

**THE PERSPECTIVES OF ENGLISH AS A FOREIGN LANGUAGE (EFL)
INSTRUCTORS ON THE USE OF MOBILE APPLICATIONS AS
EDUCATIONAL TOOLS**



AUGUST 2016

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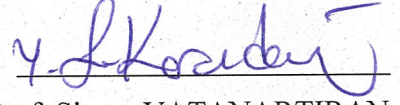
**A THESIS SUBMITTED TO THE
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**BY
Ceren TOTAL**

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FOR
THE DEGREE OF MASTER OF ARTS
IN THE DEPARTMENT OF ENGLISH LANGUAGE TEACHING**

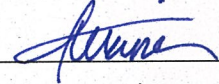
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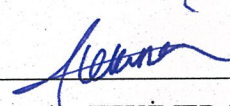
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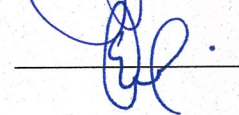
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ABSTRACT

THE PERSPECTIVES OF ENGLISH AS A FOREIGN LANGUAGE (EFL) INSTRUCTORS ON THE USE OF MOBILE APPLICATIONS AS EDUCATIONAL TOOLS

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Master's Thesis, Master's Program in English Language Teaching

Supervisor: Aylın Tekiner TOLU

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The purpose of this study is to investigate the perspectives of English as a Foreign Language (EFL) instructors on the use of mobile applications as educational tools. Teachers working at state and foundation preparatory schools during 2015-2016 academic year in Turkey comprise the scope of the study. A sample of a 103 Turkish and foreign EFL instructors participated in the study. Data were obtained through an online survey with three parts consisting of a demographic survey, a Likert-scale survey, and an open-ended questions survey, classroom observations of 3 EFL instructors and interviews with those teachers. The overall findings of the study revealed that teachers had positive perspectives on the use of mobile applications as educational tools. Teachers were willing to make use of mobile phones and applications in their lessons and were open to training and innovations on the new developments on mobile technology. They believed that mobile applications facilitate learning, create interactive learning environments, and provide learners with ubiquitous language learning opportunities. Moreover, teachers perceived mobile applications as fun, engaging, motivating, and time saving. Teachers mostly preferred activities such as quizzes and game shows. They did not consider themselves as proficient in terms of designing Mobile Assisted Language Learning

(MALL) activities, adapting teaching styles to MALL and evaluating MALL activities; however, they thought that they were proficient in ICT literacy and using MALL software tools. Teachers indicated that they face some challenges like the Internet connectivity problems and slow Internet speed. They also stated that students' lack of skill/knowledge to use mobile applications for academic purposes and lack of language learning mobile-based software and activities were among limitations that should be taken into consideration.

Keywords: English as a Foreign Language (EFL), Mobile Assisted Language Learning (MALL), Perspectives of EFL Instructors, ELT, Smartphone, Mobile Applications

ÖZ

İNGİLİZCEYİ YABANCI DİL OLARAK ÖĞRETEN ÖĞRETMENLERİN MOBİL UYGULAMALARIN EĞİTİM ARACI OLARAK KULLANILMASI HAKKINDAKİ BAKIŞ AÇILARI

Tutal, Ceren

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Bu çalışmanın amacı, İngilizce'yi yabancı dil olarak öğreten öğretmenlerin mobil uygulamaların bir eğitim aracı olarak kullanılması hakkındaki bakış açılarını araştırmaktır. Türkiye'deki devlet ve vakıf üniversitelerinin hazırlık bölümlerinde 2015-2016 akademik yılında çalışan öğretmenler bu çalışmanın sahasını oluşturmuştur. Araştırmaya İngilizceyi yabancı dil olarak öğreten 103 Türk ve yabancı öğretmen katılmıştır. Veriler internet üzerinden yapılan ve demografik, Likert-ölçekli ve açık uçlu soru olmak üzere üç kısımdan oluşan bir anket, sınıf gözlemleri ve mülakatlar ile toplanmıştır. Çalışmanın bulguları, öğretmenlerin mobil uygulamaların eğitim aracı olarak kullanılması hakkında pozitif bakış açılarına sahip olduğunu açığa çıkarmıştır. Öğretmenler cep telefonlarını ve uygulamaları derslerinde kullanma konusunda isteklidir ve mobil teknolojideki eğitim ve yeniliklere açıktır. Öğretmenler mobil uygulamaların öğrenmeyi kolaylaştırdığına, interaktif öğrenme ortamı yarattığına ve yaygın dil öğrenme fırsatları sağladığına inanmaktadırlar. Dahası, öğretmenler mobil uygulamaları eğlenceli, meşgul edici, motive edici ve zaman kazandırıcı olarak algılamışlardır. Öğretmenler çoğunlukla küçük imtihanlar ve yarışma programları gibi aktiviteleri tercih etmişlerdir.

Öğretmenler kendilerini mobil destekli dil öğrenimi aktiviteleri tasarlamada, öğretim tarzlarını buna adapte etmede ve bu aktiviteleri değerlendirmede yeterli bulmazken, bilgi ve iletişim okur yazarlığı ve mobil destekli dil öğrenimi aletlerini kullanmada yeterli gördüklerini düşünmüşlerdir. Öğretmenler internet bağlantı problemleri ve internet bağlantısının yavaşlığı gibi zorluklarla karşılaştıklarını ifade etmişlerdir. Bununla birlikte, öğretmenler, öğrencilerin cep telefonunu akademik amaçla kullanmadaki yetenek ve bilgi eksikliğinin ve mobil destekli yazılım ve aktivitelerin yetersizliğinin dikkate alınması gereken kısıtlamalar olduğunu belirtmişlerdir.

Anahtar Kelimeler: Yabancı Dil Olarak İngilizce Öğretimi, Mobil Destekli Dil Öğrenimi, Yabancı Dil Olarak İngilizce Öğretmenlerinin Bakış Açıları, Akıllı Telefon, Mobil Uygulamalar



To my family

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LIST OF ABBREVIATIONS

App: Application

B.A.: Bachelor of Arts

CALL: Computer Assisted Language Learning.

CD: Compact Disc

DVD: Digital Versatile Disc or Digital Video Disc

EFL: English as a Foreign Language

eLearning: Electronic Learning

ELT: English Language Teaching

ESL: English as a Second Language

ICT: Information and Communications Technologies

IT: Information Technologies

M.A.: Master of Arts

MALL: Mobile Assisted Language Learning

mLearning: Mobile Learning

PC: Personal Computer

PDA: Personal Digital Assistant

QR Code: Quick Response Code

SMS: Short Message Service

STEM: Science, Technology, Engineering and Math.

Chapter 1

Introduction

Technology has been an indispensable part of our lives especially for the last decade. Today, people use the technology in almost all means of life. Studies show that technology has an improving effect on not only our daily lives but also education. Plenty of evidence for the last ten years proposes that knowledge and skills of students can be enhanced by particular technologies (Appalachia Regional Comprehensive Center, 2013). Using technology in the field of education has a deep rooted history. Garg (2011) claims that gramophone records with the recordings of native speakers were being used as technological tools by language teachers with the aim of facilitating learning. Buckenmeyer (2008) indicates that educational technologies ranging from phonographs and audiocassettes to educational TV and distance learning have influenced the act of instructors and success level of students.

Being considered as the most common international language, English has been fostered by the use of technology and the Internet. Research has shown that technology use in and out of the classroom facilitate learning. “The fast growing accessibility and capability of emerging technologies have fashioned enormous possibilities of designing, developing and implementing innovative teaching methods in the classroom” (Hussain, Iqbal, & Akhtar, 2010, p. 46). As a result, integration of technology has become an essential aspect of successful teaching in the classroom. (Almekhlafi & Almeqdadi, 2010).

For a couple of decades, technological devices have evolved to be mobile, namely, portable and can be connected to the Internet. As a result they have become pervasive in everyday life (Baran, 2014). The fast growth of technology has enabled people to use mobile devices more in their daily lives attracted the attention of educators. Nowadays, language teachers are commonly using CD and DVD players, portable projectors, mobile phones, tablets, PDAs and so on. Kukulshka-Hulme and Shield (2008) state that when the facility to reach to wireless networks and having tools which can communicate with such networks increase, the utilization of cell phones to promote language learning turns out to be perpetually prevalent.

Thanks to scientific developments and improvements, technology is getting more mobile. In the field of education, MALL started to be in the center of attention. As a result, mobile devices have become appealing learning tools for education (Baran, 2014). Dye (2003) defines m-learning as “learning that can take place anytime, anywhere with the help of a mobile computer device” (para. 2). That means students have the chance to learn and revise their content anywhere and anytime as long as they have these devices.

According to Kukulshka-Hulme and Shield (2008):

While early generations of mobile learning tended to propose activities that were carefully crafted by educators and technologists, learners are increasingly motivated by their personal learning needs, including those arising from greater mobility and frequent travel. At the same time, it is often argued that mobile devices are particularly suited to supporting social contacts and collaborative learning - claims that have obvious relevance for language learning. (p.271)

The use of mobile devices such as smartphones expands learning by freeing the user from being stuck at particular location (Costabile et al. 2008). It can also be claimed that students have the ability to use mobile technology in order to increase their social capital (Kennedy, 2014).

Implementation of mobile learning requires being attentive and taking many aspects into consideration. It is vital that the components of mobile learning are composed accurately and the collaborations between different components are joined in an effective and ideal way so that the mobile learning is fruitful and the implementation is effective. Besides, the features of mobile learning ought to be organized, and the way they are implemented into mobile learning activities and the application methods and the length of the application time ought to be arranged well beforehand (Ozdamli & Cavus 2011).

It can be asserted that mobile phones and smartphones are one of the most ubiquitous and affordable devices. Claiming that more than more than a third of the world’s population is using cell phones, Averianova (2011) states that communication is getting increasingly mobile. She goes on by saying that according to the recent statistics this proportion is larger among young people. They use their

mobile phone to not only call or text but also to check and enrich their social media accounts daily. According to the statistics, in Turkey, the number of cell phone subscription was more than 72 million by 2015, which was only 5 million less from the total population (Turkish Statistical Institute, 2015). Similarly, Buchegger (2010) claims that, the amount of mobile phone contracts has exceeded the number of occupants in many European countries and goes on by saying that mobile phones are supposed to be incorporated in the classroom and seen as an opportunity. Despite the fact that cell phones were first used as business tools, nowadays they are a part of popular culture (Engel & Green, 2011). Due to the pervasiveness of cell phone technology among teenagers in the United States, institutions are starting to investigate the utilization of mobile phones as a learning device (Engel & Green, 2011).

What is more, nowadays, lots of applications for smartphones are being designed on the purpose of learning English (Hockly, 2014). Teachers are required to let their students know about the alternatives on mobile technology and applications as they are free, and can be downloaded and used for their own out-of-class learning (Hockly, 2014). Besides, if they can be integrated in the curriculum reasonably, these applications can also be used in the classroom (Hockly, 2014). “The dominant view that mobiles have no place in the classroom has recently been contested by educators, such as Parry (2011), who suggests that mobile learning, and the literacies involved, should play an important role in education” (Merchant, 2012, p.270). Claiming that mobile devices are penetrating into classrooms in the pockets of children, AbuSa'aleek, (2014) suggests that educators are supposed to make sure that educational practice includes these technologies in productive ways.

When the case is mobility, learning outside the school can be mentioned. It is an inevitable fact that in-class activities are not sufficient because of many reasons such as limited time, crowded classes or the flow of the curriculum. In order to learn a language effectively, the students are supposed to be exposed to the target language outside the class as well. However, students are generally not willing to study outside the classroom as they are not motivated enough or do not like to sit in front of piles of books or the computer screen. At that point, use of mobile phone technology may assist learners. “Since cell phones have firmly established themselves as students’ ‘friends’, schools need to stop treating them as ‘foes’, and teachers need to find

effective ways of capitalizing on the rich potential of mobile technologies” (Averianova, 2012, p. 19). As smartphones have an essential place particularly in young people’s lives (Abdollahpour & Maleki, 2012), they may be attracted by the variety of activities to be done with a phone. That enables learners to be more autonomous and free. Mobile phones have enabled favored positions in the learning procedure and have given chances for learning to take place outside the classroom whenever and wherever (Alzu’bi & Sabha, 2013). Chen and Chung, (2007) also state in their article that mobile learning have the capacity to surpass the limitations of time and place by enabling students to study whenever and wherever they want to. As a result, students can manage their spare time efficiently thanks to such features of smartphones as portability and immediacy.

1.1 Statement of the Problem

When cell phones were first put on market, they were out of reach because of their high prices. Their size was burdensome and service was also limited. With the advancements in technology, not only their size but also cost decreased and they began to become a part of people’s everyday life. Because of security reasons parents who want to stay connected with their children all the time brought about the use of cell phones at schools. Later on smartphones became widespread and more students started to bring their phones into the classroom.

When cell phones began to constitute a problem, schools tried to take some precautions against the use of cell phones and they either let students have them as long as they were turned off or banned them altogether. However, Collins and Halverson (2009) state that the world of education has been exposed to an immense conversion recently thanks to the digital revolution and they claim that new technologies enable opportunities for learning and that can be seen as a challenge to traditional schools.

Nowadays, cell phones are indispensable tools that students carry with them into the classroom, thus, it is inevitable for teachers to make use of them even if just a bit. The researcher, who is an EFL instructor at a preparatory school of a foundation university in Turkey, has encountered similar dilemmas as well. Depending on teaching practices, classroom observations and talks with colleagues, the researcher came to the conclusion that while some of the instructors seem to

avoid using mobile applications in their lessons, some others are quite eager to integrate them whenever possible.

Taking into consideration the above mentioned situations, this study aims to investigate the perspectives of EFL teachers on the use of mobile applications as educational tools, which will serve as a guide for EFL instructors, administration as well as publishers.

1.2 Purpose of the Study

The purpose of this study is to investigate how foundation and state university preparatory school teachers integrate smartphones into their teaching and what their perspectives of the use of mobile applications as educational tools are. Therefore, the study aims to explore the current perspectives of instructors and to gain insight on pedagogical use of mobile learning technologies to teach English as a foreign language.

In the study, both mobile phone and mobile application key terms were used. However, the main purpose of the study is to focus on the mobile applications rather than the technology itself as mobile phones mainly are not tools that can be used for the purpose of teaching and learning but rather gain their meaning with the help of mobile applications.

1.3 Research Questions

Taking these discussions into consideration, the aim of the study is to find answers for these research questions:

1. What are the perceptions of EFL teachers about the implementation of mobile phones in the Turkish EFL context?
 - 1a. What are the perceptions of EFL teachers in Turkey on the possible challenges to the use of mobile phones in the Turkish EFL context?
 - 1b. What are the perceptions of EFL teachers in Turkey on the current state of using mobile phones in the Turkish EFL context?
 - 1c. What are the perceptions of EFL teachers in Turkey on their ability to develop/use MALL activities/software in the Turkish EFL context?

