Use Of Mobile Immersion In Foreign Language Teaching To Enhance Target Language Vocabulary Learning

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Smartphones have an essential role in day-to-day lives. Mobile phone applications have several and wide ranging features. The use of these smartphone applications provides new insights for innovation and opportunities in language teaching and learning process. The present study intended to examine the efficiency of a mobile application on teaching 40 phrases from Nation and Martinez phrase test 1-5 compared to conventional activities. Quasi-experimental research design with pre-test and post-test was employed to determine the differences between the scores of the control group (N=20) and the experimental group (N=20) developed by using random sampling. Results indicated that participants in the experimental group performed significantly better in the post-test, demonstrating the effectiveness of the mobile application used in this study on learning idioms. The results showed that learners in the experimental group achieved considerably better development in the post-test, representing the efficiency of the smartphone application that was involved in the study. Suggestions have been given for using mobile phone applications more effectively for vocabulary learning.

KEYWORDS: ELT, Mobile Assisted Teaching, Vocabulary Teaching, WhatsApp, Phrasal expressions

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INTRODUCTION

Teaching and learning process is totally changed with the development of recent developments in mobile technologies (Pavlik, 2015). English language teaching and its practices have also been affected from this paradigm flow of change, as well (Stockwell, 2010). Mobile Assisted Language Learning (MALL) technologies have prodigious potential for assisting more innovative educational methods (Sung, 2016). These innovations in teaching methods will likely not only help subject teaching, but may also simplify the process of communication, creativity, imagination, vision and other language skills among learners. Mobile learning defies the conventional teaching methods by setting a supple, hand-on and modified ways of the use inside and outside the classroom effectively (Bassal, 2016). Learning on the go becomes more and more convenient particularly with modern smartphones that come with powerful hardware and software, which makes them as capable as a computer. Stockwell (2015) pointed out that the large and touch sensitive screens of today's android smartphones devices offer changes and advantages in contrast to mobile phones used in previous studies (Thornton & Houser, 2005; Lu, 2008; Kukulska-Hulme, 2010; Hayati et al., 2013).

Vocabulary instructions in English as a foreign language (EFL) context is grabbing attention today. Words those learned from classroom instruction are limited due to lack of second language (L2) input (Siyanova, 2016). Achieving competence and proficiency in the target language is the major component of vocabulary teaching (Shrum & Glisan 2015) . There has been endless effort in quest of the best procedure to teach vocabulary. Though vocabulary is a central component of foreign language learning, idiomatic expressions are the most frequently used non-literal expressions, and terminologies used in daily life situations in a language, so incapability to use them proficiently can cause communication hurdles for language learners such as expressing unusual and inauthentic usage (Basel et al., 2015). These expressions are principally vital to become proficient in the target language learning (Mackey & Gass, 2015).

In addition, good command of phrases is generally considered as becoming closer to the fluency of native speakers of the target language (Schmitt, 2000; Wray, 2000). As Schmitt (2014) suggested, "the possible lack of communication between individual words and individual meanings", the term 'word' also has difficulties with the various grammatical and morphological permutations of vocabulary. Mobile devices could open new doors with their unique qualities such as "accessibility, personalization, and portability" (Saran & Seferoglu, 2010, p.253), and "the physical characteristics (e.g., size and weight), input capabilities (e.g., keypad or touchpad), output capabilities (e.g., screen size and audio functions), file storage and retrieval, processor speed, and the low+ error

rates" (Alzubi & Sabha, 2013, p.179) in the teaching and learning processes. Distinctive features of smartphones such as "lightness, movability, accessibility, ease of use cost and portability" (Saran & Seferoglu, 2010), and "the physical characteristics (e.g. length and weight), input fixtures (e.g. touch screen and keypad), output fixtures (e.g. audio and video properties), Processor speed, memory storage and retrieval" (Alzu'bi & Sabha, 2013) could add new ways and innovations in teaching and learning practices.

REVIEW OF LITERATURE

Mobile phones and personal digital assistants (PDAs) expand the boundaries of learning anytime, anywhere. Rapid development in teaching and learning process experienced a shift in course delivery methods. Online libraries included the World Wide Web and internet access to books, audio or video tapes, or photocopies of journal articles, linking to digital content which could be read online. Students can access course materials from their mobile phone, whenever they need it. In addition, the past decade has noticed a swift expansion in using smartphones for teaching foreign language vocabulary.

