

# Language Learning through Mobile Technologies: An Opportunity for Language Learners and Teachers

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## Abstract

These days, the innovations of technologies are contributing significantly to the quality of education in spite of their limitations. Mobile technologies are rapidly attracting new users, providing increasing capacity, and allowing more sophisticated use. Since they are becoming very accessible for individuals in most parts of the world, it has a great role in facilitating learning both in formal and informal context. Due to this, Mobile Learning (ML) was introduced and attracted the attention of educators in various academic institutions. When it comes to language learning, it is termed as Mobile Assisted Language Learning (MALL) approach as a way to be considered in the environment language learning. In line with this, various studies have been conducted in the contributions and related factors of MALL. Thus, this review carefully analyses the nature, the principles, the merits and demerits, and the challenges and opportunities with their pedagogical implications in the second or foreign language learning context.

**Keywords:** Language learning, Mobile phones, Technology

## 1. The Concept of Mobile Learning

Some scholars define mobile learning as a process of gaining knowledge through conversations across multiple contexts among people and personal using interactive technologies with a focus on contexts (Sharples et al., 2007). The technology to assist in this process includes any kind of handheld mobile devices such as cell phones, personal digital assistants (PDAs), smartphones, pads, pods, etc. Others define it as the use of mobile technologies in language learning, especially in situations where device portability offers specific advantages (Kukulska-Hulme, 2013). Mobile assisted learning includes devices ranging from MP3/MP4 players, smart phones, and e-book readers through to laptop and tablet computers.

As a whole, from the above definitions, it is possible to say that mobile learning is creating an interactive learning environment with multiple contexts using different kinds of applications which are available in the apparatus (mobile).

## 2. The Nature of Mobile Language Learning

Mobile language learning is a field that is quickly maturing, and to this end, a growing body of research has appeared that highlights the various ways in which mobile devices may be used in the teaching and learning of languages. Research has for the most part shed a very positive light on the potential of the role that mobile devices may play. At the same time, however, there has also been indication of several areas that certainly deserve consideration in their implementation.

The main features of mobile learning are accessibility, immediacy, interactivity and situating of instructional activities (Ogata & Yano, 2005). Accessibility refers to the extent to which every learner owes the mobile. These days almost most of the learners are having the technology regardless of the place they are living. In addition, as the technology is available in most places, except remote areas, learners can be connected and extend their opportunity to learn immediately. It is also possible for the learners to communicate each other around or with their colleagues and professionals in distant areas through the mobile which has different applications. Classroom instructions are expected to be contextual. Thus, mobile learning creates prospects to contextual learning which the connection provides.

## 3. Research Findings related Mobiles based Language Learning

There are various studies which have been conducted on mobile and their contributions to language learning. In addition, scholars forwarded their views regarding the significance of mobile to develop learners' language skills.

One of the traditional applications includes its use for the delivery of content for language learning. For example, researchers adopted text messages as a means of providing vocabulary practice for quizzes and surveys (Levy & Kennedy, 2005; Norbrook & Scott, 2003), and for mini-lessons (Thornton & Houser, 2001, 2005). One survey into the use of mobile phones revealed that Japanese learners preferred their mobile phones over desktop PCs or PDAs for exchanging emails. Mobile-based email has also been used to encourage vocabulary learning and web-based video clips have been used to learn idioms through mobile phones (Thornton & Houser, 2005). Moreover, Taiwanese learners found the mobile learning manageable as they could enjoy "bite-size-chunks" of learning contents through the relatively small screen (Chen, Hsieh & Kinshuk, 2008).

In addition to content delivery, other studies utilized mobile devices for the purpose of promoting learner-learner interaction. For instance, Dias (2002a) offered a web-board accessible via mobile phone so that learners could exchange text-based asynchronous exchanges. A theoretically significant feature of mobile devices lies in their potential for situated learning (Kukulska-Hulme & Traxler, 2005). As language learning does not only inside the classroom but also occurs outside of classroom, this also encourages context-driven learning. Moreover, mobile devices minimize the separation between in-class and out-of-class learning (Reinders & Lewis, 2009).

