The Implementation of MALL for I diom Learning Attainment during the COVID-19 Pandemic: The Case of Iranian EFL Learners¹

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Abstract

The present investigation examines the impact of Mobile-Assisted Language Learning (MALL) on the enhancement of EFL learners' idiom learning through *WhatsApp* during the COVID-19 pandemic. Three complete classes with 60 intermediate female learners (20 per class) were selected and randomly assigned into two experimental and one control group in *WhatsApp*. Data collection tools included Preliminary English Test (PET) and a researcher-designed idiom test used as pre-and post-tests. In the intervention, the first treatment group included contextualized MALL. In other words, the teachers provided the students with idiomatic expressions in context. The second treatment group included decontextualized MALL, idiomatic expressions merely with their meanings were presented to the students through *WhatsApp*. In the control group, the researchers taught the idioms through translation. This procedure lasted for 20 sessions. The findings of a paired-samples t-test and one-way ANOVA indicated that the contextualized MALL group surpassed the rest in both immediate and delayed post-tests. The implications regarding the efficacy of MALL and online teaching in developing EFL learners' idiom learning, and retention are discussed.

Resumen

La presente investigación examina el impacto del aprendizaje de idiomas asistido por dispositivos móviles (MALL) en la mejora del aprendizaje de idiomas de los estudiantes de inglés como lengua extranjera a través de *WhatsApp* durante la pandemia de COVID-19. Se seleccionaron tres clases completas con 60 alumnas de nivel intermedio (20 por clase) y se asignaron aleatoriamente a dos grupos experimentales y uno de control en *WhatsApp*. Las herramientas de recopilación de datos incluyeron una prueba preliminar de inglés (PET) y una prueba idiomática diseñada por un investigador que se utilizó como prueba previa y posterior. En la intervención, el primer grupo de tratamiento incluyó MALL contextualizado. En otras palabras, los profesores proporcionaron a los estudiantes expresiones idiomáticas en contexto. El segundo grupo de tratamiento incluyó MALL descontextualizado, se presentaron a los estudiantes expresiones idiomáticas meramente con sus significados a través de *WhatsApp*. En el grupo de control, los investigadores enseñaron los modismos mediante traducción. Este procedimiento duró 20 sesiones. Los resultados de una prueba t para muestras pareadas y un ANOVA unidireccional indicaron que el grupo MALL contextualizado superó al resto en las pruebas posteriores tanto inmediatas como tardías. Se discuten las implicaciones con respecto a la eficacia de MALL y la enseñanza en línea en el desarrollo del aprendizaje y la retención de idiomas de los estudiantes de inglés como lengua extranjera.

Introduction

Widespread cellphone use has influenced Second Language Acquisition (SLA) since it has expanded learning beyond the classroom and enabled students to decide independently about the time and place they study (e.g., Kukulska-Hulme et al., 2017; Reinders & Benson, 2017). As Ghanizadeh, et al. (2022) state, in recent years mobile phones have become learning tools for effectively acquiring and retaining knowledge.

Online learning became a significant component in second language acquisition, particularly during the recent pandemic. Online learning is believed to open a new field in the learning process (Appana, 2008; Shopova, 2014). According to Goertler (2019), online education is flexible, and can enhance autonomous learning and reach broader audiences by removing various obstacles. Thus, during pandemic, war, crisis, etc., online education can be a great option to continue education.

The English language is rich in idioms, which give it color and feeling (Adkins, 1968; Anglin, et al., 1993; Cornelia, 1999). Moreover, a knowledge of idioms correlates highly with the breadth of a person's vocabulary (McGavigan, 2009). Therefore, understanding and using idioms are important in any language (Milton, 2009) and increased exposure to idioms can enhance their comprehension (Winis et al. 2013).

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There has been a debate among language educators on whether to teach word meanings through translation or word lists or in a context, that is, presenting the word within a sentence. Oxford and Crookall (1990) stated that decontextualization means removing the word from any communicative context which acts as a clue to the students and helps them to remember the meaning of a word. Nation (2001) said that in decontextualization "the word is removed from its context to be focused on as a language item" (p. 100). Nonetheless, studies indicate that if the target lexical items are presented in texts and students attempt to infer their meaning from their contexts, effective vocabulary learning and retaining can occur (Nation & Coady, 1988). McCarthy (1990) asserted that when a word is learned in a meaningful context, it will be remembered efficiently. When the students learn a lexical item in a context, they get to know its phonetic, syntactic and semantic rules and they also realize how to use it appropriately in a context. To this end, this study aimed at investigating Iranian EFL learners' idiom learning ability through the implementation of MALL during COVID-19 pandemic.

Hence, this research study tried to answer the following questions:

- Is there any significant difference among different online methods of teaching idioms (decontextualized mobile-assisted, contextualized mobile-assisted, and traditional) in immediate post-tests or delayed posttests?
- 2. Is there any significant difference among different online methods of teaching idioms (decontextualized mobile-assisted, contextualized mobile-assisted, and traditional) in delayed post-test?
- 3. Does online contextualized teaching of idioms through MALL have a significant effect on the immediate and delayed enhancement of idiomatic knowledge of EFL learners?
- 4. Does online decontextualized teaching of idioms through MALL have a significant effect on the immediate and delayed enhancement of idiomatic knowledge of EFL learners?
- 5. Does online teaching of idioms through traditional method have a significant effect on the immediate and delayed enhancement of idiomatic knowledge of EFL learners?

