Exploring the extent to which ELT students utilise smartphones for language learning purposes

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The advent of smartphones has had dramatic influences on our daily lives and has rendered human beings 'walking computers'. This holds important reflections in the realm of language learning, as well as in many other areas. This study aimed to explore the extent to which English Language Teaching (ELT) students utilise smartphones for language learning purposes. To this end, a 25-item questionnaire was administered to 120 Grade Three and Four ELT students at Ondokuz Mayıs University in Turkey. Following the questionnaire, a follow-up oral interview was conducted with 29 of the participants on a voluntary basis in order to further investigate their perceptions of smartphones. The statistical analysis of the participants' responses to the items in the questionnaire clearly shows that smartphones are actively used for language learning purposes. In particular, their contribution to the development of vocabulary skills is frequently reported, which is also verified by the answers given during the interview. The analysis regarding the 'gender' and 'length of the students' possession of a smartphone' variables does not yield any statistically significant effect on the degree to which students utilise smartphones for language learning purposes. Given the fact that almost all students have a personal smartphone, and use it very often, and considering the findings of this study, it is suggested that students be encouraged to utilise the invaluable language learning opportunities offered by smartphones when put to conscious use.

Keywords: autonomy; ELT students; language learning; smartphone; technology

Introduction

This era of information and technology is characterised by the unprecedented pace of technological development. Technology has become an indispensable part of our lives even in the classroom. In a traditional classroom, there is merely an interaction between a teacher and his/her students, where one is responsible for teaching while the others undertake learning. However, in this global village, technological devices have become so widespread that world-altering changes have emerged in the way teachers teach and learners learn. Parallel to the growth of technologies, learning and teaching philosophies have shifted to interactional and social-based approaches for learning and teaching. Bester and Brand (2013) claim that no technology can replace the teacher in the classroom; nevertheless, it can be used to promote interactive teaching and learning and integrated into lessons to maximise the learning experience. Mobile devices such as iPads©, mobile phones, personal digital assistants (PDAs), audio players, and tablets have been widely used in learning contexts (Chinnery, 2006; Gholami & Azarmi, 2012; Mayisela, 2013; Rahimi & Miri, 2014). However, the turning point, in particular, was the advent of internet, which has brought a number of changes into daily life. While the foremost sources of information in the past have been printed reference books and encyclopaedias, today, all manner of information can be sourced from a single medium, namely the internet. Accordingly, in recent years, the integration of internet into the existing systems has been accorded great importance.

New paradigms are ceaselessly introduced to the realm of learning and education, where the 21st century is strongly characterised by the necessity for skills related to technology. It is doubtless that technology is changing, both in terms of the learning environment and teaching experience. Advances in computer technology as well as in wireless communication technologies have led to the emergence of a new term in the educational setting, which has been termed 'mobile learning'. Mobile learning, or m-learning, tries to support e-learning features and technology enhanced education through the use of wireless devices like mobile phones or tablets. O'Malley, Vavoula, Glew, Taylor, Sharples and Lefrere (2003:6) define m-learning as "any sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantage of the learning opportunities offered by mobile technologies". It facilitates education anywhere and anytime. Learning becomes personalised, universal and life-long. Rodriguez-Arancón, Arús and Calle (2013:1190) assert that "learning spaces have departed from the traditional classroom and have expanded their horizons: it is now possible to learn at home connected to a virtual space, or even walking down the street with a virtual application that provides information added to the place that you are visiting, or to an object that you are looking at in real time". They further state that m-learning provides opportunities for learners to control and benefit from their free time; promotes independent and collaborative learning; develops professional skills and encourages learning. In the 21st century, there seems to be a great need to integrate the principles of lifelong learning, learning at all ages and forms, in education and mobile learning via those devices supports a lifetime of learning. Bonk (2009:51) mentions ten openers to render learning more effective and prevalent in the 21st century:

Ten openers: (WE-ALL-LEARN)
1. Web searching in the world of e-books
2. E-learning and blended learning
3. Availability of open source and free software
4. Leveraged resources and open course ware
5. Learning object repositories and portals
6. Learner participation in open information communities
7. Electronic collaboration
8. Alternate reality learning
9. Real-time mobility and portability
10. Networks of personalised learning

These items attract attention to the integration of technology and the internet, and the consequent dimension of mobility and ubiquity into the learning process. Covering the issue in the context of language education, Warschauer, Shetzer and Meloni (2000) point out that the integration of the internet provides authenticity, literacy, interaction, vitality, and empowerment for the language learning process. Thanks to the wireless technology, learners have access to learning materials and information from anywhere at any time. In her study, Mayisela (2013) considers mobile technology as a potential solution to the shortage of computers, for assessing online learning materials in a blended learning course. The results of her study indicate that students with access to mobile technology have an increased opportunity to access the course-ware of the blended learning course, and that such a course enhances student-to-student and student-to-lecturer communication by means of social networks.

