

# Mobile Learning: Taking Education to a New Level

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Technological advances are taking a major role in every field of our life. Today, younger generation is more attached to technology, immerging it mostly for social purposes. Therefore, the importance of its existence cannot be ignored. For that, it is the time for every mentor to apply technology to education. Instructors from different majors need to realize that integrating technology into education is a powerful tool that helps them moderate their course, but never a replacement to their existence. This paper's interest is to deliver a personal experience to other instructors on how to correctly use technology for educational purposes. One way of clarifying this point is to shed light on a very common social application that is WhatsApp. It is a social application available on every smartphone that is usually used as a social medium among users from different generation. This paper used WhatsApp as an application that can associate technology with learning and teachers' moderation and collaboration under one roof, and that is by applying Mobile learning. One main question to rise at this point is whether students are going to be collaborative or not with their teacher in applying technology into education. There will be an anticipated approach from this paper on both Mobile learning and WhatsApp, that is to reach an agreement that Mobile learning is essential and adds value to the educational material we have in hand. Great examples from my own data are going to be presented to encourage others to predict new ways that can be added to my effort and others as well. The result hoped for after this paper is to be able to answer any digital immigrants' questions and help them to be more confident with technology.

Keywords: Mobile learning, WhatsApp application, technology and education, language learning

# Introduction

Downloading, uploading, and applications are common words nowadays; they apply in many tasks in our daily life, which is why it is becoming increasingly difficult to ignore the importance of Mobile technology. A considerable amount of literature has been published on Mobile learning. However, most studies have only been carried out in small areas that can be considered partly generalized. Debate continues about the best way to describe what Mobile learning is. Furthermore, most studies in the field have only focussed on what the Mobile learning can offer rather that what the user receives. Moreover, what lacks in research is the impact of Mobile learning on teachers and traditional classroom. For that, this paper will discuss Mobile learning by viewing previous studies and definitions. The main purpose of this study is to develop an understanding on how can Mobile learning be used in language learning. However, another potential problem is that the scope of Mobile learning may be too vague up to this date. The study arose from my interest to contribute with my own experience in applying Mobile learning while teaching in Kuwait since 2008.

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Therefore, the overall structure of the study takes the form of eight parts, including this introductory part. The second part is the literature review, where it begins by laying out the theoretical dimensions of the research supported by previous studies. Then, the third part will discuss what Mobile learning is according to different investigators. The fourth part is going to represent the main types of Mobile devices. Moreover, the advantages and disadvantages of Mobile devices for Mobile learning are going to be drawn upon in the fifth part. The sixth part however is going to view the possibilities for using Mobile devices in language learning. Also, a compare and contrast on what can be done with a Mobile devices and desktops when it comes to language learning is discussed in the seventh part. Finally, areas for further research are identified in the conclusion with a brief summary and critique of the findings.

# **Literature Review**

In previous years, most portable devices had their limited applications, and the Internet was much slower than it is now. When language learning first started using technology, there were several limitations due to the limited features that these devices had at that time (Godwin-jones, 2011). Although Mobile devices are commonly used for personal reasons, they are increasingly becoming widespread in many sectors like banking, economy, and tourism (Lakhal, Khechine, & Pascot, 2007; Hew, 2009). When the hardware arrived to the world, new features were introduces like a larger keyboard, advanced web browsers, faster processors and Wi-Fi, a large built-in storage, Bluetooth, and USB ports. Those features made it easier to the learner to use a portable device in learning (Godwin-jones, 2011). Generally, most of the studies if not all focused on two areas, the first is to test how affective Mobile learning can be once applied to education. For that, Researchers made studies on how learning tasks may be taken outside the classroom, thus making Mobile learning a continuous process and a way to motivate and interest the learner (Ozdamli & Cavus, 2011). The second was to design new systems and frameworks that are recently launched, and test the learners' reaction towards a new way of learning. Both studies revealed positive results (Wu, Wu, Chen, Kao, Lin, & Huang, 2012). The tests were successful as they were able to identify student's reaction towards Mobile devices. In future investigations, it might be possible to investigate more on the students' idea on learning via a Mobile device rather than just comparing results.

