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Prospective English Teachers' Ownership And Usage Of Mobile Devices As M-Learning Tools

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Abstract

Mobile learning is an emerging field of research and practice across educational institutions and workplace. More and more students have access to smartphones, tablets and other mobile devices. This study was aimed to better understand how prospective teachers of English language teaching (ELT) use mobile technology for learning and how they want to use mobile devices for teaching in the future. A total of 144 student teachers enrolled in an ELT department at a major state university participated in the study. Based on descriptive statistics, the findings revealed that a great majority of the participants currently own and use phones, particularly internet capable ones, MP3 players, and tablets. Nearly four in ten prospective English teachers plan to buy a tablet (e.g., iPad), three in ten intend to purchase smartphones (e.g., iPhone), and one in ten is likely to purchase an e-book reader (e.g., Kindle.) over the next year or two. Further, nearly all the participants stated that despite the impediments, they wanted to use mobile devices in their English lessons and teaching regularly in the future. They believed that the biggest barriers that might moderate on the appropriate application of mobile devices in ELT included the great versatility in device types, pedagogical justifications, administrational factors, lack of training, and lack of devices due to financial restrictions. Some recommendations are also provided.

Keywords: Mobile learning; mobile device ownership; mobile language learning; prospective English teachers;

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1. Introduction

Mobile learning, or m-learning, has recently emerged as a new type of learning model which allows learners to obtain learning materials anywhere and anytime using mobile technologies and the internet (Lan and Sie, 2010). Given the global fact that more and more students use mobile devices such as notebooks, netbooks, tablets, 3G mobile phones, digital cameras, MP3 players, and personal digital assistants (PDAs), there is now a growing interest in the potential role of mobile technology in supporting students formally both in and outside the classroom (Cheon, Lee, Crooks and Song, 2012; Uzunboylu and Ozdamli, 2011). In fact, many studies across disciplines have investigated the positive effects of using mobile technologies on education (Wu, Wu, Chen, Kao, Lin and Huang, 2012). Thus, the integration of mobile technology into higher education is key to providing students with a higher quality of education and contributing to higher national productivity growth (Kobus, Rietveld and Ommeren, 2013). Numerous studies also indicate that students in higher education have positive attitudes towards and perceptions about m-learning, and they are increasingly taking advantage of many functions in their mobile devices (Cheon et al., 2012).

Access to technology, ownership and connectivity are among critical success factors for integrating m-learning in higher education (Naismith and Corlett, 2006). In the context of Turkey, it can be asserted that (virtually) every individual in higher education owns a mobile phone and a great majority of students own portable computers. However, one can hardly claim that they all have other more functional mobile devices (e.g., smartphones and tablets) due to such factors as cost, service charges and features. Notwithstanding their increasing popularity and many mobile applications (apps) developed to support English language teaching (ELT) (Godwin-Jones, 2011; Hockly, 2013; Saran and Seferoglu, 2012; Saran, Seferoglu and Cagiltay, 2009), there is very limited literature on student ownership and usage of mobile devices. When undertaking m-learning, do students expect university-provided devices, or are they expected to own their mobile devices? Will Turkish universities adopt m-learning technology via *Bring Your Own Device* (BYOD) strategies? Or, will the challenge of mobility just remain a compelling topic of discussion in higher education? Thus, the present study aimed to investigate prospective English teachers' current ownership and usage patterns of mobile devices as m-learning tools, their intention of using m-learning technology in their teaching in the future, and their views regarding the biggest barriers to implementing mobile language learning.

1.1. Literature review

There is not a single-agreed upon definition of m-learning, partly because it is at its emergent state, and partly because 'mobile' is ambiguous (Traxler, 2009; Kukulska-Hulme, 2009). Whereas m-learning clearly includes both the portability/mobility of devices and the notion of "anytime, anywhere", a recent aspect of m-learning is the context that comprises formal and informal learning outside the classroom as well as formal learning in the classroom (Hockly, 2013) through a variety of devices in various locations. In addition to these aspects, Ozdamli and Cavuz (2009) also highlight "blended" and "collaborative" features of m-learning and argue that m-learning characteristics should be cautiously planned and prepared to make the most of this technology.

There is rapidly growing literature on m-learning, which indicates that integrating mobile technology as a new tool in education has some key benefits. These often include enhancing motivation, promoting interactivity, collaboration and engagement in various learning activities, personalizing learning by giving learners control over what, where, when and how they will learn, and creating a sense of community (Naismith and Corlett, 2006; Kukulska-Hulme, 2008/2009; Cheon et al., 2012). On the other hand, recent studies suggest that mobile devices as m-learning tools also have some drawbacks such as high cost of functional mobile devices, accessibility, connectivity, and attitudinal factors (JISC, 2013; Hockly, 2013) as well as small screen sizes, limited battery lives, and distractions and interruptions in classrooms (Martin and Ertzberger, 2013). Beside these positive outcomes and challenges of m-learning, Naismith and Corlett (2006, pp. 12-17) view ownership of mobile devices by students as one of the critical success factors for m-learning projects. Naismith & Corlett's (2006) opinion rests on the assumption that devices should be provided either "for" students, or "by" students. Put another way, it is important that students either possess this technology or at least treat it as if they owned it.

