# Mobile Learning to Support Teaching English as a Second Language

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#### Abstract

Technology utilization in distance education has demonstrated its significance in the transfer of knowledge for both the instructors and the learners. This is also made possible through the use of the Internet which helps change the traditional teaching approaches into more modern methods when integrated with the pedagogical instruction. Mobile devices together with other forms of technology-based tools in education have established their potential in language teaching. In this regards, the Teaching of English as a Second Language (TESL) has become easier and more attractive via mobile learning. The aim of this study is to review the mobile-based teaching and learning in the English language classroom. Such integration of mobile learning with English language teaching may offer great innovations in the pedagogical delivery.

Keywords: TESL, M-learning, Distance Education, Language Teaching/Learning, Educational Wireless Portable Tools, Technology

#### 1. Introduction

Rapid change in the learning environment is the result of speedy developments in the information and communication technologies that have affected all areas of our life. For this reason, many educational institutions have begun looking for new teaching models to fulfil the following objectives: to meet their students' needs parallel to new technological introductions, to provide more effective learning activities and to promote the environment that motivates the students. One of the potential technologies deemed suitable to play a fruitful role in this regard are mobile ones. Portability and accessibility of mobile devices in this digital era have attracted many scholars to apply them in the educational settings. Furthermore, several researchers have attempted to prove applicability of mobile learning as modern ways of teaching and learning (Naismith, 2004). Moreover, applying portable technologies have been demanded by most of the modern learners who oftentimes are forced to study anywhere and anytime, for example, at work, in the bus or at weekends (Evans, 2008). The wireless portable devices such as IPods, MP3 players, smart phones (like Blackberry, iPhone), and Personal Digital Assistants (PDAs) could provide opportunities to respond to the need of this generation. Evans (2008) believes that a distinguishable feature of mobile learning or M-learning is the potential to study when travelling on transport.

Language learning is also expected to benefit from the extensive possession of mobile devices such as phones and media players (Kukulska-Hulme, 2006). In addition to the above mentioned profits of M-learning for learners that can be attributed to ESL learners too, teachers may benefit from applying portable wireless devices through their teaching process. To increase access to authentic teaching and learning subjects, mobile technology can be used mainly by teachers even when they are travelling to schools or arrange lesson plans (Shohel & Banks, 2010; Shohel & Shrestha, 2010). Although a number of researchers (Collins, 2005; Ogata, et al., 2006; Kukulska-Hulme, 2006; Sarica & Cavus, 2009; Guerrero, et al., 2010; Sandberg, et al., 2010) have verified the advantages of M-learning in teaching English as a foreign or second language, great deal of teachers are reluctant to include M-learning in their schedule. This study tries to assist in clarifying the usability and applicability of mobile learning in TESL by reviewing the related literature in this area.

#### 2. Technology in Language Teaching and Learning

"Technology has accompanied the process of language teaching and learning for many years. Cassette players and television were traditional primitive technological tools, which were used in language classes as pedagogical aids. Today, when we think about technology, the first teaching aid that appears in our vision is the computer. Likewise, in the field of English language teaching, computer is a good teaching aid, especially since it has been complemented with the connection to the Internet. That is why a great deal of studies has been carried out to investigate the effects of computer-based or web-based language learning in the educational environments.

Educators have also recognized the potential of technology as an instructional tool in foreign language teaching and its application is increasing too (Donmus, 2010). They asserted that technology is able to generate either collaborative (Fowler, et al., 1996; Resta & Laferrière, 2007) or independent (Hoic-Bozic, et al., 2009) learning environment in which learners can practice and learn a new language. Accordingly, the combination of technology into language education has become a daily event, and the educational multimedia courseware is produced largely as reference subjects to promote English language teaching and learning (Yunus, et al., 2010). Moreover, usage of the Internet in language teaching has been considered a serious methodology. Hismanoğlua (2010) emphasized that besides its technological function, the Internet can also be used as a pedagogical tool for improving language learning and teaching.

The recent Internet- based technologies employed in foreign language instruction is Web 2.0 tools. The most common tools of Web 2.0 include wiki, blog, podcast, social network and video conferencing have demonstrated the capability of the current technology in language teaching and learning. Studies have revealed that wikis are useful tools for learning and teaching as they provide collaborative writing (Cress & Kimmerle, 2008). Likewise, blogs or text formatted journal entries by users, can improve writing skills, promote active learning, and provide feedback for students and teachers (Alexander, 2006; Seitzinger, 2006). Language learners normally use blogs in their classes to enhance both writing and reading skills (Sarica & Cavus, 2009).