Sharples (2006) states that, initially, mobile learning focused on the role of mobile technologies and devices in education; however, in recent years, the focus has shifted to the mobility of the users and informal learning that happens out of the classroom. Considering this fact, El-Hussein and Cronje (2010) mentioned three aspects that can be specified with this type of learning: mobility of technology, mobility of learning, and mobility of the learner. Kukulska-Hulme (2009:14) explain the reason why mobile technology is so intriguing, by stating that "it has an affinity with movement between indoors and outdoors, across formal and informal settings, allowing learners to lead at least some of the way". Mehta (2012:84) lists the objectives of m-learning as being able to:

- enhance student motivation through the use of familiar technology;
- increase student use of four skills-reading, writing, speaking and listening in English;
- enable students to become more competent in English language;
- foster the use of English language for communication;
- facilitate the learning process as students have the possibility to explore, analyse, discover, choose activities which are real and meaningful;
- enhance interaction between real and virtual environments;
- promote self-learning, learning through fun and a learner-centered approach.

As for the devices used for mobile learning, it is essential to say that each of these devices has specific attributes and functionalities. For example, Klopfer and Squire (2008:3-4) explain educational affordances of hand-held computers as:

a. portability: [the ability to] take the computer to different sites and move around within a location;
b. social interactivity: [the ability to] exchange data and collaborate with other people face to face;
c. context sensitivity: [the ability to] gather data unique to the current location, environment, and time, including both real and simulated data;
d. connectivity: [the ability to] connect handhelds to data collection devices, other handhelds, and to a common network that creates a true shared environment;
e. individuality: [the ability to] provide unique scaffolding that is customized to the individual's path of investigation.

Yet, just as Gholami and Azarmi (2012:2) mention, due to the advances in mobile phone technology, "mobile phones have covered other devices' functionalities to [the] extent that makes it a multi-functional and technology convergence device". Moreover, due to their ubiquity among young people at schools and universities, they have become more popular to use in education. Gholami and Azarmi (2012) affirm that compared to laptops, palm tops, or desktop computers, mobile phones are much cheaper, more available and more widespread among young people. Therefore, curriculum developers try to use them in educational environments.

Studies conducted in this field confirm that mobile phones help learners learn school subjects better, and so they are useful learning tools. "The swift development of mobile phones in the last decade from simple phones to smart-phones, which can serve as a mini-computer, telephone, or camera, and transfer data as well as video and audio files, has made mobile phones efficient learning tools" (Rahimi & Miri, 2014:1470). Mehta (2012:88) explains the advantages of mobile phones as "personalizing [sic] the learners' environment; providing experience outside the classroom; making learning process enjoyable; minting benefits of an informal learning; and helping in increasing the morale of the learners". On the other hand, he also mentions some of the limitations of using them in educational settings, such as small screen size, limited memory size, limited battery life, and so on.

What Makes Smartphones Different from Ordinary Mobile Phones?

As a part of this new trend, the 'classical' mobile phones, which were mainly used for communication purposes, are now swiftly being replaced by smart-phones. They are technologically superior to mobile phones, since they are built on a

mobile operating system, with more advanced computing capability and connectivity than a regular phone. In other words, they are like mini computers, while at the same time, serving as a regular cellphone. Fendelman (n.d.) explains that smartphones run on advanced operating systems such as Windows© mobile, iPhone Operating System (iOS)©, Google's Android©, Symbian Operating System (OS)©, RIM's BlackBerry©, Palm's WebOS© and Linux© with high-resolution touch screens and smartphone-specific applications. Fendelman (n.d.) further states that cell-phones can send and receive text, picture and video messaging. You can send e-mails as well via cellphones. Smartphones go a step further, by syncing with the e-mail server of your personal or corporate provider. Some smartphones can support multiple email accounts, while others include access to instant messaging services like Yahoo® and Messenger®.

Cassavoy (n.d.) notes that thanks to 4G and 3G data networks and Wi-Fi support, smartphones can access the web at higher speeds. Smartphones also include QWERTY keyboard on touchscreen, which means that the keys are located in the same manner they would be on computer keyboard, and in addition, cellphones offer numerous applications (apps). You can both create and edit Microsoft Office© documents, edit photos, get driving directions through its Global Positioning System (GPS)©, create a digital playlist, and so on.