Given the centrality of mobile devices to m-learning, there are very few studies into ownership and usage patterns of mobile devices by students. For example, the findings of Ozdamli, Soykan and Yildiz (2013) indicated that a majority of students would like to use m-learning applications (apps) in higher education, but their patterns of mobile device use often cluster around laptops and mobile phones. This means that ownership and use of more functional mobile devices including smartphones (e.g., iPhone) and tablets (e.g., iPad) differed substantially. In another study by Corbeil and Valdes-Corbeil (2007), it was found out that around 90% of distance-education students and faculty owned laptops and cellular phones and those who owned other handheld mobile devices (except pen drives and MP3 players) ranged from 0% to 47%. Their findings revealed that students often used mobile devices for emails, file transfer, and multimedia messages. These findings suggest that the participants were ready for m-learning, mostly through laptops and cellular phones.

In two recent studies the landscape of mobile device ownership and use seems to have changed. In order to determine what technological devices students currently utilize in their educational activities as well as data on their device ownership, Pearson (2013) conducted a student mobile device survey in the USA. The findings of the study revealed that overall a large majority of students have confidence and faith in the impact of mobile devices on learning (92%), and a desire to use mobile devices more often in the classroom (69%). Furthermore, a substantial portion of students currently use and own tablets, and four in ten students own a smartphone. The findings also indicated that students use tablets for a variety of school-related activities (also for English and foreign language study) such as researching and doing homework, and checking assignments. These findings are further supported by those of Johnson, Means and Khey's (2013) recent study which investigated mobile device ownership and use in an American university. Their findings also demonstrated that mobile devices and demand for mobile-enabled services are on the rise. Thus, more and more institutions are introducing mobile initiatives, and "schools without them are experiencing pressure to do so" (Johnson, Means and Khey, 2013, p. 13).

On the basis of the evidence currently available, it seems that more and more students utilize mobile technology in higher education and they are likely to push for mobile devices in the classrooms in the context of Turkey too. In addition, mobile language learning is rapidly developing as one of the most applicable domains in technology-supported learning (Uzunboylu & Ozdamli, 2011; Saran, Seferoglu and Cagiltay, 2012).

1.2. Purpose of the study

This study was designed to investigate prospective English teachers' current ownership and usage patterns of mobile devices, their intention of using m-learning technology in their teaching in the future, and their views regarding the biggest barriers to employing mobile language learning. To these ends, the following research questions were addressed in this study:

1. What are the current ownership, usage and purchase intent of mobile devices by prospective English teachers?
2. How do prospective English teachers currently use mobile devices for their undergraduate education / school work?
3. Do they expect to use mobile devices in their teaching in the future?
4. What do they see as the biggest barriers to the use of mobile language learning?

While descriptive in nature, this study is significant because the success or failure of m-learning projects also depends on the availability of technology to be provided either "for" students, or "by" students. It is expected that the findings will have implications for prospective English teachers' use of mobile language learning as well as integration of m-learning into English teacher education programs.

2. Methodology

2.1. Participants

A total of 144 prospective English teachers at a large state university in Ankara volunteered to participate in this study and answered 21 questions in a self-report questionnaire. Questionnaires were distributed during the summer semester in 2013. The participants were fourth year student teachers who had either graduated from the department

or become fourth year students as of the 2013-2014 academic semesters. 75.7% of them were females and 24.3% of them were males. Ages among participants ranged from 21 to 29 (M=22.37 years, SD=1.18). A total of 75 students were sent invitation messages through email to answer the survey questions available online and 98 students were sent paper-based questionnaires to complete and return them. As participation was voluntary, only 144 students opted to answer the questions, yielding an 83% response rate for the survey.

2.2. Instrument

In order to gather quantitative data, the present study employed a survey instrument that consisted of two parts. The first part included some questions that characterize the participants such as gender and age. The second part comprised twenty-one questions that enquired their current ownership, usage, and purchase intent of mobile devices as well as their perceptions of barriers to the use of mobile learning in their language teaching in the future. The participants answered the questions by choosing one or more of the available options. The barriers to m-learning as perceived by them included 5-point Likert type items ranging from 1 (large barrier) to 5 (no barrier). Cronbach's alpha for these eight items was .79.

