

## Effects of Telegram Stickers on English Vocabulary Learning: Focus on Iranian EFL Learners

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### Abstract

This study aimed at investigating the effect of using Telegram stickers on EFL learners' vocabulary learning. To this end, 60 Iranian intermediate EFL learners (30 males and 30 females) at Islamic Azad University, Shahreza Branch studying in the second semester of the academic year 2016-2017 were selected through the convenience sampling method. They were then assigned randomly to the experimental and control groups. Then, a pretest was administered to measure the learners' vocabulary knowledge in both groups. The experimental group received their lessons via Telegram while the control group experienced the conventional teaching techniques. An approved posttest was then administered to both groups in order to check the participants' possible progress. Results indicated that teaching vocabulary through Telegram stickers could lead to outstanding advantages for the learners. In other words, social networking had a positive impact on learning new vocabulary items among Iranian EFL learners. Findings have illuminative implications for language learners and teachers as well as materials developers.

**Keywords:** EFL learners, Iranian learners, MALL, Telegram application, Telegram stickers, Vocabulary.

## 1. Introduction

Today's generation of students is growing up in a digital world. Using digital social devices is a huge part of their everyday experience outside the educational settings. A large part of our social communications is taking place online and since the internet language has a significant effect on the language of the users, it would be essential to do research on such issues and their role in language learning. One crucial question is "Would this new technology actually improve education?" The impact of Information and Communication Technologies (ICT) on learning outcomes has been inconclusive; billions of budget have been spent, but it is generally difficult to evaluate its effectiveness in terms of improved results in language learning. Technology can help facilitate the attainment of learning goals, technology is the collection of techniques, skills, methods, and processes used in the production of goods or services or in the accomplishment of objectives, such as scientific investigation (Hsu, 2013). Technology can be the knowledge of techniques, processes, and the like, or it can be embedded in machines to allow for operation without detailed knowledge of their workings.

In the current digital age, the disconnection of the inside and outside of the classroom and the importance of the promotion and development of group dynamics is increasingly being addressed with the proliferation of interactive, communicative and collaborative platforms, such as email, instant messaging, wikis, blogs, forums, social-networking sites and virtual-learning environments (Motteram & Sharma, 2009). As defined by Kaplan and Haenlein (2010), social media is 'a group of Internet-based applications built on the ideological and technological foundations of Web 2.0, which allows the creation and exchange of user-generated content. Ahlqvist (2008) argues that the impact of social media relies on the fact that they employ mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, create and co-create, discuss, and modify user generated content.

Telegram is one of the web-based applications serving a large online community, which was launched in 2013 by two Russian brothers, Pavel and Nikolai Durov, an entrepreneur and a computer programmer, based in Berlin. Telegram is easy to sign up and use. One of the benefits is the sticker shop. It is a collection of funny images that can be used in chats besides text. Through it, we can share more various document types than WhatsApp. Telegram is a multiple platform app that can run on Android, iOS, Windows Phone, Mac and Windows OS.

Moreover, the Telegram account can be accessed from multiple devices, even at a given time and messages appear simultaneously on all devices (Ebrahimi, Hajebrahimi, Nikfallah, Sari-Motlagh & Shakiba, 2016). Telegram allows users to create groups of up to 5000 people for broadcasting to infinite audiences (Vivienne, 2016). According to Niayesh (2015), the number of Iranians who use Telegram has led this mobile social network application to be a witness of a huge boom recently. He further explains that if domestic social networks attract more users as Telegram did, it will be beneficial for the country in terms of culture and economy. Presumably, the huge adoption wave came after Iranian users experienced various problems when accessing other popular social network applications, in particular, Viber or Whatsapp.

One way teachers can aid language learners in their attempts to absorb more vocabulary items in a foreign language is using different technologies available to students. One of the technologies that can be conveniently employed to help learners is the Telegram application, which is dominating in most of the students' life and is not just a communication app. In other words, this technology has brought about a new type of language learning. Broadly speaking, ICT tools tend to expand access to education. Through ICT tools, learning can occur anytime and anywhere. Online course materials, for example, can be accessible 24 hours a day, seven days a week. (Castro Sánchez & Alemán 2011). Since learners are actively involved in the learning processes in ICT classrooms, they are authorized by the teacher to make decisions, plans, and so forth (Lu, Hou & Huang 2010). ICT therefore provides both learners and instructors with more educational affordances and possibilities. Therefore, the present study aimed to investigate whether Telegram would be an effective means of learning in EFL classrooms. In other words, the main goal of this study was to find the impact of Telegram as an ICT tool on teaching vocabulary to Iranian intermediate EFL learners. Specifically, the following question was addressed.

