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Comparative Effects of Using Shaad Application as Online Learning versus Face-to-Face Teaching on EFL Students' Vocabulary Learning

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Abstract: The present study explored the comparative effects of using Shaad application as online learning versus face-to-face teaching on EFL students' vocabulary learning. To perform this, 30 ninth grade high school students as the members of Shaad/experimental groups who werenon-randomly selected from Somayeh high school in Neyshabur, Iran. In addition, the second class of participants was 30 ninth grade students as the members of traditional/control group who receive the instruction through face-to-face teaching. The next step was to administer the treatment. To do this, the researcher taught the teaching materials through the use of Shaad application. Based on the lesson plan, the learners in Shaad group were taught the vocabulary instruction. The experimental group received the teaching material through the use of Shaad application while the learners in the control group received the instruction through face-to-face interaction. Having finished the treatment, the learners in both groups were given the vocabulary posttest. Obtained results revealed that Shaad application as online learning did not have statistically significant effect on EFL students' vocabulary learning. On the other hand, face-to-face instruction did have statistically significant effect on the students' vocabulary learning. In other words, there was significant difference between the vocabulary learning of EFL students exposed to traditional teaching and those who exposed to Shaad instruction. Implications of the study suggested that teaching vocabulary through traditional classes could enhance the EFL learners' vocabulary learning. It could be concluded that the suitable conditions for the e-learning were not prepared in Iranian public educational context.

Introduction

The process of communication by the use of English language is primarily based on main skills of a language i.e., speaking, listening, reading and writing and subskills such as grammar, pronunciation and vocabulary. Learning language skills and subskills has important roles in learner's achievement and their communication in the real world (Brown, 2007).

Among the major skills of English language learning, the role of vocabulary knowledge has long been recognized as "an essential component of reading comprehension and is a contributing factor for using reading as means of learning" (Rasinski, & Rupley, 2019, p. ix). Thus, words are the "building blocks" of every language and "they are central to listening, speaking, reading, and writing, and are therefore an essential component of almost every aspect of our lives. If we cannot produce the words that are needed to convey our intended meaning, we may not be able to make ourselves understood." (Webb & Nation, 2017, p.13) Similarly, if we do not know some of the words that we encounter, then we may be unable to understand what we hear or read. It is quite evident that readers with 'depth of vocabularies tend to be more proficient and competent readers' to comprehend that text (Rasinski, & Stevenson, 2019). Rasinski and Rupley (2019) believe that "enhancement and growth of vocabulary knowledge facilitates the reader's processing of text and engagement with the author's writing" (p.51). On the other hand, some educationalists stress that in order to expand learners' vocabularies they must encounter new words by providing "practice and application of the new words in reading, speaking and writing" (p. 52).

Vocabulary knowledge has been considered as one of the most pivotal factors in learning a foreign or second language to the extent that some experts claim that "learning a second or foreign language largely means learning its vocabulary" (Gass, 1999, p. 325). As a result, many researchers tried to offer various techniques, approaches, strategies and exercises for vocabulary learning and its retention. Vocabulary learning is considered as a vital component in language learning (Baleghizadeh, 2018). According to Uberman (2006), vocabulary learning is "a complex issue paramount to overall foreign language proficiency. It entails the ability to recognize as well as apply lexical items appropriately to situation and context of use "(p. 33). Vocabulary learning is not an easy task and is affected by many road blocks such as forgetting the word, remembering the word but not knowing how to use it, forgetting the pronunciation, etc. Nation (2001) states that readers need to know at least

a large number 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.

To tackle the vocabulary learning challenges among EFL learners, different ways have been suggested to overcome this problematic component of language learning. Among numerous ways, using mobile applications as online learning (e.g., Shaad application) may improve vocabulary learning (Alhadiah, 2020; Chwo, Marek, & Wu, 2018; Lam, Wang, & Zhao, 2018; Hashemifardnia, Namaziandost & Rahimi Esfahani, 2018).The Educational Network of student (Shaad) refers to the word Shaad meaning happy, is a communication and educational software that was launched following the spread of the coronavirus due to the absence of students in schools in Iran. The software is owned by the Ministry of Education of Iran, and students, teachers and headmasters are the people who use this software. At first, on 2020 April 4, Shaad Software was run only on messaging apps, and principals, teachers, and students needed to install one of the Bale, Soroush, Gap, i Gap, and Rubica messengers, but on 2020 April 9, the Ministry of Education presented the software without needing to have those messengers. About 70% of Iranian students are members of this social network.Due to the emphasis of education on the installation and use of this software, a significant number of students were activated in this student network, which is estimated to be more than 17 million people (Ministry of Education, 2020).

Statement of the Problem

Based on the importance and effectiveness of new technologies especially mobile-assisted language learning (MALL) in the process of foreign/second language learning, several research studies (e.g., Fageeh, 2013; Khadem Estarki & Bazyar, 2016; Khansarian-Dehkordi & Ameri-Golestan, 2017; Khubyari & Haddad Narafshan, 2016;Jafarian, Soori & Kafipour, 2012; Najmi, 2015; Rezaei Mai & Pesaranghader, 2014; Safari, 2012; Sorayyaei Azar &Nasiri, 2014) have been conducted in developing different parts of foreign language learning. The current research may be considered as a novel research because it tries to explore the effects of using Shaad application versus face-to-faceteaching on ninth grade students' vocabulary learning during the corona era.

Vocabulary learning may be significant in our country (i.e., Iran) where English is taught as a foreign language because Iranian students need this skill to continue their academic education (Baleghizadeh, 2018). This important skill may be improved by using online learning especially during the Corona era. For that reason, the present study was designed in order to explore the effectiveness of using Shaad application in comparison with usual classes in improving vocabulary learning of the ninth grade high school students.