Smartphones in English Language Teaching

Smartphones, with their great potential to become an important device in language classrooms, can help students become autonomous learners, since they give independent access to personalised learning materials, especially via the internet. They can offer multi-sensory learning opportunities for learners. Teachers also have opportunities to communicate with learners from anywhere at any time they wish, and can send those learning materials they prepared for their learners. Barrs (2011:231) emphasises that smartphones allow access "anywhere, anytime [...] to an ever increasing amount of information and resources through functions and applications such as cellular calls, Instant Messaging Services (IMS), audio/video recording, wireless internet access, social-networking applications, mobile dictionaries and flashcard programs [sic]".

Smartphone ownership is increasing day by day all over the world. Thousands of applications are available for different purposes, including language learning. The website 'Busy Teacher' (2015) lists some of the advantages of recommending language learning apps to students as follows:

> Convenience - They provide students with the chance to study/review any day, any time, without the need to remember to bring their books or class materials.

> Efficiency - Most apps are user-friendly and well-organized into topics. Students do not waste time looking for what they want to practice.

> Engagement - They are ideal for engaging learners who are very tech-minded and naturally enjoy using gadgets.

Rosell-Aguliar (2014) also elucidates some of the advantages of using smartphone apps for language learning. Responsive touch screens, enhanced text entry, high-quality image, audio and video recording, editing, and sharing, voice recognition, storage, connectivity, and GPS all bring together the multi-sensory experience necessary for effective language learning. Furthermore, information can be presented in varied ways, through a mixture of different media that makes them more appealing than traditional textbooks or activities. They are also good for learners with fear of failure, since they may feel comfortable to try tasks as much as they want till they get the right answer. The game-like features also make apps fun in language learning process. Among the apps applicable for language learners are Busuu©, SpeakingPal© English Tutor©, Voxy©, MyWordBook©, Conversation English©, English Grammar in Use Tests©, International English Language Testing System (IELTS) Master Vocabulary Guide©, Duolingo©, Kindle©, MacMillan Sounds©, Quizlet©, Skype© or FaceTime©, and Blackboard Collaborate© (Busy Teacher, 2015; Rosell-Aguliar, 2014).

Smartphones can store many apps for different purposes. Learners can decide which one serves their needs best and download them. There is a great variety of applications for developing different language skills (grammar, vocabulary, listening, speaking, reading, and writing). As Rosell-Aguliar (2014:3) states "a combination of apps (app mashing) that cover the different skills will help language learners engage, any time, any place and at any pace with a variety of teaching styles, from the repetitive grammar drills to the gamified all-in-one solutions". Accordingly, the presence of mobile applications promotes the ubiquity of language learning and renders learners more autonomous, enabling them to get access to rich resources, whenever and wherever they want.

Smartphones are becoming more and more common and many students possess them and bring them to the classroom as a regular item, like books and pencils. However, there is a limited body of research on the use of smartphones in language learning contexts. One of the first projects using mobile phones in language learning was developed by Stanford Learning Lab for Spanish. The programmes they developed covered vocabulary practice, quizzes, word and phrase translation, and access to live talking tutors. The results indicated that if allowed use in small doses, mobile phones were effective for quiz delivery (Chinnery, 2006).

Thornton and Houser (2005) examined the extent to which mobile phones were being utilised

for educational purposes. They used mobile phones to provide vocabulary instruction by Short Message Service (SMS) at a Japanese university, and created a website for English idioms. The results showed that the students who learned via SMS were twice as successful in the learning of vocabulary items when compared to those who received their lessons on a paper-based system. Likewise, Barrs (2011) conducted an investigation into the extent to which students use their smartphones for language learning in her classes. The students are reported to have used their smartphone features and apps while learning a language. For example, they used the built-in voice recorder to record a pair-presentation practice; some used English language news apps like those made available by the British Broadcasting Corporation (BBC); where several of them used flashcard apps, and so on.

Rahimi and Miri (2014) analysed the impact of mobile dictionary use on language learning. The findings showed that English as Foreign Language (EFL) learners who used a mobile dictionary to learn English improved their language ability more than those who used the printed dictionary. Among mobile apps, using dictionaries is highly regarded by students. Within a lexical framework, too, Abbasi and Hashemi (2013) searched for the impacts of mobile phone use on English language vocabulary retention. They chose a group of inter-mediate EFL learners for their study and the results indicated that there was a significant effect on the learners' vocabulary retention. Gender variable made no significant difference. In another similar study, Wu (2014) investigated the effectiveness of smartphones in helping English as a Second Language (ESL) college students learn English vocabulary. The results revealed that the students receiving treatment in the experimental group significantly outperformed those in the control group.