‘Does the use of Telegram stickers have any significant impact on Iranian EFL learners’ vocabulary learning at the intermediate level?’

## **2. Literature Review**

Communication can be defined as the process of transmitting information and common understanding from one person to another. The elements in the communication process determine the quality of communication. These elements include the sender, encoding the message, transmitting the message through a medium, receiving the message, decoding the

message, feedback, and noise (Lunenburge, 2010). A problem in any one of these elements can reduce communication effectiveness (Keyton, 2011). The message is sent through a medium or channel, which is the carrier of the communication. The medium can be a face-to-face conversation, telephone call, e-mail, or written report (Lunenburge, 2010). Etymologically, the word communication is derived from the Latin word, *communis*, which means common. The definition underscores the fact that unless a common understanding results from the exchange of information, there is no communication. A great portion of the message to be communicated is the emotional part of it. Walther and D'Addario (2001) describe emotions as graphic signs of facial expressions which are used in messages. These signs express different emotions, including happiness, sadness, impatient, etc. Technological devices which have made communication more convenient these days have catered to this need in communication as well.

It emerges that ICT education is essential for learners today. Altogether computers have turned into an integral part of living and education. Through using the latest technology, learners are able to interact with one another in the online environment. Therefore, the integration of ICT in teaching and learning provides further chances for teachers and students in the information era (Salehi & Salehi, 2012a). Due to the widespread use of ICT and the internet, many areas of education, in general, and language teaching and learning, in particular, have undergone a major shift in all aspects (Kajornboon, 2013). Sekiguchi (2012) believe that social media has a remarkable role in the future of language learning and teaching curriculum. However, he added that a sound language curriculum would be needed to be built on the pedagogical principles and educational psychology. Some of these tools and applications may be designed specifically for educational purposes and some others for a more general use. The choices of resources and the way they are used can be linked to different learning theories which may be invoked to explain or predict learning benefits from the use of ICT (Salehi & Salehi, 2012b). The purpose, appropriateness, multimodality and sustainability of the technology should be considered to build a language curriculum based on the current principles of language teaching and learning. The social networks are able to help EFL teachers to make their best efforts to blend technologies and identify barriers to technology integration. The spread of social media assists language educators to promote social learning beyond the classroom. By providing a relevant link with new technologies and

learning theories and models, the utilization of social media may help language learners to create a student-generated learning community (Sekiguchi, 2012).

Reid (2002) maintains that ICT offers students more time to explore beyond the mechanics of course content allowing them to better understand concepts. The use of ICT also changes the teaching and learning relationships. Based on the findings of Reid's study, teachers reported that the relationship between the teacher and learners was sometimes reversed with regards to information technology. This relationship boosts students' confidence when they are able to help teachers with technical issues in the classroom. Therefore, ICT changes the traditional teacher-centered approach and requires teachers to be more creative in customizing and adapting their own material. One such application of technology is mobile phones. Gorjian, Alipour and Saffarian (2012) believe that language teaching has not remained inflexible towards the profound changes taking place in other areas of knowledge and advances in network technologies, which has resulted in the emergence of virtual worlds to facilitate online versus offline communication among users. We can use technology to help EFL learners and teachers learn and teach better and more effectively. Zhao (2004) maintains that technology is just a tool, a means to an end in education.

The employment of modern technologies in education is thus essential in the information era (Digovic, 2005; Salehi & Salehi, 2012a; Yoshii, 2003; Yoshii & Flatiz, 2002). Garret (1991) acknowledges that the integration of ICT in teaching and learning is not a method, rather it is a medium in which a variety of methods, approaches and pedagogical philosophies may be implemented. This implies that the usefulness of ICT relates to how and why it is implemented and combined (Salehi & Salehi, 2012a). On the other hand, with the rapid progress of wireless and mobile learning technologies throughout the world, the usage of mobile phones and other portable means have recently begun to have an effect on language teaching and learning (Ashiyan & Salehi, 2016). Similarly, the growth of language learning technologies has newly changed to be mobilized, portable, and personalized (Yousefzadeh, 2012).

Mobile phones have expanded rapidly since 1995 (Chowdhury, et al., 2012). They are employed not only for sending text messages and making calls, but also for other purposes such as teaching and learning. Technological tools such as Telegram have achieved a dominant role in societies. These kinds of messaging technologies are vastly used by undergraduate learners nowadays (Lenhart, 2007). Every one of these tools has various

attributes that affect suitability for learning goals (Calvo, Arbiol & Iglesias, 2014). For example, sending homework materials through Telegram ensures that all students receive the message, whether it is a video specified for class or a copy of an answer to an exercise sent outside the classroom hours (Bouhnik & Deshen, 2014).