Furthermore, another experimental study on a new way of learning using Mobile technology called *Here* and Now Mobile Learning, two groups, CBI (Computer Based Instruction) group, and the iPad/iPod group were in a study to learn about an art content. The results were in favour of the iPad/iPod group in terms of attitude, where higher results in achievements were found in favour of the CBI group. One way to analyse the results of the study is that students from the iPad/iPod group were highly motivated and interested in the Mobile technology. Martin and Ertzberger (2013) performed a study that applied instructional methods to compare between desktops and Mobile devices. The results could not reveal whether Mobile devices are better than desktops because of the inconclusive results, yet still the results were able to show that learners with Mobile devices such as iPads are more encouraged to continue learning in what it is called "informal environment" rather than a desktop in a "formal" environment (Sung & Mayer, 2013). Together, these studies outline that enthusiasm can be a main factor for positive results in using Mobile learning.

Overall, the number of articles on Mobile learning has increased from 8 to 36 in five years from 2003 to 2008, and new devices are competing with newer features that encourage investigators to consider the development of the educational applications (Wu et al., 2012).

However, several questions remain unanswered at present, and further studies with more focus on other areas in Mobile learning are therefore suggested.

#### What Is Mobile Learning?

It is very hard to find a clear definition for Mobile learning. One reason is the gradual development of Mobile devices. A fixed definition remains vague because of the rapid and ambiguous explanation whether the word "Mobile" refers to the mobility of the device, or the mobility of the user of the device, where both can be equally important (Hashemi, Azizinezhad, Najafi, & Nesari, 2011). Also, it is rare to find Mobile learning standing on its own with its conspicuous characteristics. It is mostly context dependant, merged with a bigger title such as e-learning, or simply defined by an individual's own experience (Sharples, 2006). Whereas Sandberg, Maris, and Hoogendoorn (2014) suggested that Mobile learning differs from classical classroom learning, for that it can stand on its own creating its own path and name. For that, there have been no controlled studies that compared the differences, which gives an abundant room for further progress in that area. Regardless of the vagueness, researchers have tried to facilitate what Mobile learning is in different words. According to Ian and Sie (2010), Mobile learning is a way that allows learners to use Mobile technology along with the Internet to reach learning materials at their preferred time and place (Ozdamli & Cavus, 2011). While Low and O'Connel (2006) simply believe that Mobile learning is a source of freedom and flexibility to learners (Ozdamli & Cavus, 2011). Others believe that Mobile learning enhances educational awareness through Mobile devices (Sandberg, Maris, & De Geus, 2011). Mobile learning was also described by Laurillard and Pachler (2007) in words like adaptive, investigative, communicative, collaborative, and productive. Whereas others defined Mobile learning as a way to keep the connection with instructors, classmates, and the instructional resources.

Also, Mobile learning is covered mostly in three different areas; *Macro*, where it reflects how society and institutions handle the growth of Mobile learning, another is the *Meso*, which covers how Mobile learning can be in parallel with a traditional learning process. Finally comes the *Micro* that clarifies when and where Mobile learning can be important to the individual (Sandberg, Maris, & De Geus, 2011). Above all, some researchers like Sharples (2006) think that Mobile learning is the "informal" version of traditional formal learning. Other researchers also believe that Mobile learning is a "subdivision" of e-learning, simply because it can be used whether face-to face with others (e.g., classrooms), or from a distance (e.g., online) (Chinnery, 2006). In addition, Salaberry (2001) argues that applying technology to education cannot replace traditional instruction, and that technologies can only be considered as "instrumental tools". Previous studies suggest that Mobile learning is all about the user's own way of explanation depending on their why and where they use the Mobile device.