2. How do EFL teachers use mobile phones in the Turkish EFL context?

1.4 Significance of the Study

Today, several studies focus on MALL and emphasise the importance of the use of mobile applications as educational tools in teaching English. Seminars and conferences are held on using technology in classrooms and use of mobile applications is strongly advised by many reputable speakers. For instance, in 2015, Education Innovation Summit, BETT and Tech & Learning LIVE were among important events around the world while 2. EdTech Summit and Istanbul Bilgi University 5th ELT Conference were held in Turkey, all of which focused on technology use in the field of education. Mobile applications are important in the sense that they help teachers add variety to lessons in or outside the classroom. With the help of mobile applications, the teachers can improve their teaching skills and be more creative. As a result, they facilitate learning as well as teaching. As smartphone technology is improving rapidly, the amount of functions of the phones and applications to be downloaded are getting more and more every single day. That gives students the chance to use mobile phones as facilitating tools for autonomous learning (Hu, 2011) and build on their own learning. Besides, using them motivates both students and teachers (Celik & Aytin, 2014; Ismail, Bokhare, Azizan & Azman 2013).

This study is designed to examine the perspectives of university preparatory school teachers on the use of mobile applications as educational tools in Turkey. Other researchers dealt mostly with student perceptions while a few of them examined the perceptions of pre-service teachers or primary school teachers (Kuskonmaz, 2011; Oz, 2015). However, there is scarcity of research on the perceptions of university preparatory school teachers.

Furthermore, this study will provide documentation for educators, teachers and administrators as it will shed light to how teachers perceive smartphone use in education. Mobile applications are becoming increasingly pervasive in today's world, so it may be seen as a necessity to make use of them. In order to integrate mobile applications into teaching, first of all, it is necessary to learn what the teachers know about them, how they perceive them and what they need, as they are the ones to integrate them into teaching and learning in and out of the classroom.

With the help of this study, the perspectives of teachers on mobile applications will be revealed and as a result, concern for qualifications of effective integration of mobile applications may be promoted.

This study may also provide documentation for curriculum developers as they may benefit from the results in developing a curriculum for any preparatory school that integrates mobile applications. If it is found out that teachers are willing to apply such activities in their teaching, institutions may decide to integrate them. In order to do that, in-service trainings and workshops could be given to teachers so that they learn how to integrate mobile applications in their teaching and learn new ideas from each other as well. What is more, curriculum developers who develop undergraduate programs might also provide training for pre-service teachers.

At the local level, the aim of this study is to gather information from teachers on the use of mobile applications at foundation and state universities' preparatory schools in Turkey. The institutions will benefit from the study since the perspectives of teachers will be identified. The study will also offer suggestions to improve teaching.

1.5 Definitions

Application (App): Refers to computer program that is designed for a particular purpose. (Online Cambridge Dictionary, 2016).

Cell phone/Mobile phone: A phone that is connected to the phone system by radio instead of by a wire, and can be used anywhere where its signals can be received. (Online Cambridge Dictionary, 2016).

EFL: Abbreviation for English as a Foreign Language: the teaching of English to students whose first language is not English (Online Cambridge Dictionary, 2016).

EFL Instructors: In this study, "EFL instructors" refers to English teachers who work at preparatory schools of foundation or state universities in Turkey.

Mobile devices: Portable hardware such as a personal digital assistant (PDA) (e.g., Palm Pilot), cell phone, MP3 player, laptop computer. (TESOL Technology Standards Framework, 2008, p. 44)

Mobile learning: “Learning that is facilitated and enhanced by the use of digital mobile devices that can be carried and used anywhere and anytime” (O’Connell & Smith, 2007, p. 5).

Smartphone: A mobile phone that can be used as a small computer and that connects to the internet (Online Cambridge Dictionary, 2016).

Tablet computer: A small portable computer that accepts input directly on to its screen rather than via a keyboard or mouse. (Online Oxford Dictionary, 2016).



Chapter 2

Literature Review

2.1 Introduction

This chapter provides a review of the related literature to this study and focuses on the following areas: information and communications technologies (ICT) and Mobile Assisted Language Learning (MALL), integration of mobile devices and applications, integration of smartphones in terms of language skills, teacher perspectives on ICT and MALL, student perspectives on MALL, and challenges and limitations of using mobile learning.

2.2 Information and Communications Technologies (ICT) and Mobile Assisted Language Learning (MALL)

The effect of technology in education is one of the most important aspects (Webber, 2003). Since the beginning of the 1990s, ICT use in education has developed quite fast (Volman & Van Eck, 2001). “Technology involves the generation of knowledge and processes to develop systems that solve problems and extend human capabilities” (Afshari, Bakar, Luan, Samah & Fooi, 2009, p. 77). In their article, Afshari, et al. analysed the factors that affect teachers’ use of ICT, and stated that two main factors affecting teachers’ uptake of ICT are manipulative and non-manipulative school and teacher factors. After mentioning that the success of the implementation of ICT depends on the transaction of integrating some aspects that are related to each other, they suggest continuous professional development to be provided for instructors in order to demonstrate new pedagogical tools that can enhance teaching and learning process.

The next significant study is from Ozdamli and Cavus (2011). The purpose of the study where they reviewed the literature is to illustrate the basic elements and characteristic of mobile learning in the light of new trends in developing technology.

It was concluded that:

In order to get efficient results and the maximum performance from students using mobile learning in education, each of the elements of mobile

learning should be prepared carefully, and the mobile learning characteristics should be planned and prepared with a knowledge of the teaching medium, learning environment and the learning activities (p.941).

Dye and K'Odingo (2003) claim that mLearning provides not only students but also teachers with the chance to interact and gain access to educational material by using a wireless handheld device, which is free from time and space. The aim of the research is to study what way technologies for mobile learning influence the working situation of students and teachers. An explorative research design and qualitative research methods using Delphi techniques were conducted, as the researchers desired to ascertain what future mLearning has in the educational arena. In the study, the primary data source was experts in the field of eLearning. When the researchers went through the answers they gathered through a three-phased study, they came up with a top-10 list consisting of predictions for each of their research questions. By the end of the study, the researchers concluded that wireless Internet is a must for mLearning to depart. According to the researchers the most important effect of mLearning on both students and teachers is increased flexibility. As a consequence, the researchers claim that learning will have the chance to occur in different surroundings. The researchers also conclude that the way of enabling mLearning courses largely adapted is to aim at devices which have made a name for themselves in the market and have well utilization.

Claiming that mobile technologies have been implemented in language learning successfully and also have promoted multiple innovative designs, Tai (2012), conducted research on contextualizing MALL. In his paper, he mentions conducting a study using an over-the-market mobile device combined with a task-based approach to design a contextualized MALL practice. In the study, a three-phase task framework is proposed. The first and third stages are aimed for the classroom as pre- and post-task learning; and the second stage is the main task. The 35 participants were sixth graders who had been learning English for three years with 80 minutes of structured English per week. The evaluation results indicate that, after completing the learning task, learner performance on the post-test was significantly higher than the pre-test. As a result, it can be concluded that contextualizing MALL practice can enhance language learning and related attitudes for learners.

Mobile devices are essential tools that promote and enhance language skills thanks to their properties such as accessibility, interactivity, immediacy, permanency, and situating of instructional activities (AbuSa'aleek, 2014). He investigates the phenomenon and the impact of MALL on English language skills as well as its salient features and drawbacks. The study also aims to shed light on the current perspectives and the future of MALL. It is concluded that mobile devices started to take their part in classrooms in children's pockets, and it should be ensured that educational practice contains these technologies in productive ways.

Baran (2014) aimed to address trends and gaps observed in the literature regarding the integration of mobile learning into teacher education in her article which is a qualitative synthesis of quantitative and qualitative research.

She claims that six main findings emerged:

- (a) there is an increasing trend in integrating mobile learning in teacher education contexts;
- (b) theoretical and conceptual perspectives are scarcely reported;
- (c) variations exist in perceptions, attitudes and usage patterns;
- (d) engagement with mobile learning and devices is primarily reported as being beneficial;
- (e) challenges were scarcely reported; and
- (f) several pedagogical affordances support mobile learning integration into teacher education settings. (p.17)

2.3 Integration of Mobile Devices and Applications

Hesar and Zarfsaz (2013) investigate the benefits of using cell phones in classroom and to determine the effectiveness of teaching and learning with cell phones and as a result detect the challenges that can be come up when using cell phones in classes. The result of the study indicates that there are more opportunities of using cell phones than challenges. Using cell phones in classroom helps students and teachers a lot by improving learning and teaching and providing them with resources outside the classroom. It increases the interactions among the students and teachers which eradicates the academic isolation. However, the researchers suggest that there must be sufficient time and support to be applied.

Gaer (2011) claims that she has used phones in every class from ESL through the high school diploma program and found that, with some cell phone etiquette, students feel responsible and will make use of phones as educational devices not just

like toys. Some of the functions of a mobile phone she used were the camera feature, text messaging, Google Voice, and Audience Response System and she concludes that the teachers should make use of the activities that fit their classes and start by discussing appropriate use of phones in the classroom.

Teachers have some concerns about using cell phones in the classroom. Kolb (2011) lists those problems as cheating, distraction, texting, or general laziness in learning. However, she claims that after using cell phones in her own teaching, she has turned out to be a passionate defender for cell phones to be used as educational devices by teachers and students. She counts a couple of reasons for that in her article. For example, time spent in classroom is valuable, cell phones enable saving money and also students like to use these devices. Besides, it is stated that cell phones enable learning wherever and whenever wanted and from various sources. She goes on by saying that students are required to get ready for 21st century jobs and they need to come to know mobile etiquette and safety. Last but not least, the researcher states that mobile phones can aid visually or hearing impaired students.

Scornavacca, Huff and Marshal (2009) describe the application of short-message-services (SMS) for large-class interactivity, and assess its effect on the learning experiences of 1200 students in a large undergraduate class in their article. The study has shown that students and teachers can take the advantage of an additional way of communication, which are SMS messages via mobile phones, in the classroom. The benefits of the system were emphasized by the students in terms of making classes more interesting and interactive.

In their paper, Seppälä and Alamäki (2003) describe a project where mobile devices were made use of for educational activities. The study was conducted at the Department of Home Economics and Craft Science in University of Helsinki. The purpose of the study was to enable the supervising teacher and trainee students to discuss and share their opinions on teaching methods through a mobile device by making use of an SMS and digital pictures as a part of the supervising process. According to the findings, it was proved that when digital pictures which were delivered via the mobile device were implemented, they were indicated to be successful. The researchers concluded that there should be further research and testing on the educational use of mobile devices and the pedagogical opportunities of mobile learning.

Similarly, Markett, Sanchez, Weber and Tangney (2006) introduced mobile phones and SMS in the classroom owing to the fact that mobile phones are ubiquitous tools and SMS has the potential of creating interactivity among students. They aimed to support participants who were consisted of students that send SMS by using their personal mobile phones in real-time, and in the classroom setting, with the aim of understanding and using an interactive message loop. The lecturer used a modem that interfaces with a customised software in order to produce SMS files. The lecturer was able to display the messages and develop the interactive loop verbally with students through the lesson. The SMS was accessible online after the lesson as well, so that it allowed interactive loops to further build on via threaded comments. The researchers came up with the following benefits at the end of the study:

- a more active learning environment;
- provision of greater and ongoing feedback for lecturers;
- increased student interest and motivation.

Al-Shehri (2011) claims that mobile technology and social networking can both meet the needs of the learners and enable them be involved in the whole learning process which may also take place outside the classroom walls. Believing that mobile learning creates contextually meaningful and authentic learning opportunities, the researcher conducted a design-based research with 33 EFL university students. The students went through a contextual experience using Facebook by using their mobile phones. It is concluded that mobile social networking media such as Facebook enables rich learner-generated and contextual out-of-class language learning opportunities. What is more, Facebook supported students gain reality-based learning experiences which broadens their own knowledge and personal values.

Li and Zou (2015) investigated the effect of mobile technologies on college students' English learning activities in an attempt to gain insight on the present and future state of mobile learning in general and the design criteria for better English learning applications specifically. The researchers developed an application to be used in the classroom and it was integrated into teaching and learning in and out of the classroom. In the study, questionnaires and interviews were carried out in two phases with 84 students. The results showed that most of the students have positive perspectives towards mobile learning and many of the participants practiced various

learning activities on their mobile devices. They also explored the effectiveness of existing English learning apps in order to differentiate the app the researchers developed and the findings indicated that the app provided sources relevant with the lessons so that it enabled extra support to the students so that they could study in and out of the classroom.

According to Enriquez (2010) tablet PCs have the potential to alter the dynamics of classroom interactivity via wireless communication. In his study, the researcher investigated how tablet PCs and wireless technology can be made use of during classroom instruction with the aim of creating an Interactive Learning Network which is designed in order to increase teacher's ability to promote active participation, to conduct immediate and purposeful assessment and to supply real-time feedback. This environment is enabled using wireless tablet PCs and a software application called NetSupport School. The findings of the two controlled studies indicate a significant positive effect on student performance, besides, the interactive classroom environment created with the help of wireless tablet PCs has the potential to be a more efficient teaching pedagogy when compared to traditional instructor-centered teaching environments.

In their study, Clough, Jones, McAndrew and Scanlon (2008) targeted Personal Digital Assistant (PDA) and smartphone users in terms of informal learning. The researchers collected data through a survey where they searched if experienced users of mobile devices make use of these devices in order to support intentional informal learning. According to the results, it was found out that the users agreed that they use their mobile devices to support intentional informal learning. The findings indicated that participants suited their devices into their daily lives and that meant they used their devices regularly knowing how to use them. The researchers claim that it means as long as mobile technology develops, device owners will use this functionality to support both intentional and unintentional mobile informal learning.

2.4 Integration of Mobile Phones in terms of Language Skills

Claiming that the main step to learn a foreign language is vocabulary learning, Basoglu (2010) conducted research at a preparatory school of a public university with 60 students in Turkey. In the study where mixed method research

design was conducted, student achievement was measured through a 25-question multiple-choice English vocabulary test. The measure of internal consistency of the English vocabulary achievement test was 0.783. The researcher states that despite the fact that the English vocabulary learning program that was made use of as an intervention in the study was quite ordinary and basic, the results indicated that the level of vocabulary of the students was fostered through the learning vocabulary program on mobile phones more than flashcards.

Lu (2008) claims that, although permeation of mobile devices in Asian countries increases sharply, scarce research has been conducted in order to explore the application of SMS in second language learning. As a result, the researcher aspired to investigate the efficiency of SMS vocabulary lessons of limited lexical information on the small screens of mobile phones. In the study, there were 30 participants in groups of two and they were given two sets of English words either on paper or through SMS messages during two weeks. Qualitative data were also gathered from interviews in order to gain insight on the advantages and drawbacks of m-learning. Findings of the questionnaires indicated that generally, students have positive perspectives towards learning vocabulary through their mobile phones. However, limitations on technology, unusual presentations and learning activities might stop learners from participating in lectures held by making use of SMS.

