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Using Mobile Assisted language learning (MALL) on Learning English Vocabularies; A Case Study High Schools of Rafsanjan

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ABSTRACT: *Along with The invention of wireless technology and mobile technology development, mastering English in national and international communication has become more necessary. It also has led to quickly teaching and learning of English. MALL is called a promising technology for teaching English because of its innovation and easiness. Due to the importance of learning vocabulary in language development, this research is about the effect of MALL on vocabulary learning. In the present investigation, this convenient and practical method has been incorporated into teaching vocabulary in the high schools of Rafsanjan. This study shows that MALL is an efficient method rather than the traditional one. Flowing a pre-test/post-test design, 50 experimental students and 100 control students participated in this research. The experimental group was supposed to learn vocabulary via MALL, while the control group was taught by the traditional method. The result indicated statistically significant differences in performance between the groups. The increase in post-test scores of the experimental group presented enhanced vocabulary learning.*

KEYWORDS: MALL, learning English, learning vocabulary

INTRODUCTION

The English language has been the common language of the world for decades. It is now impossible to find a country where learning English has not become a norm. While there are some

people who would like to stick with their native language and who would prefer not to learn English, the benefits of learning and mastering English goes beyond the four corners of one's own country. English is the most spoken language around the world. 1 out 5 persons understands it. It is estimated that there is are 380 million native speakers and 300 million that utilize English as a second language and an additional 100 million who use it as a foreign language. It is the language of science, of aviation, computers, diplomacy, and tourism. English is the official or co-official language from 45 countries and is spoken extensively in other countries where it does not have official position because is needed in many fields and jobs.(Mahu, 2012)

Although the world has long known a huge number of approaches to learning a foreign language and methods, a real revolution in the methods of teaching English occurred only. Approaches and goals have changed. Today, everyone is learning English in proportion to the number of people, the number of methods has also increased. (Abduramanova, 2021)

The use of technology in education in general and in English as a Second Language (ESL) and English as Foreign Language (EFL) learning has gained great popularity among educators and scholars as there are many educational institutions adopting new technologies in the conventional classroom environment that includes smart boards, projectors, audio systems and computers. Thus, mobile phones, tablets, computers and many diverse forms of information technologies are in use in today's language learning environments. The invention of wireless technology and the development in mobile technology world have gained much popularity in education field. Mobile devices include features of connectivity, social interactivity, context sensitivity, portability and individuality which personal computers may not do. (Klopfer et al., 2012)

In line with the development of technology, mastering English as a second and foreign language become more essential in national and international communication. So that, it is very prominent to provide convenient environment and learning atmosphere for students to learn English. In addition, the improvement of various learning materials and methods also has high position to be concerned. It is important to have more facilities or new way to support students to learn English in a different way. (Nuraeni et al., 2020)

Due to its accessibility and universality, MALL as an approach to learning English as foreign language is considered in the learning environment as a promising technology for teaching a language.(Nuraeni et al., 2020)

many universities, colleges and other educational institutes all around the world have started giving their training program via the internet, which is referred to as e-learning. In the literature,

MALL has been investigated by many studies and the results indicated that applications of mobile phones are useful to foster language learning. (Yousef Mohammed Abduh, 2019)

MALL is applying m-learning to language learning. Rodríguez-Arancón, Arús and Calle-Martínez (2013) define MALL as "a teaching and learning methodology that uses mobile phones or other handheld devices with some form of wireless connectivity, such as phones, PDAs and tablets, among others" (p. 1190).

Rahimi and Miri (2014) define MALL as any language learning activity occurring through mobile devices. MALL is an innovative and interesting way of learning a new language (Azar & Nasiri, 2014). It is seen as a "convenient, practical and easy way of assisting ESL learners in enhancing their ESL learning" (Soleimani, İsmail & Mustaffa, 2014, p. 457). MALL is seen an excellent solution to foreign language learning limitations related to time and place (Miangah & Nezarat, 2012).

