AN INTRODUCTION TO MOBILE ASSISTED LANGUAGE LEARNING

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Abstract

Mobile learning suggests and supports the new concepts of learning such as ubiquitous-, augmented-, personalized-, online-, mixed reality-, context-sensitive-, informal-, and ambient learning and teaching. This paper aims to introduce Mobile Assisted Language Learning (MALL) and its potentials in language learning and teaching. MALL is a merging language teaching methodology which can effectively integrate listening, reading and speaking activities. It can also develop academic study, critical thinking and research skills. MALL is ideal for language learners who travel or commute very often and for those who want to have fun by learning English. Mobile phone is superior to a computer in portability – a very much valued feature by most young English language learners. Professionally developed materials can be delivered through mobile phones to improve English language learners' vocabulary acquisition and critical thinking skills. Students can read the definitions of words, sentences, improve pronunciation skills, and develop their thinking skills through quizzes. Useful MALL software as well as references are readily available and updatable online. This review paper will explore the theoretical foundations and applications of mobile learning in the literature and discuss the feasibility of employing this ubiquitous technology in language learning in Iranian EFL context.

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Introduction

Decades ago the concepts of learning and teaching was almost restricted in traditional classroom environments. Teachers' were presenting new knowledge for learners via text books and chalkboards in classrooms that were defining the context of learning (Beale, 2007; Klopfer, 2008). Not having sufficient control on the learners beyond classroom environments, abundant with authentic opportunities to gain knowledge, teachers were trying to establish predefined learning materials in classrooms.

By shifting the philosophies of learning and teaching to more complex and adaptive ones parallel to the growth of technologies have generated interactional and social-based approaches for learning and teaching. In continuum, new inventions such as audio recorders, VCRs, TVs, and projectors were utilized in classrooms. However, the turning point was by the advent of computer and internet technologies. These media provide opportunities for learning, teaching, and measurement both in classroom and out of classroom environments**.**

These changes entailed prefixes such as E-, Online-, Ubiquitous-, Personalized-, Virtual- for learning (Pachler & Cook, 2010). Meanwhile, new developments in information and technologies introduced portable and personal devices like mobile phones, personal digital assistances (PDA), and digital audio players. This opened a new concept and view of learning, namely Mobile Learning or M-learning (Bachmair, Pachler, & Cook, 2009). M-learning helps 'linking people in real world and virtual worlds, creating learning communities between people on the move, providing expertise on demand, and supporting a lifetime of learning' (Sharples, Milrad, Arnedillo-Sánchez, & Vavoula, 2009, p. 2.)

M-learning

Most devices used in M-learning contexts are mobile phones, PDAs, and audio players (Chinnery, 2006). Each of these devices carries specific attributes and functionalities, but the advances in mobile phone technology have covered other devices functionalities to some extent that makes it

a multi-functional and technology convergence device (Kress & Pachler, 2007). In addition, Kress and Pachler assert while mobile phones are popular and wide spread among young people, curriculum developers try to use them in educational environments. They are much cheaper and more available than their counterparts such as laptops, palm tops or desk top computers. They not only support the transmission and delivery of multimedia content but also support discussion and discourse, real-time, synchronous and asynchronous, using voice, text and multimedia (Kukulska-Hulme & Shield, 2008; Traxler, 2009).

There are some limitations with mobile phones to be used as educational devices. For example, reduced screen size, limited audiovisual quality, virtual keyboarding, and one-finger data entry are some of these limitations (Chinnery, 2006). However, the advances in technology are trying to solve these problems as they have introduced mobiles with bigger screen size and keypads that enables to have faster typing.

It is difficult to present a single definition, for it deals with many different areas of technology, learning and education (Pachler & Cook, 2010). In fact, M-learning deals with concepts such as spontaneous, opportunistic, informal, pervasive, private, context-aware, bite-sized, and portable that makes it difficult to have a clear conceptualization of mobile learning (Traxler, 2009). Pachler and Cook (2010, p. 6) define M-learning as "the processes of coming to know and being able to operate successfully in, and across, new and ever changing contexts and learning spaces with an emphasis on understanding and knowing how to utilize our everyday life-worlds as learning spaces."

History of M-Learning

Thirty years ago, Xerox Dynabook proposed a self-contained knowledge manipulator in a portable package that allowed children to explore, create and share dynamic games. This movement was the first steps to mobile learning (Kay, 1972). In the 1990s, using devices such as PDAs or laptops in educational contexts for training got more researches attention. However, it is only over the past ten years that mobile learning has developed as a set of significant projects in

schools, workplaces, museums, cities and rural areas around the world. These projects cover different aspects of mobile devices such as sending SMS to learners' mobile phones (e.g. Andrews 2003; Levy & Kennedy 2005; McNicol 2005; Norbrook & Scott 2003; Pincas 2004; and Thornton & Houser 2002; 2003; 2005), using multimedia functions of mobile (e.g. Carcia Cabrere, 2002), or making use of the Internet (e.g. Dias,2002a, 2002b; Thornton and Houser, 2003).

Mobile learning allows learners to access learning materials and information from anywhere and at anytime (Ally, 2009). Thanks to the wireless technology, mobile phones can be used for formal and informal learning where learners can access additional and personalized learning materials from the Internet. Educators can mobile phones to communicate with learners from anywhere and at anytime or deliver learning materials from anytime and anywhere to learners. Indeed, learners do not have to wait for a certain time to learn or go to a certain place to learn what is prescribed to them (Ally, 2009).