Similarly, Cavus and Ibrahim (2008) conducted research on the use of wireless technologies in education using SMS text messaging. The objective of the study was to develop a new mobile learning method that uses mobile phones in order to teach new technical English language words to undergraduate students with the aim of supporting their normal English language lectures. The system is named the Mobile Learning Tool (MOLT). The teacher loaded the mobile telephone numbers, the words to be sent and their meanings to a PC manually. Students were supposed to read and learn the new words sent with their meaning wherever they were. The researchers stated that if the progressions and adaptations that the students suggested are supplemented, then MOLT as an educational device may contribute to the motivation and achievement of the students.

Considering the fact that research on the use of mobile phones in language learning context on using multimedia messages via mobile phones is not adequate, Saran (2009) conducted research with the aim of improving learners' vocabulary

acquisition. The researcher explored the potentials and effectiveness of using mobile phones in foreign language education. In the study, a mixed method approach was employed. Participants who were students from a preparatory school of a university in Turkey consisted three different groups in order to find out the comparative effectiveness of supplementary materials. Those materials were submitted via three different means: mobile phones, web pages, and printeds. When the data was analysed quantitatively, using mobile phones were found to have favorable impacts on students' vocabulary learning. When the qualitative data which was gathered through a questionnaire and interviews were examined, it was concluded that the findings of the quantitative data was corroborated. To conclude positive feedback about the mobile learning application used in this study was obtained from all the participants.

In their study Hsu, Hwang and Chang (2012) propose a personalized recommendation-based mobile language learning approach. Based on this approach, a mobile learning system was enhanced by supplying a reading material recommendation mechanism in order to guide EFL students to read articles that they prefer and also suitable for their knowledge levels as well as a reading annotation module enabling students to note down of English vocabulary translations for the reading content in individual or shared annotation mode. There were three groups at the study. One of the experimental groups learned with the recommendation system with the individual annotation function, the other experimental group learned with the recommendation system with the shared annotation function, while the students in the control group learned with the individual annotation function, but without the recommendation system. Findings of the study demonstrated that both experimental groups did better compared to the control group, however, no difference in learning outcome between the two experimental groups with regard to learning achievements was found.

Wang and Smith (2013) describe an ongoing language-learning project in their paper. They investigated both the feasibility and the limitations of developing English reading and grammar skills with the help of the interface of mobile phones. The students received the materials via mobile phones during the project and they read or took part in the materials which were appealing to them. Data collected from the students as well as server logs showed that reading and learning grammar with

the help of mobile tools is considered as a positive language learning experience. However, it was also indicated that in the light of the data gathered, if the certain criteria are not applied, the use of mobile learning devices could be restricted. These are listed as:

- providing engaging learning materials that are neither too long nor overly-demanding;
- a proper degree of teacher monitoring;
- student involvement;
- the need for incentives;
- a respect for privacy;
- a safe and secure mobile-learning technical environment.

Shuib, Abdullah, Azizan and Gunasegaran (2015) aimed to design a mobile learning tool called the Intelligent Mobile Learning Tool for Grammar Learning (i-MoL) in an attempt to enable “on-the-go” grammar learning via mobile phones. It assists students learn grammar via game-like applications, inquiry based activities and flashcard-like information. The researchers state that this project is maintaining its content development stages and when it is totally improved, it is anticipated that i-Mol is going to have significant contributions to the pedagogic level of mobile learning, especially for the sake of English grammar learning.

Alzu’bi and Sabha (2013) aimed to investigate the function of mobile-based e-mail in order to improve the success level of students. They conducted an experimental study where 30 students participated in groups of two and the data was collected through a survey. The groups consisting of students from two different universities in Jordan were taught by using a mobile-based email strategy. The researchers found out that the students in the experimental group outperformed in terms of writing and vocabulary skills.

In their research, Hwang, Chen, Shadiey, Huang and Chen (2014) suggested a situational learning system so that elementary school students would practice and enhance their EFL writing skills. There were 59 participants which were divided into two groups as experimental and control groups. The students of the experimental group had mobile devices for the purpose of completing EFL writing assignments. The findings of the study demonstrated that there is a significant difference in learning achievement between the two groups. Students in the experimental group

indicated that the activities were fun so that they were willing to direct their attention in situated learning scenarios.

Nah, White and Sussex (2008) aimed to investigate the potential of using mobile phones for the purpose of browsing wireless application protocol (WAP) sites to enhance students' listening skills. In particular, the study centered upon the perceptions of language learners toward the use of mobile phones for this aim. A group of undergraduate students at an EFL listening course at a Korean university participated in the experiment and they used a WAP site which was designed for the purpose of this study. The researchers concluded that the participants held positive perspectives towards the use of the WAP site and it could serve as an efficient tool in order to learn listening skills as well as supporting student-centered and collaborative learning.

2.5 Teacher Perspectives on ICT and MALL

Al-Zaidiyeen, Mei and Fook (2010) investigated the level of ICT use for the purpose of education in Jordanian rural secondary schools. The findings of the survey revealed that although the level of ICT use for educational objectives was not high, teachers had positive perspectives towards the use of ICT. Researchers also found out that there was a significant positive correlation between teachers' level of ICT use and their attitudes towards ICT. According to the researchers, findings suggest that ICT use for educational purposes are supposed to be given greater consideration than it receives in the current situation.

“Technology is changing paradigms in education rapidly and teachers are caught unguarded due to lack of professional training in this aspect” (Saglam & Sert, 2012, p. 1). Taking this into consideration, the researchers conducted a study in an attempt to reflect the perceptions of 9 ELT instructors regarding technology integrated English language teaching and the data were collected through semi-structured interviews, open-ended questionnaires and filed notes. In order to analyse the data, an inductive analysis approach was made use of and to develop coding categories, emergent patterns of data were used. According to the findings, teachers participated in the study reported to have positive perspectives on the role of educational technology in an attempt to enrich language teaching. However, the participants admitted that there are some limitations and laid emphasis on the

necessity for ICT training for both teachers and students. The study identified the following uses of technology by the teachers:

- make use of technology to teach academic and linguistic skills in an integrated skills approach,
- encourage students to construct knowledge,
- expose students to life-long learning skills and strategies,
- cater for different students who have different learning styles,
- find and create teaching materials,
- develop skills through exposure to existing on-line sources
- create a motivating environment that is conducive for learning.

The purpose of the study conducted by Ismail, et al (2013) is to determine the level of technology acceptance among school teachers with regard to awareness and motivation, training and courses, training design, and supports and facilities. Besides, the researchers investigated if the teachers' acceptance of technology could affect their readiness for the pedagogical use of mobile phone technology providing that it is applied in school. There were 38 teachers who were teaching Information Technologies (IT) subjects at various elementary schools and data were collected by using a quantitative questionnaire. The findings of the research indicate that the level of technology acceptance of the participants was generally at a high level. Although it was indicated that teachers' readiness for the use of mobile phone in teaching and learning was low, researchers determined a significant correlation between respondents' awareness and motivation towards technology with their readiness for the pedagogical usage of mobile phone.

In his study, Lei (2009) worked with digital natives as pre-service teachers in an attempt to explore their beliefs, attitudes, and technology experiences and expertise, described the strengths and weaknesses in their technology knowledge and skills, and discovered what the necessary technology needs are to prepare them to integrate technology in their future classrooms. Participants were 2007 intake freshmen in teacher education programs and the author collected data through a technology survey. Results of the study reveal that (a) the digital-native pre-service teachers reported strong positive beliefs in technology, yet moderate confidence and reserved attitude in using technology; (b) the majority (80%) of them spent the most

time on social-communication activities, and only about 10% of them spent the most time on learning related activities; (c) they were very proficient with basic technologies but were not familiar with more advanced technologies; (d) the scope of their use of Web 2.0 technologies was limited to mainly social-networking Web sites, and they lacked the experiences and expertise in using Web 2.0 technologies with great potential for classroom application; and (e) they lacked experiences and expertise in using classroom technologies, especially assistive technologies. The results suggest that, growing up with technology, digital natives as pre-service teachers are savvy with basic technologies and social-communication technologies. However, their technology proficiency is limited by both the narrow scope and the lack of depth of their technology activities. Systematic technology preparation is needed to help them learn more advanced technologies, classroom technologies, and assistive technologies, and more important, to help them make the connections between technology and teaching as well as to help them make the transition from digital-native students to digital-native teachers.

The purpose of the study conducted by Ismail, Almekhlafi and Al-Mekhlafy (2010) is to investigate the perspectives of teachers about the use of technology in the classroom. All the 621 teachers participated in the study were teachers of Arabic and English in K-12 schools in the UAE. In the study both quantitative and qualitative approaches were applied. For the data collection procedures, a questionnaire and a focus group interview were made use of. According to the results of the study, the teachers certified that it is inevitable not to consider the effect of technology on their teaching practices and stated that it might foster student learning as well. Teachers were also eager to speed up the implementation of technology in their classes with the aim of improving language teaching and learning.

According to Tai and Ting (2011), “the adoption of technology in language learning has advanced from Computer Assisted Language Learning (CALL) to MALL” (p. 3). They investigated the essential aspects in language learning in terms of emergent mobile technologies. The study includes findings of the perceptions of teachers, and challenges that they come across. There were six pre-service teachers in the study and a mobile device was introduced to them. The participants were supposed to design and apply MALL by collaborating. The researchers found out

improvement on the direct adoption of a mobile device in terms of teachers' perceived usefulness, perceived ease of use and technology cognizance. On the other hand, the challenges were listed as the changing role of the mobile device, technical difficulties, pedagogical potential, and workload. The researchers suggest that a successful adoption approach should consist of hands-on experience, collaboration, and authentic tasks.

Oz (2015) aimed to investigate pre-service EFL teachers' perceptions about MALL. The study also aimed to find out whether gender, grade level and grade point average (GPA) variables would have an effect on their perceptions of MALL. A quantitative approach was conducted in the study and 220 pre-service EFL teachers at the education department of a state university participated by completing the "Mobile Learning Perception Scale." Additionally, the study was supported with interviews by asking open-ended questions. Findings of the study indicated that the pre-service teachers had high levels of perceptions about MALL as the mean scores for all corresponding items were within the upper third of the normative distribution (3-4). Gender, grade level and GPA differences were moderated by the effects of the measured constructs on their perceptions of MALL. The findings of the descriptive analyses demonstrated that females with higher GPA obtained the highest mean scores. Besides, the findings of multivariate tests illustrated a significant main effect in terms of their gender and their perceptions, as well as an interaction effect between gender and GPA. Results of the study also indicated that GPA and gender were the strongest predictors of participants' perceptions about MALL. In terms of qualitative data, it is stated that all the interviewed pre-service teachers reflected their positive attitudes towards using mobile devices in language teaching.

In his study, Kuskonmaz (2011) focused on teachers' perceptions of mobile learning. Participants were 610 teachers at secondary schools actively teaching during the term of 2010-2011 around Istanbul. During the process of collecting samples, straightforward exemplifying technique was applied. The study revealed that the teachers were open to innovations to be provided by mobile learning and were willing to use some techniques in their teaching. The researcher concluded that teachers had positive perspectives in terms of mobile learning.

To analyse the perspectives and the levels of mobile learning of the prospective teachers, Serin (2012) conducted mixed method research at a university

in Turkish Republic of Northern Cyprus. 1171 prospective teachers took part in the research. Contrary to the previous findings, the findings of this study indicated that prospective teachers had low level of perspectives towards mobile learning and they indicated not to have information on it as well. It was also indicated that the prospective teachers who claimed to have information about mobile learning were found to have wrong knowledge about it and they esteem that mobile learning hinders effective communication environment.

The study conducted by Zulkafly, Koo, Shariman and Zainuddin (2011) examined the perspectives of instructors on mobile learning environments as they are the most essential agents in the process of producing teaching and learning materials. The researchers conducted the study in the Multimedia faculty of a private university in Malaysia. The activities completed by students included activities that took place in and out of the campus. Activities consisted of research, photography, video-shooting and going to field trips. 12 educators were selected to generate an elaborate understanding of the present learning environment. The results of the study indicated that the instructors were considered as the early adopters of mobile learning and they were farsighted in terms of adapting mobile learning. Besides, they were willing to implement novel approaches in teaching and learning. In general, they perceived mobile environment as suitable in order to perform basic tasks such as making announcements, making schedules and taking attendance. Moreover, they were attracted by the idea of the flexibility to access information whenever and wherever they want to.

Celik and Aytin (2014) state that although there are bare advantages of enabling digital educational tools, Turkish EFL teachers seem to fail to make use of computing technologies in the classroom setting. For the purposes of the study, interviews were conducted with 6 elementary and high school teachers. According to the findings of the study, the teachers who participated in the study perceived themselves as confident about their level of skill in applying digital tools into their teaching. The participants also indicated that these devices are motivating and they enhance the perceptions of students toward language learning, besides, they increase their competency levels. However, it was reported that limited access to computers and the Internet inhibited teachers from making use of digital media in their teaching.

In their study, Thomas, O'Bannon and Britt (2014) explored the perspectives of instructors with the aim of detecting their contribution for the use of mobile phones in the classroom, alongside their perspectives of mobile phone traits that are considered to be useful for school-related work and the educational challenges of the use of mobile phones. 1.121 teachers participated in the study where a survey approach was applied to gather relevant data. The findings of the study showed that slightly more teachers claimed not to promote the use of mobile phones in the classroom than the ones who promoted their use, and almost half as many teachers reported that they were uncertain about it. The instructors claimed to perceive the Internet, educational apps, the calculator, the calendar, and the ability to play a podcast as the most useful characteristics of mobile phones in terms of classroom use. On the other hand, the instructors determined cheating, access to inappropriate information on the Internet, cyberbullying, and disruptions as the main problems faced when using mobile phones in the classroom.

The purpose of the study conducted by Goad (2012) was to measure the perspectives of teachers on the use of mobile technology, specifically cell phones, as educational devices to engage students in learning. The study was conducted with 500 public school teachers in the Midwest on their proficiency with technology, their perspectives on the significance of implementing technology, their ideas about integrating technology in the classroom, and their specific integration of cell phones in their lessons. Among all the participants, 28.5% of the teachers claimed to have experience of using cell phones in the classroom. According to the results of the *t*-test, STEM teachers were determined to have higher level of skill than the teachers of other disciplines. In other words, a significant, positive correlation was defined, which reveals that as the level of technology use increased the teacher ability to design and access lessons increased.

Ismail, Azizan and Azman (2013) explored the perspectives of instructors on implementing mobile learning via mobile phone at schools. The participants were 38 teachers who teach IT subject in Malaysia. Data were gathered with the help of a quantitative questionnaire which was self-administered. According to the results of the study, the implementation of mobile learning via mobile phone at schools was not considered to be good among participants. What is more, participants were

sceptical as well in terms of the future of mobile learning. The researchers conclude that the embracement of mobile phones as pedagogical devices does not seem to occur in Malaysian schools in the near future.

In language classrooms, student engagement is essential. Dunn, Richardson, McDonald, and Oprescu (2011) investigated instructor perceptions of the advantages and difficulties of operating a mobile phone application (VotApedia) in the classroom in terms of student engagement. VotApedia is cell phone response system where students have the ability to response to test, quiz or polling via cell phone. This study is a case study and during the semester, each instructor kept an electronic diary of the strengths and weaknesses of using VotApedia. The results of the research suggest that from an instructor's point of view, the use of that mobile phone application made the classroom a more interactive learning environment.