2.3. Data collection and analysis

Data for this study were gathered using a survey methodology in the 2012-2013 academic year summer semester in an undergraduate English language teaching (ELT) department at a major state university in Ankara. The majority of the participants were enrolled in department courses and voluntarily completed a paper-based version of the instrument whereas the rest responded to the questions in the online version of the same survey. Data analysis was performed in order to address the research questions formulated for the present study. Data collected from the sample were fed into the computer and statistical analyses were carried out using MS Excel and IBM SPSS Statistics 21, a comprehensive computer program used to perform statistical analysis quickly and accurately. Descriptive statistics such as frequency and percentage were computed to analyse the data drawn from the sample.

3. Results and discussion

This section presents the results of the current study in terms of descriptive statistics as well as a discussion of the findings.

3.1. Ownership and purchase intent of mobile devices by prospective English teachers

The results of descriptive analysis for mobile device ownership and usage by prospective English teachers indicated that a significant portion of prospective English teachers currently own and use mobile phones and MP3 players. All the participants own and use phones, mostly internet capable phones (51.63%) and android phones (32.68%), followed by less frequent use of iPhones (15.69%). Nearly three quarters (73.61%) own an MP3 player. Moreover, three in ten participants (29.16%) own tablets, e.g., iPads and Android tablets. They are more likely to own Android tablets and iPads (22.22%), while a small number (6.94%) are more likely to favour other types of tablets (Figure 1). Similar results were reported when wider populations from different countries were surveyed (Oliver and Goerke, 2007; Kennedy, Judd, Churchward, Gray and Krause, 2008; Kennedy, 2011; Fujimoto, 2012; Stockwell, 2010; Telstra, 2011; Watanabe 2012; Liew, Kang, Yoo and You, 2013). Fujimoto's (2012) study, for instance, showed that 100% of the students own mobile phones and more than half of them readily use them to access information on the internet. This indicates that smartphones with *iOS* and *android* operating systems could be effective in supporting language learning and teaching (Godwin-Jones, 2011).
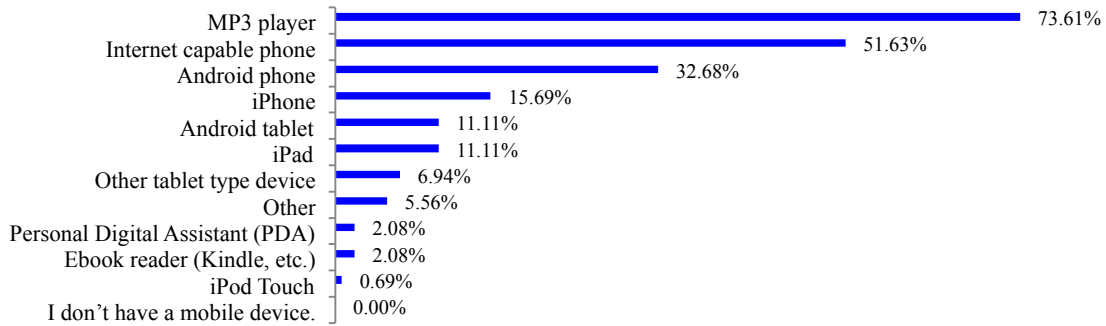
MP3 player — 73.61%
Internet capable phone — 51.63%
Android phone — 32.68%
iPhone — 15.69%
Android tablet — 11.11%
iPad — 11.11%
Other tablet type device — 6.94%
Other — 5.56%
Personal Digital Assistant (PDA) — 2.08%
Ebook reader (Kindle, etc.) — 2.08%
iPod Touch — 0.69%
I don't have a mobile device. — 0.00%

Figure 1. Ownership of mobile devices by prospective English teachers

The results also revealed that more than six in ten prospective English teachers (62.49%) planned to purchase a tablet PC, most specifically Android tablets (29.86%) and iPads (28.47%), while five in ten (49.30%) intended to buy smartphones (e.g., iPhone), and 15.97% are more likely to purchase an e-book reader (e.g., Kindle) over the next year or two. However, 14.58% of the participants stated that they had no plan to buy mobile devices in the near future (Figure 2).
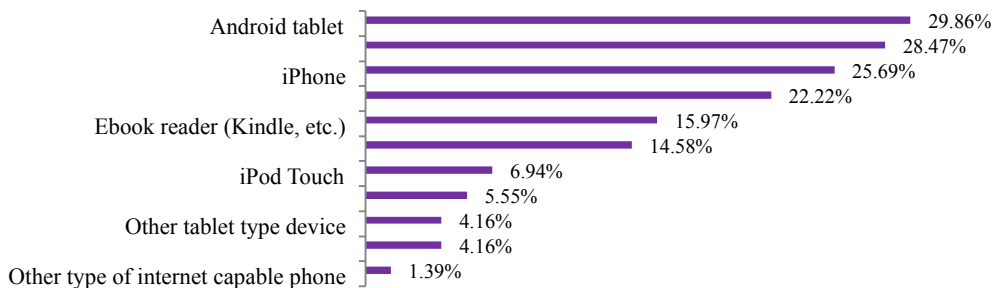
Android tablet — 29.86%
— 28.47%
iPhone — 25.69%
— 22.22%
Ebook reader (Kindle, etc.) — 15.97%
— 14.58%
iPod Touch — 6.94%
— 5.55%
Other tablet type device — 4.16%
— 4.16%
Other type of internet capable phone — 1.39%