According to Nation (2001), vocabulary plays a prominent role in language learning. How learners of English as foreign language can acquire new words has been controversial. In this significant part of language learning, learners are usually left alone and most of them do not know how to proceed. Supporters feel that traditional instructional methods of vocabulary teaching are time consuming and lengthy. Some believe that dictionary usage interrupts the flow of reading (Brown, 2007).

Research Questions

The purpose of the present study was to investigate the effect of using Shaad application on vocabulary learning of the ninth grade high school students. Moreover, the researcher intended to compare the online leaning with the traditional instruction. In order to achieve the purpose of the study, the following research questions were proposed:

1. Does Shaad application as online learning have anystatistically significant effect on EFL students' vocabulary learning?
2. Does traditional teaching (face-to-face instruction) have any statistically significant effect on EFL students' vocabulary learning?
3. Is there any significant difference between the vocabulary learning of EFL students exposed to traditional teaching and those who exposed to Shaad instruction?

Literature Review

Mobile Assisted Language Learning (MALL)

Mobile Assisted Language Learning (MALL) is gaining popularity everywhere especially in Europe, the United States and parts of East Asia that are of English medium (Mastura, Nor, &Posiah, 2012). Even though its concept is still emerging and unclear, many are using it due to its portability, connectivity and the mere fact that almost everybody owns a smart mobile (Samsiah&Azidah, 2013).Mobile technologies become more widely used in our everyday lives, it is perhaps not surprising that they have attracted the attention of language teachers

as a means of providing learning opportunities that learners can take advantage of at a time and place that suits them (Thomas, 2013**;** Alhadiah, 2020; Chwo, Marek, & Wu, 2018). Mobile learning has the potential to not only increase the amount of time that individual learners spend engaged in language learning activities (Stockwell, 2008), but also to reduce the psychological distance that may be associated with more formal language learning situations (Bax, 2003). The smaller screen and limited input methods which are often associated with learning with mobile devices, for example, have an effect on the amount of information which can be provided to learners and the types of tasks and activities that learners can be expected to undertake. In addition to the physical characteristics, learners still exhibit some psychological barriers regarding learning which need to be overcome in order to make mobile learning come more into the main stream, such as the distinction between private time and study time, and the difficulties associated with studying in public places, such as while commuting (Stockwell, 2008).

For example, in other areas of education (Ally, 2009), this change has been reflected in the steadily growing body of recent research that looks at language learning through various mobile devices, and research has appeared that capitalizes on the expanding functionalities of these devices, including SMS (Levy & Kennedy, 2008), mobile-phone-based email (Kiernan& Aizawa, 2004), podcasting (Rosell-Aguilar, 2007), mobile phone Web browsers (Stockwell, 2008) and apps (Bateson & Daniels, 2012).Included in this idea is that learners carry devices around with them that they can access at a time that is convenient to them, and they can pick up the device to augment their learning in much the same way that one may pick up a pen or a book. This means, however, that learners must feel comfortable enough with the technology such that they do not have reservations about using it without supervision or assistance. These 'Digital Natives' are capable of carrying out multiple tasks at once, and therefore are able to utilize different channels of information simultaneously, such as engaging in text-chat at the same time as undertaking internet searches for an assignment. In mobile learning, this type of multitasking becomes essential, as learners need to negotiate with their surroundings at the same time as undertaking activities or tasks on their mobile devices (Stockwell, 2008). One of the primary advantages that is given regarding mobile learning is that it allows learners to 'exploit small amounts of time and space for learning' (Traxler, 2007, p.8).

According to Najmi (2015), among all modern communication devices, mobile phones are the most powerful communication device even better than email or chat since it can be used as a learning device despite its technical limitations. Based on this kind of learning device the learners can control their learning process and progress of their own space according to their cognitive state. Learning by the computer or e-learning enables learners to learn in a non-classroom environment when they are at home in front of their personal computers online or offline. On the other hand, learners can take learning process when they are on the bus, outside or at work doing their part-time jobs through the mobile phone or m-learning. In fact, they can learn every time and everywhere they are (Khbiri & Khatibi, 2013).

Moreover, the physical characteristics of mobile devices have been cited by many researchers, particularly with regard to the size of the screen and the inconvenient keypad (Stockwell, 2008). As Koole (2009) pointed out, other issues that can have an effect on how mobile devices are used are the general size and weight, the file storage capacity, hardware and software malfunctions and processor speed. It is the total balance of all of these factors which will determine how a mobile device can be best used in language learning.As described in Stockwell (2008), many learners just did not feel that the mobile device (in this case a mobile phone) was an appropriate tool for language learning, and others preferred to engage in activities in a quieter environment where they could concentrate. When we think about this lack of use, we may conclude that the expectations that many teachers have of learners engaging in language learning tasks and activities using mobile devices may not match the skills, expectations and perceptions held by the learners, and at the same time, teachers may not have a clear idea of when and where learners will engage in them. If the discrepancy between teachers' and learners' views becomes too great, it is likely that it will result in learners forming negative images of mobile learning, and prevent them from undertaking it actively.

Related to this is the supposition that because devices are used outside of class, then they will encourage learner autonomy. Learner autonomy is achieved only when a learner reaches a point where they are both willing and able to take responsibility for learning on their own, two points that do not necessarily coincide (Stockwell, 2008). It is important to bear in mind the ways in which learners typically use mobile devices for personal purposes actually are, as this will likely affect how they are used for learning purposes. For example, Kemp (2010) found that around three-quarters of native-speaking users regularly used what is termed as textisms – abbreviations in spelling and spacing as a result of space limitations and typing difficulties – when writing SMS messages to one another. It is quite feasible, then, that learners may try to apply the same rules of textisms to messages that are written in a second language as well, sometimes with little idea of the appropriateness in the target culture.

