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Mobile-Based Learning of English Language Vocabulary

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Abstract ;

This article focuses on the mobile-based learning of English language vocabulary. It also investigates whether the use of mobile during studies promotes student's learning of English language vocabulary. This research was conducted with 40 male EFL learners of 18-30, studying at Islamic Azad University (IAU)of Shiraz branch. To determine its homogeneity, the researcher performed a proficiency test. They were divided into control and experimental groups. The experimental group was presented with the treatment which was having and making use mobiles during the class, while working on memorizing words and its meanings as well as sentences in which the vocabularies were used, while the control group was given no treatment, but they were allowed to use dictionary. It was continued for two sessions a week, and four weeks per month. A T-test was administered to show the possible differences available between the two groups. It was understood that the students memorized and remembered significantly more words while they used mobile.

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Introduction

It is obvious that in this digital days of time, technology changes everything, it also changes various ways that people communicate. They communicate with short message; they communicate using the Facebook, through computer, iPads, or cell phones. One of these kinds of technology is mobile, and the growing popularity and advancing functionality of mobile devices has raised their profile in teaching and learning contexts. Their ubiquity and portability make the realization of 'learning on the move' and 'anytime, anyplace learning' a real possibility (Lee, 2005).

In considering mobile learning (mLearning), one needs to consider the range of devices and the diversity of applications and functions. The devices include mobile phones, smartphones, personal digital assistants (PDAs), multimedia players such as iPods and mp3 players, handheld games consoles, and handheld computers or the ultra-mobile personal computers (UMPCs). Naismith, Lonsdale, Vavoula and Sharples (2005) have classified mobile technologies in terms of their portability and personal character. So mobile-based learning of English language vocabulary has been recently increased. It also means that we can learn English via these mobile devices. With these devices, you can learn English while waiting lunch in the restaurant; learn English while waiting the bus or in the bus; learn English while in the Mall, you can even show the people what you want to say with mobile device while you are traveling to other country.

A lot of researches have been made about the use of mobile phones learning English language vocabulary in different countries [7]-[11]. It also been reported that the ranking of Top Ten interesting ipod/iphone apps for English language learning words[12]. With the emerging of mobile technologies, variety of features of current mobile applications could benefit the learners with enhanced learning environment while playing anywhere, anytime.

The mobile-assisted language learning (MALL) has recently become very popular . Kukulska-Hulme and Shield define MALL as "the use of technologies such as mobile phones, MP$/MP% players, PDAs and palmtop computers for language learning". They also argue that the use of mobile phones in language teaching is the most investigated area of research in the literature of MALL. Accordingly, CALL

researchers and experts have expressed interest in the implementation of MALL in EFL contexts (Stockwell & Sotillo,). This popularity of the implementation of MALL is due to the learning opportunities and affordances that mobile phones would create for language learners. Specifically, the use of mobile phones in language learning provides teachers and learners with substantial educational benefits, including the possibility of recording and playing audios, low costs, portability, learner friendliness, easy access, and interactivity (Kukulska-Hulme & Shield; Stockwell, ; Wishart,).

Research has suggested that the use of mobile phones enables language learners to make communication with their teachers and peers more easily and conveniently and learn, remember , and use vocabulary more excitedly. MALL researchers assert that this ease of communication with teachers and peers is a major affordance of the utilization of mobile phones for language learning words (Nah, White, & Sussex, ; Rosell-Aguilar,). As a consequence, the existence of these affordances has inspired EFL researchers to evaluate the suitability of the use of mobile phones to enhance the quality of learning and teaching.

Wanger and Wilson (2005) state that Mobile –learning can bridge formal and informal learning experiences. With the rapid growth of wireless and mobile learning technology, the use of mobile phone and other portable devices are now beginning to have an impact on language teaching and learning throughout the world. Similarly, the development of language learning technologies recently has tended to be mobilized, portable, and personalized. These trends have led to learning forms changing from traditional classroom learning to electronic learning (E learning), mobile learning (M-learning) or ubiquitous learning (U-learning).

Among these noble learning forms, mobile learning is effective and flexible; that is, mobile learning can overcome restrictions of time and space, enabling learners to study whenever and wherever possible (Chen and Chung, 2007 as cited in Roksana 2011). As Cavus and Ibrahim (2009) mention there is an increase use of wireless technologies in education all over the world. In fact, wireless technologies such as laptop computers, palmtop computers and mobile phones are revolutionizing education and transforming the traditional classroom-based learning and teaching into anytime and anywhere education. According to Ozok and Wei(2007) the high acceptance of SMS by youth people generates a large

number of potential SMS- based learning .The development of mobile and wireless technologies has opened up a huge array of possibilities in the domain of language learning. There have been trials of mobile assisted language learning (MALL) applications since 2001 (e.g. Stanford Learning Lab, 2001). Chinnery (2006) and Kukulska-Hulme & Shield (2008) both provide reviews of many MALL developments since then, and although there have been some interesting uses of multimedia on PDAs and iPods (e.g. Thornton & Houser, 2003; Garcia Cabrere, 2002; Belanger, 2005; Kukulska-Hulme, 2005), the focus generally been on delivering basic features such as vocabulary learning and quiz drills in text format over mobile phones.