Mobile devices are not a substitute for existing learning devices, but they serve as extension for learning in a new environment, though not all learning content and activities are appropriate for mobile devices (Gay, Stefanone, Grace-Martin & Hembrooke, 2001). Mobile learning is characterized by its potential for learning to be spontaneous, informal, personalized and ubiquitous. Such learning is reinforced when people encounter shortage of free time as the result of working longer hours. Mobile learning technology is more useful for doing activities outside the classroom. Such activities enable learning to be more directly connected with the real world experiments. Moreover, learning through mobile phones outside the classroom has the advantage of better exploiting the learner's free time, even the students on the move can improve their learning skills (Kukulka-Hulme, 2009).

Mobile Assisted Language Learning (MALL) then deals with the use of mobile technology in language learning. Students do not always have to study a second language in a classroom. They may have the opportunity to learn it using mobile devices when they desire and where they are. As learning English is considered a main factor for professional success and a criterion for being educated in many communities, providing a more convenient environment for people to learn English is one of the strategic educational goals towards improving students' achievement and supporting differentiation of learning needs (Kukulka-Hulme & Shield, 2008).

According to Kukulka-Hulme (2009), MALL is an approach to language learning that is assisted or enhanced through the use of handheld mobile devices. Moving away from technological determinism of the earlier definitions of mobile learning, mobile language learning can be viewed as learning across physical and virtual contexts, which is enabled and supported by highly portable devices (both handheld and wearable) as well as communication and social network technologies. The mobility of the learner across contexts combined with access to people and resources via digital tools including build-in device capabilities, native and web-based apps as well as supports and scaffolds mediated by mobile devices form the core of mobile-language learning (Kukulka-Hulme, 2009).

What seems to be more recent is the diversity of learning opportunities and environments that have been made possible, simply via using high tech to support language teachers as well as language learners (Marsh, 2012). The ready-to-hand access of mobile devices, which could function as a personal learning focus, creates the potential for a new wave of evolution of technology-enhanced learning characterized by “seamless learning spaces” (Chan et al., 2006, p.3). Such spaces are marked by continuity of the learning experience across different environments. Each learner, who has ubiquitous access to at least one mobile device, would have a great deal of opportunities to learn across formal and informal contexts as well as individual and social learning spaces.

According to Baran (2013), university students have embraced the capabilities of social media channels. He explains that based on the statistics a major part of students’ energy and time is devoted to reading formal and informal online texts on various social media channels, watching videos and following the tweets and updates related to the course content. Mazman (2010) asserts that the rapid development and advancement in computer technologies has affected all aspects of life for more than three decades. There seems to be a positive association between the use of the internet and social networking sites and academic performance of the students. Students, who use the internet frequently, have higher grades on reading skill tests and other subjects as well (Flad, 2010). One of the problems that students encounter in language learning is the lack of opportunities for authentic communication due to the non-personalized course content; as a consequence, they are forced to follow a strict curriculum (Barlett & Bragg, 2006; Donmus, 2010). Thus, integrating Telegram channels into existing learning practices can provide informal learning contexts and create new opportunities for English learning.

Telegram as a social network tool is becoming one of the major tools for education and entertainment. The Telegram application is one of the social networking applications which has many stickers with written English words and expressions. Users can even communicate without any text and only through images and stickers, hence stickers are playing a significant role in communication through Telegram.

Telegram is also used as a tool to connect the classroom to the experts and educators around the world who are interested in the use of social media in educational environments (Baran, 2013). Telegram has many channels to teach English and some of them may improve English vocabulary learning. Learning vocabulary often seems to be of essential importance

to the typical language learner (Zimmeman, 2001). According to Lee (2009) and Kabilan (2010), students believe that social networks such as Facebook, Telegram, or Tweeter could utilize an online situation to facilitate learning English (Heidari Tabrizi & Onvani, 2017).

As Stockwell (2007) states vocabulary has been one of the most commonly taught language areas through technology in recent years. Diamond and Gutlohn (2006) explain that vocabulary is the knowledge of words and their meanings. This means that without establishing a strong vocabulary base first, comprehension and use of a language will not be achieved. Nation (2001) states that vocabulary knowledge implies knowing a word in the spoken form of the word and the spoken form can be recognized and understood in and out of the context rather than guessing it.