# **Main Types of Mobile Devices**

The access to different materials online and the ability to communicate with others is an easy task today, simply by having a wireless and Internet on a Mobile device (Wu et al., 2012). A learner must use at least one of the main devices for Mobile learning such as: *Notebook Computers*, where the learner has the features of a desktop with the ability to be portable, easy to carry, and smaller in size. Another device is the *Tablet PC*; and above their high prices, they are still widely used. *Tablet PCs* also have the features of a desktop, although some may not have keyboard, they are replaced with a feature that enables a handwriting recognition. Another

device is *PDA* (Personal Digital Assistant); thanks to the operating systems *Palm* and *Microsoft Pocket PC*, the device has a higher processor speed compared to the previous ones, along with the ability to play different kinds of multimedia files. Then there are *Mobile phones*, which are commonly used almost by everyone today. They come in different prices as well as different features. The cheapest device has the ability to make voice calls, also to send and receive text messages (SMS). Finally we have *Smart phones*; they come in higher prices, with features like multimedia messages and the access to the internet through GPRS or WAP. It is reasonable to say *Smart phones* are a combination of all the other Mobile devices. Moreover, because of their gradual usage, prices are becoming reasonably affordable.

Furthermore, all the previous devices can share the same communication technologies such as GSM (Global System for Mobile Communication), WAP (Wireless Application Protocol), GPRS (General Packet Radio Service), and Bluetooth (Georgiev, Georgieva, & Smrikarov, 2004). Since the aim of this paper is to focus more on the benefits and practical issues for Mobile learning on language learning, therefore, the devices are discussed briefly. As a starting point, it is important to shed the light on the advantages and disadvantages that these devices may have and their effect on the learner in the language learning.

# **Advantages and Disadvantages**

Now that Mobile technology is increasingly used in educational institutions, one must consider both advantages and disadvantages that may result when using mobile devices, whether they are technical or social. Those are mentioned in the coming paragraphs.

#### Advantages

The prior advantage in having portable devices is the ability to use it anytime and anywhere, with the option given to learners of the way they want them to be used (Sandberg, Maris, & Hoogendoorn, 2014), which means that having the digital learning in a portable device can release the user from being bounded to a particular place (Sandberg, Maris, & De Geus, 2011). Learners can find themselves free in an unexpected moment, and by having a Mobile device, they can access the Internet, write down notes, or simply read an e-book (Ozdamli & Cavus, 2011).

According to previous studies, facilities and functions that come along with the Mobile devices such as SMS, built in cameras, voice recording and multimedia messages showed positive results in the learning process (Godwin-jones, 2011). Moreover, those features can create a communicative language practice that helps in accessing an authentic content and leads to a task completion (Chinnery, 2006). A learner can choose between different ways to learn a particular subject, whether in form of video, reading, or taking tests online. It can all be accomplished by allowing the learner's possibility to habituate the preferable learning material in a preferred context (Sandberg, Maris, & De Geus, 2011).

Also, with the advantage of GPS in Mobile devices, the learner has the privilege to learn more about locations (Georgiev, Georgieva, & Smrikarov, 2004). In terms of communication, a Mobile device can instantly ease the possibility of the learner to communicate with other learners from a different part of the world; they can ask questions or receive feedback via social networking applications in a click of a button. Compared to the features Mobile devices offer, their prices are affordable.

#### Disadvantages

Just like any other technology, Mobile learning has its own disadvantages. One of the common issues was the small screens with low resolution (Godwin-jones, 2011). Another disadvantage is the poor quality of the audio input, which can cause some discomfort to the learner (Godwin-jones, 2011). Although, there have been some improvements made with the release of new Mobile devices. For that, future studies on the current audio input of Mobile devices are therefore recommended. An awkward text entry is another drawback, and it can also be time consuming (Godwin-jones, 2011; Chinnery, 2006). Some investigators may consider the independency that the Mobile device have can actually affect negatively on the learner. Therefore, teachers must bear in mind its practical issues (Bidin & Ziden, 2013).