Figure 2. Purchase intent of mobile devices by prospective English teachers

3.2. Options of usage on mobile devices

The results of this study also indicated that more than nine in ten participants reported using mobile features such as SMS, phone calls, taking photographs with built-in cameras, while virtually 85% reported using MP3 players, and seven in ten participants were more likely to use applications either occasionally or often (see Figures 3 and 4). In comparison, only about 8.33% of them reported ever using other options on their mobile devices. SMS is the most preferred option for mobile device usage because it can be used to deliver educational content, especially for supporting distance learners (Attewell and Savill-Smith, 2003; Levy and Kennedy, 2005). This provides confirmatory evidence that "SMS can be used to provide support, motivation and continuity; alerts and reminders; bite-size content, introductions, tips and revision; study guide structure" (Traxler, 2005, p. 262).

The results of data analysis also indicated that most student-teachers were more frequently engaged in instant messaging, sending texts by a mobile phone, making phone calls , taking photographs, searching on the Internet, installing and using applications, and voice recording. When asked about the frequency of performing some of the most common technology tasks using phones, nearly six in ten (56.94%) participants stated that they used phones a few times per day for communication (SMS and Calls), surfing the internet and listening to music. These results are supported by the findings of Jones, Ramanau, Cross and Healing's (2010) and Corbeil and Valdes-Corbeil's (2007) studies conducted in other contexts.
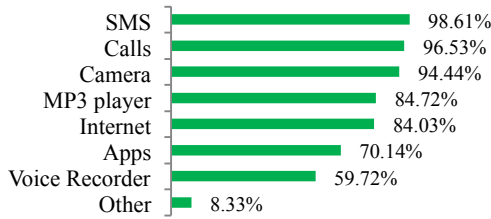
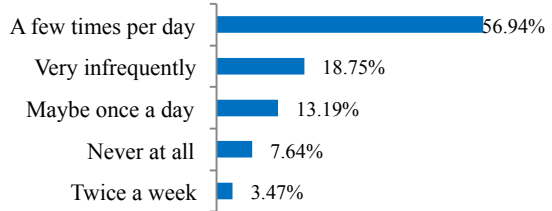**Figure 3.** Frequently-used options on mobile devices

Figure 4. Frequency of use

3.3. Mobile device usage for learning purposes

The results revealed that the participants were more open to using their mobile devices and applications for learning purposes. As Figures 5 to 8 show, a great majority of the participants with mobile devices such as tablets and smartphones stated that they used social networking services (88.19%), e-mails (77.08%), games (45.83%), and newsstands (30.55%) for learning in general based on varying frequency, ranging from a few times per semester (24.31%) to every week (5.56%). It is significant to see that almost nine in ten participants (88.19%) use their mobile devices to look up words in a dictionary, while 63% preferred to use social networks and 22.91% tended to use language games for language learning purposes with the same frequency as they did for learning in general. In addition, more than half of them reported different frequencies of application installation, ranging from daily basis (54.17%) to never at all (4.17%). These findings imply that prospective English teachers widely use their mobile devices for study and learning purposes. This may be attributed to the enhanced capability and potentials of mobile devices, e.g., smartphones and tablets, which can readily connect to the internet and have the capacity to handle larger amount of materials such as texts and pictures on their larger screens (Watanabe, 2012).
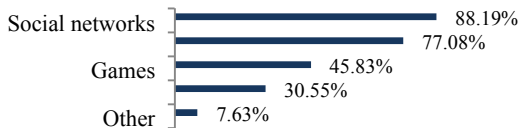
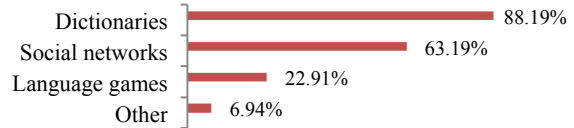**Figure 5.** Mobile Application Usage in General Learning

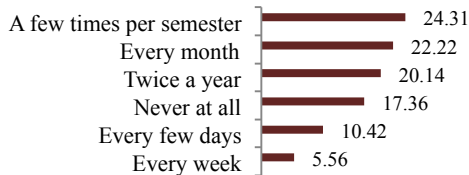**Figure 6**. Application Usage for Language

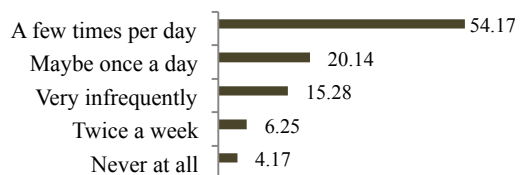**Figure 7.** Frequency of mobile application usage