For example, Browne and Culligan (2008) permitted learners to use vocabulary flash cards on their mobile phones, which showed to be beneficial due to the fact that learners were able to study at a time and place that suits them. Another 6-week long experimental study by Suwantarathip and Orawiwatnakul (2015) compared the effects of paper based vocabulary activities in classroom with SMS sent to learners off campus to teach and practice new vocabulary. The findings revealed that the learners in the experimental group performed better than control group. In Japan Thornton and Houser (2005) assigned EFL learners to use their mobile phones in class to watch video lessons about English idioms, and then they were asked to answer short multiple choice questions to judge their progress of using smartphones. A positive response was found from learners as they reckoned this method interesting and enjoyable.

Moreover, to the text messaging proficiencies of SMS, Saran and Seferoglu (2010) also tried MMS (Multimedia Messaging Service) in their study. They taught vocabulary via SMS and MMS messages that incorporated with multimedia such as images and sounds whereas the control group was taught the same vocabulary items in the conventional classroom setting. The scores of the experimental group were significantly higher than the control group in the post test

Alemi et al. (2012) found that there was no substantial variance between vocabulary knowledge of two groups in the post tests; however, in the delayed

post-test SMS group was more successful. Additionally, all these studies reported positive attitudes of students towards the use of SMS in vocabulary learning. Ally and Woodburn (2011) explored the use of iPhones to learn web-based grammar and vocabulary lessons for L2 French at the elementary level. The participants were 22 university volunteers for three hours' sessions who received five lessons on their mobile phones. A multiple choice pre and post-test was administrated to judge learning improvements. Overall, students who contributed in this study found this set-up of learning useful and desired to have more practice with mobile devices.

Chen, Hsieh, and Kinshuk (2008) attempted to examine the way to attain vocabulary using mobile phones. Researchers sent Flashcards to learners via SMS which included one of four different types of annotation; English word with written annotation; English word with pictorial annotation; English word only; and English word with both written and pictorial annotation. Learners were assumed to learn 24 vocabulary items in 50 minutes by viewing Flashcards in the classroom. Results of post-test showed that the pictorial annotation learners retained vocabulary after short period of time.

Some other programs were also used for vocabulary teaching apart from smartphones. Thornton and Houser (2005) aimed to test the effectiveness of formal e-mails on smartphones for vocabulary teaching purposes. They emailed vocabulary lessons via emails using mobiles for the first two weeks and then for last two weeks they used computers. Students stated that using mobile phone was a more efficient way and more desirable than books, printed material and computers. Basoglu and Akdemir (2010) led a study on vocabulary learning to examine the difference of use of flashcards and mobile phones. Vocabulary items were sent to experimental group for 6 weeks using mobile phone application whereas the control group learned the same words with flashcards. Their study reported a significant difference between two groups as the experimental group did achieve significantly better in the multiple-choice post-test.

Wu, (2015), in his study, developed a mobile application "Word Learning-CET6" to teach vocabulary to a group of 70 college students in China. The Control group was restricted to use SMS to learn vocabulary items whereas the experimental group used the newly developed application. At the end, experiment results of post-test reported a vital difference between the two groups where experimental groups outperformed the control group. Stockwell, (2010) also related vocabulary learning on mobile phones and computers for a 3-year period between 2007 and 2009 to explore the relation of student's task completion time, achievement speed and learning time. VocabTutor, a Moodle -

based system, was developed to run both mobile phones and computers. There was no significant difference found in term of students' scores; but there was an increase of mobile phone use for learning vocabulary in 2009 as compared to computers.

As can be seen in the above-mentioned studies, experiments with different types of mobile learning tools varying from SMSs to applications that were written to teach vocabulary have all been proved to have benefits for the learners compared to more conventional ways of learning.

SMS; the basic feature of mobile phones, was initially used in vocabulary learning studies. Some experimental studies compared SMS-based vocabulary instruction to different types of more traditional methods and instruction. For example, Mahmoud (2013) investigated the effect of SMS messages compared to printed materials in a foundation program at King Saud university. Results of the study exhibited that the performance of the students in the experimental group improved significantly more than those in the control group who were given printed materials in the post-test. Another study by Alkhezzi, and Dousari (2016) in Saudi Arabia explored the impact of using mobile phone applications, namely Telegram Messenger, on teaching and learning English in an ESP context. Results indicated that using mobile phone gadgets to teach a foreign language skill or subskill is beneficial and has a positive effect on comprehension of vocabulary and grammatical rules.