O'Bannon and Thomas (2014) examined the digital native – digital immigrant dichotomy in their study which involved 1095 teachers. They investigated the age element because it is related to the connection between the sort of mobile phone they claimed to have, their support for the use of mobile phones in the classroom, their impression of the advantages of particular mobile components for school related work, and their view of educational boundaries. The findings of the study showed that the age of the teacher matters. Specifically, older instructors were less inclined to possess smartphones, they were less supportive on all items, were less enthusiastic about the properties, and observed the boundaries to be more problematic.

Aiming at gaining insight on the integration of tablet PCs in classroom instruction, Ifenthaler and Schweinbenz (2013) conducted a qualitative research with 18 teachers. They aimed to measure the acceptance of tablet PCs among teachers. The researchers conducted semi-structured interviews during a pilot project which introduced tablet PCs in the classroom instruction. The results indicated diversity in the attitude of teachers towards technology, and also with regards to the performance expectancy and the facilitating conditions.

2.6 Student Perspectives on MALL

In his paper, Hsu (2013) aimed to examine the end-client's view of MALL through cross-cultural analyses. In the study, those analyses were carried out via

three proposed aspects which are technological affordances, applicability and the constructivism of MALL. The findings indicated that significant differences existed among instructors with various cultural backgrounds, on the other hand, all participants agreed that MALL is a potential device for constructivism in EFL learning.

Viberg and Grönlund (2013) inspected the present condition of perceptions of students toward mobile technology use in and for second and foreign language learning in higher education. Participants of the study were 345 students and the data were collected by means of a questionnaire. The findings of the study indicate that the perceptions of the participants toward mobile learning are extremely positive and individualization was also found out to be most positive followed by collaboration, and authenticity. According to the researchers, instructors are supposed to take the relevant integration of mobile technologies in second and foreign language teaching and learning into consideration.

The aim of the study conducted by Al-Fahad (2009) is to comprehend and gauge the attitudes and perspectives of students in terms of the effectiveness of mobile learning. A survey was conducted with 186 undergraduate female students in Saudi Arabia. According to the student perception analysis on m-learning, it was found out that mobile learning is widely embraced by the student community. Most of the students promoted the idea that wireless networks enhance the flexibility of access to resources. Besides, they were identified to be eager to make use of all sources of m-learning approaches so that they can reach the information whenever and wherever they would like to. It was deduced according to the data that m-learning activities are able to engage students in the process of learning more as the students who took the survey consisted of not only passive learners but also truly engaged learners. As a result, the findings of the survey indicate that offering mobile learning could be a technique for enhancing maintenance of B.A., and M.D. students, by upgrading their teaching and learning.

Due to the fact that students have been more interested in mobile learning, Dashtestani (2016) conducted research with 345 EFL students in order to identify how students make use of mobile devices and what their attitudes are. In the study, questionnaires, semi-structured interviews and non-participant observations were used as data collection methods. The findings showed that Iranian EFL students were

positive about mobile learning and the use of mobile devices for learning purposes. Although most of the students had smartphones, the majority of them preferred tablet PCs over smartphones and laptops. The benefits were listed as opportunities for ubiquitous learning, access to the Internet, use of multimedia in the classroom and portability. However, the majority of the students indicated to use mobile devices for non-academic purposes.

Claiming that although most users do not realize its potential for education, the cell phone has major educational implications, Librero, Ramos, Ranga, Trinona and Lambert (2007) describe the experience of two main projects which are working on the potential of cell phone and SMS techniques for formal and non-formal education in their article. They designed an approach where SMS material was required for full understanding of the content of the workbook materials and being able to complete the exercises. The aim of this approach is to stimulate and enlarge the face to face process of learning English via SMS messaging. The results show that the students and trainees reacted positively on the potential of these techniques. As a result, the researchers concluded that these sets of studies have affirmed that the fast improvement of mobile phone technologies, and the specific ubiquity of SMS text messaging offer major occasions for formal and non-formal education in Asia.

Van De Bogart (2011) investigated the use of cell phone for ESL language learning and the perspectives toward using the cell phones in and out of the classroom. In order to find out how the students are making use of their cell phones with the aim of learning at present and how they would like to use them in the future, a questionnaire survey was applied. An inquiry into how the students need the instructor to integrate the cell phone in course work and learning exercises was directed through open-ended questions. Thus, a quantitative and qualitative approach as well as correlations were conducted in order to investigate the ESL learners. The findings of the study indicated that students are willing to use their cell phones in their course work, besides, according to the open-ended questions, there is necessity to develop course work which would embrace the cell phone use in the classroom.

In an attempt to get an idea of how learners make use of their phones in their daily lives and their attitudes of using their phones for the purpose of learning, Fujimoto (2012) administered two comprehensive surveys to students at a university in Australia ($n = 182$ and $n = 158$). In the present studies, learners in Australia

broadly demonstrated positive perspectives to the utilization of their mobile telephones in addition to their tablet computers for language learning. On the other hand, several key issues such as the difficulty of typing and browsing information appeared to have reduced the use of smart phones. The researcher concludes that instructors expecting their students to be engaged by using their mobile phones for learning are required to carefully consider how students make use of them in their personal lives, and the extent to which this can be extended to learning purposes as well.

In their study Kim, Rueckert, Kim and Seo (2013) investigated how students perceive the use of mobile tools to build a personalized learning experience outside the classroom. All 53 students finalized class projects which were designed to assist them discover mobile learning experiences with their own mobile devices by incorporating technologies such as YouTube and VoiceThread. According to the results of the study, mobile technologies can possibly enable new learning encounters that students are able to engage more often in learning exercises outside the classroom, supporting them with more learning opportunities in their community of practice. The researchers indicate that the students turned out to be more eager to embrace new advances into their own particular lives.

Stating that new technologies consist of a huge part of educational landscape in the 21st century, Ditzler, Hong and Strudler (2016) believed that the newest technology to be implemented in the classroom setting is the tablet computer. In order to find out the perspectives of both students and teachers on the role of tablet computers, the researchers conducted research. They interviewed 23 students and three teachers and came up with various themes. According to the results, it was concluded that most of the participants liked to have iPads and thought that they were beneficial tools for education. However, they were also concerned about how to learn to use the tablet and distractions caused by having the device. Besides, the applications were limited and teacher training was thought to be necessary.

In order to follow the advancements in educational technology, a project has been employed in Turkey called FATİH project where the students and teachers were distributed free tablet PCs to be used for educational purposes. Duran and Aytac (2016) aimed to find out the perceptions of students on the use of tablet computers in the process of learning and teaching. The researchers collected quantitative data

through a questionnaire from 131 1st grade high school students. They concluded that students mostly used the tablet computers with the aim of accessing the Internet. The students stated that the content of the tablet computer and the textbooks were correlated and they were encouraged by the teachers to use them. However, they indicated that they did not learn quicker or easier and tablet computers did not increase their success level.

2.7 Challenges and Limitations of Using Mobile Learning

In their study, Shudong and Higgins (2006) discuss shortcomings inherent in mobile phone learning as well as elements which hinder its suitability. They conducted a limited sample survey of mobile use with 32 university students. From their survey, the researchers came to the conclusion that the mobile phone is still a tool which is primarily used for voice communication, and personal information exchange, besides, students are not aware of the fact that their mobile phone could also be a tool for ubiquitous learning. According to the findings of the survey, the researchers conclude that m-learning is going to require some more time to be accepted as a part of the average person's life-long studies. As a result, the researchers claim that psychologically, people have not got used to mobile phone learning; pedagogically, mobile learning conclusion are difficult to evaluate for follow-up; and technically, small screen size, inconvenient input, small memory, and lack of common standards are obstacles that prevent people from learning using mobile phones.

The purpose of the study conducted by Campbell (2006) is to examine some of the difficulties that are linked with the use of mobile phones in college classrooms. Surveys were applied in order to evaluate the degree to which the technology is recognized as a critical source of distraction in the classroom, concerns about use of the technology for cheating, and perspectives about policies that restrict it from ringing and being used during class. According to the results of the survey, students indicated to consider ringing as a serious problem and they claimed to support formal policies that restrict mobile phones in college classrooms. The researcher also indicates that the status of faculty/student was not identified with any of the attitude measures, however, younger participants reported to have more tolerant attitudes.

Ugur and Koc (2015) conducted research in order to gain insight on the frequency and manner of cell phone use in college classrooms. The data was gathered through a survey from 300 college students. The findings of the research indicated that majority of the students did not use their smartphones in order to enhance learning but they used them for their personal use. Another finding showed that the majority of the students found out to distract their classmates and what is worse they would continue to use mobile devices this way unless some precautions are taken by the administrators.

2.8 Conclusion

Based on these overviews, it can be concluded that MALL practice can improve students' language learning skills, increases interactions among students and teachers and motivate them. It can also be inferred that teachers and students hold positive perspectives towards the implementation of MALL and teachers are open to innovations at this field.

After analyzing the research that has been carried out in Turkey on the perspectives of teachers on the implementation of MALL, only two relative studies were found. One of them examines the perceptions of secondary school teachers (Kuskonmaz, 2011), while the other one focuses on pre-service teachers (Oz, 2015). Namely, there has been no research on the perspectives of EFL instructors who work at foundation and state preparatory schools of universities in Turkey. Therefore, the present study aims to bridge this gap and provide data collected from EFL instructors working at preparatory schools of universities.

Chapter 3

Methodology

This chapter describes the methodology of the study. The remaining part of the chapter will focus on the research design, participants, and data collection procedures.

The following research questions guided this study:

1. What are the perceptions of EFL teachers about the implementation of mobile phones in the Turkish EFL context?
 - 1a. What are the perceptions of EFL teachers in Turkey on the possible challenges to the use of mobile phones in the Turkish EFL context?
 - 1b. What are the perceptions of EFL teachers in Turkey on the current state of using mobile phones in the Turkish EFL context?
 - 1c. What are the perceptions of EFL teachers in Turkey on their ability to develop/use MALL activities/software in the Turkish EFL context?
2. How do EFL teachers use mobile phones in the Turkish EFL context?

3.1 Research Design

This study aims to find out about the perspectives of EFL instructors on the use of mobile applications as educational tools at state and foundation universities' preparatory schools in Turkey. For this purpose, a qualitative case study research design was adopted in the study in order to gain insights about how the teachers integrate mobile applications into their teaching and how they perceive them.

“A qualitative approach is defined as the one in which the inquirer often makes knowledge claims based on constructivist perspectives or advocacy/participatory perspectives or both” (Creswell, 2003, p.18). Meriam (2002) states that “qualitative case studies share with other forms of qualitative research the search for meaning and understanding, the researcher as the primary instrument of

data collection and analysis, an inductive investigative strategy, and the end product being richly descriptive” (p. 178).

This study involved data triangulation in that it sought correspondence of results from three different instruments. The data were gathered through an online survey which had 3 parts; 1st part was demographic survey, 2nd part was Likert-scale survey consisted of four sections and 3rd part was open-ended questions survey; classroom observations of 3 EFL instructors and interviews with those teachers. The demographic survey and the Likert-scale survey helped the researcher collect numeric data, namely percentages, while the survey with open-ended questions, observations and interviews provided qualitative data.

3.2 Universe and Participants

English preparatory programs of universities offer intensive English teaching for four months to one year. Before each academic year starts, students are supposed to take a placement test to be placed according to their proficiency levels. The purpose of the test is to enable students to follow the lessons with ease. The main aim of the preparatory program is to provide students with academic English competence which is required at their department.

The present study was administered to instructors who were employed at English preparatory programs at foundation (76.7%) and state (23.3%) universities in Turkey during 2015-2016 academic year. A total of 103 teachers answered the 1st and 2nd parts – demographic survey and Likert-scale survey; and 67 teachers answered the 3rd part – open-ended questions. Besides, 3 teachers were selected purposively for classroom observations and interviews.

Among 103 teachers 89.3% of them were Turkish nationality while 10.7% of them were foreign nationality. The survey was answered by female teachers mostly (79.6%). The average age of the teachers who participated in the survey was between 26 and 30 with the percent of 39.8%.

In terms of university degree of the teachers, the percentage of B.A. holders was 24.5%. The results indicated that 32.4% of the participants held an M.A. degree and it was followed by teachers who were still doing their M.A. (29.4%). Only one

teacher was a PhD holder while ten of them were continuing their PhD studies. There were three teachers who chose the “other” option.

The departments of the instructors at university was mainly English Language Teaching (ELT) with 45 teachers and it was followed by English Language and Literature with 37 teachers. Translation, history, TEFL and TESOL were among other departments.

According to the results of the survey, 76.7% of the instructors work at foundation universities while the rest work at state universities.

When work experience of the teachers was considered, 35.9% of the instructors who participated in the study have a work experience of 7 to 10 years which is followed by 4 to 6 years (32%). Only 6.8% of the teachers have worked only 1 to 3 years while the rest (25.2%) worked for more than 11 years.

All the teachers except 1 claimed to have a smartphone.

Among 103 teachers who took the survey, 3 convenient and volunteering teachers were purposively selected to observe and interview. Those teachers work at a foundation university in Istanbul, Turkey. This university offers a variety of language programs besides English in order to enable students to learn and use these languages efficiently in not only their academic lives but also in their social and business lives. Specifically, the purpose of this preparatory school is to prepare students for their departments by supplying them with an intensive English course during an academic year. The teachers to be hired at this university are supposed to hold or continue their M.A. degrees or have other certifications like CELTA and DELTA. They teach either main course or reading and writing lessons for 15-25 hours a week. Two of the observed teachers were Turkish and one of them was a native speaker of English. These teachers have 15 – 25 hours of teaching per week and they are supposed to plan and prepare the lesson they teach weekly.

The teachers who participated the study were informed that their responses would be treated in strict confidence and individual teachers or schools would not be identified in any report or publication. Besides, instead of real names, pseudonyms were used for the observed teachers.

3.3 Procedures

3.3.1 Sampling. Dörnyei and Csizér (2011) define sample as “the group of people whom the researcher actually examines and the population is the larger group of people whom the survey is about” (p. 80). Different methods to obtain information in order to create a sampling can be grouped into two categories: probability and non-probability sampling (Doherty, 1994).

The current study made use of a type of nonprobability sampling. At nonprobability sampling “members of the target population are selected only if they meet certain practical criteria, such as geographical proximity, availability at a certain time, or easy accessibility” (Dörnyei & Csizér, 2011, p. 81).

Therefore, different foundation and state universities in Turkey were selected and cooperated with as they were the researcher’s professional connections. This facilitated data collection and carrying out the study. The researcher observed the colleagues who work at the same university as they were easy to contact and visit their classes. The teachers to be observed were chosen purposively as they were known to apply mobile phone activities in their lessons, besides they were quite willing to help after filling out the online survey.

3.3.2 Sources of data. An online survey which had 3 parts; 1st part – demographic survey, 2nd part - Likert-scale survey and 3rd part - open-ended questions survey; observations and interviews were used as the sources of data in this study.