Figure 8. Frequency of mobile application installation

3.4. Laptop and tablet ownership and usage

A significant majority of the students (95.14%) owned laptops or tablet computers. As indicated in Figures 9 and 10, they said that they used these devices to view websites for both study (e.g., reading (46.53%)) and private purposes (e.g., internet access (93.06%) database, multimedia, and games in daily, weekly and monthly basis).
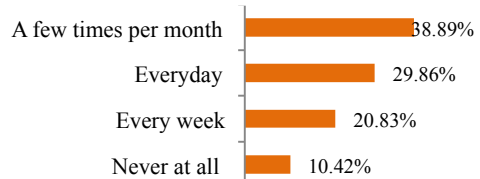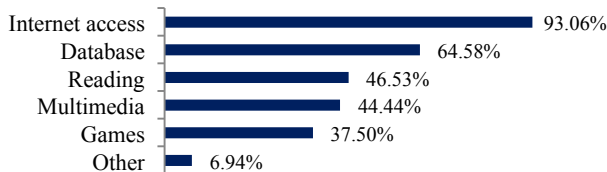
Figure 9. Purpose of laptop or tablet usage   **Figure 10.** Frequency of laptop or tablet usage

3.5. Mobile device usage for future learning and teaching tasks

When asked about their intention to use mobile devices for learning and teaching regularly in the future, nine in ten (90.28%) stated that they would definitely make use of their mobile devices for different learning and teaching activities. Moreover, their self-reports revealed that more than three quarters expect to use mobile devices for course applications, e.g., developing course materials and designing tasks, to communicate with their peers and colleagues outside the classroom (68.06%), devising tests (56.25%), using podcasts as the supplementary course materials for practicing listening and speaking English (40.72%), and course catalogues (34.72%) (Figure 11).
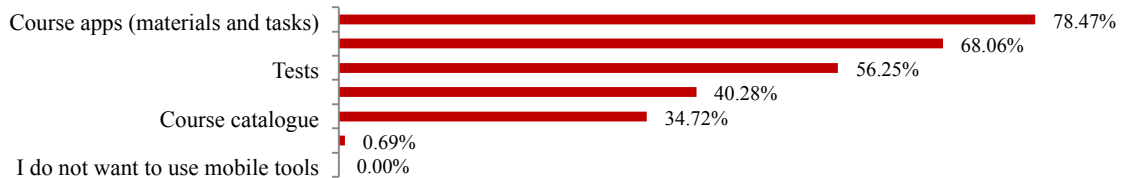

Figure 11. Mobile devices usage expectancy for learning and teaching

A great majority of the prospective English teachers reported that their teachers mostly used their mobile devices for learning and teaching tasks such as presentations (83.33%), listening and reading (61.11%), speaking and writing (34.72%), language practice (56.25%) and other language related tasks (see Figure 12).
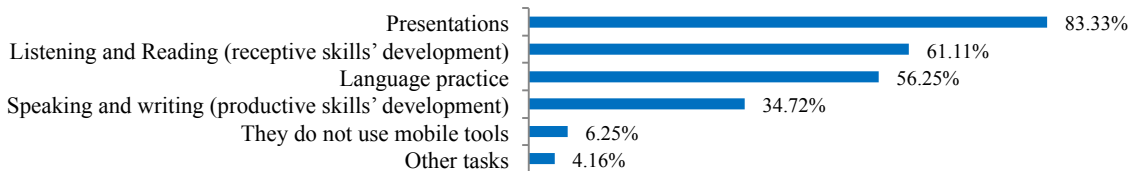

Figure 12. Mobile device usage expectancy in learning and teaching

3.6. Mobile device usage for autonomous work and learning in class

When asked about their opinions on the use of mobile devices for autonomous work, a great majority of the participants reported that they used e-mail and voice recorders more frequently than the others. As also indicated in Table 1, more than three in ten participants were found to be using PowerPoint presentations in the class, while two in ten preferred to use dictionaries for language learning. These findings are in line with those of another study by Corbeil and Valdes-Corbeil (2007) who found that 98% of the students and 100% of the faculty members were using e-mails. This suggests that ELT departments can provide content and information for students in easily accessible formats via using smartphones, laptops or tablet computers. The results further revealed that more than half (54.86%) of the prospective English teachers used mobile devices during lessons as well as for doing their assignments on daily basis, while 45.14% were more likely to use mobile devices a few times per week.

