social, political, economic and educational developments. We see the opportunities, benefits, practicalities and problems appearing due to the integration of technology into lifelong education process, from the learning-teaching process to all areas of education. While in the traditional learning-teaching process the learner is the one who listens to and memorizes the information given by the teacher, having a passive role, in today's world it is one of the goals of educational system to make the learner become the one who searches, comments, thinks creatively and critically and is active. Today, mobile learning that solves the time and location-based problems makes it easier to reach the content and to personalize the content, which is widely preferred. To achieve the equality of reaching the

information anywhere, anytime, in a faster way and keep up with the educational developments, Fatih Project (Movement of Enhancing Opportunities and Improving Technology) presents a good opportunity both for students and teachers.

Turkey's national education system

In Turkey, education is regulated by a national system which was formed as per the Ataturk Reforms after the Turkish War of Independence. The Ministry of National education is responsible for school level education in Turkey- pre-primary, primary and secondary education. The higher education system of Turkey is managed and supervised by the Council of higher education (CoHE).

Education Profile of Turkey

The National education system of Turkey comprises formal and non-formal education.

- Formal education encompasses pre-primary, primary, secondary and higher education. Primary and secondary education in Turkey is funded by the state. Education in public schools for children aged 6 to 18 is free of charge.
- Non-formal education is for young adults who could not attend schools or could not complete their studies.

Formal Education

Compulsory education in Turkey lasts 12 years. Primary and secondary education is represented by a "4 4 4" system, where the first level of primary education lasts 4 years, followed by second level primary education for 4 years, and secondary education for 4 years.

Levels of Turkish Formal Education System

Pre-primary Education. Pre-primary education in Turkey is optional and is offered by the kindergartens, nurseries, day-care centres and other child-care institutions. Children aged 3 to 6 may attend this pre-primary schools. In Turkey, there are private as well as state preschools.

Primary Education (in turkish: İlkoğretim Okulu). Primary education in Turkey is for children aged 6 to 14. This educational level is mandatory to attend and is divided into two levels:

- Level 1: First School (İlkokul 1. Kademe): The duration of this level is 4 years and covers grades 1 to 4.
- Level 2: The duration of this level is 4 years and covers grades 5 to 8.

¹ https://tez.yok.gov.tr/UlusalTezMerkezi/tarama.jsp

Subjects: At grades 1 to 3, there are 4 core subjects: Mathematics, Turkish, foreign language, and life sciences (Hayat Bilgisi). At grade 4, instead of life sciences; science and social studies is taught. Students who successfully complete their primary school studies are awarded a primary education diploma.

Secondary Education. Secondary education in Turkey is compulsory and is for children aged 15 to 17/18. The duration of secondary education is 4 years. Some Anatolian High Schools have preparation classes, so they last 5 years. This education is offered by high schools (Lise). The government is responsible for these schools and here education is free of charge.

Secondary education in Turkey comprises of general, vocational and technical education. This educational level prepares students for higher education or a vocation.

•General secondary education: Children aged 15 to 17 may go for general secondary education. This secondary educational level consists of high schools, Anatolia fine arts high schools, high schools of foreign language teaching, Anatolian High Schools, science high schools.

•Vocational and technical secondary education: This secondary educational level prepares students for a particular profession, or for higher education. This secondary educational level consists of technical educational schools, religious education schools, technical educational schools for health education schools, trade and tourism schools, special education schools, multi-program high schools, and private education schools.

At the end of secondary education, students are required to sit for a high school finishing exam. Students who pass this examination are allowed to sit for the University Entrance Exam. Students who pass the university exam are eligible to apply for higher education institution in Turkey.

According to education statistics of 2015-2016 academic year of Turkish Statistical Institute website*, number of primary schools is 26522, junior high schools is 17343, secondary schools is 10550; number of primary school teachers is 302961, junior high school teachers is 322680, secondary school teachers is 335690; number of primary school students is 5360703, junior high school students is 5211506, secondary school students is 5807643. ²

Private Schools in Turkey

Private schools in Turkey are classified into 4 categories:

•Private Turkish schools: These schools are established by corporate bodies of Turkish citizenship. These schools provide public education courses at pre-primary, primary and secondary levels.

•Private schools for minorities: These schools are formed by Jewish, Greek and Armenian minorities; they provide education at pre-primary, primary and secondary educational levels to the minority class pupils who are having Turkish citizenship.