The knowledge of word meanings and the ability to access that knowledge efficiently is recognized as important factors in reading and listening comprehension as well as speaking and writing fluency. Therefore, for students having a large amount of vocabulary knowledge is essential to language comprehension. In addition, vocabulary helps students with language production. According to Nation (2006), one way to decide on vocabulary learning goals in an English language-learning program is to look at native speakers' vocabulary size (Siyanova & Webb, 2016). Vocabulary researchers have long advocated instructional approaches that capitalize on 'many forces,' especially through teaching structural, contextual, and morphemic analysis skills (Brusnighan & Folk, 2012; Edwards, et al., 2003), using oral language channels (Beck & McKeown, 2007), leveraging texts to facilitate discussion and interaction (Lennox, 2013), and teaching for word appreciation and word consciousness (Graves & WattsTaffe, 2008). It seems that Telegram, among other means, can also play a significant role.

### **3. Methodology**

#### **3.1. Design and Context of the Study**

This study was a quasi-experimental design with vocabulary learning and using Telegram stickers as the main variables. As it was done while the session was running at the university during the academic year, intact classes were used. The study was done at Islamic Azad University, Shahreza Branch with a selection of students of TEFL and English translation.



### **3.2. Participants**

The participants of the current study were 60 B.A. students of TEFL and translation studies at the intermediate level, aged 19 to 29 years at Islamic Azad University, Shahreza Branch in the second semester of the academic year 2016-2017. The participants were selected from 80 individuals who sat for the Oxford Placement Test (OPT) and were qualified as intermediate learners.

### **3.3. Materials and Instruments**

The research materials and instruments consisted of the vocabulary level test, Telegram application and a questionnaire based on a five-point Likert scale as follows.

#### **3.3.1. Oxford Placement Test**

For conducting this research, the researcher used the Oxford Placement Test (OPT), which is a standard test to determine the English proficiency level of the students. The multiple-choice test consists of 30 cloze passages, vocabulary, structure, and pronunciation items. After administering the test, the results were evaluated based on the OPT associated rating levels chart and those who obtained 20 or more on the test were judged as the intermediate learners.

#### **3.3.2. Vocabulary Level Test**

A vocabulary test was designed to examine the participants' knowledge of vocabulary items. The test items were selected from standardized proficiency tests such as the OPT. Then, a 30 multiple-choice item test was prepared and pilot tested with a sample of learners (n=30) who were similar to those participating in the study. The test consisted of 10 cloze test items and 20 multiple-choice items. The results of Cronbach's alpha analysis showed that the test was reliable ( $\alpha = 0.83$ ). The content validity of the test was evaluated through expert opinions by TEFL specialists.

#### **3.3.3. Telegram Application**

Telegram is a non-profit cloud-based instant messaging service. Telegram client apps are available for android, iOS, windows phone, windowsNT, macOS and linux (Hamberger, 2014). Users can send messages and exchange photos, videos, stickers, audio and files of any type. The latest version (3.18) was used as the main application for instruction in this study.

### **3.3.4. Background Questionnaire**

In order to gather background information about the participants, a questionnaire was administered to students who used Telegram to communicate in their daily life. The questionnaire consisted of 18 questions about the amount of the time that they spent on Telegram, the extent of using the stickers in their chats, the extent of familiarity with the definition of words on stickers, the extent of using the stickers for expressing their emotions and feelings. The results obtained were used in the selection process.

### **3.4. Data Collection Procedure**

All participants of the study ( $n = 80$ ) were given a language proficiency test in order to ensure their homogeneity in terms of their language proficiency. The learners whose scores on the OPT fell at the intermediate level based on the standard chart were selected to participate in the main study and were randomly divided into two groups of 30, namely, experimental and control. A 30-item pre-validated vocabulary test as the pretest was also administered to the control and the experimental groups before the treatment in order to make sure they were not significantly different at the outset.

Moreover, as the study concentrated on learning the meaning of words via Telegram and in order to clarify the objectives, there was a briefing session for the experimental group. To apply the treatment to the experimental group, the participants were taught four sessions via the Telegram stickers. During the instruction, the participants in the experimental group were presented 40 general vocabulary items as well as their definitions via Telegram stickers. It should be mentioned that during these sessions the control group was taught the same vocabulary items in the conventional way through the printed text. The learners in the experimental and control groups were asked to not share their information with one another. After four sessions of vocabulary teaching via Telegram stickers, a vocabulary posttest, similar to the pretest, was administered to both experimental and control groups.