Kétyi (2013) conducted a project for using smartphones in language learning utilising one of the apps, Busuu©. He reported that his students received the project positively, but that they still require real communication with real persons. Similarly, Muhammed (2014) conducted research on the impact of smartphones on language learning. It was concluded that smartphones, along with their apps, have a great impact on English language learning of university students in Sulaimani, Iraq.

Given the importance and freshness of the issue and lack of research into the role and place of smartphones in language learning, this study aims to explore the extent to which ELT students utilise smartphones for language learning purposes. The data was collected through a questionnaire administered to 120 ELT students and a semi-structured interview to better determine the extent to which students employ smartphones as an assistant for their language development process. The research questions of the study are:

1. To what extent do EFL students utilise smartphones for language learning purposes?
2. Is gender a significant variable in the use of smartphones for language learning purposes?
3. Does the length of the students' possession of a smartphone make a significant difference in the use of smartphones for language learning purposes?

Methodology
Research Design
This is a descriptive study, which aims to investigate the use of smartphones by EFL learners. The study holds a mixed-method design in terms of data collection. The major data sources consist of a quantitative questionnaire and a short qualitative semi-structured interview, conducted with 29 of the participants on a voluntary basis upon their completion of the questionnaire. This study is characterised by a dominant quantitative style supported by a follow-up interview, and can therefore be categorised as a 'QUAN → qual' (QUANTITATIVE → Qualitative) one, as Dörnyei has put it (2007:169).

Participants
The subject group is composed of a total of 120 Grade Three and Four students, attending the ELT Programme at Ondokuz Mayıs University. The participants consist of 36 males and 84 females. As for the length of the participants' possession of a smartphone, 22 students reported that they had been using a smartphone for less than one year, 35 for 1-2 years, 20 for 2-3 years, and 43 for over three years.

Data Collection and Analysis
Following a comprehensive review of the relevant literature, the researchers devised a 33-item questionnaire. This was then checked by six experts to ensure its face validity, and their constructive comments and recommendations were taken into account before putting it into practice. In order to collect data for a reliability test, the questionnaire was administered to 78 ELT students as a part of the pilot study. During the statistical analysis of the answers collected during this preliminary study, which was conducted by an experienced statistician, eight items were deleted from the questionnaire in order to ensure its reliability. Cronbach's Alpha reliability coefficient of the final 25-item questionnaire with four reverse-scored items was found to be .92, which demonstrates a high level of reliability. Item-total correlation values range between .315 and .698, which also supports the high reliability of the questionnaire (Ferketich, 1991).

The quantitative data collected in this study were first entered in Microsoft Excel and then transferred to the SPSS software (Statistics Package

for Social Sciences) for statistical analyses. First, in order to see the participants' responses to the items one by one, frequency analysis was conducted. Then, the Kolmogorov–Smirnov test was run to analyse the distribution of the data sets produced by the variables. The results of the test revealed a non-normal distribution considering the 'gender' variable and, on the contrary, a normal distribution in terms of the 'length of the students' possession of a smartphone' variable. Accordingly, the non-parametric Mann-Whitney U test was employed to analyse gender-related data, while the Kruskal Wallis-H test was utilised to analyse data related to the 'length of the students' possession of a smartphone'. During statistical analyses, the threshold for significance was accepted as $p < 0.05$ and discussions and comments on the findings were shaped accordingly.

During the interviews, the participants were asked questions about the most important usage areas of smartphones and their predictions as to the future status of smartphones. In order to treat the interviews as qualitative data, the recordings were first transcribed by the researchers, after which the answers were categorised and interpreted.

Findings and Discussion
In this part, findings yielded by the quantitative and qualitative analyses conducted as a part of this study are covered in detail. All of the analyses seek to find answers to the research questions set at the beginning of this study.

Research question 1: To what extent do EFL students utilise smartphones for language learning purposes?

In order to provide an answer for the first research question, Table 1 presents the frequency and percentage analysis of the participants' responses to the items.

