LES

The Effect of Using Telegram Messenger on Vocabulary Learning of Iranian EFL Learners

Elham Movafagh Ardestani

Department of Linguistics and Foreign Languages, Payame Noor University, Qum, Iran

Corresponding email address

elham.movafagh55@gmail.com

Abstract: The current study investigated the effect of using Telegram Messenger on Iranian EFL learners' vocabulary learning. From among 120 candidates, 100 of them were chosen randomly. After homogenizing the participants by Oxford Placement Test (OPT), 50 students were chosen as the main sample size and were randomly divided into two groups: one control and one experimental group, each having 25 students. Thereafter, the multiple choice vocabulary pretest was administered to all subjects to ensure their homogeneity prior the beginning of the study. Among all questions in pretest, 40 questions, which were not correctly answered, were chosen for teaching in next step. In the treatment period, students in experimental group were taught via Telegram Messenger while in the control group they were taught traditionally. After 8 sessions of treatment, the posttest was administered to assess the participants' improvement in both groups. The result of the Independent-Samples t-test revealed that students in experimental group had more progress than the students in the control group meaning that Telegram Messenger had significant effect on improving vocabulary knowledge of Iranian intermediate EFL learners. The findings consolidate the role of mobile phones as effective tools in teaching and learning vocabulary. Thus, it is hoped that the study encourages the EFL/ESL teachers to host this device in the classroom environments. The finding may also be beneficial for materials and curriculum developers in designing and preparing syllabi that are more adaptable with using MALL which may help language learners to learn vocabulary better.

*Key words***:** Telegram Messenger, Vocabulary, EFL learners

1. Introduction

Using smart phones and internet in Iran as well as all over the world are obvious. In second language teaching and learning utilizing technology namely mobile is the dominant language teaching and learning debates (Peters, as cited in Hashemi & Ghasemi 2011). According to Derting and Cox (2008) Mobile learning technologies have influenced many aspects of education, and provide new method for instructors to deliver knowledge and motivate students to engage in various learning activities. because of the rapid development of mobile technology in higher education, students using mobile devices with Internet accesses via installing new coming application like Wats app, Viber and Telegram have expanded communication methods and provide opportunities for collaboration, access to traditional learning and infor-

mation resources (Donaldson, 2010). Teaching and learning vocabulary is completely different from teaching other skills. For vocabulary learning learners need to be provided with an atmosphere that is suitable to their imagination through different activities appropriate to their own world. In this sense, teachers should modify their teaching techniques and strategies in a way that appeal to students' abilities, aptitudes and create that promising classroom environment where students learn English language through amusement and enjoyment (Cakir, 2004). Many research studies have been done on the improvement of vocabulary but still students have not enough vocabulary knowledge (Adibi ,2016; Atasheneh & Naeimi, 2015; Soleimani & Akbari, 2013). It seems some other factors can affect students' vocabulary learning. One of those important factors is motivation that could affect EFL learning (Dornyei, 2005, p. 65). It's believed that using distance learning via new communicative application can motivate students to learn better. Therefore, this study aims to explore the effect of using Telegram Messenger on vocabulary learning of Iranian students. The current study aimed to answer the following research question:

RQ. Does Telegram messenger have any statistically significant effect on improving vocabulary knowledge of Iranian intermediate EFL learners?

2. Review of the Related Literature

2.1 Importance of Vocabulary Knowledge

In learning any language, vocabulary knowledge is so important. Vocabulary knowledge is often viewed as a critical tool for second language learners because a limited vocabulary in a second language impedes successful communication. Considering the importance of vocabulary acquisition, Schmitt (2000) emphasizes that "lexical knowledge is central to communicative competence and to the acquisition of a second language" (p. 55). learning vocabulary is boring for many students. Kinsella (as cited in Abdollahzadeh & Amiri, 2009) states that vocabulary is the single strongest predictor of academic success for EFL learners. It is also related to other parts and skills of a language; for instance, there is a close link between vocabulary knowledge and comprehension both for children and adults. Since vocabulary controls comprehension, the extent of one's knowledge of words affects how much is understood from a text. Furthermore, a direct link has been observed between vocabulary knowledge and language skills (Thorndike, as cited in Curtis, 2006). McKeown (2002) argues that vocabulary knowledge is the heart of a language comprehension and use. Additionally, Nation (2001) states that readers need to know at least 97% of the vocabulary in a text for an adequate understanding of it. Without knowledge of the key vocabulary in a text, a learner may have serious trouble in understanding the message, that is, word knowledge is crucial to reading comprehension and determines how well students will be able to comprehend the texts they read. So, having students with a large amount of vocabulary knowledge is essential to language comprehension. In addition, vocabulary helps students with language production. Hubbard (1983) states that the more words a student knows the more precisely that student can express the exact meaning he/she wants to. Based on this view, to communicate effectively students need to know a large number of word meanings. Likewise, Cardenas (2001) states that vocabulary is used to determine the proficiency a student has in oral context. This is to say that vocabulary is an essential component to determine how much a student is able to communicate successfully. So, students have to overcome the lack of vocabulary knowledge in order to communicate effectively.