Learning Vocabulary

Vocabulary is the core of any language. Several studies have paid attention to vocabulary. a spread of methods and techniques are examined by different scholars. Vocabulary acquisition sounds to occur during a relaxed, motivating, and enjoyable environment where learners think about the new word and its contextual usage. Several factors are also critical in creating an environment with similar enjoyable features, like games, drawings, humorous behaviors, materials, and illustrations. (Ashraf et al., 2014) For many who learn English as a remote language, learning vocabulary is boring because it requires learning unfamiliar words and spellings (Nguyen & Khuat, 2003) and typically requires much practice. I can feel it. Learners find it difficult to interact in such memorized vocabulary activities. (Yip & Kwan, 2007) Qian (1999) states that vocabulary knowledge refers to the dimensions likewise because the depth of vocabulary, which incorporates knowledge about the contexts within which the word is employed, the frequency with which it's used, its morphology, its syntax, whether it's multiple meanings, pronunciations and spellings, and the way the word combines with other words. A wealth of words or a word bank facilitates fluent and effective speaking and writing, whilst other skills (listening, reading, speaking, and writing) are enriched and integrated furthermore. The greater the number of words in an exceedingly learner's word bank, the more instruments they need with which to place some extent on their ideas, and dissect and examine those of others (J. Ahmad, 2011; Elgort, 2011). As such, knowledge of vocabulary is effective and useful for a language learner. Krashen and Terrell (2000) claim that comprehension isn't possible without vocabulary. The more vocabulary is mastered, the higher

one's comprehension and thus more acquisition of language occurs. Kenny (2011) also suggests that, for humans to amass other words and syntax, they'll need to initially acquire vocabulary. it's beneficial for language learners to own vocabulary knowledge and be able to use this data in their day-to-day lives. (Ahmad et al., 2015)

MALL

The learning process is called mobile learning. According to Kukulska-Hulme & Shield (2008), mobile learning is learning which can be done anywhere and anytime through the use of a handheld device. As supported by Dehkordi (2018), mobile learning (M-learning) is one technology that takes on greater prominence in the teaching-learning process, especially in language learning. It shows that mobile learning is a learning strategy that can be implemented by using a handheld device and done anywhere and anytime. Associated with language learning, Mobile learning is further developed into the term MALL. (Pratiwi et al., 2020)

MALL might be defined as language learning that deals with mobile devices and technology (Sutrisna, Ratminingsih, & Artini, 2018). As supported by Kukulska-Hulme and Traxler (2005), varieties of mobile devices in Mobile Assisted Language Leaning are smartphones, tablets, and laptops. These devices are employed as its name mobile technology which assist the users by the function of mobility and portability. It implies that these devices are easily carried which makes the teachers and students use these devices to learn anywhere and anytime. According to Azli, Shah, and Mohamad (2018), Mobile-Assisted learning is formal and informal learning that may help traditional learning. it's said as formal and informal learning because it should be done in the classroom or outside. (Pratiwi et al., 2020)

Additionally, Abdelraheem and Ahmed (2015) state that Mobile Assisted language learning might be a learning strategy that uses portable applications like Facebook, Instagram, YouTube, and other social media that supports language learners to be told their target language. it is because language learners can listen to the right pronunciation from the dictionary application and that they attempt to pronounce it. Inline, so (2016) states that Whatsapp can be used in language learning because this application enables teachers and students to communicate outside of the classroom. It also enables the teacher to share learning material through a group chat with students. From those statements, Mobile Assisted Language Learning can be inferred as a language learning strategy that uses smartphones, laptops, and tablets as a tool. These devices can be used in implementing MALL by utilizing some features and applications that are related to learning materials. The use of Mobile Assisted Language Learning has been beneficial in language learning.

According to Chiu et al. (2015), the use of the mobile device in language learning could improve students' language skills. It is because mobile devices provide some features and applications that support language learners to improve their language skills.

Chartrand (2016) states that the use of dictionary applications on smartphone enables learners to improve their pronunciation and vocabulary mastery. It is because language learners can listen to the right pronunciation from the dictionary application and that they attempt to pronounce it. also mentions that language learners and teachers are able to access learning materials easily. Since the utilization of MALL provides internet access, language learners can access supporting learning materials easily. It makes language learners have rich information sources related to learning materials. Moreover, Krivoruchko et al (2015) demonstrate that the MALL implementation facilitates mobility for learners and teachers.