### **3.5. Data Analysis Procedure**

Using descriptive statistics, the participants who met the requirements, based on the emerging patterns of scores obtained from the OPT as the placement test, were selected. Also, to make the participants homogeneous in terms of their knowledge of vocabulary, a validated pretest was administered and through descriptive statistics and the independent samples t-test

it was determined that there was no statistically significant difference between those in the control and experiment groups. At the end of the treatment, their progress and potential differences between the two groups were checked using the t-test.

**4. Results**

In order to analyze the collected data, the statistical package for social sciences (SPSS 23) was run. Table 1 represents a summary of descriptive statistics from the pretest for both experimental and control groups, M= 18.13, SD=.69; M=17.53, SD=.68, respectively.

Table 1.  
*Mean Scores on the Pretest for Both Experimental and Control Groups*

	N	Mean	Std. Deviation	Std. Error Mean
Experimental	30	18.13	3.78	.69
Control	30	17.53	3.72	.68

As it appears, there was a slight difference between the mean scores of the control group and the experimental group. In order to make sure both groups were not significantly different, an independent samples t-test was run.

The results in Table 2 show that the difference was not statistically significant,  $t = 1.06$ ,  $p = .29$ . In other words, the experimental group and the control group turned out to be similar in terms of their knowledge vocabulary as tested by the pretest. Thus, both groups proved to be homogeneous in this respect.

Table 2.  
*Results of Independent samples t-Test for the Pretest*

	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
pretest	.061	.806	1.061	58	.293	.9333	.8798	-0.8279	2.694
			1.061	57.9	.293	.9333	.8798	-0.8279	2.694

After the instruction period came to an end, in order to find about the extent to which the learners improved their knowledge of vocabulary and also the possible difference between the control and experimental groups the posttest was administered to both groups. The following results were obtain as presented in Table 3.

Table 3.

*Mean Scores of the Experimental and Control Groups on the Posttest*

	N	Mean	Std. Deviation	Std. Error Mean
Cont. Pretest	30	17.53	3.72	.68
Cont. Posttest	30	18.65	3.13	.57
Exp. Pretest	30	18.13	3.78	.69
Exp. Posttest	30	24.33	2.96	.54

*Note.* Exp.= Experimental, Cont. = Control

As the results in Table 3 revealed, there appeared to be differences between the performances of the participants on the pre and posttests in both groups. While in the control group on the pretest a mean score of 17.53 ( $M = 13.86$ ,  $SD = 3.72$ ) was obtained, on the posttest there was some improvement,  $M = 18.65$  ( $SD = 3.13$ ). As for the experimental group, such improvement was observed, too. On the pretest, they got a mean score of 18.13 ( $M = 18.13$ ,  $SD = 3.78$ ), while on the posttest, this group obtained a mean score of 24.33 ( $SD = 2.96$ ).

In other words, both the control and experimental groups proved to have improved as a result of instruction. However, in order to check whether there were significantly different as a result of different teaching conditions, the independent samples t-test was then performed. The results are presented in Table 4.

Table 4.

*Results of Independent Samples t-Test for the Posttest*

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	.11	.73	13.28	58	.000	10.46	.78	8.88	12.04
Equal variances not assumed			13.28	57.81	.000	10.46	.78	8.88	12.04

As shown in Table 4, the results of comparing the mean score of the experimental group and that of the control group indicated a statistically significant difference,  $t = 13.28$ ,  $p = 0$ . In other words, the experimental group outperformed the control group on the vocabulary test after the instruction period. Thus, it appeared that instruction through Telegram was effective. Further explanation follows.

## 5. Discussion

This study intended to investigate the effect of teaching vocabulary via Telegram stickers. The obtained results revealed that those exposed to the new words through Telegram stickers had higher gains as compared to those taught through the routine conventional methods in the class. Hence, presenting vocabulary items via Telegram appears to be effective and can lead to better results. This study supports the fact that associating lexical items with different types of media (in this case, Telegram stickers) fosters richness of recall cues and increases the likelihood of retention of those words.

Results of this study lend support to a study done by Ashiyan and Salehi (2016), which revealed that most of the participants used such stickers to show their feelings including happiness, love, grief, surprise, etc. and they paid attention to the pictures on stickers as well as their general senses. In a similar study by Heidari Tabrizi and Onvani (2017), EFL beginners also showed that they benefitted from learning new words presented to them

through Telegram. In general, it seems that the use of social networking is very popular among English language learners and is a tool which can assist teachers and learners to access information and facilitate the learning/teaching of English, especially the learning of vocabulary items (Mashhadi Heidar & Kaviani, 2016; Srinivas, 2010).