Table 1 makes it clear that most of the participants regard smartphones as beneficial for their language learning process and use theirs accordingly. Related with the general contributions of smartphones to the language learning process, items like 1, 2, 9, 21, and 24 receive agreement by most of the participants. This is also supported by the considerable degree of disagreement reported for the reverse items 6, 10, 11, and 23. Moreover, items 8 and 18 that directly focus on the contributions of smartphones to the ubiquity of language learning receive a considerably high frequency of agreement by the participants. As cited in the related literature, the removal of time and place restrictions is one of the most significant outcomes of the introduction of smartphones into learning (Barrs, 2011; El-Hussein & Cronje, 2010; Kukulska-Hulme, 2009; Mehta, 2012; Sharples, 2006).

Regarding the role of smartphones in the development of language skills, Item 13, related to reading, Item 14, related to listening, and Item 17, related to vocabulary receive mostly agreement by the participants, while Item 15 related to writing, and Item 16 related to speaking, receive mostly disagreement. This obviously indicates that the students can utilise smartphones for the development of receptive skills, but not for productive skills. The productive dimension of language generally proves to be challenging. Here again, it appears as a disadvantage for smartphones (Kétyi, 2013), but in the coming years, with the advent of new applications, this productive dimension is expected to be added to the smartphone.

As for the items with the highest frequency of agreement and disagreement, Item 4 "I generally look up unknown lexical items in my mobile dictionary" was agreed with by 30 (25%) and strongly agreed with by 82 (68.3%) participants, whereas Item 3 "I use the voice recorder of my smartphone to record the lessons and be able to listen to them at a later time" was disagreed with by 41 (34.2%) and strongly disagreed with by 30 (25%) of participants. Since unknown lexical items constitute an important, or perhaps even the largest component of the foreign language learning process to which smartphones provide real assistance, it is understandable that the students make use of both online and offline dictionaries so often (Abbasi & Hashemi, 2013; Rahimi & Miri, 2014; Thornton & Houser, 2005; Wu, 2014). However, the case of Item 3 is of particular interest. Even if the voice recording function of smartphones could present a precious opportunity for students to have the chance to pause and resume a recorded lecture whenever and wherever they want (Barrs, 2011), they clearly report that they mostly do not use this function. More interestingly, Item 7 "I use my smartphone to take photos and videos of important classwork in my language classes" receives agreement from 44 participants, (36.7) and strong agreement from 41 (34.2) participants. It can be inferred that students here prefer visual to audio functions.

In order to further explore the participants' view on the role and use of smartphones, in a follow-up interview, we asked them two major questions, the first of which is "what do you think are the most important uses of smartphones?" The qualitative analysis of the participants' responses to this question reveals that they all Access the internet via their smartphones and use them to take photos and shoot video. An overwhelming majority of them (21 out of 29) use their smartphones for developing and improving their vocabulary knowledge through some dictionary studies and word games, which supports the responses given to the vocabulary- and dictionary-related items in the questionnaire. The second major usage area (10 out of 29) was reported to be social networking sites such as Twitter®, Facebook® and Instagram®. Some

of the students (8 out of 29) reported that they use their smartphones for practicing fundamental language skills, namely reading, listening, and speaking.

Table 1 Frequency analysis of the participants' responses to the items in the questionnaire