A mixed methods study by Hazaea and Alzubi, (2016) at Preparatory Year program, Najran University investigated the efficiency of using mobile technology in EFL reading classroom. Results of post-test revealed that by using mobile phones features, learners' text using and text analysing practices are remarkably improved. Similarly, Amry (2014) conducted a study in Saudi Arabia to evaluate the effects of mobile learning on students' attitudes and achievement. Results of the study indicated a substantial difference in students' success because of the mobile learning environment setting. Findings revealed that mobile learning has permitted students to access learning material anywhere anytime, which supports them to learn more and therefore they had a high positive influence on their test scores.

Another study by (Alhabahba et al, 2014) examined Saudi students' behavioural factors that affect employing Smartphones in vocabulary learning. The findings revealed that apparent usefulness and attitude proved to be considerably and positively linked to vocabulary improvement. In addition, apparent efficacy and perceived ease of use proved to be significant transformation of students' attitudes in using smartphone for vocabulary learning. In contrary, ease of use did not expressively rely to vocabulary

learning aspect. Khrisat and Mahmoud (2013) explored the effectiveness of students' attitudes towards ten mobile applications and features on EFL General English classroom. The inclination of using mobile phones reflected positivity among learners. Alshumaimeri and Almasri (2012) studied the effects of WebQuest on the comprehension performance of learners in Saudi Arabia, outcomes showed great potential to integrate mobile phones in classrooms. These studies indicate that there is need to use mobile features such as WhatsApp, memos, online dictionaries in a Saudi EFL reading classroom.

Few studies on phrases and idioms teaching were found in literature using mobile learning. One study by Liu and Chen (2015) examined the effect of using mobile phones on English phrase learning achievement. In Taiwan, a total of 116 learners participated in the study. Researcher divided participants into two groups: an experimental and a control group randomly. Experimental group was given treatment by taking pictures using mobile phones for the purpose of phrase learning whereas control group was given an online assignment to read phrase-reading. Participants in the experiments displayed higher level of awareness toward phrase learning exercises compared with control group. Hayati et al. (2013) examined the teaching of idioms using SMS feature of mobile phones to Iranian EFL learners to a group of 80 students. Three groups; a self-study, control and experimental group, of students received 80 idioms with instructions. Self-study group received printed material of idioms to study at their own with the definitions and explanations. Experimental group received SMS messages with 4 idioms with elaborations of sentences and examples, while the control group was provided with short paragraphs rather than definition and sentences illustration. Post survey result of the study found that use of short messaging and cell phones is applicable and suitable way of teaching. Modern Smartphones offer many other useful and interesting features free of cast and easy to handle, that can be used for foreign language teaching and learning process.

Some studies indicated that computer software and short messaging features used for teaching vocabulary using mobile phones are content limited and costly. As Thornton & Houser (2005) stated that adjustment of computers for mobile learning can be affected by users' capability. Similarly, Cavus and Ibrahim, (2009) listed that SMS message can be costly for the learners. At present, smartphone applications that are popular and user friendly can be used for mobile learning platforms effectively. Godwin (2011), pointed out as personal devices, smartphones are best for modified learning.

WhatsApp; a modern smartphone application that is useful mode of communication, has been used in many vocabulary learning studies. Lawrence

(2014) introduced new vocabulary entries to a group of 5 Afrikaan undergraduate learners before reading passages in classrooms. Learners were introduced new vocabulary items by receiving words with translations and in different mode of media files for 7 weeks long period. The author concluded that WhatsApp is an effective tool for providing outside-the-classroom opportunities to practise vocabulary especially for weak students; however, content of the messages should be carefully planned. There was a positive effect of using WhatsApp for introducing new vocabulary words. Researchers suggested that it can be more effective if all the activities are planned carefully.

In another study Plana et al. (2013) used WhatsApp as a substitute to SMS which is less convenient and costly. Students received extra material related to comprehension question via a link in the WhatsApp group. The questionnaires after the twelve-week-long implementation showed that students liked the activities, and increased their reading practice with the application. Survey results indicate that after 12 weeks long execution, students' reading comprehension improved positively and they liked the WhatsApp activities.