Apart from wikis and blogging, social networking is a good opportunity for language learners to improve their writing and reading ability especially when they type messages or read them (Sarica & Cavus, 2009). Lam (2000) confirmed the potential of online messages to boost the writing ability of ESL learners and stated that online exchanges and discussions via the web and email messages may enhance the students' writing skill. Language teachers were the first to acknowledge the benefits of the application of social networking tools in foreign language acquisition. In order to engage in the best practices for continuous professional development, these teachers set up the first communities of practice (Pop, 2010). Totally, modern technologies can be considered as infrastructures for wide spreading distance education.

#### 3. Distance Education

Historically, distance education has not been isolated from the use of technology to support learners and learning. Nipper (1989) classified three different generations of technology use over distance education in the twentieth century. According to him, the initial emphasis was solely on the print-based model of teaching. Later in the mid-century, multimedia teaching was integrated with the use of print with broadcast media, cassettes, and micro-computers. Finally, in the third generation towards the end of the twentieth century, new interactive communication technologies with previous methods are widespread. Nowadays, distance education offers a variety of digital technologies, including websites and digital libraries as well as communication tools such as email, virtual learning environments (VLEs) and the recent application of social networking and blogging. This is referred as 'social media' and it relies on free shared digital content that is authored, critiqued, and reconfigured by the community of users rather than individuals (Lee & McLoughlin, 2010).

Apart from computer-based technologies in distance education, mobile learning has been considered as a worthy tool in distance education. Mobile phone is a more popular technology because a majority of individuals own mobile phones which are equipped with services such as Bluetooth, Wireless Internet (Wi-Fi), General Packet Radio System (GPRS), Global Systems for Mobile (GSM) and multimedia message (MMS). Mobile learners are then presented with direct access to the information they require on their mobile phones. These properties have initiated the educators to incorporate this system in the distance education program. The innovation of mobile devices has

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changed the shape of English language teaching and learning by focusing on portable devices known as "mobile learning" or M-learning system. M-learning has constructed a different learning environment such as Personal Learning Environment (PLE) and Virtual Learning Environment (VLE) which have considered as an exclusive teaching and learning approach (Dawabi, et al., 2003).

# 4. Mobile Learning

The creation of mobile devices such as cell phones, PDAs, IPods and podcast has demonstrated that technology-based pedagogy is employed rather extensively in some academic environment. Although mobile learning is gradually being accepted in not many educational settings, its advantages cannot be overlooked.

Mobile learning is defined as any service or facility that contributes to acquisition of knowledge regardless of time and location (Lehner & Nosekabel, 2002). According to Vavoula and Sharples (2002) learning can be considered mobile in three different contexts: learning is mobile in regard to space, it is mobile due to the different places, and it is mobile in terms of time. Hence, mobile learning system can deliver education to learners anytime and anywhere they need it. M-learning is limitless in terms of the content and geographical extent, so, this offers dispersed virtual classrooms accessible any time (Jalalyazdi, et al., 2009). Another variety of M-learning which is applied exclusively for language learning is called Mobile assisted language learning (MALL). Although, this is an illustration of technology- based language learning, it is different than computer assisted language learning (CALL) because it focuses on the "continuity or spontaneity of access and interaction across different contexts of use (Kukulska-Hulme, 2009, p. 162).

The novel model of mobile learning creates various learning environment since students can download applications synchronously or asynchronously. They can also access notifications, weekly activities, feedbacks, assignments, their courses, online libraries, grading reports and these have increased their interest in studies (Kristoffersen & Ljungberg, 1998). Individual learners who are engaged in this type of learning can personalize their learning environments by deciding where and when to learn. Furthermore, to develop mobile learning activities, instructional designers should pay special attention in creating and managing the knowledge database such as the vocabulary databases, reading materials, and learning materials including audio or video files. In the meantime, accessibility and technical connection problems are the most important considerations (Park, 2011). Chang (2010) claimed that mobile learning is an audio-based learning project that allows learners to participate in an asynchronous learning discussion on mobile devices instead of the text-based discussion. In other words, learners can download audio files recorded by their peers and listen to these recordings while on the move. Since multimedia message services (MMS), an evolutionary form of short message services (SMS), can send not only text but also graphics, video, and audio clips. This project utilized audio-based learning in M-learning. They include:

- The lack of ability to search through a message;
- The availability of background noise;
- Difficulty in reviewing the recorded audio files.