It implies that language learners can learn their target language anywhere and anytime. Notwithstanding, teachers could access teaching-learning material anywhere and anytime. In general, MALL has some benefits for teachers, students, and also the training process.

Many studies had been conducted which is related to the employment of mobile technology in English learning.

Applications

Recently, the employment of web-based flashcard programs like Quizlet has become a preferred tool utilized by second/foreign language teachers to foster their students' vocabulary learning. Quizlet is an interactive website that allows its users to retrieve the meaning of words using flashcard sets and a variety of learning tools. in step with recent statistics, Quizlet has over a million registered users and eighty million visitors everywhere around the globe (Quizlet, 2014). Students' access to Quizlet is easy and without creating an account. However, students are obliged to register if they might prefer to create their own word lists and luxuriate in extra features like image uploading and voice recording. Three reasons may justify the popularity of web-based flashcard programs: (1) increasing students' vocabulary size and tracking their progress, (2) introducing new vocabulary using multimedia, and (3) enabling students to check at any time in any place as long as they are connected to the internet. (McLean, Hogg & Rush, 2013)

Digital Vocabulary Notebook (DVN) is another accepted MALL vocabulary learning application that was developed to replace the traditional paper notebook and to spice up its effectiveness

through the advantages of technology. Apparently, using DVN brings many advantages to vocabulary learning because it (1) enables students to review, edit and classify their own vocabulary lists at their own convenience (Bazo, Rodriguez & Fumero, 2016), (2) leades students through the strategy of learning vocabulary, (3) provides a formative assessment as many self-assessment tests are available, (4) supports students' autonomy and (5) saves classroom precious time which could be devoted for practical activities that improve students' understanding and stimulate their use of target vocabulary. Moreover, being connected online enables students to interact, through the online application, with their teachers, hence, saving classroom time. On the other hand, teachers are able to monitor students' progress and induce valuable feedback which is used afterward to identify the important needs and difficulties faced by students. Consequently, teachers plan for carrying out some actions and activities to help students to cope with successfully such problems at an early stage. Walters (2009) conducted a study and concluded that DVN was proved to be effective in helping students to seek out vocabulary faster and more efficiently.

Recently, Digital Video Games (DVG) are classified under the umbrella of MALL and gained much popularity among teachers who seek to utilize them to promote students' learning. Tsai and Fan (2013) maintain that game-based learning could be a style of learning during which video games are integrated with education. within the domain of language learning, a distinction has been made between game-based and game-enhanced learning. Reinhardt and Sykes (2012) mentioned that the most difference between the aforementioned two types lies within the undeniable fact that the game-based type is related to those DVGs that are specifically tailored to attain specific acquisition outcomes whereas the game-enhanced type may be a commercial-off-the-shelf DVGs which will be utilized in language classrooms.

Online dictionaries, accessed through handheld devices, represent another sort of MALL application. Many studies have reported the efficiency of using online dictionaries in learning vocabulary as indicated by the performance of scholars within the post and delayed tests compared to students who do not have an access to a dictionary (Macaro, 2005). Generally speaking, dictionaries are used to help students in accomplishing three goals: (1) comprehending spoken and communication through identifying the meaning of unknown words, and (2) producing language by looking for the words that are needed for speaking, writing, and translation, and (3) increasing students' knowledge of words and therefore the thanks to using them in numerous contexts (Nation, 2001). In the past, some teachers rejected the employment of dictionaries claiming that this could increase the cognitive load that affects negatively reading comprehension and encouraged their students to use dictionaries thanks to the last resort. They believed in the effectiveness of using contextual analysis to go looking out for the meaning of unknown words. However, it proves to

be hard to depend on contextual clues only to identify the meaning (Laufer, 2003). Online dictionaries like Dictionary.com, Merriam-Webster Dictionary, and also the Free Dictionary are found effective in decreasing the cognitive load and improving students' vocabulary acquisition as they permit students to approach the meaning of words, etymology, sample sentences, and pronunciation quickly and efficiently (Deng & Trainin, 2015).