One of the major problems ESOL students face is the loneliness and isolation of their situation. The natural way of dealing with this is to gravitate towards other people of the same language and ethnicity – this, in turn, can become a barrier to language development and integration. The authors of this paper suggest that the use of mobile devices can act as a bridge to facilitate learning in a number of ways – as a 'communication bridge', a 'community bridge', and an 'independence bridge'. Mobile devices offer many communication possibilities. Within the classroom, they allow easy communication between students from a wide range of backgrounds. Information can easily be passed across the language and ethnicity divisions of a classroom.

Current practices of mobile learning are not theoretically guided, but rather, they are deemed to imply paradigms that are sometimes technology-driven, rather than pedagogy-based (Naismith, Lonsdale, Vavoula, and Sharples, 2004; O"Malley, Vavoula, Glew, Taylor, Sharples, and Lefrere, 2003). Hence, context-awareness is one of the rich aspects that can be enhanced by mobile learning in a way that exploits the affordances of mobile technology used outside the classroom in an exemplary way. Mobile learners, for instance, are now able to interact and communicate with vocabulary in the context in which a mobile learning task is taking place. Unfortunately, mobile language learning has not yet used an evidence-based research approach to adequately explore the context-awareness paradigm. Evidence is required to understand how mobile language learners interact with their surrounding environment and exploit the functionalities of their mobile phones to better realise the potential of out-of-class learning.

Moreover, concepts of student-centred learning as well as mobile social-networking and collaborative learning have not yet been adequately investigated by mobile language learning research.

The paper investigates the influence of mobile in learning English vocabulary, and to explore whether mobile phones can assist language learners in establishing a collaborative mobile medium that takes advantage of students‟ familiarity with the use of mobile phones.The integration of mobile phone technologies into tertiary education holds both opportunities and risks for the quality of mobile learning (see Kukulska-Hulme, 2005; Kolb, 2008). As a result, it is essential that a better understanding is gained of learners‟ perceptions and attitudes towards the implementation of mobile phones in learning of English language words.

The purpose of the study

The goal of this study is to find out whether the mobile enhances student's learning of English language vocabulary.

Research question:

This study, therefore answers the following questions:

1-What influences do mobile have on learning English language vocabulary?

2-How can mobiles enhance student's learning of English words?

Research hypotheses:

Based on the above-mentioned hypotheses, it was understood that the students memorized and remembered significantly more words while they used mobile. And Mobile technologies have the power to make learning even more widely available and accessible than we are used to in existing e-learning environments.

Review of literature

There are many studies which have already been done in the area of mobile-based learning of English language vocabulary. According to Attewell (2004) there are wider varieties of mobile phones available in the market which caters range of customer tastes and life styles. Some devices are aimed at business users and are marketed primarily as business communication devices. Some devices including smart phones have virtual pop up QWERTY keyboard and hand writing recognition. They also contain a video camera, music player, radio, voice memo recording, games, and e-mail, internet, and organizer functions.

There are few studies which have been concentrated on identifying the use of mobile technologies in use of English language learning. A study done by Al Aamri and Kamla Sulaiman is an example for this. They have studied the current use

and practices of mobile phones in the process of learning English Language by Sultan Qaboos University students. Author has identified the existing uses and practices, through a questionnaire and states that “It has found that students use mobile phone in learning, but in a very limited way.” (Aamri& Suleiman, 2011). Another study has been done by Burston, J. (2011) on realizing the potential of mobile learning for language learning by identifying the obstacles in mobile learning as Intrusiveness, Cost, Practical and technological constrains and Theoretical & pedagogical foundations. In sum, as mobile phone features have increased, while their cost decreased, attention has increasingly focused on them as an ultra-portable language learning tool. Above all, what has attracted interest in the use of mobile phones as learning devices is their potential to support anywhere, anytime, access (Burston, 2011).

Levy and Kennedy (2005) created a similar program for Italian learners in Australia, sending vocabulary words and idioms, definitions, and example sentences via SMS in a spaced and scheduled pattern of delivery, and requesting feedback in the form of quizzes and follow up questions.