However, he also presented the advantages such as:

- The flexibility of learning and
- Hands-free operation.

# 5. Mobile Varieties in Teaching English

There are currently several types of mobile learning devices that are in use. The following section elaborates them in more details.

# 5.1 PDAs

Personal Digital assistants (PDAs) are pocket-sized computers that are expandable with some hardware components

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like keyboards and wireless networks and can be equipped with software programs such as word processors, flash-cards, databases, and bilingual dictionaries (Houser, et al., 2002). Chinnery (2006) asserted that one of the primary roles of PDAs has been as a translator in a language-learning classroom. Other than that, software programs such as 'MobiLearn' have managed to convert PDAs into 'talking phrasebooks'. In this regard, Myers (2000) evaluated the achievements of Chinese learners of English using PDA translators. She discovered that the learners practiced saying new words by typing into the machine repeatedly. In order to recognize the word stems, they typed the full words into the machine. Gradually, they looked up for phrases and words in English and quickly their English spelling improved significantly. In addition, various projects have been implemented for using PDAs in language learning environments. For instance, Thornton and Houser (2003) developed an English idiom web site exclusively for mobile technologies that could offer definitions, illustrative animations and videos as well as multiple-choice questions. In their study, they found that students were successful in downloading and using this web site via PDA and mobile phones.

### 5.2 IPods

Another form of mobile devices is the IPod which was produced by Apple Company. It is a portable media player of digital audio files or MP3s that enables users to listen to them with high quality sound. The new version of IPods does not only provide audio. Students can download language learning software easily and share texts and images or audio/video files with their peers and teachers.

Several applications of the IPod in language learning have been discussed. For example, Belanger (2005) quoted the findings of a study done in Duke University through which freshmen students used IPods to submit their audio assignments, oral quizzes, record audio journals and obtain oral feedback from their lecturer. The activities employed by the IPods application have enhanced not only the listening activities, but also grammar and vocabulary construction and publication of students' work. An advanced feature of IPod, which is called "PodText", provides more potential for language learning (Shinagawa & Schneider, 2007). IPods application enables the practice of English language skills, for instance, voice recording and speaking/ listening exercises. Furthermore, listening to authentic materials such as songs and news in English is also possible via IPods. Not only that, writing skills can be enhanced when the instructor sends text messages and the students can read and answer those messages (Sarica & Cavus, 2009).

#### 5.3 podcast

Podcasting is also classified as a variety of M-learning. The term podcast is formed through the combination of IPod (portable digital audio player) and broadcasting. It is mainly digital audio programs that can be downloaded from the Internet (Usluela & Mazman, 2009). "Podcasting is a form of M-learning in which a device is used to listen to or watch an audio or video broadcast. Broadcasts are published on the Internet and automatically download on to a desktop or laptop computer" (Evans, 2008, p.492). Evans (2008) asserted that podcasting has a significant potential as a modern learning tool for adult learners in higher education. It is already widely utilized in language learning, especially for offering authentic content and the act of recording it. Myriad types of authentic podcasting are available for English language learners. For example, "Englishcaster" provides a list of podcasts specifically created for English language learners (Chinnery, 2006). Furthermore, in this regard some researchers like Stanley (2005) created a podcast applicable for teaching in EFL/ESL classes.

#### 5.4 cell phones

Short Message Service (SMS), voice-messaging, cameras, video-recording and even Internet access for cell phone users are practical for language learning. Chinnery (2006) believed that all of these features allow language teachers to offer access to authentic content, communicative language practice, as well as completion of tasks to the students.

A cell phone is the most popular and accessible mobile device in language learning as it is widely used by individuals regardless of their age and gender. Houser, et al. (2002) quoted the results of a study performed by Stanford Learning Lab on learning language via mobile phones. They provided some programs including translation

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of words and phrases, vocabulary practice, access to live talking tutors and quizzes. The findings of the study revealed that mobile phones were effective for quiz delivery carried out in small segments. It also concluded that quizzes and voice vocabulary lessons had great potential in the teaching and learning of language. Kiernan and Aizawa (2004) evaluated the effectiveness of course delivery on Japanese university students' achievement in EFL classes using mobile devices. The results of their study demonstrated that learning gained through task-based mobile learning including text messages, emails and speaking activities was satisfactorily achieved by the students. They found that second language acquisition is significantly enhanced through the application of cell phones as tools in EFL classrooms.