Mobile Learning Features

Mobile learning has several features that are useful in our digital society which benefits the students in many ways. Regarding connectivity, designing the mobile system must have capability of being connected and communicated with the learning website using the wireless network of the device to access learning material universally including short message service (SMS) and mobile email (Lam, Wang, & Zhao, 2018; Hashemifardnia, Namaziandost & Rahimi Esfahani, 2018) .

The size and weight of mobile technology differs from one another yet it can be moved and carried easily. The Smart phones now combine the functions of phone, camera and multimedia wireless computer. This is one of the most significant features as it allows learners to have limitless internet connection without the help of any other device or wiring. This convergence allows new conceptions of lifelong learning (Sharples et al., 2005).Mobile learning promotes interactivity as it allows learners to interact with each other without worrying of the distance through several different applications. Communication among learners is important as it is a form of education (Norazah et al., 2010).

Furthermore, the concept of accessibility can be used by teachers to enhance pedagogical activities in their lessons (Samsiah et al., 2013). Accessibility also let learners to revisit and reflect on acquired knowledge to form a new kind of knowledge (Norazah et al., 2010). Not only that, learners are able to direct their process of learning as they can access and create information by themselves (Suneetha, 2013). Besides that, accessibility enables learners to get information almost immediately to answer specific questions.Many individuals have their own mobile devices thus there is no need to share. The learners are able to access their data by themselves without feeling ashamed of their current level of learning. Additionally, learners will interact more with their device due to sense of privacy (Samsiah et al., 2013). This is supported by Zhang (2003) who said that the privacy of these devices will make learners feel safe and motivated.

In addition, Klopfer (2002) presented the following properties of mobile devices: a) portability: such devices can be taken to different places due to small size and weight; b) social interactivity: exchanging data and collaboration with other learners is possible through mobile devices; c) context sensitivity: the data on the mobile devices can be gathered and responded uniquely to the current location and time; d) connectivity: mobile devices can be connected to other devices, data collection devices, or a common network by creating a shared network and e) individuality: activities platform can be customized for individual learner.

Pedagogical Merits of Mobile Learning

When an educator uses any kind of technology ineffectively, students would learn in a passive way (Alhadiah, 2020; Humes & Raisner, 2010) which could bring a negative outcome. Therefore, Gilakjani, Leong and Ismail (2013) propose that a pedagogy or theory framework is needed when using technology "to model their instruction with" (p. 49). Norazah et al. (2010) also agrees saying that technology-based media are required to use learning theories. Mobile devices could also use the same technique to ensure learning is done successfully. Before going in pedagogical views that can be used in MALL, it useful to know the factors contributing to effective learning:

a) Learner centered: It is developed from students' own knowledge and skill; enabling them to think based on their previous knowledge.
b) Knowledge centered: The learning process comes from validated knowledge that was taught inventively by using different methods.
c) Assessment centered: The learners are assessed accordingly based on their ability and the assessment is able to offer diagnosis and further guidance.
d) Community centered: An effective learner will form a community to share knowledge and support those who are less able in their studies (Sharples, et al., 2005).

These factors can be matched with many different kinds of learning approach that are used in MALL. According to Thomas (2013), there are few types of learning that can be used as foundation when implementing mobile devices into learning. First is *behaviourism* as this approach offers feedback and reinforcement which can be facilitated by certain applications in the devices. Second is *constructivism* – this approach needs a lot of simulations, uses various media, and immersive environments. All of these can be provided through mobile devices. The third approach is *situated learning* where students learn in the environment that is relevant to the field of study. Due to mobile's portability feature, learners can search for answers or information while still in context. Lastly, *collaborative learning* can also be used as it promotes creating and sharing student and teacher resources. This fits mobile devices best as it is both accessible and ubiquitous; enabling learners to record and share instantly with each other. Samsiah et, al. (2013) highlighted these approaches:

a) **Blended learning:** this is where students learn with the educator face-to-face and online; which is perfect, for students can interact using their mobile devices or even carry out assignments after class session.
a) **Interactive learning:** this type of learning can also be supported by mobile devices as it can be used as an instrument for people to interact with. The engagement with the device can go on different levels enabling the learning process.
b) **Experiential learning:** due to the device's mobility, learners can find a relationship between school and other activities. This is a form of informal learning and it can be brought into the classroom for further learning.
c) **Problem-based learning:** this type of learning happens when the learners constantly study and work with the content to solve a problem given by the teacher. Learners can use mobile devices for their mobility, accessibility and wireless network to solve the problems.

Related Empirical Studies

Alhadiah, (2020) investigated the perspectives of learners regarding the use of one of the programs that can be used for vocabulary learning — Quizlet. The perceptions of thirty-eight Saudi EFL (English as a Foreign Language) freshmen college students regarding the use of Quizlet for fourteen weeks were examined using questionnaires and interviews. The main findings of the study show that the students demonstrated positive attitudes towards the use of Quizlet in English vocabulary learning. They perceived it as a useful program that was easy to use, and they reported the intention to use it in the future. The present study highly recommends the use of MALL-based tools for vocabulary learning for their usefulness inside and outside the classroom. In addition, Makalesi (2018) aimed to define students' views on the effects of a mobile assisted vocabulary learning (MAVL) application (Voca Style), which was developed by the researcher, on their learning process and their learning styles' impact on their views. The study was in descriptive case study design. The data was gathered with semi-structured interview form. Ten participants were interviewed, five of which were aural learners and five of which were visual learners. The data was analyzed with thematic content analysis. The findings revealed that students found the MAVL application effective, motivating and useful. The findings also indicated that participants found video and graphic annotations more useful and their views changed depending on their learning styles.