Others consider the freedom that a Mobile device has can actually affect negatively on the learner. The fact that usage differs from one learner to another makes its usefulness differ depending on the learner's degree of interest in language learning, and a learner can use a certain application for only a certain period of time (Sandberg, Maris, & Hoogendoorn, 2014). For that, more research needs to be undertaken on how affective Mobile learning is at home to help us realize the dimensions of this issue (Sandberg, Maris, & Hoogendoorn, 2014).

Also, one must consider the necessity to sporadically charge the device, which can be a serious drawback (Georgiev, Georgieva, & Smrikarov, 2004). There are other issues there to be considered beyond the technical ones. Obstacles like the withdrawal from the cultural context can cause psychological concerns on the learner, which can lead to a narrowed communication with others (Chinnery, 2006). Another disadvantage that may affect more on language learners in particular, is the fact that Mobile devices are shifting in their technologies to visual rather than verbal outputs. This particular reason is considered to be negative because it can lack the learner's potentials (Chinnery, 2006).

# Possibilities for Using Mobile Devices in Language Learning and Practical Issues

It is said that applying technology in education is no longer a new aspect, and thanks to web-based learning activities available online, educational institutions turn their attention to Mobile learning along with e-learning (Vinu, Sherimon, & Krishnan, 2011).

According to Chinnery (2006), previous universities have used Mobile phones for vocabulary practice, quizzes, words and phrases trans, and even for live talking tutors. The results revealed that the success was when the quizzes were in smaller portions, and approved the effectiveness of live tutoring. Just like any other method, there were some practical issues like the poor audio quality, and the fact that the screens were smaller than a desktop screen, yet still assumed to be reasonable to use for regular practice (Chinnery, 2006).

In terms of educational levels, considering education and language learning in particular, a learner might need an instant respond when it comes to certain activity, for that, the fact that it is possible to practice some activities outside the classroom with a portable device can cause difficulty in language learning, and may require the need of a teacher's instant explanation (Sandberg, Maris, & De Geus, 2011). The possibility of using a Mobile device outside the classroom can actually worries the teacher, simply because the learner might understand a certain teaching material differently (Sandberg, Maris, & De Geus, 2011). As a result, false information might be received according to the mislead experience with a Mobile device outside the classroom. However, using technology in learning has been of great help to decrease the classroom pressure, supporting

the suggestion that it can be considered more of a continuum to the formal learning process (Sandberg, Maris, & De Geus, 2011).

Not to ignore the fact that Mobile learning eradicates distances allowing the contact with foreign individuals or groups from all around the world and helps them to learn from each other (Ozdamli & Cavus, 2011). The fast updates and new released features have helped in applying Mobile technology in educational institutions, and boosted them to be up to date in their applied technologies (Bidin & Ziden, 2013). In fact, both rapidness and the new technological development have helped researchers continue to fulfill their approach for a better Mobile language learning (Wu et al., 2012). For that, the expeditious change in Mobile technologies gives no option for education but to catch up and use these technologies and let it be part of the educational journey (Ozdamli & Cavus, 2011). Moreover, Mobile learning is a successful way of introducing new educational materials to achieve the information needed (Bidin & Ziden, 2013).

To have a successful Mobile learning, fundamentals and materials are supposed to interplay in a way that creates reasonable educational results that can be conveniently reached. Features like multimedia in Mobile devices have helped in accessing resources that can be highly enriched with educational information (Ozdamli & Cavus, 2011), and these resources can actually help in language learning. Once Mobile devices are used in the language learning, it is going to be possible with the availability of wireless to stay notified and acknowledged with any course announcements, also to be able to share these information with other learners and sometimes in some courses, a test can be taken online (Ozdamli & Cavus, 2011). Overall, basic elements such as the features of the device, the usage of the device, and the functionality of the device are highly important to know whether to meet a learner's expectations or not (Bidin & Ziden, 2013). That is why further work is required to establish these elements.