The better results can be justified on the grounds that unlike the traditional presentation of vocabulary in the printed form, Telegram stickers are more appealing for the learners. In other words, users are provided with the desired meaning immediately without disturbing the reading process, a problem usually caused by stopping to look up words in a dictionary in the printed form.

Despite the facilitative role of Telegram in aiding EFL learners' vocabulary learning, the number of stickers to present the essential words learners need is limited. Moreover, there are stickers which could be confusing as perceived by different learners.

Broadly speaking, due to the ubiquitous presence of Telegram, it can be beneficially adapted to learning/teaching environments by teachers and leave learners with ample opportunities to practice as they have fun using their cell phones in their privacy. Furthermore, there seems to be a new agenda for materials developers as they can develop stickers related to the needs of different groups of learners to be used with social networking applications such as Telegram.

What can further be done is investigating larger units of language (i.e., idiomatic expression, proverbs) to learners at higher levels of language proficiency. It could be illuminative to find out whether Telegram stickers can be as effective and appealing when used by more proficient learners struggling with more demanding instances of language.

## **6. Conclusion**

This study investigated the effect of teaching vocabulary via Telegram stickers. The results of the research revealed that vocabulary learning could be facilitated through presenting the words through Telegram. In general, it can be claimed that due to the effectiveness of Telegram as a technological tool which has already proved to be welcomed by EFL learners in Iran, learning the new words can also be further facilitated as learners can easily associate the meanings of the words with the interesting stickers on their mobile phones. Hence, the double effects of learning in a new environment (i.e., Web 2) as well as

the appealing stickers which clarify the meaning of words more vividly may help with the learning of new vocabulary items in a foreign language.

Generally speaking, this study proved that Telegram, as a venue for learning, could be catered to their individual needs of learners and give them a feeling of security. In the context of Iranian students, Telegram as a platform for social media has proved to be favored and also because of its ubiquity and ease of access learners can enjoy the comfort of using it. This can in fact explain the outperformance of the Telegram group.

In sum, this study underlines once again the fact that the emergence of technology, in general, and the social networks, in particular, has to be welcomed as an inevitable fact in educational settings, especially when the purpose is teaching a language.

## **References**

- Ahlqvist, T., Back, A., Halonen, M., Heinonen, S. (2008). Social media roadmaps exploring the futures triggered by social media, VTT Tiedotteita-Valtion Teknillinen Tutkimuskeskus Research Notes 2454. 78 p. + app. 1 p. Retrieved from <http://www.vtt.fi/inf/pdf/tiedotteet/2008/T2454.pdf>.
- Ashiyani, Z., & Salehi, H. (2016). Impact of WhatsApp on learning and retention of collocation knowledge among Iranian EFL learners. *Advances in Language and Literary Studies*, 7(5), 112-127. Doi: 10.7575/aiac.all.v.7n.5p.112.
- Baran, E. (2013). Connect, participate and learn: Transforming pedagogies in higher education. *Bulletin of the IEEE Technical Committee on Learning Technology*, 15(1), 9-12.
- Bartlett-Bragg, A. (2006). *Reflections on pedagogy: reframing practice to foster informal learning with social software*. Retrieved from <http://www.dream.sdu.dk/uploads/files/Anne%20Barlett-Brag.pdf>
- Beck, I.L., & McKeown, M.G. (2007). Increasing young low-income children's oral vocabulary repertoires through rich and focused instruction. *Elementary School Journal*, 107(3), 251-271.
- Bouhnik, D., & Deshen, M. (2014). WhatsApp goes to school: Mobile instant messaging between teachers and students. *Journal of Information Technology Education*, 13, 217-231. Retrieved from <http://www.jite.org/documents/Vol13/JITEv13ResearchP217-231Bouhnik0601.Pdf>.