WhatsApp is a free messenger application that accepts its users to send and receive texts, audios and videos one to one and in groups. In addition, it is also supported with audio call facility. It is one of the most commonly used messenger application available for different mobile phones (Windows Mobile, IOS, Android, etc.) Al Saleem (2014) examined for accessing students; vocabulary and voice at undergraduate English language learning level. Students were provided 30 reminders to write on via WhatsApp for six weeks. Results of writing task on pre-test and post-test witnessed a substantial development in vocabulary usage for writing and voice. Some research has been done on vocabulary learning using WhatsApp, there have been few studies into its use for teaching phrases in English. The current study therefore is set up to measure the efficiency of the mobile applications in teaching English phrases.

Discussion in this section demonstrates different benefits of using mobile technology for language teaching. There are many studies in international contexts focusing on MALL in combination with WhatsApp. However, very few studies (if any) have integrated WhatsApp as a medium to enhance EFL vocabulary in Arab World and especially in the Kingdom of Saudi Arabia. Therefore, this study adopted WhatsApp for vocabulary enhancing purposes and following research question guided our study:

To what extend does mobile assisted teaching is more helpful for enhancing foreign language vocabulary compared to traditional methods of teaching?

RESEARCH METHODOLOGY

RESEARCH DESIGN AND SAMPLE

Current study intended to examine the efficiency of the mobile applications on teaching 40 phrasal expressions from Nation and Martinez phrase test 1-5 compared to conventional activities. Randomized experimental post-test only two groups design was used in the study.

40 Foundation level male students from Preparatory year section of a public university in Saudi Arabia participated in the current experimental study. Random sampling was used for the selection of participants and their group formation. Their level was determined by the placement test scores taken in the beginning of semester for registration purposes. They enrolled in an intensive course for a period of one year in Fall Semester 2015-2016 where a Cambridge university course called QSkills is taught to students to develop their language skills for their majors. The participants were divided in two groups of 20 students randomly; experimental group and control group. The average age of the participants was 20. Experimental group was taught with the use of mobile phone application activities whereas control group was taught with the traditional methods for teaching vocabulary in classroom.

DATA ANALYSIS

The phrases were taken from phrase list developed by Nation and Martinez, phrase test 1-5 K in British National Corpus (BNC). The phrase list contains a list of 505 most common phrasal expressions in English language. This phrase test contains 40 questions, ten each from the word frequency levels of first 5000 list i.e. first 10 phrasal expressions are most common words in the BNC. Forty phrasal expressions (e.g. go on, lead to, so that, likely to, take over, next door, in the light of etc.) listed by Martinez and Schmitt (2011) were used for the current experiment. The norm for the collection of 40 phrasal words was frequency of the phrases in a list of top 5000 vocabulary list words.

Learning outcome test containing 30 multiple choice questions was used as the tool for data collection procedure. The test was adopted from the vocabulary level tests developed by Nation and Martinez (2012) to avoid any internal validity of the test. One mark was given to each correct response of the achievement test. The t-test was used to determine whether the vocabulary learning variances between two groups were statistically significant. The achievement test consisted of 30 multiple choice questions for the understanding the usage of phrases. Some Sample entities from the achievement test are as follows:

Find the phrase that has the closest meaning to the vocabulary in the sentence, and click the small circle next to the best meaning.

1. BY FAR: He is by far the most intelligent student of the class.
   a) Really   b) always   c) trying to be   d) not at all
2. ALL OVER: It is all over the bed.
   a) Covering   b) inside   c) on the top of   d) beside
3. COME ACROSS: They come across a hotel.
   a) Stayed in   b) opened   c) found   d) near
4. AS A RESULT: As a result, it was done.
   a) No person knows if   b) after a long-time   c) before that
   d) because of that.

PROCEDURE

Participants of both groups were tested on their phrasal usage of vocabulary on the selected 40 phrasal expressions for the list at the beginning of the experiment. The scores of pre-tests showed no visible difference between two groups, their familiarity with phrasal expressions was similar on the 40 selected phrases. In the subsequent week, the study and its attention on phrases were presented to both groups. Liu and Milrad, (2010) suggested that it is necessary to cogitate the practice of technology to learners, by creating suitable setting for learning environment accordingly. CEO of Nielson Telecom reported in 2014 that an astounding 67% of population whose age is above 16 years use smartphone in Saudi Arabia. This percentage can be seen even greater among youth (73%) and most of them are under age of 15 years. Another Google survey indicates the use of smartphone in Saudi Arabia is expected to reach 23 million in 2017. Bearing in mind all these, teaching phrases using smartphones may be a useful way of incorporating teaching with real life situations.