2.2 Mobile Learning

Now a day, in education using mobile and wireless devices is a new way to help teachers and learners for teaching and learning. For the sake of their advantages, mobile phones are considered as valuable learning tools. After around half a century of integrating computers into instruction, the rapid evolution of mobile devices is opening up a whole world of new learning experiences with technology. Mobile learning or m-learning is a kind of learning that allows learners to use different learning materials anywhere and anytime (Lan &Sie, as cited in Tayebinik & Puteh, 2012). Mobile learning is a type of learning that takes place with the help of mobile devices (Kukulska-Hulme & Shield, 2008)

and simply means learning anywhere and at any time. While at the beginning, mobile learning focused on the role of mobile technologies and devices in education, in the recent years mobile learning is characterized with the mobility of the user and the informal learning that happens out of the classroom (Sharples, 2000). In this case, any portable and palmtop devices such as portable media player devices, tablets, and mobile phones contribute to mobile learning. From among the portable technological tools, mobile phones are the most commonly used devices for learning (Pęcherzewska & Knots, 2007) and due to their portability and accessibility many scholars now consider using them in the educational settings for learning and teaching purposes (Tayebinik & Puteh, 2012).

Kuzenkoff and Titsworth (2013) examined the effect of mobile phone usage on student learning these authors considered lecture and note taking. They found that students' scores on the free recall test would be greatest for the group that did not text/post. They suggested that if students were to engage in reading activities on their mobile phones, it could be inferred that measurable improvements in their reading ability. Kiernan and Aizawa (2004) studied the possible use of mobiles in task-based learning which resulted in more effective communication of the learners. Mobile devices have numerous advantages for vocabulary learning.

As Brown (2001) asserts, one of the first studies on the application of mobile phones in language learning was done by the Stanford Learning Lab. The result of this research shows a great potentiality of this technology in vocabulary lessons. Recently, a few studies have investigated the pedagogical use of mobile phones for vocabulary learning. The projects (Lu, 2008; Thornton & Houser, 2005) integrating text message and vocabulary learning were generally well received. Students learn more effectively when exposed to spaced-repetition of vocabulary than massed repetition.

Mobile learning has certain benefits for language classes as well and allows language teachers to offer access to authentic content, communicative language practice, and task completion (Chinnery, 2006). While the effect of some mobile phone affordances such as Short Message Service (SMS), voice-messaging, cameras, video-recording and Internet access have spawned studies (Thornton & Houser, 2005), few studies have investigated students' personal use of mobile apps for learning and the learning benefits (Steel, 2012). Mobile devices are effective tools for language learning in general terms (Rosell-Aguilar, 2007) and have positive effect on the development of language skills (Chang & Hsu, 2011). It also motivates language learners and support learner interaction, collaboration, and the co-construction of knowledge (Joseph & Uther, 2009).

Today in teaching and learning English language with the help of one mobile app teachers and learners can communicate easily. Steel (2012) asserts, "Mobile apps offer a wide range of learning tools that can be downloaded to their mobile devices and used productively at opportune times in a variety of settings and on-the-go". (p. 1). In case of language learning this feature of mobile learning is a more practical help, as "extending language learning outside of classroom time, especially where in-class language practice time is limited, is essential to language acquisition" (Kennedy & Levy, as cited in Steel, 2012, p. 2). Among mobile apps, using new Messengers such as Telegram, Whats App and Viber is common in Iranian setting. Telegram as one of the most popular one has many advantages like sending text, picture, video, and voice message. Students can use this application freely.