# 6. Conclusion

This paper has highlighted the application of a variety of mobile devices in the educational delivery, particularly in the field of TESL. Mobile devices like other technologies, at first appeared peculiar for pedagogical use but slowly, they have become a part of our life. Great changes in utilizing PDA, IPod, Podcast, and cell phone for the teaching and learning of languages have proven the potential of mobile technologies. Furthermore, related literature has identified the adoption of this technology by language teachers. Portability and wide access to mobile phones have made it more popular in education. A computer is perhaps more excellent than a mobile phone "for handling various types of information such as visual, sound, and textual information, but mobile phone is superior to a computer in portability (Yamaguchi, 2005). Hence, the integration of mobile learning with English teaching and learning may offer vast innovations in the coming days. Even though the utilization of mobile learning. Mobile learning applications in language learning has its advantages and its potential should not be overlooked, for, the future holds great possibilities for this type of technological device for pedagogical use.

# References

Alexander, B. (2006). A new way of innovation for teaching and learning. Educause Review. 41(2), 32-44.

Belanger, Y. (2005). Duke University IPod first year experience final evaluation report. Retrieved from http://cit.duke.edu/pdf/IPod\_initiative\_04\_05.pdf

Chang, C.K. (2010). Acceptability of an asynchronous learning forum on mobile devices. *Behaviour and Information Technology*. **29** (1), 23-33.

Chinnery, G. M. (2006). EMERGING TECHNOLOGIES Going to the MALL: Mobile Assisted Language Learning. Language Learning & Technology. 10(1), 9-16.

Collins, T. G. (2005). English Class on the Air: Mobile Language Learning with Cell Phones, proceedings of the Fifth IEEE International Conference on Advanced Learning Technologies (ICALT'05).

Cress, U. & Kimmerle, J. (2008). A systemic and cognitive view on collaborative knowledge building with wikis. *Computer-Supported Collaborative Learning*. **3**,105-122.

Dawabi, P., Wessner, M. & Neuhold, E. (2003). Using mobile devices for the classroom of the future. In J. Attewell & C. SavillSmith (Eds.). *Learning with mobile devices Research and development*. (pp. 55-60) London: Learning and Skills Development Agency.

Donmus, V. (2010). The use of social networks in educational computer-game based foreign language learning. *Procedia Social and Behavioral Sciences*. **9**, 1497–1503.

Evans, C. (2008). The effectiveness of M-learning in the form of podcast revision lectures in higher education. *Computers & Education*. **50**, 491–498.

Fowler, T., Gasen, J., Roberts, L. & Saltzberg, S. (1996). Collaborative Learning Using Technology: Issues and Approaches, proceedings of the conference, "Broadening Our Horizons: Information, Services, Technology pages

#### 8-8-1+.

Guerrero, L. A., Ochoa, S., Collazos, C. (2010). A mobile learning tool for improving grammar skills. *Procedia Social and Behavioral Sciences*. **2**, 1735–1739.

Hismanoğlua, S. (2010). Telling ELT Tales out of School, Attitudes of L2 teachers towards Internet-based foreign language teaching. *Procedia Social and Behavioral Sciences*. **3**,106–111.

Hoic-Bozic, N., Mornar, V. & Boticki, I. (2009). A Blended Learning Approach to Course Design and Implementation. IEEE Transactions on Education. **52** (1), 19 - 30.

Houser, C., Thornton, P. & Kluge, D. (2002). Mobile learning: Cell phones and PDA's for education, *Proceedings of the International Conference on Computers in Education*. **2**, 1149-1150.

Jalalyazdi, M., Hosseini Seno, S. A., budiarto, R. (2009). A New Distributed Resource Management in Mobile Grid for M-learning. *World Applied Sciences Journal*. **7** (Special Issue of Computer & IT), 107-114.

Kiernan, P.J. & Aizawa, K. (2004). Cell phones in task based learning: Are cell phones useful language learning tools? *ReCAL*. **16** (1), 71-84.

Kristoffersen, S. & Ljungberg, F. (1998). "Representing modalities in mobile computing", *proceedings of Interactive applications of mobile computing*.

Kukulska-Hulme, A. (2006). Mobile language learning now and in the future. In: Svensson, Patrik (ed.) Från vision till praktik: Språkutbildning och Informationsteknik (From vision to practice: language learning and IT) (pp. 295–310).Sweden: Swedish Net University (Nätuniversitetet).