3.3.2.1 Demographic survey. The demographic survey used in this study was adapted by the researcher from Dashtestani (2013). The aim of the demographic survey (see Appendix A) was to classify the EFL instructors into various demographic categories. It was an eight-item information form, which examined teachers’ nationality, age, gender, university degree, type of institution, major at university, teaching experience of a life time and smartphone ownership.

3.3.2.2 Likert-scale survey. The online survey used in this study was adopted from Dashtestani (2013) to assess the perspectives of EFL teachers on the use of mobile applications as educational tools. The Likert-scale survey consisted of 27 questions under 4 different sections. Dashtestani (2013) states that the content of the survey was validated by a group of seven EFL and educational technology university professors. The 1st, 2nd, 3rd and 4th sections of the Likert-scale survey (see Appendix B), were not edited. The first and second sections were four point Likert-scale

surveys which were designed to measure the level of acceptability of the items and contained 10 questions each. The first section included questions on EFL teachers' perspectives toward the use of mobile phones for language learning/teaching while the aim of the second section was to gain information about EFL teachers' perspectives on the challenges to the use of mobile applications for language learning/teaching. The third section was a five point Likert-scale survey designed to find out the frequency levels of the items. In this section there were two questions on EFL teachers' perspectives on the current use of mobile applications for their EFL courses. The last section was a five point Likert-scale survey to measure the proficiency levels of the teachers by asking questions about their perceptions of their ability to use/develop MALL activities and software.

3.3.2.3 Open-ended questions survey. Open-ended questions survey was carried out to get more detailed information on participants' perceptions of use of mobile applications in an EFL context. After the completion of the Likert-scale survey, open-ended questions survey (see Appendix C) by Dashtestani (2013) was used to gather deeper information on the instructors' perspectives and practices on the use of mobile applications.

3.3.2.4 Classroom observations. In addition to the surveys, classroom observations were also held to gain deeper insight in teachers' implementing mobile applications. A total of 150 minutes observation in three 50 minute-lessons was done individually. The teachers to be observed invited the researcher to their class whenever they wanted to use mobile phone activities in their lessons. During the observations, detailed notes were jotted down on when, what and how the teachers integrated mobile phones and how the student reactions were.

3.3.2.5 Interviews. Interviews with the observed teachers were held in order to check the observation data right after the observation was completed. The researcher asked questions, which she prepared with the help of her advisor, to the teachers she observed about their aims and reasons to use the tools they implemented in their lessons. Interviews which lasted approximately 15 minutes were semi-structured (see Appendix D), face-to-face and audio-recorded. Each interview was transcribed for data analysis.

3.3.3 Data collection procedures. In the surveys, 79 (76.7%) teachers from foundation and 24 (23.3%) teachers from state universities' preparatory schools in

Turkey were included and classroom observations were held at a foundation university in Istanbul. The researcher contacted the heads of the English preparatory schools of these universities or her colleagues to get permission to send the survey online. The data were collected anonymously through Google Forms. The survey data were collected between February and March in 2016. While a total of 103 participants answered the demographic and the Likert-scale surveys, 67 teachers voluntarily answered the open-ended questions survey.

Due to scheduling and time issues, classroom observations with three instructors were held at the university where the researcher works in March, 2016. After getting the necessary permission from the Head of Department, the teachers were asked for permission to visit their classes.

3.3.4 Data analysis procedures. The data collected for the purposes of this study was analyzed qualitatively. The data which was gathered through the Likert-scale survey was analyzed automatically by using Google Forms where percentages were calculated.

The data collected by means of open-ended questions survey, classroom observations and interviews were analyzed through content analysis which is defined as a research method that has various steps with the aim of making good inferences from the text (Weber, 1990). “It is as a procedure for the categorisation of verbal or behavioural data, for purposes of classification, summarization and tabulation” (Hancock, 1998, p. 17). The documents gathered from the open-ended questions were read and reread to make sense of the data, key words were identified and relevant pieces were labelled for the purpose of coding and finally they were categorized to create the themes. The audio records gathered during the interviews were transcribed. All three interviews were compared with each other and repeated words and sentences were marked, hence the data could be grouped into thematic units. Then, organized groups of data were interpreted and explained. Likewise, field notes which were taken during observations were organized and grouped. All observation notes were compared and interpreted. “Creating categories triggers the construction of a conceptual scheme that suits the data and this scheme helps the researcher to ask questions, to compare across data, to change or drop categories and to make a hierarchical order of them” (Basit, 2003, p. 144). By this way, the

perspectives of the instructors about the use of mobile applications were displayed profoundly.

3.3.5 Trustworthiness. One of the essential aspects in both qualitative and quantitative research is trustworthiness. According to Lincoln and Guba (1985), there are four criteria that affect research:

- **Credibility:** confidence in the 'truth' of the findings.
- **Transferability:** showing that the findings have applicability in other contexts.
- **Dependability:** showing that the findings are consistent and could be repeated.
- **Confirmability:** a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest.

In order to establish trustworthiness, afore-mentioned criteria were analyzed one by one. To be able to enable credibility in this study, the researcher used prolonged engagement and member check strategies. Prolonged engagement refers to a term “which allows the researcher to check perspectives and allows the informants to become accustomed to the researcher” (Krefting, 1991, p. 217). The researcher has been teaching English at a preparatory school, besides some of the participants are her colleagues. Thus, the researcher spent enough time to observe the instructors to get an understanding of the target context as she was also one of the participants of the study.

Member checking strategy is defined as the process which “data and interpretations are continuously tested as they are derived with members of the various audiences and groups from which data are solicited” (Guba & Lincoln, 1981, p. 85) and that prevents any misunderstanding and confusion. According to Krefting (1991) this technique enables researcher to accurately translate the informants’ viewpoints into data. After writing up the observation and interview data analysis, the researcher checked her understating with the teachers, and they confirmed the truthfulness of the data.

To establish the transferability criterion, thick description was sustained by giving detailed description of the institutions and comprehensive background information about the participants in addition to data triangulation.

In terms of dependability, the process was described elaborately. The research design, how it was implemented and how the data was gathered were described. Furthermore, thesis advisor guided the researcher to check the accuracy of the findings, interpretations and conclusions.

Finally, confirmability was established by triangulation method in this study. Data were gathered via a demographic survey, a Likert-scale survey, an open-ended questions survey, classroom observations and interviews. The findings of the study were treated objectively and written by eliminating bias as much as possible.

3.3.6 Limitations. There are certain limitations to be considered in this study. To start with, this study relies on the honesty of the teachers' self-reported data. As the findings of the research were based on qualitative data, it is not easy to be fully objective for all the participants. While the teachers were filling out the survey, the answers could be affected from their current mood or they might not prefer to indicate their own opinions in order not to be considered as unwilling instructors to the researcher. At that point, classroom observations were held to strengthen and support the data gathered with the surveys. However, a limited number of classroom observations were held due to time conflicts and scheduling problems.

Related to the observations, there lies another limitation. The instructors to be observed invited the researcher to their classrooms when they wanted to make use of mobile phone activities. Knowing that they would be observed, they may not have reflected their natural classroom atmosphere of their typical lesson flow.

Thirdly, the number of the participants in the study which consisted of 103 teachers for the 1st and 2nd parts of the survey and 67 for the 3rd part of the survey creates another limitation. Further research needs to be conducted with a larger group of participants. If the study could be conducted with more participants in more institutions, the results would be more representative.

One another limitation of the study is that the specific number of how many state and foundation universities took part in the study was not determined.

Although, this study was conducted in more than one city in Turkey and included more than one university, participants' institutions were not mentioned for ethical reasons.

Finally, in the surveys, rather than using the term "mobile applications", "mobile phones" were used. Although the latter term is the most commonly used in literature, it is necessary to be cautious of it because some readers and even research participants might misunderstand the term by focusing on the tool rather than the application or more critically the methodology of it.

3.3.7 Delimitations. There are a few delimitations of the study. To begin with, this study was narrowed down to EFL instructors only. As teachers are the ones to apply the mobile applications in their classes, this study aimed to find out their perceptions initially. As a result, students were not included in the study.

Secondly, in order to gain insight into the perspectives of teachers who work with young adults, this study was conducted only at preparatory schools. Primary, secondary or high schools were not included.

Chapter 4

Results

4.1 Overview

This chapter presents the results of qualitative analyses carried out for the purpose of answering the research questions. The data were gathered through an online survey which consisted of a demographic survey, a Likert-scale survey, and an open-ended questions survey as well as classroom observations and interviews. The demographic survey and the Likert-scale survey e was analysed by using Google Forms, and the analyses of the survey with open-ended questions, classroom observations and interviews were based on the content analysis. The rest of this chapter examines and discusses the findings of the research questions addressed in the study elaborately.

The findings of the research are presented based upon the following research questions:

1. What are the perceptions of EFL teachers about the implementation of mobile phones in the Turkish EFL context?
 - 1a. What are the perceptions of EFL teachers in Turkey on the possible challenges to the use of mobile phones in the Turkish EFL context?
 - 1b. What are the perceptions of EFL teachers in Turkey on the current state of using mobile phones in the Turkish EFL context?
 - 1c. What are the perceptions of EFL teachers in Turkey on their ability to develop/use MALL activities/software in the Turkish EFL context?
2. How do EFL teachers use mobile phones in the Turkish EFL context?

4.2 Findings of the Research Question 1

In an attempt to answer the first research question which was “What are the perceptions of EFL teachers about the implementation of mobile phones in the Turkish EFL context?”, in the first section of the Likert-scale survey the teachers

were asked ten questions about their perceptions toward the implementation of mobile phones. The statistics showed that the majority of the instructors held positive attitudes towards the use of mobile phones (see Table 1). More than half of the teachers (84.5 %) strongly agreed or agreed that the use of mobile phones facilitates the process of language learning. Teachers strongly agreed (64.1%) or agreed (32%) that portability is an important property of mobile devices. When asked if the use of mobile phones can create interactive learning environments, almost all the teachers (94.2%) showed positive perspectives. Besides, 93 (90.3%) teachers believed that the multimedia used in mobile phones is useful for EFL learning. Teachers either agreed 64 (62.1%) or strongly agreed (19.4%) with the statement “scaffolding can be provided for each learner through the use of mobile phones for language teaching”. More than half of the teachers (63.5%) supported that mobile phones can be used to teach/learn different skills. In addition, use of mobile phones for language teaching/learning was found to be cost-effective by 74.7%. Based on the statement “the use of mobile phones for language teaching/learning is time-efficient”, 80.6% of the teachers indicated positive perspectives. More than half of the teachers also either strongly agreed (25.2%) or agreed (51.5%) that mobile phones can be connected to the Internet at any time. Finally, a high number of teachers (92.3%) stated that mobile phones provide learners with ubiquitous language learning opportunities. In short, teachers believe that portability is an essential property of mobile phones, they create interactive learning environment, they are ubiquitous and the multimedia used in mobile phones is useful for EFL learning. When foundation and state universities were compared in terms of their perceptions on the implementation of mobile phones, no significant difference was found. Namely, when the answers of state and foundation university teachers were collated, the percentages showed parallelism with each other.

Table 1

Teachers’ Perspectives toward the Use of Mobile Phones for Language Learning/Teaching

Question no Key word	SA	A	D	SD
1. facilitate	26.2%	58.3%	12.6%	2.9%
2. portability	64.1%	32%	2.9%	1%

3. interactive	35%	59.2%	4.9%	1%
4. multimedia	32%	58.3%	8.7%	1%
5. scaffolding	19.4%	62.1%	18.4%	0%
6. different skills	28.2%	55.3%	15.5%	1%
7. cost-effective	18.4%	56.3%	21.4%	3.9%
8. time-efficient	23.3%	57.3%	12.6%	6.8%
9. the Internet	25.2%	51.5%	19.4%	3.9%
10. ubiquitous	21.4%	70.9%	6.8%	1%

Note: SD: Strongly Disagree, D: Disagree, A: Agree, SA: Strongly Agree.

To support the findings of the first section of the Likert-scale survey on the teachers' perceptions, open-ended survey data was analysed qualitatively. The first open-ended question was "What do you think about the use of mobile phones for the EFL contexts? What are the possible benefits?" In terms of teachers' perceptions of the use of mobile phones for EFL contexts and benefits of them, content analysis revealed these major categories: *fun, engaging, variation, motivating, interactive* and *time saving* (see Table 2).

Table 2

Frequency of the Major Categories

Key word	Number of teachers
Fun	9
Engaging	8
Variation	6
Motivating	6
Interactive	6
Time saving	6
Mobility	5
Practical	5

A teacher indicated that "it can be fun for the students as they like the treat of being allowed to use them". Teachers also prefer to use mobile phones in their lessons because of its mobility, its being a time-saver and one another reason is that

it takes attention, thus students feel interested in the lesson. One of the teachers stated that “it increases student motivation and interest in learning”. Teachers believe that mobile phones increase interactivity, adds variety to the lesson, besides they enhance language learning. One teacher indicated that one possible benefit can be enhancing language learning because new generation cannot do without their mobile phones and these devices can help create a livelier learning environment. Teachers also believed that it helps increase participation and facilitates learner autonomy. According to a teacher, employing mobile learning strategies enhances the learner-autonomy and provides both the learners and the teachers with many options.

Besides, teachers stated that mobile phones are a part of everyday life so they believe that they should make use of it in the classroom as well. One of the teachers who believes that smartphones are a regular part of everyday living, for students and teachers alike, stated that the obvious benefit was that using smartphones caters to students' lifestyles, therefore making learning fun and, more importantly, relevant. Some other teachers listed the benefits as access to up to date information thanks to the mobile phone's continuous connectivity. A teacher indicated that mobile phones are user-friendly devices as they are always on-line and up-dated so that information is within reach of students.

4.2.1 Findings of the research question 1a. In the second section of the Likert-scale survey, the teachers answered 10 questions consisted of the possible difficulties of using mobile phones. Based on the results, EFL teachers agreed on many of the challenges to the integration on mobile phones. The challenges which were asked in the survey and participants' responses were displayed in Table 3.

To begin with, 74 (71.9%) teachers perceived the small screen size of mobile phones as a challenge. In terms of slow internet speed, 87.4% of the teachers agreed or strongly agreed that they face problems. Similarly, 91.3% of the teachers claimed to encounter the Internet connectivity problems. The majority (52.4%) of the teachers indicated that they disagree or strongly disagree with the idea that students' non-use of mobile phones is a challenge. Slightly more than half of the teachers (55.3%) did not see high cost of mobile phones as a challenge, and similarly, majority of the teachers (56%) did not perceive high costs of connectivity to the internet as a challenge. The statement, “students' lack of skill/knowledge to use mobile phones

for academic purposes”, was either agreed (35.9%) or strongly agreed (29.1%). In terms of incompatibility of the use of mobile phones with teaching/learning, half of the teachers (50.5%) agreed. More than half of the teachers (55.4%) did not consider students’ resistance to the use of mobile phones for academic purposes as a challenge. Finally, lack of language learning mobile-based software and activities was indicated as a challenge by the teachers (60.2%). To sum up, the biggest challenges perceived by the teachers were slow Internet speed and Internet connectivity problems, while high costs of mobile phones and students’ resistance to use mobile phones for academic purposes were not believed to be a challenge.