		1	2	3	4	5
1	The advent of smartphones has contributed significantly to my language learning process.	1.7% 2	10% 12	32.5% 39	41.7% 50	14.2% 17
2	I intentionally use my smartphone for language learning purposes.	5.8% 7	15.8% 19	18.3% 22	48.3% 58	11.7% 14
3	I use the voice recorder of my smartphone to record the lessons and be able to listen to them at a later time.	25% 30	34.2% 41	11.7% 14	20% 24	9.2% 11
4	I generally look up unknown lexical items in my mobile dictionary.	1.7% 2	1.7% 2	3.3% 4	25% 30	68.3% 82
5	The non-stop advancement of technology brings unique opportunities for me to develop foreign language skills.	3.3% 4	8.3% 10	21.7% 26	50% 60	16.7% 20
6	I do not like using my smartphone for language learning purposes.	47.5% 57	29.2% 35	13.3% 16	6.7% 8	3.3% 4
7	I use my smartphone to take photos and videos of important classwork in my language classes.	2.5% 3	12.5% 15	14.2% 17	36.7% 44	34.2% 41
8	Having a smartphone enables me to learn English whenever and wherever I want without any limitation.	4.2% 5	7.5% 9	16.7% 20	49.2% 59	22.5% 27
9	Having a smartphone saves a considerable amount of time in my studies of the English language.	3.3% 4	8.3% 10	25.8% 31	45% 54	17.5% 21
10	Various applications offered by the smartphones generally distract me from focusing on my English-related studies.	6.7% 8	35.8% 43	30% 36	18.3% 22	9.2% 11
11	Having a smartphone is a real problem preventing my concentration on my English-related school studies.	20.8% 25	37.5% 45	21.7% 26	13.3% 16	6.7% 8
12	Smartphones are undoubtedly among the most important tools in terms of access to information.	0% 0	6.7% 8	16.7% 20	42.5% 51	34.2% 41
13	Using a smartphone helps me develop reading skills.	10% 12	20% 24	23.3% 28	29.2% 35	17.5% 21
14	Using a smartphone helps me develop listening skills.	2.5% 3	11.7% 14	16.7% 20	50% 60	19.2% 23
15	Using a smartphone helps me develop writing skills.	18.3% 22	35.8% 43	25.8% 31	18.3% 22	1.7% 2
16	Using a smartphone helps me develop speaking skills.	10.8% 13	34.2% 41	32.5% 39	15% 18	7.5% 9
17	Using a smartphone helps me develop my vocabulary.	1.7% 2	3.3% 4	11.7% 14	38.3% 46	45% 54
18	Smartphones offer opportunities to practice English outside the class.	3.3% 4	7.5% 9	15% 18	47.5% 57	26.7% 32
19	I can utilise my smartphone effectively enough for language learning purposes.	4.2% 5	10% 12	31.7% 38	45.8% 55	8.3% 10
20	I try to make use of every facility provided by my smartphone in order to improve my language skills.	1.7% 2	10% 12	32.5% 39	43.3% 52	12.5% 15
21	My smartphone is a real assistant for me with my assignments.	4.2% 5	14.2% 17	16.7% 20	47.5% 57	17.5% 21
22	As a prospective English language teacher, I can utilise my smartphone as a facilitator to develop my English skills for the teaching profession.	4.2% 5	13.3% 16	37.5% 45	36.7% 44	8.3% 10
23	I cannot utilise my smartphone effectively enough for language learning purposes.	10.8% 13	38.3% 46	25% 30	22.5% 27	3.3% 4
24	Smartphones are quite useful in terms of their contributions to our school studies.	2.5% 3	14.2% 17	24.2% 29	47.5% 57	11.7% 14
25	I utilise a specific language learning application in my smartphone.	4.2% 5	17.5% 21	20.8% 25	43.3% 52	14.2% 17

Note: Strongly agree: 5; Agree: 4; Neither agree nor disagree: 3; Disagree: 2; Strongly disagree: 1.

The second question addressed to the participants was "Smartphones in 2025? What do you predict about the future of smartphones?" Depending upon the responses of the participants regarding the future of smartphones, it can be said that most believe that smartphones will consolidate their place in everyday life. Student 1, for example, states "smartphones will become an indispensable part of human's daily life" [sic]. Similarly, Student 27 says "they will become like pencil and paper". Other positive outlooks included:

Student 3: "People will wear smartphones like a watch."

Student 7: "They will enable us to teleport

whenever we want."
Student 8: "Written exams will die."
Student 13: "They will be smarter."
Student 16: "There will be more applications for speaking."
Student 20: "They will be used as identity cards and credit cards."
Student 23: "They will replace laptops."
Student 26: "Teaching will depend on them."

Alongside the majority reporting positive predictions as to the future status of smartphones, two of the participants expressed a negative prediction about their future. Student 5, for example, opined,

"there may not be smartphones in the future but [there may be] some other devices [to replace them]". Similarly, Student 29 predicted, "they will be old-fashioned, new technological devices will appear".

Research Question 2: Is gender a significant variable in the use of smartphones for language learning purposes?

In order to provide an answer to the second research question, Table 2 presents the analysis of the Mann-Whitney *U* test conducted to determine the effect of the 'gender' variable.

Table 2 Analysis of the Mann-Whitney *U* test results on the 'gender' variable

Group	*N*	Mean rank	Sum of ranks	*U*	Significance
Male	36	60.53	2.179		
				1.501	.995
Female	84	60.49	5.081		

*Note: * p > 0.05.*

It is clear from Table 2 that there is no statistically significant difference yielded by the 'gender' variable. Both males and females somehow utilise smartphones for language learning purposes to a similar degree. Within this context, Abbasi and Hashemi (2013) report that the gender variable does not have any significant effect on the students' vocabulary learning and retention through mobile phones. Similarly, the study by Economides and Grousopoulou (2008) suggests no significant

effect of gender on Greek university students' mobile phone use.

Research Question 3 asked: does the length of the students' possession of a smartphone make a significant difference in the use of smartphones for language learning purposes?