#### Usage

A generation that spent their lives multitasking with a variety of Mobile devices and surrounded with technology are called "Millennials" (Taleb & Sohrabi, 2012). Technology is a main part in millennial students' daily routine by staying connected and for that physical attendance can be replaced in certain circumstances with a Mobile device (Taleb & Sohrabi, 2012). Such generation is willing to accept the idea of using Mobile learning, but the question remains whether it is better to use it in the classroom or outside the classroom. Further investigations are discussed as follows.

In the classroom. The fact that the new generation is increasingly attached to Mobile technology has helped in their education (Bidin & Ziden, 2013). Moreover, new aspects of education may include new techniques for technology where various applications come in handy (Bidin & Ziden, 2013). On the other hand, some researchers believe that Mobile technologies are considered to be an "extension" rather than a replacement of formal education. To support the previous contention, investigators believe that some basic educational activities are not suitable on Mobile devices and must be introduced in the classroom (Bidin & Ziden, 2013). Features like the input mechanism is quite limited in Mobile devices, which means that instant responds to the learner's questions can be a difficulty in comparison with a real teacher in the class room (Sandberg, Maris, & De Geus, 2011), yet still, it depends on what kind of work the user and the teacher are after; instant responds can be quite informative to certain tasks.

Supplements to the classroom. Some researchers believe that Mobile learning is more related to the learners' mobility, where an option is given whether to be used in a classroom or outside the classroom (Bidin

& Ziden, 2013). One study used several activities that were aimed at the benefits of learning outside the classroom. Activities were used such as observing plants or examining the impact of delivering competency based assessment by using *PDA's*. All results were in favour of the Mobile technology which approved the feasibility of using mobile technology in the educational field (Bidin & Ziden, 2013). While some researchers think that enthusiasm for a new experience might be a great factor for positive results, which means it might be just a temporary reaction (Bidin & Ziden, 2013). Others believe that Mobile learning comes hand in hand with e-learning only with extra features that enable the learner to access the educational content anytime and anywhere from a Mobile device, and since there has been increasing improvements on the wireless in Mobile devices, especially with improvements in wireless technology, that actually opens up chances and puts Mobile learning on the map of Mobile technology (Taleb & Sohrabi, 2012).

Students with low scores in some activities and methodologies have actually received higher scores and general improvement once using the facilities in Mobile learning, which was found more with learners in a younger age (Wu et al., 2012). When it comes to using Mobile technology in learning outside the classroom, we are exposing the learner to what is called "informal" learning. "Informal learning" is basically allowing the learner to learn without any instructions from the teacher (Martin & Ertzberger, 2013); others also see "informal learning" as a way of learning without realizing the fact that they are (Martin & Ertzberger, 2013).

How can Mobile technology be useful in education: A personal experience. We must bear in mind the new generation's abilities when it comes to Mobile technology and apply educational materials to Mobile devices in a way that meets their expectations (Bidin & Ziden, 2013). Once that is accomplished, Mobile learning is going to make it possible to learners to view a certain computer-based activity through a Mobile device at their preference of time and place (Taleb & Sohrabi, 2012).

Other researchers believe that Mobile learning is considered to be a source of motivation, and that is by encouraging learning to use the Mobile technology for a certain learning task (Taleb & Sohrabi, 2012), which encourages me as well as an EFL teacher in Kuwait to apply one way of Mobile technology to my class.