Mobile Assisted Language Learning

The advances in technology and wireless networking expanded the potentiality of mobile phones to be utilized in educational environments. In fact, they suggest communicative language practice, access to authentic content, and task completion but they are not in and of themselves instructors (Chinney, 2006). These attributes are best fitted for language teaching and learning. For instance, mobile phones can be used to send educational materials and contents to learners via Short Massage Services (SMS). On the other hand, some researchers (Colpaert, 2004; Beatty, 2003) contend that emphasis should be on learners since employing such a novel and unproven technology is a waste of time and money. However, these devices have generated a branch of studies that relates to language learning and mobile technologies named Mobile Assisted Language Learning (MALL).

Kukulska-Hulme and Shield (2008) noted that MALL differs from computer assisted language learning in its use of personal, portable devices that enable new ways of learning, emphasizing

continuity or spontaneity of access and interaction across different contexts of use. They separated studies about MALL into content-based (development of activity type and learning materials, the formal context of M-Learning) and design related models (development of leaning and materials and activities for mobile devices, the informal nature of M-Learning). Studies dealing with design issues seem to differ from the context based models in that they less emphasize on traditional educational paradigm that students are provided with materials by the teacher rather than allowing learners define their own learning and even provide materials to other learners. A review in studies related to MALL shows most of them have used SMS for learning vocabularies, taking quizzes and doing surveys.

Stanford Learning Lab developed Spanish study programs utilizing both voice and email with mobile phones in which vocabulary practice, quizzes, word and phrase translations, and access to live talking tutors toke place. Small chunks quiz delivery was reported to be effective and there were great potential of automated voice vocabulary lessons and quizzes. Small screen sizes were acclaimed to be unsuitable for learning new content but effective for review and practice (Chinnery, 2006). In addition, the activity relating to automated voice was abandoned, primarily because of problems with voice recognition software (Kukulska-Hulme and Shield, 2008).

Thornton and Houser (2002; 2003; 2005) used mobile phones to provide vocabulary instruction by SMS at a Japanese university. Short mini-lessons were emailed to students three times a day. The students learned via SMS were twice more successful in the number of vocabulary words and their scores comparison to students who had received their lessons on paper. Great motivation was reported and students wished these kinds of instructions continue.

'Griffiths University in Australia carried out a project learning Italian with SMS where 2–3 messages a day were sent about grammar, vocabulary news, literature and administration, homework etc.' (Pachler & Cook, 2010, p.37). Moreover, BBC World Service's Learning English section offers English lessons via SMS in Francophone West Africa, China, and Welsh lessons (Chinnery, 2006).

There are studies that have tried to develop language learning games and applications for users. For instance, Michelsen provided a game based language learning that enabled second language learners to revise on go the contents needed for Cambridge First Certificate in English exam (cited in Kukulska-Hulme & Shield, 2009). Furthermore, MOBO City is a mobile game technical language learning package to help learners learn computer technical English vocabulary (Fotouhi-Ghazvini, 2009).

There are reminders and daily practicing software for mobile phones that introduce new content with a predefined timetable. Some of them are programmed to test learners and exclude the learned contents from their daily practicing. One of them is Keepinhead, working in both PCs and mobile phones. Learners can downlaod flashcards with different topics or create their own flashcards.

These days, accessing the Internet or weblogging is not restricted only to computer users. Mobile users can also access the Internet or publish their texts, images, and videos by their mobile phones to their webpages. Indeed, publishing information by mobile phones through weblogging, called mobologging, allows learners to share their ideas and communicate with their friends. By moblogging, learners can collect artifacts, share them and discuss about them online in a virtual place on move (Shao, Crook, and Kolevas, 2007).

Thornton and Houser (2003) developed a web supported English program for PADs and Smart Phones. Or Dias (2002a, 2002b) set up a web-board accessible by mobile phone to provide links to English language learning websites. Learners were able to interact asynchronously with each other, their teachers and any guest lecturers.

A research in Urmia University showed there is a good potentiality for seting up MALL at least regarding mobile devices and technology required (Azarmi, 2010). This study showed nearly half

of the participants (%48.8) were using their mobile phones dictionaries. Moreover, around %44 of them were accessing the Internet via their mobile phones. This is while the rest of the participants may did not have access to dictionary software to install on their mobile phones or did not had the settings needed for their mobile devices to access the Internet. As mentioned earlier accessing to internet will allow users to go through a large amount of extensive knowledge. And using dictionaries will be faster and more enjoyable, which will motivate learners to use dictionaries more frequently.

Conclusion

Advent and advances in new portable and wireless technologies have opened new sights into the fields of learning and teaching. M-learning is one of those fields that try to support e-learning features and technology enhanced education with the help of mobile devices. The studies taken place in M-learning show learners' positive attitude toward such programs and good potential of these devices to be used in formal and informal learning contexts. They report people can learn anytime, anytime, and lifelong based on M-learning. One of the main fields of inquiry that have focused to benefit from M-learning is language learning. This interest has generated the concept of MALL. Studies based on MALL have declared that using mobile for vocabulary learning is effective and it makes students to be more motivated. It seems interactional aspect of language learning is passive and rarely has been touched in published studies. However, Kukulska-Hulme and Shield (2008) believes collaborative speaking and listening activities could be successfully supported by mobile devices regarding the findings of earlier studies. However, more studies should be done on MALL to have a good conceptualization about it.

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