In terms of using different method for teaching vocabulary many researchers examined different strategies to teach vocabulary, but still students are not interested to learn vocabulary and they have not enough vocabulary knowledge. Current study by using Telegram Messenger aims to investigate the effect of this popular application on vocabulary knowledge of Iranian intermediate EFL learners.

3. Method

3.1 Participants

The initial sample of this study was 100 female EFL students at the upper-intermediate level aged between 17 to 28. They were going to study *English Result Intermediate* compiled by Macdonald and Hancock (2011) in Simin language institute in Tehran. After homogenizing the participants by Oxford Placement Test (OPT), 50 students were chosen as main sample size and randomly divided into two groups. Each group included 25 students. They became the experimental and the control groups of the study. Experimental group was taught via Telegram Messenger and the control group was taught traditionally.

3.2 Instrumentation

3.2.1. Oxford Placement Test

In order to homogenize the participants and to make sure all of them are at the same level of proficiency i.e. intermediate level, the Oxford placement test was administered. This test is primarily used in order to measure and determine the participants' level of general English language proficiency and ensure their homogeneity. The OPT is often used by ELT researchers as the language proficiency test in which participants scoring one standard deviation above and one standard deviation below the mean are considered homogenized members. This test consisted of 60 items in the form of multiple choice questions, and students are supposed to choose the correct answer from among the alternatives. The required time to complete the test is 30 minutes. The reliability of the OPT has been reported by Hamidi (2015) to be .82 using KR-21 formula having seventy students studying New Interchange 3 and .86 using a test-retest method with a 2-week interval having ninety students almost finishing Four Corners 4, both of which show high reliability index.

3.2.2. Pretest and posttest

For the pre-test and post-test, the researcher was followed Bachman and Palmer's (1996) framework to develop a good and reliable pre-test. The pretest was designed to test the intermediate EFL students' vocabulary knowledge. The test consisted of just one section namely vocabulary. It consisted of 60 multiple-choice items. The test content was checked against the table of specifications, adequate timing, clarity of instructions, arrangement of items, and feasibility of test administration. The test was given to 20 students similar to the main participants to identify mistakes and defective leads and choices in the test. To determine objectively the characteristics of the individual items, items were inspected in terms of facility level (IF) and discrimination power (ID). The pre-test item facility was 31% which was considered worthy to use. To estimate reliability of the test KR-21 formula reliability was employed. The reliability estimate for the pretest was 0.73 which is a moderately high index of reliability. In order to assess the lexical achievement of the participants after the treatment, the similar version of pre-test with different item arrangement as well as option arrangement was used as post-test.The reliability estimate for the post-test also was calculated (0.721).

3.3 Procedure

In the first phase of the study, a standard version of Oxford Placement Test was administered to initial sample of 100 students to make sure that the students were all at the same level of English language proficiency. According to the result of OPT test50 students who were in intermediate level divided into two groups: one experimental and one control group each having 25 members. Thereafter, the multiple choice vocabulary pretest was administered to all subjects prior to the treatment to ensure their homogeneity at the beginning of the study. Among all questions in pretest, 40 questions, which were not correctly answered, were chosen for teaching in next step. Then, the treatment period started and lasted for 8 sessions. In each session of the treatment students were taught selected vocabularies. In experimental groups students were taught via Telegram Messenger but in control group they were taught with traditional method. In each session of the treatment five vocabularies were taught via telegram and students were used those vocabularies to make sentences and they shared them in experimental group via Telegram. The students' problems were corrected by teacher via asking

questions in their Telegram group. After the treatment, the vocabulary post-test was administered to all subjects in control and experimental groups to assess the amount of change on the learners' vocabulary knowledge. Finally, the results and findings were analyzed.

4. Results

The first Table presents the result of the reliability analysis for the test.

Table 4.1

TheKR-21 Reliability Indices for Reliability of Pretest and Posttest

Group	KR-21 Reliability
Pretest	0.73
Posttest	0.721

The estimated values of KR-21 reliability for the pretest and posttest were (α= .73) and (α= .0.721) respectively which were both higher than the least possible amount required (i.e. .70) and was considered acceptable. An independent t-test was run to compare the two groups' means on the pretest of writing in order to prove that they enjoyed the same level of vocabulary knowledge prior to the main study.