My experience for applying Mobile technology in my class was mainly to communicate with my students. It appeared to be very useful from the first time it has been used. I have created a group via WhatsApp (see Figure 1), a Mobile phone application that is commonly used in Kuwait under the category of Social Networking. The application is compatible with smart phones and used either by 3G or Wi-Fi. WhatsApp offers the ability to create a group with a number up to 50 members per group (see Figure 2), and the classes I taught had only 28 students. I provided my students with my work contact number, and selected certain hours of the day to answer their questions if they had any. I have also used the application to send announcements and notifications such as reminders on exams and assignments. The students seemed to be active and up to date and they rarely forgot any work required. Also, the use of WhatsApp broke the formality of a traditional classroom since it was usually used for social networking, and students were in less stress and participating more in the classroom.



Figure 1. Creating a group on WhatsApp.

Figure 2. Creating a group on WhatsApp.

Another way where I used Mobile technology was through E-mail. E-mail was created specifically to communicate with my students, also to send any documents that students have missed in class as a result of their absence in a PDF format file or a Microsoft Word file. For that, I am willing to apply Mobile technology in language learning as a supplement.

There is no doubt that Mobile technology can offer a lot of facilities to teachers and learners, but again depending on what the teacher and the learners are after, with taking into consideration all practical issues mentioned and the context where it is going to be offered.

#### **Mobile Device or a Desktop?**

In order to come to an answer on whether a Mobile device or a desktop can perform better in language learning, it is worth it at this point viewing what they can both offer. The possibility of having the digital learning in a portable device can free the user from being bounded to a particular place in a particular time. In other words, it is simply portable (Sandberg, Maris, & De Geus, 2011). While that is an advantage, bigger screens on desktop can make it more practical (Sandberg, Maris, & De Geus, 2011). In fact, when it comes to professional use, some Mobile learning devices may not be as useful as expected, and the applications can be quite limited in their options (Sandberg, Maris, & De Geus, 2011), where in that case, using desktops can be more convenient.

Moreover, a Mobile device with all its features is considered to be cheaper than a high standard desktop (Taleb & Sohrabi, 2012). Yet still, desktops do not require a lot of accessories to purchase, things like the speaker, mouse, and keyboard are usually included in the price of the desktop, while you have to buy them as

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separately once you decide to have a Mobile device. Also, desktops generally come with bigger memory storage when compared with Mobile devices where you have to purchase an external memory to increase the storage on the device (Woodard, 2011). For that, Mobile devices with its original memory capacity can and restrict their work (Godwin-jones, 2011). On the other hand, iPhone for example can display a web page identically as it is on a desktop, with the ability to enlarge the screen with a simple double tap on the touch screen (Wu et al., 2012).

Overall, it is difficult to assume whether a Mobile device is better than a desktop or the other way around. In a study in South Korea, results were supporting the use of Mobile learning and students found it corresponding to desktops (Sung & Mayer, 2012). In contrast, in a study on students from USA, it was found that they preferred to use desktops to Mobile devices (Sung & Mayer, 2012). It is quite hard to decide which one is better simply because it depends on the when and where a Mobile device or a desktop is used. For that, further studies, which take these variables into account, will need to be undertaken.

## Conclusion

This paper has given an account of and the reasons for the widespread use of Mobile learning. Moreover, literature mostly covered the features of the Mobile devices rather than the users' reaction and assumptions. The purpose of the current study was to determine how Mobile learning could be used in language learning. Mobile learning still needs improvement when it comes to applying it to language learning (Georgiev, Georgieva, & Smrikarov, 2004). This research has thrown up many questions in need of further investigation to know if the Mobile learning can replace a traditional learning. Researchers think that although new Mobile technologies are rapidly introducing applications that can help in language learning, yet still, a traditional learning will remain an important factor where the interaction is between a teacher and a learner (Vinu, Sherimon, & Krishnan, 2011). The evidence from this study suggests that it is almost impossible to replace a teacher's role completely with Mobile learning, but rather be used as a supplement tool whether inside or outside the classroom. Although the study has successfully demonstrated the idea behind Mobile learning in language learning, it has certain limitations in terms of assuming that it is a term that can stand on its own. Therefore, large randomised controlled trials could provide more definitive evidence.

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