Table 3

EFL Teachers’ Perspectives on the Challenges to the Use of Mobile Phones for Language Teaching/Learning.

Question no Key word	SA	A	D	SD
1. small screen size	13.6%	58.3%	22.3%	5.8%
2. slow internet speed	31.1%	56.3%	10.7%	1.9%
3. internet connectivity	37.9%	53.4%	6.8%	1.9%
4. students’ non-use	11.7%	35.9%	34%	18.4%
5. high costs of mobile phones	16.5%	28.2%	45.6%	9.7%
6. high cost of the Internet	13.6.2%	32%	43.7%	10.7%
7. students’ lack of skill	29.1%	35.9%	24.3%	10.7%
8. incompatibility	11.7%	38.8%	37.9%	11.7%
9. students’ resistance	16.5%	28.2%	40.8%	14.6%
10. lack of software and activities	22.3%	37.9%	28.2%	11.7%

Note: SD: Strongly Disagree, D: Disagree, A: Agree, SA: Strongly Agree.

When the data from foundation and state university teachers were compared in terms of teachers’ perceptions on the challenges of mobile phone use, some differences were found in four of the questions. First of all, the teachers who work at state universities considered students’ non- use of mobile phones as a challenge by agreeing or strongly agreeing (69.5%), while the teachers at foundation universities (60%) did not consider that as a challenge. Secondly, according to the teachers at

state universities (69.5%), high cost of mobile phones is a challenge, but teachers at foundation schools (63.75) do not agree with this situation. Next, students' lack of skill/knowledge to use mobile phones for academic purposes was thought to be a challenge by state university teachers (52.1%) but not by the foundation school teachers (71.25%). Last but not least, lack of language learning mobile-based software and activities was perceived as a challenge by the state university teachers (65.2%) but foundation university teachers (55%) did not consider that as a challenge.

The second open-ended question was "What do you think the challenges of using mobile phones for language learning/teaching are?" The teachers participated in the study mostly believed that the biggest problem is Internet connectivity. They stated that "some of the schools do not offer quality Wi-Fi or some students do not have Internet connection on their mobile". One of the teachers saw the first challenge as the connectivity problem and stated that "sometimes students or the teachers might have 3G or Wi-Fi problems". Moreover, the slow or limited Internet connection and expensive charges for the Internet are among these problems. One teacher indicated that "due to high cost of internet connection, some students are unable to participate in the mobile activities, and although the school has free Wi-Fi, some students disconnect in the middle of the activity". Teachers also stated mobile phones' being a distractor as another challenge. They were concerned that they are not sure if the students use the mobile phones for personal use like checking their social media accounts or not and they claimed that it is difficult to control them which causes classroom management problems. At that point, one of the teachers indicated that "during the class the students may tend to check their social media accounts or write on Whatsapp and this may distract their attention". The teachers also mentioned small screen size, short battery and lack of available software as other challenges. A teacher stated that "the small screens make it impossible to write and they end up writing misspelled words". Teachers also claimed that they face technical problems and cannot get enough technical support, which makes using mobile phones for language learning and teaching time consuming and problematic. Lastly, teachers indicated that not all the students have a smart phone and they cost a lot for the students as one teacher stated that "some students don't have smartphones and this is a problem".

4.2.2 Findings of the research question 1b. The aim of the third section of the Likert-scale survey was to gain information on the frequency of the use of mobile phones by teachers and students, which consisted of two questions. Teachers indicated that they (35.9%) sometimes or frequently (31.1%) use mobile phones for their EFL courses. Teachers also stated that their students sometimes (39.8%) or frequently (31.1%) use their mobile phones for their learning practices (see Figure1).

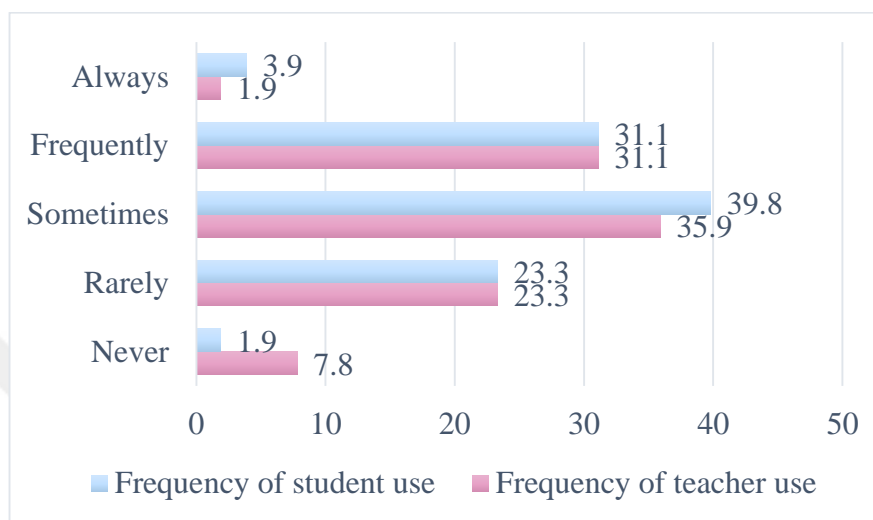


Figure 1. Frequency of mobile phone use for learning/teaching by teachers and students.

When state and foundation university teachers were compared, teachers who work at state universities stated that they frequently (43.4%) use mobile phones for their teaching practices, which is the highest percentage, but foundation university teachers mostly (38.75%) chose “sometimes” option.

The third open-ended question was “What kinds of mobile-based activities do you use in your EFL courses?” and the fourth one was “What kinds of mobile-based activities do your students use in your EFL courses?” The teachers listed applications such as Kahoot, Quizlet, Voscreen, Whatsapp, Padlet, Plickers, Facebook, Google, dictionary applications, game applications, quiz and questionnaire applications, etc. Teachers use these applications in order to prepare quizzes and games or ask students to do research on search engines and look up at the dictionary. Their aim is generally to test or assess students, revise the topic, practice writing, discuss some ideas and give feedback. Teachers stated that their students use these applications in order to study vocabulary, test themselves, improve their reading and listening skills or study

grammar. One of the teachers believed that “Students use different apps to support their learning, especially game like activities on vocabulary, grammar, and listening”, and another teacher indicated that “Students play vocabulary and grammar games, search for information related to the tasks, and use online dictionaries”. The results showed that both teachers and students mostly use mobile-based activities for vocabulary activities which is followed by listening activities. It can be seen that teachers prefer to use Kahoot the most (stated by 31 out of 67 teachers), an application to prepare quizzes, surveys or discussions, while their students use online dictionary applications the most. One of the teachers believed that “Kahoot is a good tool to prepare quizzes with the target structure of each lesson”. Another teacher indicated “students can download e-dictionary applications which is very practical to use when needed”.

4.2.3 Findings of the research question 1c. The fourth section of the Likert-scale survey aimed to gather information on whether the teachers can use or develop MALL activities and software. The instructors answered five questions in this section.

The first question was about the proficiency levels of teachers on their ability to design MALL activities. The results indicated that 45.6 % of the teachers did not think that they are proficient while 29.1% of them consider themselves as proficient or very proficient (see Figure2).

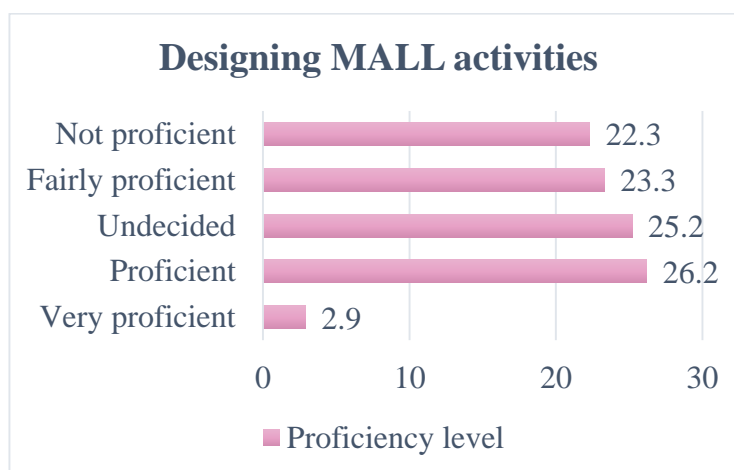


Figure 2. Designing MALL activities.

When asked about their ability to adapt their teaching styles/techniques to MALL, 40.8% of the teachers stated that they were not proficient or fairly proficient and 35.9% of the teachers believed that they are either proficient or very proficient (see Figure3).

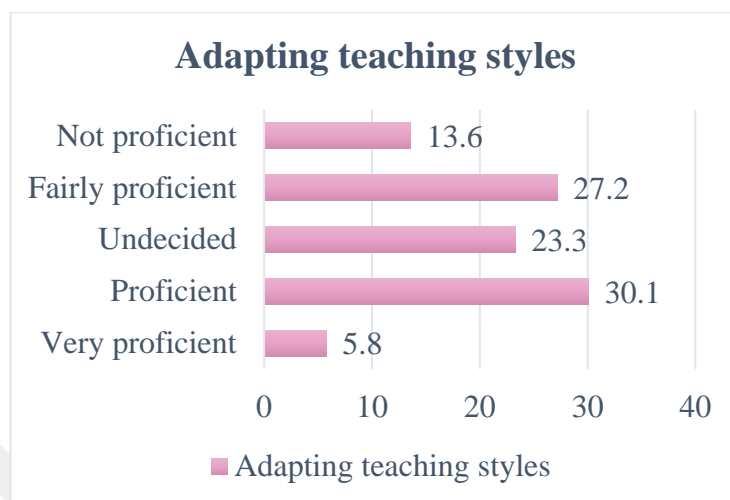


Figure 3. Adapting teaching styles.

The third question of this section was on teachers' ability to evaluate MALL software tools. According to the findings, 43.7% of the instructors indicated not to be proficient or to be fairly proficient while 35% of them stated the opposite (see Figure4).

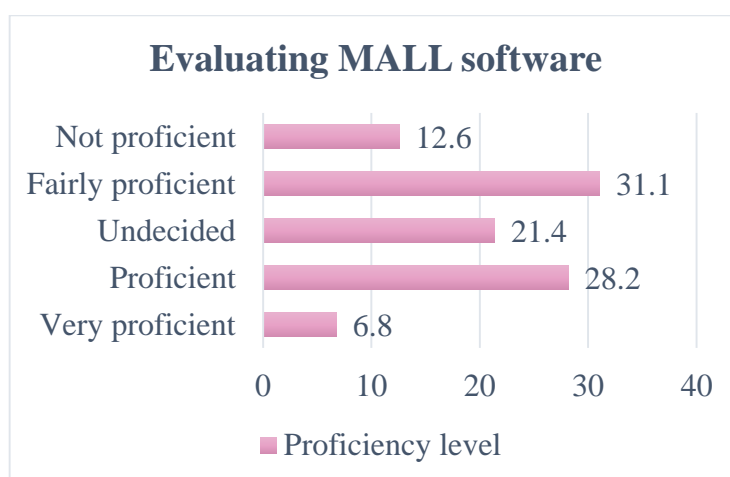


Figure 4. Evaluating MALL software.

Teachers were asked about their ICT literacy to use mobile phones for language teaching on the fourth question. Almost half of them (45.6%) believed that

they are proficient or very proficient while 34.9% of the teachers did not consider themselves as proficient about it (see Figure5).

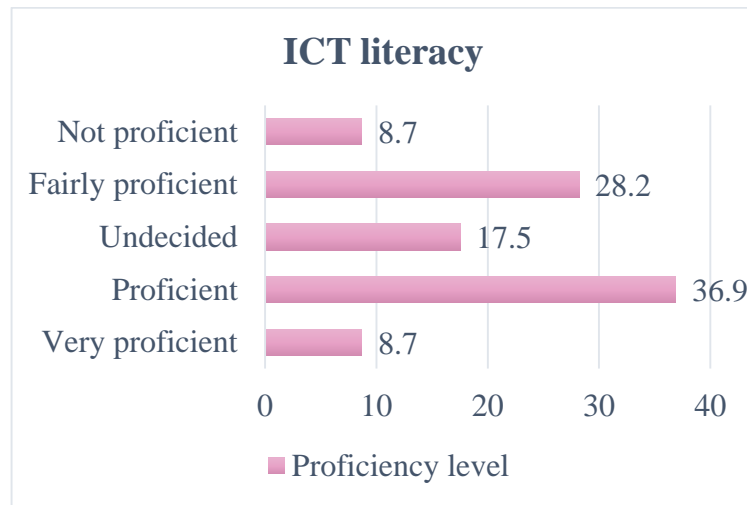


Figure 5. ICT literacy.

Lastly, teachers were requested to indicate their ability to use MALL software tools. Half of the teachers (50.5%) perceived themselves as proficient or very proficient while 34.9 of them stated that they were either fairly proficient or not proficient (see Figure6).

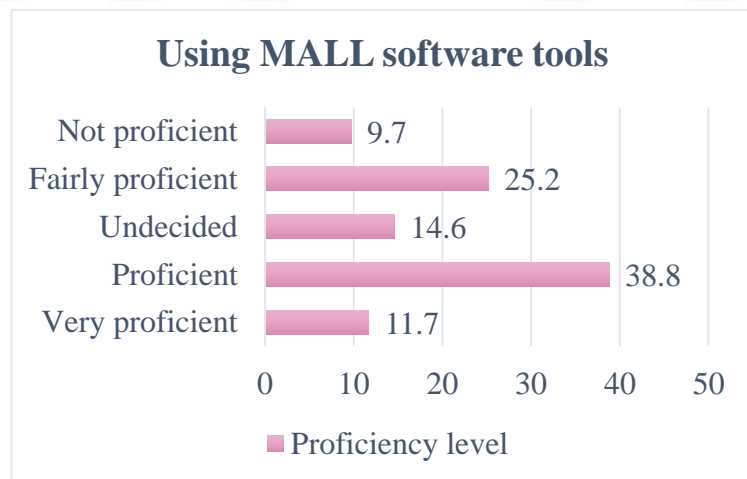


Figure 6. Using MALL software tools.

When the answers of state and foundation university teachers were compared, there was a difference on the third question which was about their ability to evaluate MALL software tools. State university teachers considered themselves as proficient

or very proficient (43.4%) at that, while foundation university teachers thought they were either not proficient or fairly proficient (45%).

It can be concluded that, most teachers do not consider themselves as proficient at designing MALL activities. Moreover, they do not believe that they are proficient in terms of their ability to adapt their teaching styles/techniques to MALL. They also believe that they are not proficient in their ability to evaluate MALL software tools and in their ICT literacy to use mobile phones for language teaching. However, half of the teachers perceive their ability to use MALL software tools as proficient or very proficient.

The fifth open-ended question was “What do you think about your ability to use/develop mobile-based activities and software in your EFL contexts?” When teachers were asked what they think about their ability to use and develop mobile-based activities and software in their EFL contexts they stated that although they consider themselves as proficient (stated by 17 out of 67 teachers), they still need more practice and training. One of the teachers believed to be talented enough but need training, equipment and freedom to use mobile phones.