In another study, Hashemifardnia, Namaziandost & Rahimi Esfahani (2018) investigated the effects of using WhatsApp on Iranian EFL learners' vocabulary learning. To fulfil this objective, 50 Iranian female participants were selected among 80 students from Adiban English language institute, Baghmalek, Khuzestan, Iran. They were at the intermediate level of English proficiency based on the results of Oxford Quick Placement Test (OQPT). The selected participants were then randomly divided into two equal groups; one experimental group and one control group. Afterwards, the researcher gauged their proficiency level of English vocabulary knowledge by a vocabulary pre-test. Then, the English words were instructed to the experimental group through WhatsApp; they used WhatsApp in order to practice the selected words outside of the L2 classroom. In fact, the researcher formed a group in WhatsApp and through the channel he sent the words to the participants in the experimental group. On the other hand, the control group received the word instruction through the traditional method. In the control group, the participants took part in in-door classes and the words were taught to them by the researcher in a face to face fashion. The whole instruction lasted 8 sessions. In the first two sessions the OQPT and the pre-test were administered respectively; in 5 sessions the treatment was applied, and in the last session the post-test was given to the participants of both experimental and control groups to determine the impacts of WhatsApp on the students' vocabulary learning. The results of paired samples and an independent samples t-tests indicate that there was a significant difference between the post-tests of the experimental and the control groups. The findings reveal that the experimental group significantly outperformed the control group on the post-test.

Khansarian-Dehkordi and Ameri-Golestan (2017) were the other researchers who scrutinized social networking effects on Iranian EFL learners' vocabulary acquisition. Eighty Iranian EFL learners at the intermediate level participated in a pretest-posttest study after taking the placement test. They were then divided into an experimental group whose participants were supposed to equip their mobile phones or tablet PCs with a social networking application, that is, Line and form an online group to take part in eighteen virtual instructional sessions. Participants of the control group, however, underwent classroom learning during which target words were presented through routine classroom activities. Results of the independent-samples t-test in the posttest indicated that participants of the experimental group outperformed those of the control group. Results have important implications for both pedagogy and theory, especially socio-cultural theories of second language development.

Similarly, Khubyari and Haddad Narafshan (2016) explore the impact of mobile assisted language learning (MALL) on EFL learners' reading comprehension. The population of this study was intermediate female EFL students (15-20 years old) at English Language institutes located in Kerman, district 2. A Cambridge Placement Test (CPT) was used to have almost homogenous groups. After administrating the CPT, 40 students who were randomly and equally assigned to the experimental and control groups (20 students in each group) were selected as the sample of this study. To see the impact of MALL on EFL learners' reading comprehension, reading comprehension test (EnglishForEveryone.org graded English Worksheets) in form of multiple choice and some open ended questions was used as a pre – test and post – test to assess the participants' reading comprehension in both control and experimental group. The result revealed that EFL learners favor reading comprehension via mobile phones due to the convenience facilitated by the portability and accessibility of the mobile phones.

In another study, Khadem Estarki and Bazyar (2016) explored the effect of using mobile-assisted language learning (MALL) on pre-intermediate learners' writing performance. The participants were selected based on the interview and PET test at the beginning of the term. Subjects were assigned into two homogenous groups, one as experimental and the other as the control group. The subjects participating in this study were 30 female pre-intermediate learners. The whole course consisted of 15 sessions and each session took 90 minutes. Both control and experimental groups, benefited from every aspects of the same teaching. To study the impact of using technology on teaching writing, first, the experimental subjects joined a Viber group. At the beginning of every week, the same topic was selected for experimental and control groups, and subjects were required to write the most relevant materials and ideas concerning the selected topic. Learners in experimental group were motivated to participate in Viber group in this way, and the control group members were required to perform writing tasks through conventional writing techniques. Two parallel writing tests were administered as the pretest and posttest for both groups. The results of statistical analysis of post-test writing scores revealed that MALL had a significant impact on the writing skill of the experimental group.

Najmi (2015) studied the effect of MALL on writing of Iranian upper-intermediate EFL learners. To perform this, thirty upper intermediate female Iranian EFL learners participated in this study. The participants in both groups were taught the same and they were taught conditionals and passive voice. They had to make sentences using the taught grammar in the class. The experimental participants had to send their sentences to their teachers and their classmates via text message in order to get feedback if necessary. They were also given android grammar software (Oxford A-Z of grammar and punctuation) so that they could get help when they needed. The method in the control group was pencil-and-paper. The results showed that there was a difference in performance of the experimental and the control groups which mean the experimental group did better in posttest. In addition, Rezaei Mai and Pesaranghader (2014) investigate the use and effectiveness of mobile applications in English vocabulary learning. Vocabulary acquisition is an important part of language learning. The advancement in technology has greatly improved the existing setting in education world in recent years. The wide use of mobile wireless technologies also has created more opportunities to shift the traditional academic environment to mobile learning. Interactive multimedia is a great avenue for the communication and education. This research studies intermediate-level English learners' performance before and after using mobile applications that were introduced to the study group as an intervention. It examines whether multimedia courseware affects the vocabulary learning in the second language acquisition. The quantitative data revealed positive change in learners' performance and the questionnaire analysis indicated that using the applications helped enhance learning of vocabulary, confidence, class participation and that, students had a positive tendency toward the use of multimedia in education.