A) Installed applications

1. Vocab Victor English Word Game

(Android, iPhone, iPad)

2. Word of the day

(Android, iPhone, iPad)

3. Magoosh Vocabulary Builder

(Android, iPhone, iPad)

4. Words with Friends

(Android, iPhone, iPad)

5. Quizlet

(Android, iPhone, iPad)

6. 7 Little Words

(Android, iPhone, iPad)

7. Memrise: Learn Languages Free

(Android, iPhone, iPad)

8. 11+ Vocabulary Builder

(Android, iPhone, iPad)

9. Learn English Vocabulary

(Android) (Nuraeni et al., 2020)

Socializing applications: WhatsApp, Viber, Telegram, and Facebook Messenger

WhatsApp

WhatsApp is a free program that allows users to send and receive text messages and make phone calls. It also has content sharing options involving photographs, video, audio, location, and emojis. It is adaptable with Android, Blackberry, and Apple devices. It is believed to be the most commonly used instant messaging assistance in the world today, with over 1.2 billion monthly active users (The Statistical Portal, 2018). Due to its popularity, plenty educators are interested in exploring its feasibility for teaching and learning a second language (Bensalem, 2018). Some research concentrating on using this program in foreign language instruction demonstrates that it is a useful technical tool for learning various aspects of the language, such as vocabulary, punctuation and collocations (Awada, 2016; Bensalem, 2018; Hamad, 2017). The more special chances for foreign language education that can be employed with this application are found in its elements. Emojis can be used to teach writing, speaking, and other skills, for instance. For example, assigning students to ask their partners to create a WhatsApp group can be used to teach writing. They are then prompted to send emojis to each other. They are then given the task of describing the emojis delivered by their partners (Oxford University Press ELT, 2016). Then they could be invited to correct one other's statements as a follow-up task. Although the teacher must be the final corrector and feedback giver on all students' work, this method supports cooperative learning because students are allowed to work together and debate their outcomes (Mwakapina, Mhandeni, & Nyinondi, 2016 2016).

Facebook

Facebook's popularity has exploded in the recent decade. It is a social networking site or online communication device that can be used to collaborate and engage with a virtual community (Boyd

& Ellison, 2007). It can be viewed via the internet or an app installed on iPhones, iPads, and Tablets. Not only is it widely employed by the general public, but it has also become famous among students and professors, who utilize it to communicate with one another (Noordin & Ting, 2017). Some teachers and students have even attempted to utilize Facebook to study English as a foreign language, according to the authors' experiences. Many academics have looked into its potential as a foreign language learning tool because it has a wide range of technological features. Noordin and Ting (2017) examined how 150 high school students in an EFL context used Facebook to improve their language acquisition. According to the findings, the majority of pupils accessed Facebook at least once a day. To put it another way, Facebook has become a daily tool for students to engage with one another. They used it for a variety of purposes, including changing their status, talking, texting pals, and leaving comments on other people's posts. Espinosa (2015) investigated whether it was possible to combine online social networking, such as Facebook, with traditional foreign language training to inspire students and improve their English language learning. It was discovered that Facebook might be used in conjunction with conventional instruction. Facebook might also be used to inspire kids to study English and enhance their motivation, according to reports.

It sustains a favorite for all ages, it has become an app to seek old friendships and maintain new ones; be in touch with family, you may share photos, thoughts, and videos, follow celebrities, channels, and pages, you can also block those who cease to be friends, you can create and manage your events, create and join groups specifics, etc. (For iOS, Android)

Microblogging (mobile blogging)

Microblogging is a mobile phone blogging device that indicates Mobile technology (Ebner, Lienhardt, Rohs, & Meyer, 2010; Yang, 2013). It is a hybrid of blogging and messaging permits users to post short messages, specially between 140 and 280 characters (Nations, 2018 & Meyer, 2010; Yang, 2013). Mobile blogging has taken many forms, including Twitter, Instagram, and Tumbler (Borau, Ullrich, Feng, and Shen as cited in Yang, 2013). Yang (2013) studied a microblogging tool in his research (i.e. Twitter). It was discovered to be an effective instrument for foreign language instruction. Menkhoff, Chay, Bengtsson, Woodard, and Gan (2015) looked into how pedagogical tweeting may be utilized to solve the problem of students who don't want to participate in class. Twitter has been considered as an excellent technique for getting students involved within the class. This was because students could access it via a website and an app on iPhones, Android phones, and computers. It was done by, for example, discussing in-class and out-of-class questions or providing advice and feedback on tasks (by the teacher). The students might

then tailor the conversation outcomes and collaborative knowledge generation to their particular situations. (Menkhoff et al., 2015)