One of the teachers stated that:

“I think I am a very productive person in designing and implementing mobile based activities. I try hard and do my best to adapt a traditionally designed course into a mobile or online kind of course. It is 2016 and it should not be so hard any more for us the teachers. After all, it is fun to use mobiles in class because students and the new technology, they belong to each other. And we are very lucky to have such technology today. Why not make use of it.” Teacher 67

Only two of the teachers asserted that they can develop software, however, most of the teachers stated that they have never tried to do it believing that it requires special expertise and some time. One teacher indicated that “it is a difficult skill to develop software”. There were also teachers who indicated that they are not proficient and their knowledge is quite basic so that they needed training as one teacher stated to be glad to get a special training on them. However, there are also teachers who claimed that using and developing mobile-based activities and software

are not necessary as one teacher stated “I don't think it's necessary but if I have to, I will somehow learn it.”

4.3 Findings of the Research Question 2

How do EFL teachers use mobile phones in the Turkish EFL context?

In order to enable data triangulation and advocate and enrich the findings of the survey data, classroom observations and interviews were also conducted.

4.3.1 Classroom observation and interview of Zeynep. The first teacher is a 32 year-old female and Turkish nationality. This is her 8th year in teaching and 3rd year at this institution. She holds her M.A. and has CELTA certificate. She was teaching reading and writing to a pre-intermediate level class during that term. The aim of the lesson was to revise the vocabulary previously learned. Before the lesson, the teacher prepared a quiz consisted of 20 multiple choice questions by using Kahoot application, which was also mentioned to be used by many teachers in the third part of the survey. Kahoot is an application which enables teachers to prepare quizzes or create discussion boards.

When the teacher entered the classroom, she told her students that they would play a Kahoot game and asked them to take their smartphones out. The students felt quite happy to hear that. The teacher used the classroom computer and projector to show the questions that she previously prepared to the students on the white board. There were 14 students, all of whom had a smart phone, and they either had the application downloaded on their phones or entered the website of the application. After they logged in by just writing their names or nicknames, the students were supposed to enter the game pin supplied by the teacher. It took two or three minutes for all the students to log in. In order to give the correct answer, the students needed to click on the corresponding shape of the correct answer on their phone while playing the game. When the game started, the students read the questions and the options in 20 seconds and then they responded. After each question, the game itself gave feedback on the correct answer, however, the teacher herself preferred to give detailed feedback by asking some concept check questions about the target words as well. The lesson was 50 minutes and the game approximately took 15 minutes. During the game, the students seemed quite willing and excited to play. They were

shouting when they gave the correct or wrong answer and also participating actively when the teacher gave feedback. At the end of the game, the winner who got the highest score got some extra points for his assessment as a reward. However, the teacher faced some technological problems before and during the use of this application. Before the game started, one student could not connect to the Internet so the teacher gave her own mobile phone as a solution. During the game, one student accidentally quit the game but the teacher could not find a solution for this and the student could not continue to play.

The teacher stated during the interview that she revised previously learned vocabulary by using a Kahoot quiz. She stated that “I used this application in order to add variety to the lesson and because of the fact that my students love to play Kahoot games”. She thought that could fulfil her aim which was to practice vocabulary and she believed that she could do it in a way her students like. As can also be seen in the light of the open-ended part of the survey, Kahoot is the most popular application among teachers for vocabulary activities and the observed teacher also made use of it in her lesson in order to add variety and engage students in an enjoyable way. The teacher used the website of the application on her computer to prepare the questions. She said that “I prepared a fill in the blanks activity first and then copied and pasted it on the Kahoot website to finalize the quiz and that took approximately 15 minutes”. The teacher faced one of the commonly mentioned challenges in both Likert-scale survey and open-ended questions survey, which was the Internet connectivity problem. At that moment, the teacher gave her own mobile phone to the student as a quick solution. She stated that “I sometimes face Internet connectivity problems and at that case I pair the students so that the ones who have problems with their connection can still continue to play the game”. The teacher stated that she prepares a Kahoot quiz at least once a week and similarly, according to the results of the third section of the Likert-scale survey, teachers were found to use MALL activities “sometimes”, which was supported by the observed teacher 1. The teacher indicated that “I am not proficient in either using or developing mobile based activities”. Findings of the Likert-scale survey also indicated that the teachers do not consider themselves as proficient in terms of their ability to design MALL activities but they do so in terms of using mobile based activities.

4.3.2 Classroom observation and interview of Joshua. The second teacher observed is a male from England and he is 31 years old. This is his 9th year in teaching and 2nd year at that institution. He has CELTA and DELTA certificates. He was teaching reading and writing to an upper-intermediate level class during that term. The aim of the lesson was to read an article and give correct answers to the reading questions. The teacher made use of Whatsapp application which allows people to exchange messages through the Internet connection.

The teacher started the lesson by greeting and telling them the aim of the lesson. There were four students in the classroom and all of whom had a smart phone. First of all, they had a small discussion about the theme of the lesson. The teacher made use of the Whatsapp application during the pre-reading section of the lesson with two different activities. For the first activity, the teacher had previously took a photo of the first paragraph of the text and sent them to the students via Whatsapp. When the teacher sent the message, the students checked it out on their phones and scanned the text individually to answer the teacher's questions which were asked verbally. For the second activity, the teacher previously prepared audio files by reading out some sentences and recording them on his phone. He sent them to students and they listened to these files with their own earphones. The students were supposed to listen to the sentence which was assigned to them and write it down correctly. After they listened, and wrote the sentence down, they read out the sentences to the class one by one and then they discussed the statements together if they agree or disagree. The students looked motivated to use their smartphones because they were always on task and they participated in the lesson actively. The lesson was 50 minutes and the use of the application approximately took 20 minutes. The teacher experienced only one minor problem during the use of the application. One of the students did not have earphones. As a solution the teacher asked him to listen to the track at the corner of the class.

During the interview, the teacher stated that "I prepared a scanning and a listening activity to enable students to use Whatsapp application". Whatsapp is one of the applications used by teachers as can be understood from the open-ended questions survey and the second observed teacher implemented it in by using two different activities in order to catch students' attention. He used this application

because it catches students' attraction and enables him to add variety to his lessons. Similarly, teachers who answered the open-ended questions survey mentioned that they believed they could draw the attention of the students by using mobile phones. He stated that "I fulfilled my aim which was to make students read and listen to extracts and practice these skills in a different way with the help of this application". He indicated that in order to prepare that lesson, he took pictures of the text that he sent to students and also recorded his own voice while reading the target sentences. He stated that it took him approximately ten minutes to prepare this activity. He faced a minor problem, which is quite specific to be mentioned by the teachers who took the survey: one of the students did not have earphones so the teacher asked him to listen without them. The teacher indicated that "Sometimes some students face Internet connectivity problems and I spend a minute to solve it and if I can't do so, I pair or group the students so they can continue the activity". The teacher stated that he sometimes uses Whatsapp application, which correlates with the findings of the third section of the Likert-scale survey. The observed teacher stated that he thinks he is proficient in using and developing mobile based activities similar to 26.2% of the teachers who answered the last section of the Likert-scale survey. Last but not least, as shared during the interview, the teacher makes use of mobile phones every day, which can be considered as always and that consists only 3.9% of the teachers.

4.3.3 Classroom observation and interview of Merve. The third teacher observed is Turkish, female and she is 31 years old. This is her 6th year in teaching and 4th year at that institution. She is continuing her M.A. degree. She was teaching main course in a pre-intermediated level class. The aim of the observed lesson was teaching speaking skills in the context of colors. Before the lesson, the teacher used Padlet website (see Figure9) and prepared an interactive discussion board for her students. Padlet is a virtual wall and it enables students to express their thoughts by texting, or posting pictures, videos, etc.

There were 27 students in the classroom. All the students had a smartphone except one so she shared her friend's phone. When the teacher entered the classroom, she greeted them and had a small chat with them. She announced that they would use their smartphones in order to practice speaking strategies and the students seemed to be excited. Before the students used the application, the teacher directed some

questions through Padlet website by using the computer and the projector and the students shared their ideas with each other in pairs. The teacher walked around the classroom and gave feedback. After they finished discussion, they took their phones out. Then, they connected to the Padlet website with their phones and wrote their ideas by using their names or nicknames. In order to be directed to the Padlet website, the students used a QR Code application which they already downloaded. As soon as they shared their ideas, it was shown on the board so that everybody could read each other's' opinions. That was the first time the students used this application so they did not know exactly how to use it. As a result they were a bit confused about what to do. At that point, the teacher helped them individually or asked their peers to assist their friends. The total use of the applications approximately took 20 minutes during that lesson. The teacher did not face any technological problems.

During the interview, the teacher stated that she wanted to practice speaking and used Padlet because it is a teacher friendly application to teach different skills. Padlet was stated to be used by the teachers in the survey as well. The third observed teacher integrated this application into her lesson in order to keep her students engaged and enabled them to be interested in the lesson, which was commonly mentioned by the teachers who replied the open-ended questions survey. She thought that she fulfilled her aim which was to help students brainstorm before they start to talk about a topic. The teacher explained that "I prepared a virtual board by using the Padlet website and I used the tools on the website as well as some pictures I found on the Internet and it took me five minutes to prepare the activity". She stated that as it was the first time the students were using that application, it was a bit confusing for them. She considered that situation as a classroom management problem because although she demonstrated how to use it and explained clearly, the students were still asking questions about the use of it. However, the teacher was quite proficient at using these applications and could enable students to use the application by guiding the ones having difficulty individually. She stated that "Sometimes the students are distracted and check their social media accounts" and in order to prevent that, she indicated that "I prepare engaging activities and always award a prize in order to motivate the students". She stated that she frequently uses MALL activities, which was also stated by 31.1% of the teachers. The third observed teacher stated that she

thinks he is very proficient in using and developing mobile based activities unlike most of the teachers who answered the last section of the Likert-scale survey.

To conclude, observation and interviews revealed deeper insights to teachers' perceptions and real use of mobile applications as educational tools, and these findings supported the survey results. It can be inferred that observed teachers made use some of the applications mentioned in the open-ended questions survey. They did not spend a lot of time to prepare activities and they spent 15-20 minutes of their lessons using mobile phones. As observed teachers thought that they can add variety to their lessons easily, they frequently make use of mobile phone activities. However, none of the teachers indicated that they develop software or applications.



Chapter 5

Discussion and Conclusions

5.1 Overview

The purpose of the study was to investigate EFL teachers' perspectives on the use of mobile applications as educational tools in Turkey. The data were collected quantitatively through a demographic and a Likert-scale survey and qualitatively with an open-ended survey, classroom observations and interviews. The demographic and Likert-scale parts of the survey were answered by 103 EFL instructors and 67 of them also replied the open-ended questions of the survey. Three classroom observations were held at a foundation university. The data which were gathered through the demographic and Likert-scale parts of the survey was analyzed by using Google Forms where percentages were calculated. The data collected by means of open-ended questions survey, classroom observations and interviews were analyzed through content analysis. In this chapter, the results of the research will be discussed in terms of literature review. In addition, implications and recommendations will be provided.

5.2 Discussion of Findings for Research Questions

The data obtained from the surveys, classroom observations and interviews revealed that EFL instructors in Turkey mostly adopt positive perspectives on the integration and implementation of mobile applications as educational tools. In addition to this, the findings also suggest that the teachers are aware of possible challenges.

5.2.1. Discussion of positive perspectives towards the use of mobile phones as educational tools. The data obtained from the surveys, observations and interviews revealed that EFL instructors working at the preparatory schools of foundation and state universities in Turkey hold predominantly positive perspectives on the integration and implementation of mobile applications as educational tools.

It can be seen that the biggest advantage of using mobile phones is their portability. A mobile phone is more portable and accessible; therefore it allows for individuals to have this resource with them at all times (Karch, 2014). As Chen and Chung (2007) indicated in their article, the advancements in the technologies in the field of education has lately turned out to be “mobilized, portable, and personalized” (p. 625). Lin (2010) also states that one of the most distinct benefits of mobile phones is their portability that enables them to provide the users with timely assistance when desired. Obviously, it is a very practical way for teachers to include mobile phones in their lessons because they are portable and can be used anytime and anywhere. The findings of this study are also in parallel with Begum’s study (2011) which revealed that mobile phones are pervasive and easily portable, and that means the learners can begin to use their mobile phones in the classroom and as they need no space management as they can even keep it in their pocket.

The findings also suggest that one other important affordance of mobile phones is that the teachers and the students can connect to the Internet in the classroom. When they are connected to the Internet, it means that they are also connected to tons of information and sources. Similarly, Harris (2002) stated in his article that 84% of U.S. teachers agree that students having Internet access can improve the quality of education. The Internet offers many benefits in terms of language learning and teaching such as online dictionaries to check vocabulary meaning and pronunciation of the words, and search engines to find information about any topic students and teachers look for. As interview results show, it enables teachers to design and create a variety of engaging and fun activities such as quizzes, games and videos and students to check anything they do not know online via online dictionaries or search engines. Fujimoto (2012) also found out that smart phones empower learners to effortlessly access to the Internet to retrieve necessary information or use a number of applications related to learning.

The teachers also showed positive attitudes towards the implication of mobile phones in terms of their being time efficient and ubiquitous. They stated that mobile phones are practical and quick to use in the classroom so that they can save time compared to the activities done by pen and paper. Some teachers also find it time saving because they do not have to photocopy materials and distribute them, instead

they just send them as a message. Moreover, they underlined that using mobile phones facilitates learning and creates interactive learning environment. One reason in terms of interactivity might be that when students use their phones in a learning activity in the classroom, they usually communicate with each other both via phones and also face to face. For example, during the observations, students interacted with each other by writing their opinions on Padlet but before finalizing and writing it there, they had discussed their opinions face to face. In another session they were assessed by playing Kahoot game where they interacted both with the teacher and classmates; and practiced their listening skills through Whatsapp when they listened to audio files and then shared their sentences with the class. Therefore, we may conclude that learning is facilitated through such activities. In a similar study by Tai and Ting, teachers planned a lesson and wanted to determine how the mobile device could facilitate learning and they observed that the mobile device enabled multi-faceted interaction between teacher and students (2011). This is in accordance with Oz's (2015) findings in which he concluded that the most positive ratings were ascribed to the capability of m-learning technology to remove time and space restrictions, increase learners' interest and motivation towards language learning, create more efficient learning environments, and facilitate knowledge transmission.

This study included teachers from both state and foundation university prep schools, and when the data from both groups were compared, it was observed that both state and foundation teachers claimed to use mobile phones "sometimes" in their teaching. In fact, slightly more state university teachers claimed to use mobile phone activities frequently. Besides, observed three teachers at the foundation university claimed to use mobile phone activities "sometimes", "frequently" and "always". The reason behind that could be the observed teachers who said "frequently" and "always", took courses focusing on MALL. It can be said that teachers try their best to make use of mobile phones in their lessons when possible and the teachers who are trained about using mobile devices use them more frequently. It would be unfair to expect them to use mobile phones more if they are not equipped or trained well enough.