In order to answer this, Table 3 presents the analysis of the Kruskal Wallis-H Test conducted to determine the effect of "the length of the students' possession of a smartphone" variable.

Table 3 Analysis of the Kruskal Wallis-H test results in the 'length of the students' possession of a smartphone' variable

	N	Mean of Ranks	*sd*	x^2	*p*
0-1 year	22	51.98			
1-2 years	35	52.64	3	6.140	.105
2-3 years	20	64.82			
Over 3	43	69.24			

Note: p > 0.05.*

Table 3 shows that there is not a statistically significant difference between the responses of the participants with 0-1, 1-2, 2-3, and over three year(s) of smartphone possession ($p > 0.05$). However, the mean scores show that the length of the students' possession of a smartphone holds a certain degree of influence, if not statistically significant, on their smartphone use. They indicate that participants who have been using smartphones for over three years yield the highest score (69.24). Therefore, it can be said that the length of smartphone possession is somewhat proportional to the degree it is used for language learning purposes.

Conclusion

Smartphones today occupy considerable space in our daily lives. The technology's effects can be easily observed in many settings ranging from streets to classroom environment. Beside widespread use by people in daily life for mostly

communication or entertainment purposes, there are a number of worthy opportunities and facilities it offers for learning purposes. It also promises a myriad of benefits for foreign language learning process (Abbasi & Hashemi, 2013; Barrs, 2011; Kétyi, 2013; Mehta, 2012; Muhammed, 2014; Rahimi & Miri, 2014; Rosell-Aguliar, 2014; Thornton & Houser, 2005; Wu, 2014). Under this framework, the aim of this current study has been to explore the extent to which ELT students utilise smartphones for language learning purposes. A 25-item questionnaire was employed as the main data collection tool and it was administered to 120 Grade Three and Four ELT students at Ondokuz Mayıs University in Turkey. A follow-up oral interview was conducted with the help of 29 of the participants, in order to obtain their views on smartphones.

Based on the first research question, the statistical frequency analysis of the answers given to the items in the questionnaire indicates that the

great majority of the participants use smartphones actively for language learning purposes. The aspect that received the highest frequency of agreement appears to be the vocabulary development and dictionary use. This is also the case with the answers given to the addressed questions in the oral interview. On the other hand, the aspect that received the highest frequency of disagreement turns out to be the use of inner voice recorders for learning purposes. Regarding the second and third research questions, Mann-Whitney *U* and Kruskal Wallis-H tests were run, respectively. The yielded results of the analyses on both the 'gender' and 'length of the students' possession of a smart-phone' variables do not yield any statistically significant effect on the students' use of smart-phones for language learning purposes.

In the light of the findings of this study, it can be concluded that most of the participants, if not all, possess and use smartphones; and that they utilise them in some way for language learning purposes. However, if they are made aware of its benefits in detail, including which applications to choose, they can integrate this 'magic' tool into their learning process in a far more motivated and conscious way. Rather than trying to prevent them from being distracted by their phones in class, we should teach them how to cope with those the possibility of distraction, whilst making the utmost use of its opportunities for their own learning. Like it or not, smartphones are likely to gain more popularity in the near future, and every opportunity and benefit they present should be taken seriously, and incorporated into language learning process.

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References

Abbasi M & Hashemi M 2013. The impact/s of using mobile phone on English language vocabulary retention. *International Research Journal of Applied and Basic Sciences*, 4(3):541-547. Available at http://www.irjabs.com/files_site/paperlist/r_710_13 0328101509.pdf. Accessed 9 November 2015.

Barrs K 2011. Mobility in learning: The feasibility of encouraging language learning on smartphones. *Studies in Self-Access Learning Journal*, 2(3):228-233. Available at http://sisaljournal.org/archives/sep11/barrs/. Accessed 9 November 2015.

Bester G & Brand L 2013. The effect of technology on learner attention and achievement in the classroom. *South African Journal of Education*, 33(2): Art. #405, 15 pages. doi: 10.15700/saje.v33n2a405

Bonk CJ 2009. *The world is open: How web technology is revolutionizing education*. San Francisco, CA: Jossey-Bass.

Busy Teacher 2015. *The 9 best mobile apps for your ESL students*. Available at http://busyteacher.org/12155-9-best-mobile-apps-for-esl-students.html. Accessed 5 April 2015.

Cassavoy L n.d. *What makes a smartphone smart?* Available at http://cellphones.about.com/od/smartphonebasics/a /what_is_smart.htm. Accessed 12 April 2015.