Another program by Thornton and Houser (2003) utilized a classroom polling system, EduCALL (inspired by EduClick), to survey students during class in order to determine vocabulary retention. Poll questions were projected, students used their cell phones to surf to the polling software and make their selections, and the tabulations were projected as bar graphs. In this way, students and teachers alike received immediate feedback.

One of the newest technologies with potential application in language learning is moblogging, an amalgam of mobile and weblogging. Mielo (2005) further defines moblogging as using a cell phone or PDA "in the field" to post words and/or pictures to a web site (p. 29). Blogs themselves are a recent trend in language teaching. They provide opportunities for language creation (i.e., journaling) and collaborative activities. Moblogs offer the potential to expound these benefits by removing time and place boundaries and adding authentic and personal visual content.

While the applications of cell phones have typically been pedagogic in nature, they have also been used for practical or administrative matters, such as simplified and flexible student-teacher

communications (e.g., course updates and reminders) and referrals to related web sites and other up-to-date instructional resources (Dias, 2002, Summer/Fall; Levy & Kennedy, 2005).

According to proponents of new vocabulary learning, mobiles facilitate designs for personalized learning in that they are responsive to difference and diversity in the way vocabulary learning occurs. They facilitate designs for situated learning by providing learning during the course of the activity – in the field for a botany student, in the classroom for a teacher trainee, or in the workshop for an engineer. In this sense, mLearning also facilitates designs for authentic learning, meaning learning that targets real-world problems and involves projects of relevance and interest to the learner (Kukulska-Hulme & Traxler 2007, pp.184-86; Traxler, 2007, p. 7).

The supposed value of mobiles also arises from the manner in which they facilitate lifelong learning. Mobiles can support the great amount of word learning that occurs during the many activities of everyday life, learning that occurs spontaneously in impromptu settings outside of the classroom and outside of the usual environment of home and office. They enable learning that occurs across time and place as learners apply what they learn in one environment to developments in another (Sharples et al., 2005, pp. 2, 4; 2007, pp. 222-23).

Mobile phones theoretically make learner-centred learning possible by enabling students to customize the transfer of and access to information in order to build on their skills and knowledge and to meet their own educational goals (Sharples et al., 2007, p. 223). MLearning thus exerts a democratizing effect on the learning experience as learners take a greater responsibility for the learning process instead of being passively fed information by an instructor. Whereas in traditional models of education the goal is the transfer of knowledge from teacher to student, mLearning empowers students to actively participate in the learning process to make it a process of construction and not mere instruction (dela Pena-Bandalaria, 2007). MLearning thus represents learning that is not ‘just-in-case,’ education for the sake of producing a bank of knowledge, but rather represents learning that is ‘just-in-time,’ ‘just enough,’ or ‘just-for-me’ (Traxler, 2007, p. 5). As a facilitator of new learning, mLearning goes beyond an emphasis on

the possession of information to enabling learners to find, identify, manipulate, and evaluate existing information (Brown, 2003, p. 2).

According to Dye , “m-Learning is learning that can take place anytime, anywhere with the help of a mobile computer device. According to Brown “Mobile technologies have the power to make learning even more widely available and accessible than we are used to in existing e-learning environments”. Many researchers believe that mobile technologies bring new opportunities to traditional learning in the classrooms and lifelong learning outside the classrooms.

Mobile learning supports messaging applications for students and teachers. It allows communication and interaction both synchronous and asynchronous. Communication and interaction are the main characteristics of contemporary constructivist paradigm. Attewell and Smith say that “The role of phone calls and messaging in friendship rituals such as gift giving and sharing suggests the mobile phone has potential as a collaborative learning platform”. SMS is widely used for text messaging to send short messages (160 characters) within short time in daily life. According to statistics SMS is already used more than e-mail in Europe. Research carried out at *Wake Forest University* shows that student mobile phone usage patterns are moving away from more traditional messaging like the use of email towards newer technologies such as Instant Messenger (IM) and Short Message Service (SMS). We feel this trend should encourage students to be more engaged with course material outside the classroom as well as communicate better among themselves.

A survey carried out at the Near East University showed that the widespread use of mobile phones among our students has led us to consider how this technology might help us to improve the motivation of students and help in teaching. The authors looked at language-teaching capabilities of mobile devices to consider how wireless technologies are being adapted to meet changing educational needs. An important question is how to create a mobile system for teaching new words, which has added-value features for its user. The system is about the use of mobile phones in teaching new technical English language words. We have pilot tested our m-learning system with as few as 17 students. Based on the feedback we received, we have decided to use the system in English I courses and we expect to get results as soon as possible.

During application new words and their meanings will sent to students throughout the day in half hourly intervals (Attewell and Smith,1999).