Furthermore, Sorayyaei Azar and Nasiri (2014) aimed to investigate Iranian EFL learner's attitudes toward the effectiveness of Mobile Assisted Language Learning on their Listening comprehension. The first research question concerns a comparison of the effect of cell-phone based audiobooks versus its traditional counterpart that is CD – ROM / audio cassette based audiobooks, and the second deals with the investigation of Iranian EFL learners' attitudes toward the technology, to that end MALL questionnaire was distributed to the experimental group, following up interviews with some participants. The results of this study indicated that the experimental group receiving instruction through cell-phone based audiobooks outperformed the control group on their listening comprehension. Moreover, Fageeh (2013) explored the benefits of mobile phone applications with regard to their potential for improving vocabulary learning and motivation. Learning theories and cognitive techniques were explored to provide a theoretical foundation for this study. Following a pre-test/post-test design, 27 experimental students and 31 control students participated in this study by using mobile device-based vocabulary applications thrice a week over the course of one semester. The results indicated statistically significant differences in performance between the two groups in post-test scores and increases in the post-test scores of the experimental group indicating enhanced vocabulary learning. A motivation scale was employed to measure the motivation of the participants in both groups at post-test. The results indicated that experimental

participants had enhanced motivation perceptions compared to the control participants. While further research is needed, the analysis of data indicates that the use of mobile phones is a viable vocabulary instructional/learning method at the college level. At last, Jafarian, Soori and Kafipour (2012) investigated the effect of Computer Assisted Language Learning on EFL students' writing achievement. Forty students in a high school in Iran were selected and divided into experimental and control groups (20 and 20 respectively). An independent sample t-test was run to find if there were any significant differences between the results of the experimental and control groups in the writing test. CALL users' achievement in EFL were significantly higher than nonusers ($df = 38$, $p \leq .05$). This significant difference between the two groups favoring CALL users was an indication of the effect of CALL on improving students' knowledge and competency in EFL.

As stated earlier, some researchers such as Alhadiah, (2020), Chwo, Marek and Wu (2018), Lam, Wang and Zhao (2018), Hashemifardnia, Namaziandost and Rahimi Esfahani (2018), Khbiri and Khatibi (2013), Stockwell, 2008), Khubyari and Haddad Narafshan (2016), Rezaei Mai and Pesaranghader (2014), Khansarian-Dehkordi and Ameri-Golestan (2017), SorayyaeiAzar and Nasiri (2014), Fageeh (2013), KhademEstarki and Bazyar (2016), Najmi (2015), Jafarian, Soori and Kafipour (2012)focused on the importance MALL and its effects of on developing foreign/second language learning. Most of the researchers in the field of study found that MALL did have positive effects on developing foreign/second language learning. Despite what have been mentioned, to the best the present researcher's knowledge, no research study explored the effect of using Shaad application on vocabulary learning of the Iranian high school students. Thus, in order to fill the gap, the present study was designed to investigate the effect of using Shaad application on vocabulary learning of the ninth grade high school students. Moreover, the researcher intends to compare the online leaning with the traditional instruction.

Method

Participants

The first class of participants was30Iranian ninth grade high school students as the members of Shaad groupwho were selected from Somayeh high school in Neyshabur- a city in Iran.The pupils were non-randomly selected from of the high school. The learners were considered as the members of experimental group. In addition, the second class of participants was 30 ninth grade students as the members of traditional group who received the instruction through face-to-face teaching. The learners were considered as the members of the control group.

Instruments

Vocabulary Pretest and Posttest

In order to measure the vocabulary learning of the EFL students and to measure the effectiveness of the treatments of the study (i.e., Shaad learning versus traditional teaching), the vocabulary tests consisted of 49 multiple choice items published by Cambridge University Press (2005) were used as pretest and posttest. This test was known as *English Vocabulary in Use Pre-intermediate and intermediate Level Test.*This test was regarded as reliable and valid test. Although the pretest and posttest were regarded as reliable instruments, to improve reliability of the tests, the researcher piloted the tests before the main administration. After piloting the tests on 20 EFL learners different from the participants of this study, reliability of the tests were estimated through KR- 21 formula.

Reliability of the Tests

The reliability of the pretest and posttest was estimated based on the scores from 20 participants similar in characteristics to target participants. The instruments used in this study demonstrated reasonable degrees of reliability.

Table 1: Piloting of the Pretest and Posttest

Instruments	Students Number	Items Number	'r'
Pretest	20	49	0.732
Posttest	20	49	0.780

As displayed in Table 1, the pretest and posttest showed acceptable indexes of reliability.

Teaching Material

Vocabulary sections of the ninth grade English textbook were considered as the teaching materials.

Research Design

Thepresent study was conducted in order to find out the comparative effects of using Shaad application versus traditional instructionon ninth grade students' vocabulary learning during the corona era. In other words, this study sought to investigate the effect of online learning versus traditional teaching(i.e., independent variables) on the EFL students'vocabulary learning (i.e., dependent variable) via administering the posttest. Hence, it was a quasi-experimental research because non-randomized experimental design was applied.

Procedure

The first step in the current study was to the selection of the participants. To perform this, 30 Iranian ninth grade high school students as the experimental group learners were selected from a high school in Neyshabur. In addition, 30 ninth grade students as the members of traditional group who received the instruction through face-to-face teaching were selected as the members of traditional group.

Having selected the students, the second step in this study was to administer the treatment. To investigate the effect of using Shaad application on vocabulary learning, the researcher taught the teaching materials through the use of Shaad application. During the treatment, the experiment was conducted under supervision of the researcher (i.e., Maryam Seyed Moradi). Based on the lesson plan and the ninth grade syllabuses, the learners in Shaad group were taught the vocabulary instruction. The learners in the Shaad group were sent a list of words extract from the textbook using Shaad application four times a week after each class. The EFL students in the Shaad group were asked to define the words using the Online Dictionary applications, use the words in sentences they create and send those sentences back to their peers and the teacher for correction.It should be noted that the teaching materials and the teacher's teaching method were the same for both Shaad and traditional groups. However, the experimental groupreceived the teaching material through the use of Shaad application while the learners in the control group received the instruction through face-to-face interaction.