Table 1. Mobile tools usage for autonomous work and learning in the classroom

Usage of devices for autonomous work	F	%	Usage of devices for learning in the classroom	F	%
Email	122	25.52	Power Point presentations	141	32.94
Voice recorder	41	8.58	Dictionaries	97	22.66
Camera	80	16.74	Encyclopedias	21	4.91
Dictionaries	119	24.90	Voice recorder	50	11.68
Encyclopedias	54	11.30	Camera	57	13.32
Online exercises	56	11.72	Online exercises	52	12.15
I do not use mobile tools	0	0.00	I do not use mobile tools	2	0.47

| Other | 6 | 1.26 | Other | 8 | 1.87 |

Additionally, seven in ten (70.83%) participants preferred to use mobile devices both for autonomous work and classroom activities (Figure 13). This means that mobile devices are of great significance for language learning both in and outside the classroom, i.e., at home or on the move. Therefore, it would not be wise for teachers to sacrifice one for the sake of another by adopting only one type of activity. Moreover, it is notable that mobile devices are mostly used outside the classroom by most students for autonomous work, and that preparation for higher education coupled with skilful use of mobile devices seems to take place most often at home or on the move. In fact, these findings are supported by the findings of other studies by Telstra (2011) and Watanabe (2012) in Australian and Japanese contexts.
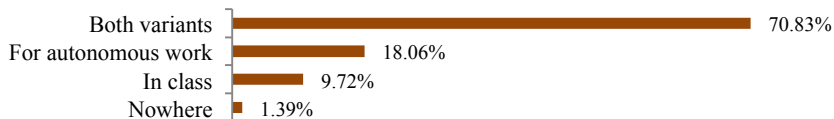

Figure 13. Attitudes on using mobile devices for autonomous work and class activities

3.7. Barriers to the appropriate application of mobile devices

The results of this study also demonstrated that the biggest obstacles that might get in the way of the appropriate application of mobile devices in ELT include the great versatility in device types, pedagogical justifications, administrational factors, lack of training, and lack of devices due to financial restrictions. Precisely, it can be concluded that prospective English teachers almost have the same perceptions on the categories of obstacles in using m-learning devices for language teaching and that the only difference is the matter of degree. The analysis of percentages for all categories of obstacles, as illustrated by Figure 14, demonstrated that 17% rated 'Devices too varied', 15% rated 'Administration', 14.60% rated 'Attitudes', 14.50% rated 'Pedagogical justification', 13.71% rated 'Lack of training', 12.92% rated 'Lack of connectivity', and 12.17% rated 'Lack of devices' as the potential barriers that might have an impact on designing and implementing m-learning programs (JISC 2013). According to Fujimoto (2012, p.182), features of mobile phones such as screen size and keyboard as well as the limited functions of mobile phones and costs can be a hindrance to learners' acceptance of mobile language learning and there can be a lack of motivation for its use for such a purpose in the future.
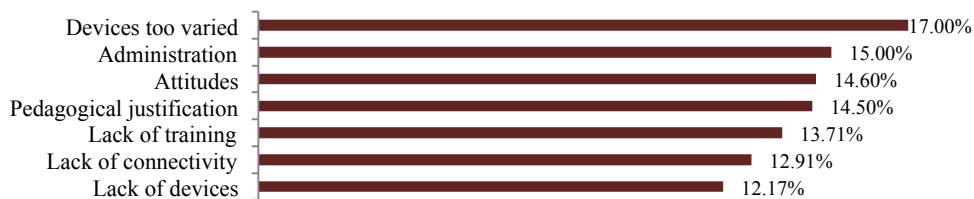

Figure 14. Barriers to the use of mobile learning in language teaching

As shown in Figure 14, the highest percentage was observed for 'Devices too varied' category. This suggests that although the versatility of mobile devices provides more options to choose from, it could also influence the appropriate application of these devices since m-learning demands continuous training, a large amount of investment to catch up with the developments in pedagogically oriented devices. However, as Hockly (2013, p. 81) rightly puts it, despite ongoing obstacles to mobile learning in education including cost, technical limitations, and attitudes, mobile learning is flourishing 'with all guns blazing'. The findings of this study show that such characteristics of mobile phones as keyboard and screen size, the limited functions of mobile phones and costs can interfere with learners' acceptance of mobile language learning. Finally, there can also be a lack of motivation for its use for such a purpose in the future (Fujimoto, 2012).

4. Conclusions

The overall aim of this study was to explore the current state of usage, ownership and purchase intent of mobile devices by prospective English teachers in order to better understand how they use mobile technology for learning in general and language learning in particular. The study also sought to give insights into how they expect to use these devices in their future language teaching and what they see as the biggest barriers to employing mobile language learning.

Given that ownership of mobile devices by students is one of the critical success factors for m-learning projects (Naismith & Corlett, 2006), the findings of this study echo those of similar international surveys conducted to determine the current state of mobile device ownership, usage and purchase intent across primary and secondary education programs as well as a wide range of university students. The findings also provide confirmatory evidence that the conditions for mobile device ownership and usage are changing rapidly throughout the world. One such example is Pearson's (2013) comprehensive survey which revealed that a great majority of students own and use mobile devices for learning purposes and that the rate of mobile device ownership and usage varies in terms of their grade.