Snapchat

This is often the most popular app for youth between the ages of 13 and 34; you'll be able to create and send either images or videos with text to your contacts that last seconds or to the general public for 24 hours. you'll see what is going on in your city, from different fan opinions. (For iOS and Android)

Vine

To make, view, and share short clips of six seconds or "Vines" of all kinds, views are counted as loops, you can use hashtags or keywords to be found by other users. (For iOS, Android, Windows)

Periscope

The slogan of this app is "explore the world through someone's eyes", which means that you can "see" what the other one is dealing with at the time, like when your contacts share a concert, a walk, or a talk. You can share your short videos online or live. For example, if you're traveling and willing to share life experiences with your contacts if you get little hearts, your content is liking your readers. (For iOS)

Flickr

This is an old yahoo app that has returned renewed, users have 1TB free to search, save, and organize their photos, including filters and you can also share them on Facebook or Twitter. (It's for iOS and Android)

Instagram

Another popular one is to share your photos using all types of filters, and fifteen-second videos that you can edit before. It is widely used by celebrities and brands, search with keywords or hashtags and follow your favorites! (It's for iOS/Android)

Skype

It's great for making calls, multiple people can participate in a conference-like discussion, whether it's just audio or can include video, you can also chat, and send texts and photos. (It's for iOS, Android, and Windows)

Twitter

Express yourself in 140 letters, it's one of my favorites for news of the moment, from all over the world; Find out firsthand by following your favorites, also use keywords to find what affects you, follow your friends, and repeat what they write (RT), answer tweets, participate in sweepstakes, share photos, learn what others convey, etc. (It's for iOS, Android, Windows)

Messenger

Contact your people privately and for free. imagine you're texting, but without paying (work with your data plan) You could access your Facebook contacts and those on your phone. You can also make chat groups, name the group, take and send photos and videos, and you can make calls at no charge, even to people from other countries, you might send voice messages, for those conditions when you have a lot to say.

Waze

Very useful when you're stuck in traffic. Waze is the GPS app or navigation with the largest community in the world, allowing you to alert other drivers about traffic accidents in real time, closures by road works, closed streets, etc. You could save money on gas by acting with the society by reporting the variant prices on offer. (iOS/ Android/ Windows).

Linkedln

It's a social app but more professional, it allows you to make your profile or resume, allows you to explore for a job, connect with other professionals, find out about job offers and industry news, recommend your acquaintances and show them to the world what you have achieved as a skilled.

DripThat

It's a free app, with which you can transfer photos and videos with your contacts "on account of drops", that is to say, little by little, you control the specific time sharing your drips, either in private, public, or in groups. (Hogar, 2021)

Statement of the problem

According to the importance of learning vocabulary effectively, and using technology to make it either easy or creative (Rahimi & Miri, 2014), this study focused on the MALL methods influence on vocabulary learning.

Research Question

This study tried to find justifiable answers to the following questions:

To what extent MALL effects on teaching vocabulary?

Research Hypothesis

This study has been designed to investigate the thesis that there is no relation between MALL and learning vocabulary.

RESEARCH METHODOLOGY

Participants

The participants of this study were 150 Iranian students (male & female) which were selected randomly. It was carried out for one semester in the academic year 2022 at Rafsanjan high schools.

Instrument

The instrument used for present study was test. The test was adapted from TOEFL (Puhl, 1993).

Procedure

The study procedures consisted of three steps. The steps were as follows:

Step 1:

At first, the participants took a vocabulary pre-test in which 10 items were provided. Their responses were recorded in a file to be analyzed later.

Step 2:

50 students were selected as the experimental group, which was required to learn vocabularies incorporating MALL. The other formed the control group, which was required to learn the same vocabulary through tradition methods.