A short survey was also conducted about the usage of smartphone applications including WhatsApp, Soma, Facebook Messenger, BBM and Line. Statistics of the survey reflected that all of participants had WhatsApp application in their smart phones and they used it regularly. For this purpose, a group was created to send phrases to experimental group using WhatsApp application. 10 WhatsApp messages, associated to targeted phrases, were sent to experimental group weekly. All messages were consisted of the phrasal expressions, meaning of the phrases, example of the phrase in sentences and an image representing the meaning of phrasal expressions. A mini test consisting fill in the blanks statements, was sent to the participants after sending them phrasal expressions. Answer key of the test was also sent to the participants

after 1 hour of sending messages. This process of treatment to experiment was continued for four weeks and then post-test was taken. The control group was taught same phrases through traditional classroom teaching using printed material.

RESULTS OF THE STUDY

Table 1 illustrates the pre-test results of the control group who learned phrases with conventional paper based material activities in the classroom. Results showed that the participants in control group attained substantial enhancement (p<00.49) on their phrasal expressions awareness where the rest of pre-test (M=15.34) and post-test (M=22.80) were equated. It shows that after four weeks, participants' familiarity with phrasal expressions has increased significantly, asserting that the conventional classroom teaching was operative in teaching targeted phrasal expressions.

Table 1

Paired Samples t-test Results Within Group.

	N	$\bar{\chi}$	SD	t	Df	p
C.G. Pre-test	20	15.3400	5.3485	3.760	23	0.0012
C.G. Post-test	20	22.8000	7.0262			

Table 2 illustrates the result of pre-test of the experimental group that studied phrasal expressions with WhatsApp mobile application outside the conventional classroom settings. Results revealed that participants of the experimental group attained remarkable improvement (p<000.49) on their phrasal expressions familiarity where the results of the pre-test (M=1721) and post-test (M= 31.91) were compared. It means that ensuing four weeks of the treatment, participants of experimental group also displayed remarkable phrasal expressions knowledge gains, representing that the use of smartphone application was operative in teaching the targeted phrasal expressions for the current study.

Table 2

Paired Samples t-test Results Within Group.

	N	$\bar{\chi}$	SD	t	Df	p
E.G. Pre-test	20	16.9127	9.1080	6.981	27	0.0012
E.G. Post-test	20	30.9625	4.7975			

The aim of the study was to explore the effectiveness of smartphone application in comparing with the conventional method of teaching the targeted phrasal expressions. Table 3 reflects that both groups had remarkable

phrasal expressions knowledge achievement after 4-weeks long treatment, representing that learners in both groups developed their phrasal expressions knowledge. However, the experimental group attained expressively enhanced effects of using smartphone application on the post-test than the control group. Categorically, when phrasal expressions knowledge achievement of experimental group was compared with control group, it suggests that treatment procedure was efficacious in teaching phrases. From Table 3, it is not difficult to understand effectiveness of technology, MALL and social media applications on vocabulary development of our EFL learners compared to traditional methods of teaching English and vocabulary. Vocabulary is directly linked to language skills like speaking, reading and writing. If technology can help our learners who really face problems in reading and writing, then, it can be helpful for most language learners (if not all) in the Kingdom and elsewhere in the world.

Table 3

Independent Samples t-test Results Between Groups.

	N	$\overline{\chi}$	SD	t	Df	p
C.G. Pre-test	20	15.3400	5.3485	1.131	50	0.291
E.G. Pre-test	20	16.9127	9.1080			
C.G. Post-test	20	22.8000	7.0262	4.989	50	0.0012
E.G. Post-test	20	30.9625	4.7972			

DISCUSSION AND CONCLUSION

Vocabulary learning is considered as an important factor of language learning and teaching process. A corpus study by Martinez and Schmitt (2012) reported that the most important outcome of vocabulary learning, is that language is comprised of not only   separate words but also a great number of formulaic language.   Phrases are indispensable part of vocabulary knowledge, and phrasal expressional familiarity can succour learners to attain perfection in the target language learning (Wang, 2009). However, Twenge et al, (2012) indicated that phrases are more intricate and diverse, hence elapsed from daily usage quickly than words. Thus, there is a great deal of opportunity for the creation of suitable and appropriate milieus to teach phrases, especially with the help of most commonly used technologies, of which is by smartphone applications.