- Brusnigham, M. & Folk, J.R. (2012). Combining contextual and morphemic cues is beneficial during incidental vocabulary acquisition: Semantic transparency in novel compound word processing. *Reading Research Quarterly*, 47(2), 172-190. DOI: 10.1002/RRQ.015
- Calvo, R., Arbiol, A., & Iglesias, A. (2014). Are all Chats suitable for learning purposes? A study of the required characteristics. *Procedia Computer Science*, 27, 251–260.
- Castro Sánchez, J. J., & Alemán, E. C. (2011). Teachers' opinion survey on the use of ICT tools to support attendance-based teaching. *Journal Computers and Education*, 56(3), 911-915.
- Chan, T. W., Roschelle, J., Hsi, S., Kinshuk, Sharples, M., et al. (2006). One-to-one technology-enhanced learning: An opportunity for global research collaboration, *Research and Practice in Technology-Enhanced Learning*, 1(1), 3-29.
- Chowdhury, A., Breznik, G., Verdnik, K., & Prihavec, B. (2012). *Customer identification and authentication procedure for online internet payments using mobile phone*. Google Patents.
- Diamond, L., & Gutloh L. (2006). Teaching vocabulary. Retrieved from <http://eltj.oxfordjournals.org/cgi/content/abstract/50/1/52>.
- Do digovic, M. (2005). Vocabulary profiling with electronic corpora: A case study in computer assisted needs analysis. *Computer Assisted Language Learning*, 18(5), 443-455.
- Donmus, V. (2010). The use of social networks in educational computer-game based foreign language learning. *Procedia Social and Behavioral Sciences*, 9, 1497-1503.
- Ebrahimi, S, Hajebrahimi, S, Nikfallah, A, Sari-Motlagh, & Shakiba, B. (2016) Lifelong learning in practice: The age of discussion through social media. *European Urology*, 69(6), 1162-1163. DOI: <https://doi.org/10.1016/j.eururo.2016.01.046>.
- Edwards, E. C., Font, G., Baumann, J. F., & Boland, E. B. (2003). Unlocking word meanings: Strategies and guidelines for teaching morphemic and contextual analysis. In J. F. Baumann & E. J. Kame'enui (Eds.), *Vocabulary instruction: Research to practice*. (pp 159-178). New York, NY: Guilford Press.
- Flad, K. (2010). The influence of social networking participation on student academic performance across gender lines effect of picture and annotation types. *CALICO Journal*, 20(1), 33-58.



- Garrett, N. (1991). Technology in the service of language learning: Trends and issues. *The Modern Language Journal*, 75(1), 74–101.
- Gay, G., M. Stefanone, M., Grace-Martin, & Hembrooke, H. (2001). The effects of wireless computing in collaborative learning environments. *International Journal of Human-Computer Interaction*, 13(2), 257-276.
- Gorjian, B., Alipour, M., & Saffarian, R. (2012). The effect of multisensory techniques on reading comprehension among pre-intermediate EFL learners: The case of gender. *Advances in Asian Social Science*, 1(2), 192-196.
- Grave, M. F. & WattsTaffe, S. (2008). For the love of words: Fostering word consciousness in young readers. *International Literacy Association*, 62(3), 185-193. DOI: 10.1598/RT.62.3.1
- Hamberger, E., (2014). Why Telegram has become the hottest messaging app in the world. *The VERGE*. Retrieved from <https://www.theverge.com/2014/2/25/5445864/telegram-messenger-hottest-app-in-the-world>
- Heidari Tabrizi, H., & Onvani, N. (2017). the impact of employing telegram app on Iranian EFL beginners' vocabulary teaching and learning. *Applied Research on English Language*. DOI: 10.22108/ARE.2017.103310.1087
- Hsu, L. (2013). English as a foreign language learner's perception of mobile assisted language learning: A cross national study. *Computer Assisted Language Learning*, 26(3), 197-213.
- Kabilan, M. K. (2010). Facebook: An online environment for learning of English in institutions of higher education? *Internet and Higher Education*, 13(4), 179-187.
- Kajornboon, A. B. (2013). The effect of using social networking assisted interaction between peer and teacher in English language learning. *FLLT Conference*, 16, 611-619.
- Kaplan, A., M., & Haenlein, M., (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53 (1), 58-68.
- Keyton, J. (2011). *Communication and organizational culture: A key to understanding work experience*. Thousand Oaks, CA: Sage.
- Kukulka-Hulme A., & Shield, L. (2008). An overview of mobile assisted language learning: Can mobile devices support collaborative practice in speaking and listening? *ReCALL*, 20(3), 271-289.