The experimental group got familiar with other vocabulary applications. They were sent a list of words taken from the textbook using WhatsApp 3 times a week after each class. Learners in this group were asked to define the words using the Android Online Dictionary(http//dictionary.reference.com/) application, use the words in sentences they created and send those sentences back to their peers and the teachers for correction.

For control group, the same content was taught in different environment. They were asked to do the regular homework while they studied in the traditional way.

Step 3

Both experiment and control group participate in post-test.

Data Analysis

This quantitative study has based on the measures chosen for evaluating vocabulary improvement. The researcher segmented, coded, and scored, considering the test's answer keys. Descriptive Analysis has conducted on SPSS 26.0 to determine the mean score and the standard deviation of pre & post-tests for the control and experimental group via manipulating MALL.

RESULTS

Table 1 presents the descriptive statistics of the pre-test and post-test data for the control and experimental groups.

Table 1

Descriptive Statistics

		N	Minimum	Maximum	Mean	Std. Deviation	Std. Error Mean
Pre-test	**CG**	**100**	**11**	**16**	**13.33**	**1.676**	**0.168**
	EG	**50**	**11**	**16**	**13.64**	**1.638**	**0.232**
Post-test	**CG**	**100**	**11**	**17**	**13.82**	**2.115**	**0.211**
	EG	**50**	**12**	**19**	**15.80**	**2.365**	**0.334**

***CG: control group/ EG: experiment**

Tables (2 & 3) are obtained based on a paired samples T test for CG: According to table 2, the mean and standard deviation of pre-test scores for the control group are 13.33 and 1.676. Also, the mean and standard deviation of post-test scores for the control group are 13.82 and 2.115.

Table 2

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
CG	Pre-test	13.33	100	1.676	0.168
	Post-test	13.82	100	2.115	0.211

According to table 3, the significance level of paired t-test for the control group is equal to 0.072. Since this value is upper than 0.05, it didn't reject the quality null hypothesis that "the mean scores of the pre-test and post-test are at the error level of 5%. It concludes control group had no significant difference between the mean scores.

Table 3

Paired Samples Test									
		Paired Differences					t	df	Sig.(2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
CG	pre-test – post test	-0.490	2.699	0.270	-1.025	0.045	-1.816	99	0.072

Tables below (4 & 5) are obtained based on a paired samples T test for EG: According to table 4, the mean and standard deviation of pre-test scores for the experimental group are 13.64 and 1.638, respectively, and also the mean and standard deviation of post-test scores for the experimental group are 15.80 and 2.365, respectively.

Table 4

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
EG	Pre-test	13.64	50	1.638	0.232
	Post-test	15.80	50	2.365	0.334

According to table 5, the significance level of paired t-test for the experimental group is equal to 0.000. This value is less than 0.05, so the null hypothesis " the quality of mean scores of pre-test and post-test" is denied. At the error level of 5%, it concluded that in the experimental group, there is a significant difference between the mean scores of pre-test and post-test, and in other words, it says that the intervention applied to the experimental group (teaching English words using the Mall method) had a significant effect on learning.

Table 5

Paired Samples Test

		Paired Differences					t	df	Sig.(2-tailed
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
EG	pre-test -post-test	-2.160	2.668	0.377	-2.918	-1.402	-5.725	49	0.000

Tables (6 & 7) obtained from applying the independent-sample T test for both groups post-test to observe the differences between the control group and experimental group mean: Table 6 reports the descriptive statistics of post-test scores for both control and experimental groups. The mean and standard deviation of post-test scores for the control group, which includes 100 subjects, are 13.82 and 2.115, respectively. Also, the mean and standard deviation of post-test scores for the experimental group, including 50 participants, are 15.80 and 365, respectively.

Table 6

Group Statistics

	group	N	Mean	Std. Deviation	Std. Error Mean
Post-test	control	100	13.82	2.115	0.211
	experimental	50	15.80	2.365	0.334

According to table 7, the value of significance level of the Leven test, which is incorporated to evaluate the equality of variance of post-test scores between the control and experimental groups, is equal to 0.335, and because at the 5% error level, this value is upper than 0.05. It demonstrates that the equality hypothesis of post-test variance scores in groups doesn't reject. The significance level of the independent t-test is equal to 0.000. Since this value is less than 0.05, the null

hypothesis that the mean post-test scores of the two groups are equal rejects. It also says that the mean post-test scores of the two groups are the same. Error level of 5% concluded that the average post-test scores in the experimental group, in which English words teach using the MALL method, were significantly higher than the average post-test scores in the control group.