•Private international educational institutions: These educational institutions are established according to the provisions in the Law no. 625 (article 5).

In public school, EBA (Web of ICT) and "Movement of Enhancing Opportunities and Improving Technology", known as FATIH, is among the most significant educational programs commonly used in Turkey.

FATIH Project proposes that "Smart Class" project is put into practice in all schools around Turkey. Smart boards are widely used in classes.

Furthermore, nearly 11 million students and 800 thousand teachers will have easy access to internet, the educational information, knowledge, e-contents and e-lectures with their tablet PCs everywhere, anytime³.

Toki Halkalı Anadolu İmam Hatip Lisesi school

Toki Halkalı Anadolu İmam Hatip Lisesi is located in Küçükçekmece –İstanbul. It's a vocational religious high school. Education process lasts 4 years. Students learn both social and scientific studies like history, geography, biology, maths, etc, besides religious-based classes. In 2016-2017 academic year, the number of students at school was 1060, between the ages 14–8, the number of teachers was 84, including all branches. In our school, each teacher has a bachelor's degree on his/her own branch and 15 teachers have higher licentiate diploma.

In our school, in accordance with FATİH Project (Movement of Enhancing Opportunities and Improving Technology), there is a smart board and wi-fi connection in each class. In some classes students have pc tablets which have been delivered to students for educational purposes by the Ministry of National Education of Turkey (MONE).

In schools, EBA (Web of ICT) and FATIH is among the most significant educational programs commonly used in Turkey. With wi-fi connection in each class, students and teachers in our school can use EBA which includes audio-visual lesson materials.

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The latest regulation about the use of mobile phones in classes are mentioned in the Official Gazzette (1st July 2015). These poses several limits. During school time, using and sharing media without the knowledge of a teacher has been banned in high schools in Turkey. In addition, high school students who molest, grope, or slander school employees, or who provoke or force

[•]Private foreign schools: These are schools formed during the Ottoman Empire by Austrian, French, Italian, American and German individuals under the conditions of the Lausanne Treaty. Turkish children attend this school.

 $^{^2\} http://www.turkstat.gov.tr/PreTablo.do?alt_id=1018$

³ For further information about detailed studies you can look at: http://fatihprojesi.meb.gov.tr/en/

others to do these actions and share them on social media, will receive temporary suspension from school. Other reasons for temporary suspension include "acting in a way contrary to national values, sentimental values, or public morality, and acting in a way that can cause misunderstanding."

If the violation is serious enough to result in the student's permanent expulsion from the school, they will not be permitted to return to the same school.

Students who engage in any acts requiring punishment will be taken into rehabilitation with a report prepared by the school's counselling and research department.

Research on the use of mobile devices in schools

In Turkey, legal articles are collected and stored at the database of Higher Education Institution (YÖK). There are thousands of studies and thesis. For this paper, we focused on the ones that related to education. However he topics do not exactly fit the usage of mobile technologies, because most of them basically focus on FATİH PROJECT. Also, not all thesis are allowed to be used officially, requiring special permissions.

Within these constraints, we were able to analyse two documents, a thesis and a journal article: 1. Ganya Khurmyet, Mobil eğitim teknolojisi olarak tablet bilgisayarın etkin öğrenim amaçlı kullanımı: Özel ortaöğretim kurumları üzerine bir araştırma. Use of tablet pcs as a mean of mobile educational technology in active learning purpose: Research in private high schools, 2016⁴; 2. Kerim Karabacak, Evaluation of Fatih Project in the Frame of Digital Divide, TOJET: The Turkish Online Journal of Educational Technology – April 2016, volume 15 issue 2.

Khurmyet's research (2016), reports data gathered from students' opinions (Kırali, 2013) showing that using tablet PCs in classes enables students improvement and accelerates their learning process; they can learn easily and participate in the courses more actively and they can get the chance of using authentic language. The courses become more interesting and effective, also attracting students' attention and academic success increases. Ganya (2016) carried out a few surveys about this topic in differen cities, different schools, in different times; but the one below which he completed is much more extensive.

In accordance with FATİH Project (see previous sections), the author carried out a survey on the usage of tablets effectively, in two private high schools in İstanbul, 2015-2016. It includes the teachers and students in grades 9, 10 and 11 who use tablets: 300 students and 66 teachers participated in this survey, 183 males and 117 females; 165 students attend grade 9, 103 students for grade 10 and 32 students attend grade 11.