Chinnery GM 2006. Emerging technologies: Going to the MALL: Mobile assisted language learning. *Language Learning & Technology*, 10(1):9-16. Available at http://llt.msu.edu/vol10num1/emerging/. Accessed 10 November 2015.

Dörnyei Z 2007. *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford: Oxford University Press.

Economides AA & Grousopoulou A 2008. Use of mobile phones by male and female Greek students. *International Journal of Mobile Communications*, 6(6):729-749.

El-Hussein MOM & Cronje JC 2010. Defining mobile learning in the higher education landscape. *Educational Technology & Society*, 13(3):12–21. Available at http://ifets.info/journals/13_3/3.pdf. Accessed 10 November 2015.

Fendelman A n.d. *How are cell phones different from smartphones?* Available at http://cellphones.about.com/od/coveringthebasics/q t/cellphonesvssmartphones.htm. Accessed 26 February 2015.

Ferketich S 1991. *Focus on psychometrics*. Aspects of item analysis. *Research in Nursing & Health*, 14(2):165–168. doi: 10.1002/nur.4770140211

Gholami J & Azarmi G 2012. An introduction to mobile assisted language learning *International Journal of Management, IT and Engineering (IJMIE)*, 2(8):1-9. Available at http://www.academia.edu/2214648/An_introductio n_to_Mobile_Assisted_Language_Learning. Accessed 10 November 2015.

Kétyi A 2013. Using smart phones in language learning - A pilot study to turn CALL into MALL. In L Bradley & S Thouësny (eds). *20 Years of EUROCALL: Learning from the Past, Looking to the Future*. Proceedings of the 2013 EUROCALL Conference, Évora, Portugal. Dublin/Voillans: Research-publishing.net.

Klopfer E & Squire K 2008. Environmental detectives - the development of an augmented reality platform for environmental simulations. *Educational Technology Research and Development*, 56(2):203-228. doi: 10.1007/s11423-007-9037-6

Kukulska-Hulme A 2009. Will mobile learning change language learning? *ReCALL*, 21(2):157-165.

Mayisela T 2013. The potential use of mobile technology: enhancing accessibility and communication in a blended learning course. *South African Journal of Education*, 33(1): Art. #629, 18 pages. Available at http://www.sajournalofeducation.co.za/index.php/s aje/article/view/629/337. Accessed 12 November 2015.

Mehta NK 2012. Mobile phone technology in English teaching: Causes & concerns. *The Modern Journal of Applied Linguistics*, 2(4):82-92. Available at http://www.mjal.org/removedprofiles/2013/Mobile %20Phone%20Technology.pdf. Accessed 12 November 2015.

Muhammed AA 2014. The impact of mobiles on language learning on the part of English Foreign Language (EFL) university students. *Procedia - Social and Behavioral Sciences*, 136:104-108. doi: 10.1016/j.sbspro.2014.05.297

O'Malley C, Vavoula G, Glew JP, Taylor J, Sharples M & Lefrere P 2003. *WP 4 - Guidelines for learning/teaching/tutoring in a mobile environment.*

Rahimi M & Miri SS 2014. The impact of mobile dictionary use on language learning. *Procedia - Social and Behavioral Sciences*, 98:1469-1474. doi: 10.1016/j.sbspro.2014.03.567

Rodriguez-Arancón P, Arús J & Calle C 2013. The use of current mobile learning applications in EFL. *Procedia - Social and Behavioral Sciences*, 103:1189-1196. doi: 10.1016/j.sbspro.2013.10.446

Rosell-Aguliar F 2014. *How smartphone apps are revolutionising language learning*. Available at http://theconversation.com/how-smartphone-apps-are-revolutionis ing-language-learning-25165. Accessed 1 April 2015.

Sharples M (ed.) 2006. *Big issues in mobile learning*. Report of a workshop by the Kaleidoscope Network of Excellence Mobile Learning Initiative. UK: University of Nottingham. Available at http://matchsz.inf.elte.hu/tt/docs/Sharples-20062.pdf. Accessed 13 November 2015.

Thornton P & Houser C 2005. Using mobile phones in English education in Japan. *Journal of Computer Assisted Learning*, 21(3):217-228. doi: 10.1111/j.1365-2729.2005.00129.x

Warschauer M, Shetzer H & Meloni C 2000. *Internet for English teaching*. Alexandria, VA: TESOL Publications.

Wu Q 2014. Learning ESL vocabulary with smartphones. *Procedia - Social and Behavioral Sciences*, 143:302-307. doi: 10.1016/j.sbspro.2014.07.409