In the context of Turkey, the available evidence reveals that instead of adopting m-learning technology via *Bring Your Own Device* (BYOD) strategies, administrators should begin to equip schools and faculties with mobile devices and provide students with mobile learning devices and materials for use as 'the increasing ubiquity and accessibility of mobile devices and access to mobile networks globally is beyond dispute (Hockly, 2013, p. 82). Furthermore, 'The Emergence of a Global Technology-based English Language Learning Ecosystem' has accelerated this challenge to an extent that many countries in the world, e.g., South Korea, Thailand, China, Taiwan, Turkey, Brazil, Russia, France, Poland, Spain, the Ukraine, Mexico, Japan, Singapore, United Arab Emirates (UAE), the UK and the US, are now adopting mandatory digitization programs, converting the 'print textbooks' to 'eTextbooks' so that within a couple of years, language learning content and information will also be digitized (Ambient Insight, 2012).

This study also indicated that most participants have access to mobile devices in terms of phones and laptops and use them frequently. However, this does not mean that students and instructors are ready to employ mobile technology with adequate ease and functionality. Nor does the availability of mobile devices guarantee their effective use in education (Corbeil & Valdes-Corbeil, 2007). There are still continuing obstacles to the use of ever-changing mobile technology in language learning across the country. The cost of tablet computers, for example, may be preventing some students from owning one. The versatility of the mobile devices may also add to the dilemma of mobile learning. Therefore, lack of devices due to variability in the form and functions might cause financial problems and also result in confusion among the users as to which brand to purchase in the future. Lack of connectivity to the internet, and lack of training, administration and lack of reasonable pedagogical justifications for mobile language learning may cause the programs not to live up to their objectives, leading to total frustration. Therefore, further research should focus on these challenging areas with the aim of helping administrators, educators, learners and providers of the pedagogically oriented technology go hand in hand towards the enhancement of the quality of education in the forthcoming years. By so doing, we may experience a more different and advanced picture of m-learning in educational contexts. Much weight should also be given to the learners' experience of mobile device ownership and use for different purposes, especially for non-educational, educational and language learning purposes.

Finally, the findings of this study should be interpreted with some caution as the sample size was limited to only fourth year prospective English teachers. Other university undergraduates with different grade levels and gender could have varying patterns of mobile device ownership and usage. However, the available findings are largely in line with other related studies, suggesting that the sample is not completely unrepresentative. Thus, further research should focus on larger sample sizes including a wide range of university students as well as instructors across the nation, with significant variables such as socio-economic background and life circumstances of students. Kukulska-Hulme (2009, p.158) argues that through their ubiquitous nature, mobile devices are already influencing how people learn. In relation to educational practice and policy making, therefore, educators also need to do more than just watch it happen. As reported in the results section, more than 70% of the participants favour mobile learning both in

autonomous work and classroom tasks. Thus, it is recommended that future research should also focus on the ability of mobile language learning to encompass both formal learning within the classroom, and autonomous learning in informal and formal learning outside the classroom.

References

Ambient Insight. (2012). The worldwide market for digital English language learning products and services: 2011-2016 forecast and analysis (Ambient Insight Premium Report). Monroe, WA: Author. Retrieved from http://www.ambientinsight.com/Resources/Documents/ AmbientInsight-2011-2016-Worldwide-Digital-English-Language-Learning-Market-Overview.pdf

Attewell, J., & Savill-Smith, C. (2003). *Young people, mobile phones and learning*. London: Learning and Skills Development Agency.

Cheon, J., Lee, S., Crooks, S. M. & Song, J. (2012). An investigation of mobile learning readiness in higher education based on the theory of planned behavior. *Computers & Education, 59*(3), 1054–1064.

Corbeil, J. R., & Valdes-Corbeil, M. E. (2007). Are you ready for mobile learning? *EDUCAUSE Quarterly, 30*(2), 51-58.

Fujimoto, C. (2012). Perception of mobile language learning in Australia: How ready are learners to study on the move? *The JALT CALL Journal, 8*(3), 165-195.

Godwin-Jones, R. (2011). Emerging technologies: Mobile apps for language learning. *Language Learning & Technology 15*(2), 2-11.

Hockly, N. (2013). Mobile learning. ELT Journal, 67(1), 80-84. doi:10.1093/elt/ccs064

JISC. (2013). Mobile learning infokit. Retrieved from http://goo.gl/txDkB

Johnson, D., Means, T., & Khey, D. N. (2013). A state of flux: Results of a mobile device survey at the University of Florida. Retrieved from http://www.educause.edu/ero/article/state-flux-results-mobile-device-survey-university-florida

Kennedy, G. (2011). Where to from here? Deciding our eLearning future at the University of Melbourne. Paper presented at *the Provost's Summit 2011: Reshaping eLearning*. Retrieved from http://www.cshe.unimelb.edu.au/people/kennedy/Provost_GK_7.pdf

Kennedy, G., Judd, T., Churchward, A., Gray, K., & Krause, K.-L. (2008). First year students' experiences with technology: Are they really digital natives? *Australian Journal of Educational Technology,* 24(1), 108-122.