- Kukulka-Hulme, A. (2007). Mobile Useability in Educational Contexts: What have We Learnt? *International Review of Research in Open and Distance Learning*, 8(2), 1-16.
- Kukulka-Hulme, A. (2009). Will mobile learning change language learning? *ReCALL*, 21(2), 157-165.
- Lee, H. (2009). *Internet-mediated video conferencing for the development of Intercultural communication in second language (L2) education* (Unpublished doctoral dissertation). University of Wisconsin, Madison.
- Lenhart, A. (2007). Teens and social media: The use of social media gains a greater foothold in teen life as they embrace the conversational nature of interactive online media. *PEW Internet and American Life Project, 1615 L ST., NW – SUITE 700 WASHINGTON, D.C. 20036*, 1-55.
- Lennox, S. (2013). Interactive read-alouds—An avenue for enhancing children’s language for thinking and understanding: A review of recent research. *Early Childhood Education Journal*, 41(5), 381–389.
- Lu, Z., Hou, L., & Huang, X., 2010. A research on a student-centered teaching model in an ICTbased English audio-video speaking class. *International Journal of Education and Development Using Information and Communication Technology*, 6, 101-123.
- Lunenburg, F.C. (2010). Communication: The process, barriers, and improving effectiveness. *Schooling Journal*, 1, 1-11.
- Marsh, D. (2012). *Blended learning: Creating learning opportunities for language learners*. Cambridge: Cambridge University Press.
- Mashhadi Heidar, D., & Kaviani, M. (2016). The Social impact of Telegram as a social network on teaching English vocabulary among Iranian intermediate EFL learners (Payam Noor Center). *Journal of Sociological Studies of Youth*, 7(23), 65-76.
- Mazman, S. (2010). Modeling educational usage of Facebook. *Computer & Education*, 55, 444-453.
- Motteram, G., & Sharma, P. (2009). Blended learning in a web 2.0 world. *International Journal of Emerging Technologies and Society*, 7(2), 83–96.
- Nation, I.S.P. (2001). Teaching vocabulary. *Asian EFL Journal*, 7(3), 47-54.
- Nation, I.S.P. (2006). How large vocabulary is needed for reading and listening? *The Canadian Modern Language Review*, 63(1), 59-82.

- Niyayesh, U. (2015). *Number of Iranian using Telegram mobile app increases to 13 million*. *Trend News Agency*. Azerbaijan: Baku. Sep 13.
- Reid, S. (2002). The integration of ICT into classroom teaching. *Alberta Journal of Educational Research*, 48, 30-46.
- Salehi, H., & Salehi, Z. (2012a). Challenges for using ICT in education: Teachers' insights. *International Journal of E-Education, E-Business, E-Management and E-Learning*, 2(1), 40-43.
- Salehi, H., & Salehi, Z. (2012b). Integration of ICT in language teaching: Challenges and barriers. In *Proceedings of the 3rd International Conference on e-Education, e-Business, e-Management and e-Learning (IC4E, 2012)*, IPEDR (Vol. 27, pp. 215–219).
- Sekiguchi, S. (2012). *Investigating the effects of Twitter on developing a social learning environment to support Japanese EFL students' self-regulated learning*. Paper presented at ICT for Language Learning. Retrieved from [https://conference.pixel-online.net/conferences/ICT4LL2012/common/download/Paper\\_pdf/279-IBT56-FP-Sekiguchi-ICT2012.pdf](https://conference.pixel-online.net/conferences/ICT4LL2012/common/download/Paper_pdf/279-IBT56-FP-Sekiguchi-ICT2012.pdf)
- Siyanova, A., & Webb, S. A. (2016). Teaching Vocabulary in the EFL context. *English Language Teaching Today: Linking Theory and Practice*, 2(1), 227-239.
- Srinivas, R. (2010). *ICT tools for ELT ppt presentation-author stream*. Retrieved from <http://authorstream.com/Presentation/rangoo-372780-ict-tools-elt-teaching.English technology language-esl-education-ppt-power point/>.
- Stockwell, G. (2007). A review of technology choice for teaching language skills and areas in the CALL literature. *ReCALL*, 19(2), 105-120.
- Vivienne, W. (2016). *With Telegram, A reclusive social media star rises again*. Fortune. Available at <http://fortune.com/telegram-pavel-durov-mobile-world-congress/>
- Walter, J.B. & D'Addario, K.P. (2001). The Impacts of Emoticons on Message Interpretation in Computer-Mediated Communication. *Social Science Computer Review*, 19(3), 324-347. DOI: 10.1177/089443930101900307.
- Yoshii, M. (2003). L1 and L2 glosses: Their effects on incidental vocabulary learning. *ReCALL*, 19(2), 105–120.
- Yoshii, M., & Flaitz, J. (2002). Second language incidental vocabulary retention: The effect of picture and Annotation types. *CALICO Journal*, 20(1), 33-58.

- Yousefzadeh, M. (2012). Mobile-based learning vs. paper-based learning and collocation words learning. *Journal of Educational & Instructional Studies in the World*, 2(3), 35-46.
- Zhao, Z. (2004). EFL teaching and reform in China's tertiary education. *Journal of Language Teaching and Research*, 3(6), 1098-1105.
- Zimmerman, B. J. (2001). Theories of self-regulated learning and academic achievement: An overview and analysis. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement: Theoretical perspectives* (2nd ed., pp. 1-37). Mahwah, NJ: Erlbaum.