Table 7

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2 Tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post-test	Equal variances assumed	0.935	0.335	-5.195	148	0.000	-1.980	0.381	-2.733	-1.227
	Equal variances not assumed			-5.004	88.983	0.000	-1.980	0.396	-2.766	-1.194

DISCUSSION

Dashtestani (2013) explored the attitudes of Iranian English as foreign language instructors toward the implementation of MALL. The result showed that there have been positive attitudes of the actors toward using mobile phones for language acquisition and teaching. In general, MALL has multiple profits for foreign languages. For starters, it makes language literacy undemanding for either preceptors or scholars. Preceptors can run various tasks exercising particular mobile devices and operations with no time or position constraints. Second, both preceptors and scholars could benefit from transnational connectivity and training. In other words, they've further openings to study languages and admit knowledge from people from different areas or countries (Wishart, 2008). Proximity, portability, individualism, connectivity, and environment-perceptivity are features it offers. (Lan et al., 2007)

The gests of experimental actors in using a mobile device may offer regard to the possibilities of mobile operations as tools for formal literacy. The educational protocol included using Whatsapp to shoot the scholars ‟ words they could look up using the Online Dictionary operation for Android,

and this protocol effectively tutored vocabulary. The vocabulary learning via mobile bias, proficiency through tone-regulated word look-ups using another Android operation (the Online Dictionary), peer review of word operation in party-generated rulings, transfer of literacy, also engagement in the literacy process via MALL were all features uncovered through data analysis.

Furthermore, vocabulary literacy requires learning the sounds, the written forms, and the interpretations of words and the capability to recover these three aspects of the words from memory. The recovery qualification, from the cognitive perspective, vastly depends on the fruitful operation of short- and long-term memory. The faculty to fluently move between the Whatsapp lists, the Online Dictionary Android operation, word operations for mobile bias, and textbook messaging operations for spreading pupil-created rulings on the same mobile device may have enriched attention spans and involvement in the literacy process; this enterprise finds support from former exploration (Alemi & Lari, 2012; Hsu etal., 2013; Khazaie & Ketabi, 2011; Redd, 2011; Taki & Khazaei, 2011; Zhang et al., 2011). In this study, comparing the groups discovered that the experimental group was more successful than the control group in the post-tests.

This finding was act other investigation studies that use variant features and tools of mobile technology similar as SMS, mobile operations, and other mobile systems generated by researchers. Studies by Liu and Chen(2014), Başoğlu and Akdemir(2010), Rahimi and Miri(2014), Wu(2015), Zhang etal.(2011), Lu(2008), and Saran et al.(2012) also showed that experimental groups using mobile technologies got advanced scores in the post-test than control groups who studied vocabulary traditionally.(Dağdeler, K.O.etal., 2020) Although the contents and conditioning of the mobile operation given to the experimental and control group were the same, the experimental group achieved further open vocabulary knowledge. The reason may be due to the characteristics of mobile operations that are visual, feasibility, interactivity, and immediate feedback. Technology provides numerous audile and optic elements to learners. Overall, the findings of this study indicate that technology can increase literacy rates compared with traditional styles. (Fageeh, 2013)

CONCLUSION

In this investigation, the researcher planned to show the influence of the MALL method on high school students' vocabulary improvement. The TOEFL vocabulary test was administered to both groups. Finally, scores have been entered into spss version 26 for further study.

In the treatment process, the experimental group was sent a list of words selected from the textbook using WhatsApp 3 times a week after each class. Learners in this group were supposed to define the words using the Dictionary application, use the words in sentences they created and send those

sentences back to their partners and the teachers for correction. They also got familiar with other vocabulary applications. Both the experiment and control groups participate in the post-test. When opposing the traditional methods, the MALL was considerably more successful in developing students' vocabulary acquisition. According to the hugely positive effects, future researchers could focus on the challenges of using MALL in Iran.

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