Kobusa, M. B. W., Rietvelda, P., van Ommerena, J. N. (2013). Ownership versus on-campus use of mobile IT devices by university students. *Computers & Education, 68*, 29-41.

Kukulska-Hulme, A. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction preview. *ReCALL 20*(3), 271-289

Kukulska-Hulme, A. (2009). Will mobile learning change language learning? *ReCALL 21*(2), 157-165. doi:10.1017/S0958344009000202

Lan, Y., & Sie, Y. (2010). Using RSS to support mobile learning based on media richness theory. *Computers & Education, 55*(2), 723–732.

Levy, M. J., & Kennedy, C. F. (2005). Learning Italian via mobile SMS. In A. Kukulska-Hulme & J. Traxler (Eds.), *Mobile learning: A handbook for educators and trainers* (pp. 76-83). London: Routledge.

Liew, B.T., Kang, M., Yoo, E. & You, J. (2013). Investigating the determinants of mobile learning acceptance in Korea. In J. Herrington, A. Couros & V. Irvine (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2013* (pp. 1424-1430). Chesapeake, VA: AACE. Retrieved August 20, 2013 from http://www.editlib.org/p/112147.

Martin, F., & Ertzberger, J. (2013). Here and now mobile learning: An experimental study on the use of mobile technology. *Computers & Education, 68*, 76-85.

Naismith, L., & Corlett, D. (2006) Reflections on success: A retrospective of the mLearn conference series 2002-2005. In *Proceedings of mLearn 2006 Conference, 22-25 October 2006*. Banff, Canada: Athabasca University.

Pearson. (2013). Pearson student mobile device survey 2013. National Report: Students in Grades 4-12. Retrieved from http://www.pearsoned.com/wp-content/uploads/Pearson-Student-Mobile-Device-Survey-2013-National-Report-on-Grades-4-to-12-public-release.pdf

Oliver, B., & Goerke, V. (2007). Australian undergraduates' use and ownership of emerging technologies: Implications and opportunities for creating emerging learning experiences for the Net Generation. *Australian Journal of Educational Technology, 23*(2), 171-186.

Ozdamli, F., & Cavus, N. (2011). Basic elements and characteristics of mobile learning. *Procedia-Social and Behavioral Sciences, 28*, 937-942.

Ozdamli, F., Soykan, E., & Yildiz, E. P. (2013). Are computer education teacher candidates ready for m-learning? *Procedia - Social and Behavioral Sciences, 83*, 1010-1015.

Saran, M., & Seferoglu, G. (2010). Supporting foreign language vocabulary learning through multimedia messages via mobile phones. *Hacettepe University Journal of Education, 38*, 252-266.

Saran, M., Seferoglu, G., & Cagiltay, K. (2009). Mobile assisted language learning: English pronunciation at learners' fingertips. *Eurasian Journal of Educational Research, 34*, 97-114.

Saran, M., Seferoglu, G., & Cagiltay, K. (2012). Mobile language learning: Contribution of multimedia messages via mobile phones in consolidating vocabulary. *The Asia-Pacific Educational Researcher, 21*(1), 181-190.

Stockwell, G. (2010). Using mobile phones for vocabulary activities: Examining the effect of the platform. *Language Learning & Technology, 14*(2), 95-110. Retrieved from http://llt.msu.edu/vol14num2/stockwell.pdf

Telstra. (2011). Fact sheet: Telstra smartphone index 2011 highlights. Retrieved from http://www.telstra.com.au/abouttelstra/download/document/fact-sheet-telstra-smartphone-index-20 11.pdf

Traxler, J. (2005). Defining mobile learning. In *Proceedings IADIS International Conference on Mobile Learning, Malta*, pp.261-266.

Traxler, J. (2009) Learning in a mobile age. *International Journal of Mobile and Blended Learning, 1*(1), 1-12.

Uzunboylu, H., & Ozdamli, F. (2011). Teacher perception for m-learning: Scale development and teachers' perceptions. *Journal of Computer Assisted Learning, 27*(6), 544–556. doi:10.1111/j.1365-2729.2011.00415.x

Watanabe, Y. (2012). Ready for m-learning? Access to mobile devices by tertiary students studying Japanese. In M. Brown, M. Hartnett & T. Steward (Eds.), Future challenges, sustainable futures. Proceedings Ascilite Wellington 2012. (pp. 1030-1038).

Wu, W., Wu, Y. J., Chen, C., Kao, H., Lin, C., & Huang, S. (2012). Review of trends from mobile learning studies: A meta-analysis. *Computers & Education, 59(*2), 817-827.