In terms of the gained linguistic knowledge and skills, most of the reviewed papers examine vocabulary acquisition, listening and speaking skills, and language acquisition in more general terms. The review finds several suggestions for language learning benefits in the use of mobile language learning, such as integrating the mobile technology in both formal and informal contexts; the 'fun' moment when engaging learners in authentic learning contexts; the learners' contribution to the creation of the learning content; the use of mobile devices to support the practice of achieving listening and speaking skills effectively etc. Often the usefulness of the mobile technology use for vocabulary acquisition is measured by surveying learners' attitudes. There are also a number of studies attempting to analyze the outcome in terms of learners' language proficiency. However, as most studies are implemented within a short period of time and involve a small number of participants, results are yet inconclusive in this respect.

Studies focusing on grammar learning, pronunciation and writing skills are underrepresented in the reviewed literature. However there are the papers which analyze mobile technology applications on language acquisition in general terms (Rosell-Aguilar, 2007; Hsu, 2012), often indicate positive attitudes towards the mobile technology use and suggest better results in terms of language proficiency. Very little attention is devoted to individuals' language learning strategies and learning styles when employing mobile devices for their language learning. This knowledge can have a crucial impact on both educators, when for example designing language learning activities adopting mobile devices (development of new applications and intelligent tutorial systems for mobile devices for language learners) and learners, as they can achieve higher proficiency.

#### **4. Merits and Demerits of Mobile based Language Learning**

It is often clear that technological innovations have great roles in promoting learning in various contexts. Learning through some technological devices enables the learners to learn in a non-classroom environment when they are at home in front of their personal computers online or offline.

However, learning through the mobile phone or mobile learning provides the learners with the opportunity to learn when they are in the bus, outside or at work doing their part-time jobs. In fact, they can learn every time and everywhere they are. The advantages of mobile based language learning are derived from the two main characteristics of mobile devices: portability and connectivity. As for connectivity, designing the mobile system must have capability of being connected and communicated with the learning website using the wireless network of the device to access learning material ubiquitously including short message service (SMS) and mobile e-mail.

Portability enables learners to move mobile devices and bring learning materials. It can be taken to different places due to small size and weight. The other opportunity of portability is social interactivity: exchanging data and collaboration with other learners is possible through mobile devices. In addition, context sensitivity which refers to the data on the mobile devices can be gathered and responded uniquely to the current location and time is considered as a merit. Connectivity refers to the potential of mobile devices to be connected to other devices, data collection devices, or a common network by creating a shared network. This is a potential advantage to get various inputs from different devices.

On the other hand, there are some disadvantages or limitations related to mobile learning which are common in mobile related language learning. Many of the mobile phones are not designed for educational purposes. That is, it is difficult for the learners to use them for the task given by the teachers to be carried out. This is partly due to the initial design of such devices, and partly due to non-existence of such developed mobile phones. However, those devices which are appropriate for specific learning tasks are too expensive for most of the learners to buy. Thus, teachers should be aware of what kinds of tools learners have, and then set to choose or adapt resources compatible to such tools. Other disadvantages include small screen size, limited presentation of graphics (Albers & Kim, 2001), and dependence on networks that may not always provide very high transmission capacity and may be subject to disturbances of many kinds.

#### **5. Key Considerations Mobile Assisted Language Learning**

In an effort to characterize mobile assisted language learning coherently, we look at it from the perspective of a framework dividing the relevant issues across three domains: physical, pedagogical, and psycho-social. Although there are points that are clearly relevant to each issue, these categories do not exist separately from one another; rather, they are necessarily interrelated and overlapping.

By the very nature of mobile language learning, the devices that are used are portable and relatively

small. While it is precisely these characteristics, along with the wide range of functionalities that modern mobile devices now possess, that contribute to these devices being carried by learners, they also have the potential to limit the ways in which the devices are used. It is not surprising that the most widely cited physical issues are related to the screen size and the methods of inputting (Thornton & Houser, 2001; Stockwell, 2008). Additionally, other issues such as storage capacity, processor speed, battery life, and compatibility of devices (in terms of both operating systems and transfer of large amounts of data) have also been raised as points needing consideration in implementing mobile devices in learning contexts (Koole, 2009).