The last step in this study was to measure the students' vocabulary learning after the treatment sessions. In other words, the posttest was administered to the Shaad group to compare the test's scores with the control group's scores.

Data Analysis

In order to analyze the raw data and answer the research questions, a series of independent samples t-tests were used as inferential statistics.

Results

Normality

In order to check the data normality, the Shapiro-Wilk test and Kolmogorov-Smirnov test were used. In this test, if significance level (sig) is greater than the error value 0.05, the data normality is considered as normal.

Table 2. Normality Test

Groups	Tests	Kolmogorov Smirnov[a]			Shapiro-Wilk		
		Statistic	df	P	Statistic	df	P
Experimental (Shaad)	Pretest	0.18	30	0.15	0.92	30	0.17
	Posttest	0.82	30	0.09	0.93	30	0.08
Control (Traditional)	Pretest	0.92	30	0.8	0.92	30	0.10
	Posttest	0.92	30	0.08	0.96	30	0.59

Based on the results shown in Table 2, the significance level (sig) of the pretest and posttest scores of the groups was greater than the error value 0.05 ($p > 0.05$). Therefore, it is concluded that the tests' scores had normal distributions.

Descriptive Statistics: The Pretest

In this section, descriptive statistics of the pretest including the mean, SD, and SEM is presented in Table 3.

Table 3: Descriptive Statistics for the Pretest

Groups	N	M	SD	SEM
Traditional	30	16.32	2.31	0.63
Shaad	30	17.93	2.88	0.69

Table 3 showed that the groups were homogenous at the pretest stage. In other words, before starting the treatment, the groups were similar to each other in terms of the vocabulary learning.

Inferential Statistics: The Pretest

In order to find out whether the difference between the performances of the two groups at the pretest stage was statistically significant or not, one independent samples *t*-test was applied the results of which are presented in the following Table.

Table 4: Independent Samples t-test for the Pretest

	Levene's Test for Equality of Variances		*t*-test for Equality of Means						
								95% Confidence Interval of the Difference	
Shaad vs. Traditional	F	Sig.	*t*	Df	Sig. (2tailed)	MD	SED	Lower	Upper
Equal variances assumed	6.21	0.043	1.72	58	0.47	0.67	0.70	0.29	2.35
Equal variances not assumed			1.72	48.20	0.47	0.67	0.70	0.29	2.35

As shown the Table, since observed *t* (1.72) with df= 58 is less than the critical *t* (1.96), the difference between the groups was not significant at pretest stage ($p<0.05$). This result showed that the groups were fairly homogenous at the outset of the present study.

Descriptive Statistics: The Posttest

The obtained scores from the posttest are analyzed in Table 5 to find any significant difference between the two groups. Descriptive statistics of the posttest is presented in Table 5.

Table 5: Descriptive Statistics for the Posttest

Groups	N	M	SD	SEM
Traditional	30	28.03	2.33	0.45
Shaad	30	21.11	2.25	0.39

Table 5 shows that the mean of traditional group in the posttest was greater than the mean of Shaad group. It revealed that the traditional group performed better in posttest in comparison with the pretest stage. On the other hand, there was no significant difference between the performance of Shaad group at the pretest stage in comparison with the posttest stage.

To sum up, based on the results shown in Table 4 and 5, the mean score of traditional group had substantial growth in the posttest in comparison with the pretest stage. Moreover, the mean score of Shaad group had an increase in the posttest in comparison with the pretest stage but the growth was not statistically significant. The mean score of traditional group was greater than the mean score of Shaad group in the posttest stage.

Inferential Statistics: The Posttest

In order to find out whether the difference between the performances of the two groups in posttest was statistically significant or not, another independent samples *t*-test was applied.

Table 6: Independent Samples t-test for the Posttest

	Levene's Test for Equality of Variances		*t*-test for Equality of Means						
								95% Confidence Interval of the Difference	
Shaad vs. Traditional	F	Sig.	*t*	df	Sig. (2-tailed)	MD	SED	Lower	Upper
Equal variances assumed	0.71	0.82	6.97	58	0.00	2.42	0.77	2.00	4.21
Equal variances not assumed			6.97	55.09	0.00	2.42	0.77	2.00	4.21

Table 6 indicates that the observed *t* (6.97) with df= 58 was greater than the Critical *t* (1.96). Thus, the difference between the groups was significant at posttest stage ($p<0.05$). This result showed that the groups were not equal in terms of their vocabulary learning after the research period at the posttest.

Discussions

The findings of the present study are not in line with Alhadiah, (2020) who investigated the perspectives of learners regarding the use of one of the programs that can be used for vocabulary learning — Quizlet. The findings revealed that students found the MAVL application effective, motivating and useful. The findings also indicated that participants found video and graphic annotations more useful and their views changed depending on their learning styles. Similarly, Hashemifardnia, Namaziandost and Rahimi Esfahani (2018) investigated the effects of using WhatsApp on Iranian EFL learners' vocabulary learning. The results indicated that there was a significant difference between the post-tests of the experimental and the control groups. The findings reveal that the experimental group significantly outperformed the control group on the post-test. Correspondingly, the findings are not in line with Khadem Estarki and Bazyar (2016) who investigated the effect of using mobile-assisted language learning (MALL) on pre-intermediate learners' writing performance. Both control and experimental groups, benefited from every aspects of the same teaching. To study the impact of using technology on teaching writing, first, the experimental subjects joined a Viber group. At the beginning of every week, the same topic was selected for experimental and control groups, and subjects were required to write the most relevant materials and ideas concerning the selected topic. Learners in experimental group were motivated to participate in Viber group in this way, and the control group members were required to perform writing tasks through conventional writing techniques. Two parallel writing tests (composition) were administered as the pretest and posttest for both groups. The results of statistical analysis of post-test writing scores revealed that MALL had a significant impact on the writing skill of the experimental group.