Table4. 2

Descriptive Statistics for the Pretest of Vocabulary by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest of	Experimental group	25	14.54	1.951	.390
vocabulary	Control group	25	14.44	1.890	.378

Based on the results displayed in Table 4.2, it can be seen that the experimental group (M = 14.84, SD = 1.95) and control group (M = 14.36, SD = 1.89) groups had close means on the pretest.

Table4.3

Independent Samples Test for the Pretest of Vocabulary by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variancs assumed	.431	.511	.883	48	.381	.120	.543	-.612	1.572
Equal variances not assumed			.883	47.952	.381	.120	.543	-.612	1.572

As the above Table shows, there was no significant difference between the two groups on their pretest of vocabulary, t

(48) = .88, p> .05.

Another independent t-test was run to compare the experimental and control groups' means on the posttest in order to probe the only research question of the current study concerning the effect of Telegram messenger on improving vocabulary knowledge of Iranian intermediate EFL learners.

Table 4.4

Descriptive Statistics for Posttest of Vocabulary by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Posttest of	experimental group	25	18.80	1.038	.208
Vocabulary	control group	25	16.14	1.172	.234

Based on the results displayed in Table 4.4 it can be seen that the experimental group (M = 18.92, SD = 1.03) had a higher mean on the posttest compared with the control group (M = 16.04, SD = 1.17).

Table 4. 5

Independent Samples Test for the Posttest of Vocabulary by Groups

	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
Equal variances assumed	.038	.841	9.200	48	.000	2.660	.313	2.251	3.509
Equal variances not assumed			9.200	47.306	.000	2.660	.313	2.250	3.510

The results of the independent t-test, t (48) = 9.20, p = .000, indicated that there was a significant difference between the two groups' mean scores on the posttest of vocabulary knowledge, thus the null hypothesis was rejected. The experimental group significantly outperformed the control group on the posttest of vocabulary knowledge.

5. Discussion and Conclusion

This study was carried out to determine whether the use of Telegram Messenger was effective in enhancing students' vocabulary Knowledge. To answer the only research question of the current study and comparing the students' posttest scores in both experimental and control groups after the treatment, the researchers found that students in both groups had improvement but in experimental group in which students taught via vocabulary via Telegram Messenger, the progress was more than control group and this progress was statistically significant. The results of this research is in line with Başoglu and Akdemir (2010), Cavus and Ibrahim (2009), Song (2008), Thornton and Houser (2005) who concluded that cell phone can be valuable tool for supporting students learning. Some other researchers investigated the effectiveness of mobile learning on vocabulary improvement of EFL learners and found that students by using of social media had more improve than students who taught via traditional classes (Kiernan & Aizawa, 2004; Kuzenkoff & Tits-

worth, 2013). The findings of this research provide insights for learners and teachers in demonstrating the importance of using social media to improve students' vocabulary knowledge. The result of this study can be beneficial to material developer and syllabus designer to design some teaching strategies more adoptable with using social media such as Telegram messenger. Based on findings, some suggestions for future studies were proposed regarding the role of Telegram messenger on improving vocabulary, this study could be replicate on other skills such as Speaking, writing. This study was conducted on EFL female intermediate level and cannot be generalize to other level and male learners, so it can be replicate to other level of language proficiency and gender.

References

Abdollahzadeh, E. &Amiri, N. (2009). The effect of semantic mapping as a vocabulary instruction technique on EFL learners with different perceptual learning styles. *The journal of applied linguistics, 2*(1), 1-27.

Adibi, Z. (2016). The Effect of using short stories on Iranian high school learners' vocabulary learning. *Journal of Language Sciences & Linguistics,4*(3), 180-190.

Atasheneh, N., & Naeimi, M. (2015). Vocabulary Learning through Using Mechanical Techniques Vocabulary Learning Strategy. *Theory and Practice in Language Studies,5*(3), 541-554.

Bachman, L. F., & Palmer, A. S. (1996). *Language testing in practice*. Oxford: Oxford University Press.

Başoglu, E. B., & Akdemir, O. (2010). A comparison of undergraduate students' English vocabulary learning: using mobile phones and flash cards. *The Turkish Online Journal of Educational Technology, 9*(3), 1-7.

Brown, H. D. (2001).*Teaching by Principles: An Interactive Approach to Language Pedagogy* White Plains, NY: Longman.

Joseph, S., & Uther, M. (2009). Mobile devices for language learning: Multimedia approach. *Research and Practice in Technology Enhanced Learning*, *4*, 7-32.