As a pedagogical issue, one of the greatest challenges with mobile learning is to ensure that tasks are suited to the affordances of the devices used. In much of the early research into CALL, there was a tendency to see activities that were originally designed for pen and paper to be transferred essentially as they are. Thus, in many cases, early developers and practitioners did not take advantage of the potential interactivity afforded by computers. What we are tending to see with mobile devices is that many activities simply fall into the same trap of what came beforehand. Computer-based activities are essentially replicated without adequate consideration of the specific affordances of mobility (Godwin-Jones, 2011).

Finally, the psycho-social issues arise from the features of the mobile based learning. Mobile devices have certain features that distinguish them from many of the technologies that preceded them. Perhaps the largest distinction is the fact that unlike desktop — or even early laptop — computers, the primary function of mobile devices has been for personal and/or social purposes, as opposed to work or study purposes. When looking at the various applications installed on these devices, certainly almost without fail, there will be applications for communication with others, either individually or in a group, such as LINE, Twitter, or Facebook. There is also a large range of games available for most mobile platforms these days, and the number of downloads of such games is steadily increasing (Schroeder, 2011). The existence of such a range of personal and social applications implies that learners may not perceive their mobile devices as appropriate vehicles for learning.

Indeed, results regarding learner perceptions of social networking tools for language learning have been somewhat mixed. While Mok (2012), for example, has suggested that learners embrace social networking service sites to interact in the target language, other researchers have indicated that learners express reservations. Simply owning the device — or even the software or app — may not necessarily be an indication that they will automatically choose to use it for learning purposes, particularly when there is a link between that use and their online identity.

## 6. Conclusions and Pedagogical Implications

There are a number of generalizations found in mobile learning literature and research outputs that are important regardless of the content area focus. Herrington, Herrington, and Mantei (2009) present general design principles for mobile learning, and several seem especially relevant to language learning. These include providing time for exploration of mobile technologies, blending mobile and non-mobile technologies, using mobile learning both individually and collaboratively, and employing the learners' own mobile devices.

Mobile based language learning has its own advantages and limitations. There is a tendency in implementing mobile solutions, both broadly and locally, to sometimes uncritically focus on technology merits. Among the merits for technology in language learning that are particularly relevant to mobile environments are access, authenticity, and situated learning. However, these affordances are accompanied by challenges and limitations. For example, while mobile learning allows anytime/anywhere access, the learning experience on mobile devices may be degraded by a number of factors such as limited screen size...and the often distracting environments in which they are used.

Thus, mobile activities, tasks, and applications should distinguish both the merits and limitations of the mobile device, and the merits and limitations of the environment in which the device will be used in light of the learning target. Crucially, if the fundamental goal is language learning, then these affordances and limitations should be directly connected in a principled way to second language learning research and theory (Chapelle, 2001; Doughty & Long, 2003).

Most learners will need guidance and training to effectively use mobile devices for language learning. Hubbard (2013) makes a case for learner training in other domains of CALL, and there is no reason to believe that mobile language learning will be exempt from these challenges. Most of the preceding principles incorporate elements that are controlled by learners — teachers and developers may acknowledge them, but ultimately the implementation is in the hands of the mobile user. Learners unaware of the negative impact of multitasking or the environment in which they are using mobile devices, for example, need to be informed and trained in making their use as efficient as possible.

The other important pedagogical issue which must be considered is acknowledging and planning to accommodate language learner differences. As with other types of technology implementations, mobile learning should take into account a range of learning styles (Chun, 2001; Heift, 2002) as well as differences in comfort levels for learning in a public vs. a private space. For mobile devices, access issues such as visual acuity and

manual dexterity for smaller keypads and touchscreens are also prominent concerns.

Therefore, if language teachers are planning to use mobile learning to foster students' language skills, it is better to see the advantages and limitations of the method. In addition, they should introduce themselves with the features and characteristics of mobile based learning. They should also verify that the language content which they are planning to teach fits with the approach (mobile based learning) or not. Even, it is also important to check the nature of the students' mobile and its compatibility with the required applications.

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