Dissimilar to the findings of the present study, Najmi (2015) conducted a research study to find a brand new path which is different from other studies conducted concerning MALL into learning process, in which the effect of MALL on guided writing of Iranian upper-intermediate EFL learners was investigated. The results showed that there was a difference in performance of the experimental and the control groups which means the experimental group did better in posttest. Likewise, Jafarian, Soori and Kafipour (2012) investigated the effect of Computer Assisted Language Learning (CALL) on EFL students' writing achievement. CALL users' achievement in EFL were significantly higher than nonusers. This significant difference between the two groups favoring CALL users was an indication of the effect of CALL on improving students' knowledge and competency in EFL. Bayraktar (2002) conducted a meta-analysis of effectiveness of computer assisted instruction (CAI) on student achievement in secondary and college science education compared to traditional instruction. Results showed a small positive effect for CAI use when used in simulation or tutorial models, with individual computer use, and when used as a supplement to traditional instruction. At last, findings of the research study are not in line with Chikamatsu (2003) who examined the effects of computers on writing efficiency and quality among intermediate learner of Japanese. One of the finding was that accuracy rates and

number of Kanji characters used were significantly different, indicating that learners benefited from computer writing.

Conclusions

Based on the data analysis procedure, Shaad application as online learning did not have statistically significant effect on EFL students' vocabulary learning. Therefore, the first research hypothesis was accepted. On the other hand, traditional teaching (face-to-face instruction) did have statistically significant effect on EFL students' vocabulary learning. Thus, the second research hypothesis was rejected. In other words, there was significant difference between the posttest scores of Shaad and traditional groups. The mean score of traditional group was greater than the mean score of Shaad group in the posttest stage. In view of that, there was significant difference between the posttest scores of the learners in traditional and Shaad groups. Accordingly, there was significant difference between the vocabulary learning of EFL students exposed to traditional teaching and those who exposed to Shaad instruction. Hence, the third research hypothesis was rejected too.

Implications

These research findings present the following implications for EFL learners and teachers in case of dealing with language learning and teaching. Language studies in the domain of using mobile application are well advised to take implications presented in this study into thoughtful account.

For EFL Teachers

The findings of this research are important because they help language teachers in the field of teaching English as a foreign language (TEFL) to reveal the effectiveness of using mobile application versus traditional teaching on Iranian EFL learners' vocabulary learning. In addition, the findings of the study may be beneficial to Iranian EFL teachers especially those who teach English in the public schools. For instance, the teachers can use social networks especially mobile applications to enhance their students' vocabulary knowledge. Moreover, the present study may be helpful to teachers to become aware of the effectiveness of mobile applications (e.g., Shaad) in improving their students' vocabulary learning.

The area of teaching vocabulary is very important particularly in the present condition of requirement of English in Iran where English is taught as a foreign language, so change from teaching traditional techniques to novel ones should be well investigated to reach the better condition of vocabulary learning.

For EFL Learners

Based on the findings of this study, by removing the weaknesses of mobile learning (i.e., Shaad application), it is suggested that EFL learners may use Shaad application to improve their foreign language learning especially vocabulary learning. Moreover, based on the findings of the research, each EFL learner could have a better understanding of her strengths and weaknesses in vocabulary and would then be able to improve his vocabulary knowledge.

Suggestions

a) The present research just focused on vocabulary learning. Therefore, interested researchers could study the effect of using Shaad on improving other sub skills such as grammar and pronunciation.
b) The present research just focused on female EFL learners. The researcher preferred the EFL learners because it was more convenient to make connection with them. Thus, interested researchers could study the effect of using mobile applications on improving vocabulary learning of Iranian male EFL learners.
c) This study was conducted among a population of Iranian EFL learners. Similarly, future research in this area could take into consideration learners within non-Iranian contexts.
d) Due to the limitations of the present study, this study was conducted with a limited number of students. The future research could consider a larger number of students.
e) The current study was conducted on Iranian intermediate EFL learners, so its results cannot and should not be generalized to all language learners at different levels in various educational contexts. Hence, future research could focus on learners with different levels.
f) Future researchers need to spend a longer time than the time spent in this study.