Cakir, I. (2004). Designing activities for young learners in EFL classrooms. *GU,Gasi Egitim Dergisi,24*(3), 10-12.

Cardenas, S. (2001). *Issues on active speaking vocabulary assessment*. Lowa State University. Retrieved from Internet http://www.teachingenglish.org.

Cavus, N., Ibrahim, D. (2009). M-Learning: An experiment in Using SMS to support learning new English language words.*British Journal of Educational Technology, 40* (1), 78-91.

Chang, C.K., & Hsu, C.K. (2011). A mobile-assisted synchronously collaborative translation-annotation system for English as a foreign language (EFL) reading comprehension. *Computer Assisted Language Learning*, *24,* 155-180.

Chinnery, G. M. (2006). Emerging technologies, going to the MALL: *Mobile Assisted Language Learning. Language Learning & Technology*, *10*, 9-16.

Curtis, M. E. (2006). *The role of vocabulary instruction in adult basic education*. Retrieved July 6, 2011, from http://www.ncsall.net/fileadmin/ resour ces /ann_rev/comings_ch3.pdf

Derting, T. L., & Cox, J. R. (2008). Using a Tablet PC to enhance student engagement and learning in an introductory organic chemistry course. *Journal of Chemical Education*, *85*(12), 1638-1643.

Donaldson, R. L. (2010). Student Acceptance of Mobile Learning. (Doctoral dissertation, Florida State University). Retrieved from http://diginole. lib.fsu. edu/cgi/ viewc ontent. cgi?article =12 43 &context=etd.

Dornyei, Z. (2005). *The psychology of the language learner:Individual differences in second language acquisition.* Mahwah, NJ: Lawrence Erlbaum.

Hamidi,   H.   (2015).   *Research   in   applied   linguistics*.   Retrieved   from http://www.iranelt.com/index.php/introduction-to-research-methods.

Hashemi, M. & Ghasemi, B. (2011). Using mobile phones in language learning/teaching. *Science Direct 15,*

2947-2951.

Hubbard, P. (1983). *A training Course for TEFL*. Oxford: OUP

Kiernan, P.J., & Aizawa, K. (2004). Cell phones in task based learning: Are cell phones useful language learning tools? *ReCALL, 16*(1), 71-84.

Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. *ReCALL*, *20*, 271-289.

Kuznekoff, J. H., & Titsworth, S. (2013). The impact of mobile phone usage on student learning. *Communication Education,62*(3),233-252.

Lu, M. (2008). Effectiveness of vocabulary learning via mobile phone. *Journal of Computer Assisted Learning, 24*, 515–525.

Macdonald, A., & Hancock, M. (2011). *English Result*. Oxford: Oxford University Press.

Mckeown, M. G., L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York, NY: Guilford.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge University: United Kingdom.

Pęcherzewska, A., & Knot, S. (2007) Review of existing EU projects dedicated to dyslexia, gaming in education and m-learning. WR08 Report to CallDysc project. June 2007. Available at: http://www.docstoc.com/docs/ 40115 316/WR08-Exi st in g-EU-Projects-review.

Rosell-Aguilar, F. (2007). Top of the pods-in search of a podcasting "podagogy" for language learning. *Computer As sisted Language Learning*, *20*, 471-492.

Schmitt, N. (2000). *Vocabulary in language teaching. Cambridge*: Cambridge University Press.

Sharples. M. (2000). The design of personal mobile technologies for lifelong learning. *Computers & Education*, *34*(3), 177-193.

Steel, C. (2012). *Fitting learning into life: Language students' perspectives on benefits of using mobile apps*. Re trieved from http://www. ascilite.org.au/ conferences/wellington12/2012/images/custom/ steel%2c_ ca rolin

Soleimani, H., & Akbari, M. (2013). The effect of storytelling on children's learning English vocabulary: A case in Iran. *International Research Journal of Applied and Basic Sciences, 5*(1),104-113.

Song, Y. (2008). SMS enhanced vocabulary learning for mobile audiences. *International Journal of Mobile Learnin gand Organisation, 2*(1), 81-98.

Tayebinik, M., & Puteh, M. (2012). Mobile learning to support teaching English as a second language. *Journal of Education and Practice*, *3*, 56- 63.

Thornton, P., & Houser, C. (2005). Using mobile phones in English education in Japan. *Journal of Computer Assisted Learning*, *21(3),* 217-228.