When the questionnaires are examined, it is detected that although 41 students have tablets, they said they never use them; 22 of them told that they do not have tablets. At the same time, 35 questionnaires were unfilled. So the survey was carried out with 202 students,

98 students were omitted, 16 male teachers and 50 female teacher participated the survey, 15 teachers mentioned that they do not have tablets so 51 teachers' questionnaires were evaluated.

In the content of these different questionnaires for teachers and students, the gender, age, how often they use, for which branches they use, etc. were examined.⁵

Karabacak's research is about evaluation of FATİH PROJECT. It aims to evaluate the effect of the tablets given to students by MONE within the frame of digital divide in Sakarya, Turkey. The survey used in this research was applied in 2013-2014 academic year and focused on 360 students at 9th grade in two Anatolian High Schools in Sakarya. In this research, Karabacak (2016) tried to find answers of three main questions: "1. What are the ICTs which the students have? 2. After the tablet computers had been given to the students by the government, did the level of using tablet computers by the students show a change? 3. After the tablet computers have been given to the students by the government, did the level of benefit from the opportunities which the tablet computer present shows a change?".

Results

Khurmyet's analysis shows time and location can cause some problems while reaching the information at school based learning. So, teachers and students prefer mobile learning as it enables to reach the information in an easier and faster way. As a result, in the lights of the analyses of open-ended questionnaire forms and interview transcription, students expressed that they are able to resume learning anytime anywhere, by means of mobile assisted learning. Besides, the teachers partly agree that tablet PCs are the effective devices for effective learning, also mentionin that content development causes waste of time. Students think that there aren't enough applications and contents. The teachers should be motivated to develop contents and they should be supported.

To reinforce active and effective learning by the help of tablets the students should have been educated beforehand about how to use tablet PCs so their level of readiness will increase. The students should be assigned with the homeworks that they will be able to do with their tablets and during the courses they should be encouraged to use them. If these homework, projects and activities are supported by current applications and games, we can say the students learn much more easily.

In the second study, Karabacak (2016) mentions that after the tablets were distributed to students the level of usage of tablet computers has increased. The author also mentions that owing a tablet computer made meaningful difference on using technology, so FATİH Project supports technology usage by students. Also it is important especially for the students coming from poor families, who cannot afford to have a computer or a tablet pc at home. With FATİH Project, this kind of disadvantages from the point of technology use can be

⁴ Name and Surname; GANYA KHURMYET; Field: Journalism; Programme: İnformatics (Marmara University); Supervisor: Professor Erhan Akyazı; Degree Awarded and Date: Master, 2016; Keywords: education technology, active learning, mobile education technology, tablet pc

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prevented, because these students have chance to access free tablets at school.

Concluding remarks

Today, we are living in a technological era. Besides many advantages of tablets, some students are not aware of the importance of technology usage in classes and do not completely know how to use tablets for educational purposes effectively. Also, some teachers do not use tablets effectively because of time limitation during courses, lack of interest in technology usage or lack of content. However, the need for mobile device usage in education cannot be underestimated. Like all other areas of life surrounding us, educational processes have been affected by technology and technological devices. Life is becoming busier, cities are getting bigger, so students are going to farther schools from their houses and as time passes changes in all areas of information needs a faster learning process. So, reaching information anywhere anytime and in a faster way is becoming more and more important every day. From this point of view, teachers and students are using mobile devices. Despite this, in the first thesis we analysed here, private school teachers think that there is a lack of content in tablet PCs to use in lessons, and some students do not think that using tablet PC in class is effective. The thesis suggests that to prevent this, the readiness of the students should be increased for tablet PC usage. Also teachers should join educational seminars about this subject.

In the second study, we have learned that compared with before the distribution of tablet within the frame of FATIH Project, students' level of usage of tablet PCs has increased. Also, it is mentioned having a tablet already at home increases the usage of technology. From this point of view, the FATIH Project presents opportunity for all students to have a tablet PC and internet connection at school for students. This enables especially the students who have poor families to have similar technological standards for educational purposes.

What we can add is that; all in all, technology and tablet usage has much more advantages than disadvantages for many students and teachers. In conclusion, in Turkey FATIH Project is a very successful and essential step for the future of technology in our education system.

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