Several studies verified that computer software, mobile applications and SMS messages used in smartphones can be useful for vocabulary learning and teaching process. Conversely some drawbacks of using computers programs due to modification difficulties of these programs to mobile phone devices,

causing low-slung quality (Thornton and Houser, 2005) and some hindrances of using SMS messages is because of cost effectiveness (Ibrahim & Canvus, 2009). Therefore, mobile learning and teaching practices can gain benefit from well-known and famous smartphone applications among learners and users substantially. WhatsApp, a free smartphone messenger application, permits its users to chat in one to one and group conversation as well as exchange audio and video messages and making calls. This application is widely available for all smartphone platforms (Android, Symbian, IOS, Windows Mobile phone etc.). The study intended to examine the efficiency of the smartphone application on teaching 40 phrasal expressions from Nation and Martinez phrase test 1-5k compared to conventional teaching activities in classroom.

Outcomes of this study identify that both the learners in the experimental and control group developed their familiarity for targeted phrasal expressions knowledge considerably. However, findings of the post-test indicated that the learner in the experimental group who learned phrasal expressions through the use of smartphone application attained significantly improved results than in the control group with conventional activities, representing that the use of smartphone application was more useful and operative in teaching phrases than the conventional activities.

The findings of the current study are in line with the findings of many other studies engaged with SMS or MMS in the conventional activities and in the experimental group in vocabulary learning and teaching process (Zang, 2011; Saran & Seferogu, 2010); yet they are contrary with the result of Alemi et al. (2012). Although, Alemi didn't catch substantial improvement between control and experimental groups on the post-test, but in delayed post-test, researcher found remarkable differences, indicating that the use of smartphone applications, considerably developed the vocabulary retention when compared to conventional activities in the classroom. In addition, the studies also indicated constructive attitudes of learners towards the use of smartphone applications in teaching and learning vocabulary process.

Suwantarathip and Orawiwatnakul (2015) indicated that the experimental group in which smartphone application vocabulary activities were used performed better than control group who received paper-based activities. In another study, where Hayati et al (2013) used three different methods (SMS, Contextualized instruction in class and Self-study), the findings showed that SMS group improved notably better than other two groups. Lu (2008) also indicated that experimental group in which mobile assisted vocabulary activities were used outperformed the control group who received conventional paper-based activities for vocabulary learning. All findings of

above mentioned studies appear to be constant with the results of the current research i.e. use of smartphone applications has additional benefit and effect in teaching and learning vocabulary in the association with conventional methods of teaching and learning vocabulary.

The benefit of using smartphones and mobile applications in teaching vocabulary provides an opportunity to learn outside the classrooms. This means that mobile phone instructional activities are not restricted to set a proper place but can be managed anytime and anywhere to involve learner with teachers, learning material and resources and other learners (Bornman, 2012, p.288). Vocabulary learning in conventional classroom may be inconvenient because of the restrictions of the time and hefty liability on learner (Grace, 1998).

In the development of mobile phone activities, learning activities may foster more attraction of learners (Cui and Bull, 2005). Kukulska-Hulme (2009) indicated that use of mobile learning can be unfavourable as learning vocabulary outdoors is out of the control of the teacher, for this, vigilant preparation and projection should be made to form a good relationship between conventional classroom activities and mobile learning based activities and materials. Thus, this is the responsibility of the teachers to prepare activities to attain optimal balance between the content activities in the classroom and mobile phone learning activities. Basal (2012) also specified about sustaining a balance in ways to make the content interesting and pleasant for the learners.

The present study added to the literature that teaching vocabulary using smartphone applications can be more operative instrument when associated to conventional paper-based vocabulary material and activities. Vocabulary learning activities, design of language learning activities, is a challenging task that needs more attention and cautious arrangement. In addition, language teachers should be responsive for instructional concerns in the development of the design for vocabulary learning activities using mobile phone applications, as some mobile phone applications are not associated with vocabulary learning and teaching process. Moreover, language instructor should also carefully choose already developed mobile learning activities for teaching vocabulary. Therefore, instructors should pay special attention for the evaluation of the effectiveness of mobile phone applications for vocabulary learning and teaching process.

The current study has some limitations concerning the participants involved in the study. Extensive studies with large-scales of participants may result some better understandings of mobile learning implications in teaching particular aspect of language learning. Furthermore, more investigations are required to

affirm the strength of mobile learning activities for vocabulary in association with their effective use for vocabulary development in and outside the classroom.

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