REFERENCES

[1]. Alhadiah, A. (2020). EFL learners' experience of a MALL-based vocabulary learning tool.*Indonesian Journal of Applied Linguistics, 10*(2), 283-291.
[2]. Ally, M. (2009). *Mobile learning: Transforming the delivery of education & training*. Athabasca: AU Press.
[3]. Baleghizadeh, S. (2018). Focus on form in an EFL communicative classroom. *Novitas-ROYAL (Research on Youth and Language), 4*(1), 119-128.
[4]. Bax, S. (2003). The end of CLT: A context approach to language teaching. *ELT Journal, 57*(3), 278-87.
[5]. Brown, H. D. (2007). *Principles of language learning and teaching*. San Francisco: Pearson Education.
[6]. Chwo, G. S. M., Marek, M. W., & Wu, W. C. V. (2018).Meta-analysis of MALL research and design. *System, 74*, 62-72.
[7]. Fageeh, A. (2013). Effects of MALL applications on vocabulary acquisition. *AWEJ, 4*(4), 420-447.
[8]. Gass, S. (1999). Incidental vocabulary acquisition: Discussion. *Studies in Second Language Acquisition, 21*, 319-333.
[9]. Gilakjani, A. P., Leong, L. M., & Ismail, H. N. (2013).Teachers' use of technology and constructivism. *International Journal of Modern Education and Computer Science (IJMECS), 5*(4), 49-68.
[10]. Hashemifardnia, A., Namaziandost, E., & Rahimi Esfahani, F. (2018).The effect of using WhatsApp on Iranian EFL learners' vocabulary learning.*Journal of Applied Linguistics and Language Research, 5*(3), 256-267.
[11]. Humes, J., & Raisner, J. (2010).*Constructivism in educational technology*.Retrieved from http://scholar.google.com.my/scholar.
[12]. Kemp, N. (2010). Text-message abbreviations and language skills in high school and university students.*Journal of Research in Reading 35*(1), 49-68.
[13]. Khansarian-Dehkordi, F., & Ameri-Golestan, A. (2017).The effects of social networking on Iranian EFL learners' vocabulary acquisition. *Relp, 5*(2), 97-111.
[14]. Khubyari, L., & Haddad Narafshan, M. (2016). A study on the impact of mall (mobile assisted language learning) on EFL learners' reading comprehension.*International Journal of English Language Teaching, 4*(2), 58-69.
[15]. Kiernan, P., & Aizawa, K. (2004). Cell phones in task based learning: Are cell phones useful language learning tools? *ReCALL, 16*(1), 71-84.
[16]. Klopfer, E. (2002). Environmental detectives: PDAs as a window into a virtual simulated world. Proceedings of IEEE International workshop on wireless and Mobile Technologies in Education.*IEEE computer Society, 1*, 95-98.
[17]. Koole, M. (2009).A model for framing mobile learning. In M. Ally (Ed.), *Mobile learning: Transforming the delivery of education & training* (pp. 25–47). Athabasca: AU Press.
[18]. Lam, E. T., Wang, L. C. C., & Zhao, X. W. (2018). Students' perception of Quizlet as a Chinese learning tool: A preliminary study. *International Journal of Technology Enhanced Learning, 10*(1-2), 128-136.
[19]. Levy, M., & Kennedy, C. (2005). Learning Italian via mobile SMS. In: Kukulska-Hulme, A. and Traxler, J. (eds.) *Mobile Learning: A handbook for educators and trainers*. London: Routledge.
[20]. Makalesi, A. (2018). The effects of a mobile assisted vocabulary learning application on vocabulary learning.*Turkish Online Journal of Qualitative Inquiry (TOJQI), 9*(3), 288-311.
[21]. Mastura, N. M. N., Nor, M. M., & Posiah, M. I. (2012). M-learning in Malaysia: Challenges and strategies. *Procedia-Social and Behavioral Sciences, 67*, 393-401.
[22]. Najmi, K. (2015). The effect of mobile-assisted language learning (MALL) on guided writing skill of Iranian upper-intermediate EFL learners. *Journal of Applied Linguistics and Language Research, 2*(4), 42-52.
[23]. Nation, I. S. P. (2001).*Learning vocabulary in another language.* Cambridge: Cambridge University Press.
[24]. Norazah, M. N., Hamzah, M. I., Melor, M. Y., & Embi, M. A. (2010).The mobile learning environment for the in-service school administrators.*Procedia-Social and Behavioral Sciences, 7*, 671-679.
[25]. Rasinski, T., & Stevenson, B. (2019). The effects of fast start reading. A fluency based home involvement reading program, on the reading achievement of beginning readers. *Reading Psychology: An International Quarterly, 26*,109-125.
[26]. Rasinski, T., Rupley, W. H. (2019).*Phonics and fluency practice with poetry.* New York: Scholastic.
[27]. Rezaei, A., Mai, N., & Pesaranghader, A. (2014).The Effect of Mobile Applications on English Vocabulary Acquisition. Jurnal Teknologi (Sciences & Engineering) 68 (2), 73–83.
[28]. Richards, J., & Rodgers, T. (2007).*Approaches and methods in language teaching*. Cambridge: Cambridge University Press.

[29]. Rosell-Aguilar, F. (2007).Top of the Pods.In search of podcasting "pedagogy" for language learning.*Computer Assisted Language Learning, 20*(5), 471-492.
[30]. Samsiah, B., & Azidah, A. Z. (2013).Adoption and application of mobile learning in the education industry. *Procedia-Social and Behavioral Sciences*, *90*, 720-729.
[31]. Sharples, M., Taylor, J., & Vavoula, G. (2005).Towards a theory of mobile learning. *Proceedings of mLearn, 1* (1), 1-9.
[32]. SorayyaeiAzar, A., & Nasiri, H. (2014). Learners' attitudes toward the effectiveness of mobile assisted language learning (MALL) in L2 listening comprehension. Procedia - Social and Behavioral Sciences, 98, 1836-1843.
[33]. Stockwell, G. (2007) Vocabulary on the Move: Investigating an intelligent mobile phone-based vocabulary tutor. *Computer Assisted Language Learning*, 20(4), 365-383.
[34]. Stockwell, G. (2008). Vocabulary on the move: Investigating an intelligent mobile phone-based vocabulary tutor. *Computer Assisted Language Learning, 20* (4), 365–83.
[35]. Suneetha, Y. (2013). MALL (mobile assisted language learning): A paradise for English language learners. *International Journal of English Language & Translation Studies*, *1*(2), 91-99.
[36]. Traxler, J. (2007). Defining, discussing and evaluating mobile learning: The moving finger writes and having writing. *The International Review of Research in Open and Distance Learning, 8*(2), 92-107.
[37]. Uberman, A. (2006). *Modeling the English lexicon in applied linguistics*. Rzeszow: Wydawnictwo UR.
[38]. Webb, S., & Nation, I. S. P. (2017). *How vocabulary is learned.* Oxford, England: Oxford University Press.