5.2.2. Discussion of major challenges limitations of the use of mobile phones as educational tools. The data collected from the surveys, classroom

observations and interviews revealed that the major challenges of using mobile phones are perceived as the Internet connectivity problems and slow Internet speed. Traxler and Kukulska-Hulme (2005) list slow connection and information transfer as one of the challenges in interacting with mobile devices. These results are parallel to Hayta (2014)'s observations as she stated that as a result of the fact that most of the applications and activities require Internet access, students are supposed to have a powerful and permanent Internet connection that they can access. She went on by saying that however, this type of connection may not be available whenever and wherever necessary, and is not affordable by all students. Likewise, according to the findings of Ilci's (2014) study, "poor Internet access had more negative effects than other limitations such as small screen size and poor battery on student' dissatisfaction on mobile learning" (p. 95).

Results of the findings also indicated that teachers perceive small screen size as another challenge. It is a very commonly mentioned drawback which may challenge learning activities (Chinnery, 2006; El-Hussein & Cronje, 2010; Kukulska-Hulme & Shield, 2008). Kim and Kim (2012) conducted a study to explore the effects of three different screen sizes of mobile devices on vocabulary learning and concluded that a smaller screen for instruction results in more difficulties.

Instructors who participated in the study were also concerned about classroom management issues as a matter of the fact that it is difficult to control whether or not the students are using their mobile phones for personal use. In a similar study, Thomas (2014) found out that classroom management is perceived as a barrier by the teachers. In the study, it is stated that teachers are supposed to manage the class in an efficient way and check if the mobile phones are being used for educational aims or not. Another study which was conducted in Turkey also revealed a similar result that teachers indicated facing some barriers most of which were related to classroom management (Celik & Aytin, 2014). It seems that there is a new branch of classroom management nowadays, which requires teachers to be aware of the misuses of mobile phones and take precautions against that.

In terms of challenges stated by the participants, there were some differences between state and foundation university teachers. State university teachers perceived students' non-use of mobile phones as a challenge but foundation teachers did not. It

can be deduced that students at state universities use their mobile phones less than the ones in foundation schools. The second difference is about the cost of mobile phones. Teachers at state universities considered this as a challenge while foundation university teachers did not. It can be concluded that students at state universities may not afford mobile phones as much as the ones at foundation schools because generally students who go to these schools have higher socio-economic status and thus can easily afford mobile phones and the Internet connection. When the first and the second issues are considered, the reason behind the responds of state university teachers again could be related to economical state of students. Next, students' lack of skill/knowledge to use mobile phones for academic purposes was thought to be a challenge by state university teachers but not by foundation university teachers. This can be related to students' non-use of mobile phones. If they do not use their mobile phones at school they may not learn how to use them as educational tools. Moreover, as students are used to use their mobile phones for fun, it might be difficult to persuade them to use these tools for education, which was also stated by one of the teachers who replied open-ended questions. Finally, state university teachers perceived lack of language learning mobile-based software and activities as a challenge but foundation university teachers did not. One reason can be that foundation schools are better at supplying such software to the teachers and students or training opportunities to their teachers. However, there is scarce of research on these issues and further research must be conducted in order to shed more light on them.

In terms of using or developing MALL activities, teachers did not consider themselves as proficient. The teachers saw themselves as not or fairly proficient in terms of designing MALL activities and adapting their teaching styles/techniques to MALL. It requires technical knowledge and skills to develop activities so it is fair for them not to feel proficient. They may need to attend courses or workshops for that. However, they do not feel comfortable about adapting their teaching style as well. It can be because mobile technology is penetrating in classrooms in Turkey only for a couple of years, so teachers may need some more time to adapt themselves. The teachers claimed not to be proficient about evaluating MALL software but they assumed that they are comfortable about the use of them. Teachers need to develop the necessary skills to evaluate software and as they already feel comfortable about

using them, they will soon be able to evaluate it too. There are also differences among observed teachers. The first teacher did not consider herself proficient in either using or developing mobile based activities. However, the second teacher stated to be proficient and the third one said she was very proficient. The reason behind that is the second and the third teachers took instructional technology courses as parts of their Masters of Art degree, but the first teacher did not take any courses or attend any workshops. It can be deduced that teachers who learn how to use applications and activities by themselves do not really feel comfortable unlike the ones who have taken courses. Thus, teachers need to be supported professionally by schools, administrators and even the developers of these applications and software.

5.3 Pedagogical Implications

Findings of this study provide some implications for the use of mobile applications as educational tools. Awareness on the positive perspectives as well as limitations of the implementation of mobile applications may help teachers design their lessons accordingly. Teachers should be given the evidence that well-designed activities can make their lessons more engaging, interactive, motivating, and fun. As a result, they should introduce themselves with the features and characteristics of mobile based learning (Bachore, 2015) and with a better understanding of the net generation, the teachers need to take a leadership role and guide their students to use the mobile devices effectively for learning purposes (Goad, 2012; Tapscott, 2009).

It can be seen that vocabulary is the most popular skill to integrate mobile applications. As stated by the teachers, they basically use applications for vocabulary revision and students use dictionary applications primarily. As a matter of fact, vocabulary acquisition is the top rank topic the researchers explore. It can be concluded that teachers make use of applications in order to prepare vocabulary quizzes or games because they find them fun and motivating. At that point, Agca and Özdemir (2013) state that students perceive the use of mobile device applications in vocabulary learning as innovative and fun. They also added that mobile learning environment created curiosity for students and made the vocabulary learning activity more attractive by motivating them in a positive way.

Use of mobile applications is also quite suitable for listening activities as they enable the access to audio and visual content easily. Nah, et al. (2008) indicate that

using mobile phones for learning listening skills has significant potential. The range of sources is so wide that it includes audio files, podcasts, music tracks, the radio, the news, and even series and movies. Using such materials enables learners to practice language in authentic contexts. Namely, language learners can take advantage of an abundance of visual and audio clues surrounding them in an authentic communicative situations (Palalas, 2011).

Teachers can also make use of mobile applications in reading and grammar lessons. Authentic texts can be made use of in terms of reading and in terms of grammar, not only audio-visuals but also quizzes and games can be implemented. Herein, Wang and Smith (2013) point out that generally, mobile phone-assisted learning is comprehended positively by learners as an efficient tool in order to improve their capabilities on reading and grammar. The researchers go on by saying that in terms of young university students, reading topics focusing on cultural differences and life of students are the most relevant.

In terms of writing, SMS, e-mail and social networking web-sites can be used. Especially Twitter is used commonly for micro-blogging activities. Kim (2010) states that Twitter empowers good writing practice for students and gives a great opportunity to them in order for them to use English for authentic purposes spontaneously.

Moreover, mobile applications can be used for speaking skills. In Ruan and Wang (2008)'s study where a mobile technology based on English learning system was used, it is claimed that when the students use it, they can increase their vocabulary and speaking skills as they have the chance to talk with other learners wherever and whenever they would like to. According to the results of this study, students embraced the 'new age' technology and both teachers and students stated that they enjoyed when they used technology for the purpose of teaching and learning.

When using mobile applications for educational purposes, instructors should establish effective classroom management in order to prevent distraction and misuse of these applications. To achieve this, the teacher may set the classroom rules together with the students in the beginning of the term.

Based on the open-ended survey, it can be concluded that instructors basically learn how to integrate and implement mobile applications in their teaching on their own. At that point, administration may promote the use of mobile applications and organize workshops for teachers on how to implement and integrate them. Administrative staff may also design a curriculum which integrates the use of mobile applications. What is more, teacher development centers and help of competent teachers on the use of mobile applications may be of great help for other teachers. When teachers have difficulty in using mobile applications, they may consult these units or teachers. As Averianova (2012) mentions in her article, cell phones have rigidly settled themselves as students' "friends," schools are supposed to quit regarding them as "foes," and educators are required to discover successful methods for profiting by the rich capability of mobile technologies.

Apart from these, this research might also give educators, textbook writers or publishing houses precise ideas and they may incorporate files or applications that can be downloaded to the smartphones alongside other materials (Wu, 2015).

5.4 Conclusions

The primary aim of this study was to find out the perspectives of EFL instructors working at state and foundation university preparatory schools on the use of mobile applications as educational tools in Turkey. Therefore, the study specifically focused on teachers' perspectives, and how they use mobile phones in the classroom. All the findings obtained showed that teachers have positive perspectives on the integration of mobile applications.

The results of this study provided insights into the EFL instructors' perspectives on the use of mobile applications. The results indicated that instructors hold considerably positive perceptions towards the integration of mobile applications in their EFL contexts. The data collected from the surveys, classroom observations and interviews revealed that teachers integrate mobile applications in their lessons in order to make them more engaging, motivating and fun.

It can be deduced that teachers prefer to use mobile applications for various purposes especially for vocabulary activities followed by listening activities. Bozdogan (2015) also states that with regard to language learning skills, vocabulary

instruction has various focuses such as a compelling impact of mobile tools on vocabulary learning. Teachers make use of various applications like Kahoot, Quizlet, Whatsapp, Padlet, Plickers, Facebook, Google, etc. for all language learning skills.

5.5 Recommendations

This study has several recommendations for further research. First of all, the present study took place in a couple of state and foundation preparation schools of universities in Turkey. Besides, 103 instructors participated in the survey while 67 of them also answered the open-ended questions survey. A replication of this study with larger number of universities and participants will give more concrete results. Besides, a mixed-method research design can be conducted where both qualitative and quantitative approaches are carried out with a variety of data collection methods.

Secondly, the researcher could only observe 3 classrooms. Thus, observation of more classrooms for longer periods will give further detailed insight.

Additionally, this study did not include students. Therefore, future research should also investigate the perspectives of students with the help of both surveys, interviews and observations.

As there is scarcity of research on the perspectives of in-service EFL teachers on the use of mobile applications as educational tools in Turkey, similar research or a replication of it will contribute to this field substantially.

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APPENDICES

A. Demographic Survey



Survey on EFL teachers' perspectives on the use of mobile phones as educational tools

Dear Colleague,

The following survey is the part of research investigating the perceptions of EFL teachers on the use of mobile phones as educational tools at universities' English preparatory schools in Istanbul, Turkey.

Your responses will be treated in strict confidence and individual teachers/schools will not be identified in any report or publication. Please answer all questions as accurately as you can.

Thank you very much for contributing to this study.

Ceren Tural
Bahçeşehir University, MA Student

* Required

Background

Nationality *

- Turkish
- Other:

Gender *

- Female
- Male

Age *

- 22 – 25
- 26 - 30
- 31 - 35
- 36 - 40
- 41 and above

What is your university degree? *

- BA
- MA in progress
- MA
- PhD in progress
- PhD
- Other:

What major have you studied at university? *

Type of institution you work for *

- Foundation
- State

How long have you been teaching English? *

- 1 - 3 years
- 4 - 6 years
- 7 - 10
- 11 - 15
- More than 15 years

Do you have a smartphone? *

- Yes
- No

B. Likert-scale Survey

Section 1: EFL teachers' perspectives toward the use of mobile phones for language learning/teaching

Please click on the answer corresponding to your answer to indicate the extent to which you agree with the following statements. *

	Strongly disagree	Disagree	Agree	Strongly agree
1. The use of mobile phones will facilitate the process of language learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Portability is an important property of mobile devices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The use of mobile phones can create interactive learning environments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The multimedia used in mobile phones is useful for English as a Foreign Language (EFL) learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Scaffolding can be provided for each learner through the use of mobile phones for language teaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Mobile phones can be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree	Disagree	Agree	Strongly agree
used to teach/learn different language skills				
7. The use of mobile phones for language teaching/learning is cost-effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The use of mobile phones for language teaching/learning is time-efficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Mobile phones can be connected to the Internet at any time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Mobile phones provide learners with ubiquitous language learning opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 2: EFL teachers' perspectives on the challenges to the use of mobile phones for language learning/teaching

Please click on the answer corresponding to your answer to indicate the extent to which you agree with the following statements. *

	Strongly disagree	Disagree	Agree	Strongly agree
1. The small screen size of mobile phones	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Slow Internet speed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly disagree	Disagree	Agree	Strongly agree
3. Internet connectivity problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Students' non-use of mobile phones	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. High costs of mobile phones	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. High cost of connectivity to the Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Students' lack of skill/knowledge to use mobile phones for academic purposes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Incompatibility of the use of mobile phones with language teaching/learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Students' resistance to the use of mobile phones for academic purposes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Lack of language learning mobile-based software and activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 3: EFL teachers' perspectives on the current use of mobile phones for their EFL courses

Please click on the answer corresponding to your answer to indicate the frequency level with the following statements. *

	Never	Rarely	Sometimes	Frequently	Always
1. How often do you use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Never Rarely Sometimes Frequently Always

mobile phones for your teaching practices?

2. How often do students use mobile phones for their learning in your classes?

Section 4: EFL teachers' perceptions of their ability to use/develop Mobile Assisted Language Learning (MALL) activities and software

Please click on the answer corresponding to your answer to indicate the following statements. *

Not proficient Fairly proficient Undecided Proficient Very proficient

1. Designing MALL activities

2. Ability to adapt your teaching styles/techniques to MALL

3. Ability to evaluate MALL software tools

4. Your Information and Communications Technology (ICT) literacy to use mobile phones for language teaching

Not proficient Fairly proficient Undecided Proficient Very proficient

5. Ability to use MALL software tools



C. Open-ended Questions Survey

Open-ended Questions Survey

1. What do think about the use of mobile phones for the EFL contexts? What are the possible benefits?
2. What do you think the challenges of using mobile phones for language learning/teaching are?
3. What kinds of mobile-based activities do you use in your EFL courses?
4. What kinds of mobile-based activities do your students use in your EFL courses?
5. What do you think about your ability to use/develop mobile-based activities and software in your EFL contexts?

D. Interview Questions

1. What mobile phone activities did you use in the observed lesson?
2. What was your aim?
3. Do you think you fulfilled your aim?
4. How did you prepare the mobile phone activities that you used in the lesson?
5. How long did it take you to prepare these activities?
6. Did you face any challenges during the observed lesson? If yes, how did you solve the problem?
7. What challenges do you usually face when applying mobile phone activities and what do you do to overcome them?
8. How often do you make use of smart phones in your lessons?
9. What is your ability to use/develop mobile based activities?

Curriculum Vitae

PERSONAL INFORMATION

Surname, Name: Tatal, Ceren

Nationality: Turkish (TC)

Date and Place of Birth: 24 April 1985, Istanbul

e-mail: ceren.tatal@bilgi.edu.tr

EDUCATION

Degree	Institution	Year of Graduation
BA	Hacettepe University	2008

WORK EXPERIENCE

Year	Place	Enrollment
2013-present	Istanbul Bilgi University	English Language Teacher
2012-2013	Bahcesehir College	English Language Teacher
2009- 2012	Istanbul Aydin University	English Language Teacher
2008- 2009	American Cultural Association	English Language Teacher
2007-2008	Beysukent Kindergarten	English Language Teacher

FOREIGN LANGUAGES

Advanced English

Pre-intermediate French, Spanish, German

HOBBIES

Taking photographs, travelling, learning languages, making jewellery, and playing musical instruments