Petersen, Divitini, and Chabert (2008) considered a socio-constructivist authentic language learning approach to mobile language learning. Their learning design was highly supported by collaboration, interaction, and developing a sense of community through mobile community blogs, particularly when students were physically present in the target language setting and culture, and/or when they were away from their classmates. The study by Petersen *et al.* (2008) revealed that mobile blogs were effective tools that facilitated student-student interaction in different language settings and created authentic opportunities for students to interact with native speakers. However, the researchers found that participants‟ sense of community and belonging to the language learner community was not high, and participants‟ identity was not well identified. Researchers attributed this to the lack of identity among members as a community and believed that the blogs were incapable of strengthening new, rather than existing communities. It was also found that participants were not eager to collaborate in the mobile blog due to hesitation and lack of confidence among students. For the current paper, however, it is important to point out that sense of community and belonging to the learning context among students were high, and that students were keen to engage in authentic learning activities outside the classroom. As discussed, a positive sense of community and belonging can be attributed to students‟ familiarity with the learning context and the vocabulary learning community as well. This paper particularly highlights the role of mobile in the process of improving student learning of English language words.

METHODOLOGY

Participants

This research was conducted with 40 male EFL learners of 18-30, studying at Islamic Azad University (IAU)of Shiraz branch. And since the participants chosen are so willing to take part in this research, the researcher took the opportunity and did it. Therefore their willingness resulted in a better and easier study and a more valid and generalizable case.

Instruments and procedure

The students were given words with their English meaning. The words were active , and everyday ones which were adopted from their book, named; General English. Each word was used in a sentence so as to be real-life situation. The first ten words were used to pre-test the 40 students. But the remaining 7 ten words were used to post-test them. . The experimental group was presented with the treatment which was having and making use mobiles during the class, while they were working on memorizing words and its meanings as well as sentences in which the vocabularies were used, while the control group was given no treatment, but they were allowed to use dictionary. It was continued for two sessions a week, and four weeks per month. The time allocated for each ten words were 10 minutes. And the eighth session was regarded as to comparisons of control and experimental groups.

DATA ANALYSIS

Having gathered the required raw data, the researcher considered the responses to both experimental and control groups, then the MSs, SDs, and SEMs were indicated. Then the researcher made use of T-test to determine the differences considering the conditions of the groups before and after the treatment. The comparisons and its results were shown in the following tables.

Paired Sample 1

The attained T value says that there is no statistically significant difference between the mean scores of pre -control group and the pre-experimental one. So they are homogeneous.

Table 1 Paired Sample T-test concerning the Pre-Test

groups	N	Mean	Std. Deviation	Std. Error of Mean
Pre control	20	15.23	1.876	.234
Pre experimental	20	15.39	1.567	.123

Paired Sample 2

The second table indicates that there is statistically significant difference between the two. In fact, , the mean score of the prost experimental receiving the treatment is significantly higher than that of the post control having no treatment. It shows that students better learn and memorize words in context while they used mobiles.

Table 2. Paired Sample T-test concerning the Post-Test

groups	N	Mean	Std. Deviation	Std. Error of Mean
Post control	20	15.01	.432	1.876
Post experimental	20	16.5	1.012	.234

Paired Sample 3

Table shows that the T value of pre-experimental and post- experimental is statistically significant, therefore, mobile enhances student's memorizing and remembering of English language words .

Table 3. Paired Sample T-test

group	N	Mean	Std. Deviation	Std. Error Mean	Sig. (2_tailed)
Pre experimental	20	15.39	1.567	.123	0.004
Post experimental	20	16.5	1.012	.234	

Paired Sample 4

The table shows that there is no significant difference in the pre control and post control tests.

Table 4. Paired Sample T-test

groups	N	Mean	Std. Deviation	Std. Error of Mean	Sig. (2_tailed)
Pre control	20	15.23	1.876	.234	0.014
Post control	20	15.01	.432	1.876	

DISCUSSION

In this part , the researcher shows the students' performances in different conditions . The study showed that there was no statistically significant difference between students' performances in pre-control and pre-experimental ones, since they were given no treatment, but it revealed that the difference was statistically significant in post-experimental tests than those of post control ones because of the treatment , given to the experimental case. And it also indicates that those students having and making use of mobiles can better and even

faster memorize and remember vocabulary than the others.

CONCLUSION

This article focuses on the mobile-based learning of English language vocabulary. It investigates whether the use of mobile during studies promotes student's learning of English language vocabulary. The experimental group was presented with the treatment which was having and making use mobiles during the class, while working on memorizing words and its meanings as well as sentences in which the vocabularies were used, while the control group was given no treatment, but they were allowed to use dictionary. It was understood that the students memorized and remembered significantly more words while mobile were used in class. And Mobile technologies have the power to make learning even more widely available and accessible than we are used to in existing e-learning environments.

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