Kukulska-Hulme, A. (2009). Will mobile learning change language learning? recall for European association for computer assisted learning. **21** (2), 157-165.

Lam, W.S.E. (2000). L2 literacy and the design of the self: A case study of a teenager writing on the Internet. TESOL Quarterly. **34** (3), 457–482.

Lee, M. & McLoughlin, C. (2010). Beyond distance and time constraints: Applying social networking tools and Web 2.0 approaches in distance education. In G. Veletsianos (Ed.), *Emerging technologies in distance education* (pp. 61–87). Athabasca: Athabasca University Press.

Lehner, F. & Nosekabel, H. (2002). The role of mobile devices in e-learning first experience with e-learning environment. *Wireless and Mobile Technologies in Education Proceedings*. IEEE International Workshop, 103 – 106.

Md. Yunus, M. M., Hashim, H., Embi, M. A. & Lubis, M. A. (2010). The utilization of ICT in the teaching and learning of English: 'Tell Me More'. *Procedia Social and Behavioral Sciences*. 9, 685–691.

Myers, M. J. (2000). Voice recognition software and a hand-held translation machine for second-language learning. *Computer Assisted Language Learning*, **13**(1), 29-41.

Naismith, L., Lonsdale, P., Vavoula, G., & Sharples, M. (2004). Report 11: Literature review in mobile technologies and learning. Futurelab series. Bristol: Futurelab.

Nipper, S. (1989). Third generation distance learning and computer conferencing. In R. Mason & A. Kaye (Eds.), *Mind weave* (pp. 63–73). Oxford: Pergamon.

Ogata, H., Yin, C., Paredes, R. G., Saito, J. N. A., Yano, Y., Oishi, Y. & Ueda, T. (2006). Supporting Mobile Language Learning outside Classrooms, *proceedings of the Sixth International Conference on Advanced Learning Technologies* (ICALT'06).

Park, Y. (2011). A Pedagogical Framework for Mobile Learning: Categorizing Educational Applications of Mobile Technologies into Four Types. *Journal Help.* **12** (2).

Pop, A. (2010). The impact of the new technologies in foreign language instruction our experience. *Procedia Social and Behavioral Sciences*. **2**, 1185–1189.

Resta, P. & Laferrière, T. (2007). Technology in Support of Collaborative Learning. Educ Psychol Rev. 19, 65-83.

Sandberg, J., Maris, M., Geus, K. de. (2011). Mobile English learning: An evidence-based study with fifth graders. *Computers & Education*. **57**, 1334–1347.

Sarica, G. N. & Cavus, N. (2009). New trends in 21st Century English learning. *Procedia Social and Behavioral Sciences*. 1, 439–445.

Seitzinger, J. (2006). Be constructive: Blogs, podcasts, and wikis as constructivist learning tools [Electronic Version]. *Learning Solutions e-Magazine*, p: 15.

Shinagawa, S. & Schneider, K. (2007). Podcasting and IPod in language learning. Paper presented at the annual meeting of the American Council on the Teaching of Foreign Languages, Henry B. Gonzalez Convention Centre, San Antonio, TX, available at: http://www.allacademic.com/meta/p174612\_index.html.

Shohel, M. M. C. & Banks, F. (2010). Teachers' professional development through the English in Action secondary teaching and learning program in Bangladesh: Experience from the UCEP schools. *Procedia Social and Behavioral Sciences*. **2**, 5483-5494.

Stanley, G. (2005). An Introduction to podcasting for EFL/ESL teachers. Retrieved from: http://blog-efl.blogspot.com/.

Thornton, P. & Houser, C. (2003). Using mobile web and video phones in English language teaching: Projects with Japanese college students. In B. Morrison, C. Green, & G. Motteram (Eds.), *Directions in CALL: Experience, experiments & evaluation* (pp. 207-224). Hong Kong: English Language Centre, Hong Kong Polytechnic University.

Usluela, Y. K. & Mazman, S. G. (2009). Adoption of Web 2.0 tools in distance education. *Procedia Social and Behavioral Sciences.***1**, 818–823.

Vavoula, G. & Sharples, M. (2002). Requirements for the design of lifelong learning organisers. *Proceedings of the European Workshop on Mobile and Contextual Learning*. 23-26.

Yamaguchi, T. (2005). Vocabulary learning with a mobile phone. Program of the 10th Anniversary Conference of Pan-Pacific Association of Applied Linguistics, Edinburgh, UK.

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