Literature Review

According to Brown (2001), vocabulary is regarded as the core aspect of the language; therefore, instructors ought to allot specific class time to vocabulary teaching for productive communication.

Lewis (1993) argued that in the lexical approach, concentration is on developing learners' proficiency through lexis, words and word combinations. Thus, there is a shift from grammar to vocabulary teaching which includes one/two-word words, idioms, collocations, fixed and semi-fixed expressions (Lewis, 1997). Schmitt (2000) argued that "formulaic language occupies a crucial role in facilitating language; it is the key to fluency and motivates the learner" (p. 25). According to Wray and Perkins (2000), formulaic language is a continuous or discontinuous sequence of prefabricated words stored and retrieved from memory whenever used. Idioms are barriers for L2 learners due to the unpredictability of their meanings (Cooper, 1999; Liontas, 2001; McCarthy, O'Keeffe, & Walsh et al., 2010). Therefore, they often create problems for the learners and, as a result, some learners avoid using idioms in their speech (Laufer, 2000).

According to Moon (1997), idioms are considered to be fixed expressions and are the most difficult part of the vocabulary to be acquired completely by most learners; nonetheless, defining what is an idiom precisely is cumbersome (Tabatabaei & Mirzaei, 2014). Therefore, learning idioms is necessary for EFL learners. L2 students should learn the grammar, vocabulary, as well as the idioms of the English language to be able to communicate effectively (Fotovatnia & Khaki, 2012; Tabatabaei & Mirzaei, 2014).

Mobile-assisted language learning (MALL)

In 2020, most educational contexts all over the world switched to a sudden remote teaching, that is, from classroom settings to online learning environments to ensure the safety of the community when the COVID-19 pandemic took hold. Accordingly, many students prefer online learning since they can have access to high-quality learning at their own convenient time. Moreover, they are able to get degrees or attend new courses without traveling to a different city or country (Selvaraj et al., 2021).

Online classes brought various advantages including creating a digital learning community, enhancing learners' digital learning skills, as well as staying connected during tough times (Li, 2022). Nevertheless, due to the widespread pandemic which forced teachers throughout the world to teach online, the primary outcomes were not as welcoming (Gacs et al., 2020). Many teachers were dissatisfied with online classes

due to adaptability issues, time-management issues, the distraction by social media as well as technological obstacles (Li, 2022).

Smartphones as a popular means of communication have become more popular among adolescents since they can do various tasks with them, from basic communicative functions such as making calls to complex tasks such as being a replacement for a computers, which are used for internet browsing and performing work-related activities (Tanil & Yong, 2020). This increase has augmented the interest in the use of cellphones for educational purposes (Duman, et al., 2015; Godwin-Jones, 2011; Golonka et al., 2014). Mobile-assisted language learning (MALL) has attracted a lot of attention (Burston, 2015; Malekizadeh & Khoram, 2015; Shadiev et al., 2017) since it has flexibility in time and location of study. Moreover, it enables the students to have an easy access to information (Duman et al., 2015; Pegrum, 2014; Petersen & Sachs, 2016; Reinders & Pegrum, 2015).

The rapid growth of technology has generated new opportunities for improving the quality of education, in general, and language learning, in particular (Alavinia & Jahangiri, 2016). MALL as a subset of computer-assisted language learning (CALL) and mobile-learning (m-learning) is a relatively innovative concept in education and an interesting way of learning a new language (Azar & Nasiri, 2014). It utilizes personal and portable devices that provide alternative ways of learning (Kukulska-Hulme & Shield, 2008). O'Malley et al., (2005) defined MALL as "any sort of learning that happens when the learner is not at a fixed, predetermined location, or learning that happens when the learner takes advantage of the learning opportunities offered by mobile technologies" (p. 6).

According to Nuraeni, et al. (2020), due to technological developments, mastering English for national and international communication has become more essential; therefore, MALL, as the latest learning way in the language education, can be used to facilitate students' learning in a convenient environment and atmosphere.

As Rahimi and Miri (2014) said, MALL includes any language learning activity which is presented with cellphones. Moreover, according to Miangah and Nezarat (2012), MALL can be a perfect solution wherever there are limitations related to time and place in learning a foreign language.

Empirical studies

Okumuş Dağdeler et al. (2020) investigated the efficacy of MALL on EFL students' increased vocabulary knowledge. The findings showed a great difference between the experimental group and control group with regard to receptive vocabulary knowledge with the experimental group outperforming the control group regarding vocabulary knowledge. Nonetheless, no difference was reported between the groups in retention tests. Furthermore, no difference was reported between the application of MALL and worksheets with regard to productive vocabulary knowledge. In a similar study, Mohammad Sharifi and Heidari Shahreza (2021) examined the effectiveness of Telegram on Iranian EFL learners' receptive, as well as productive, vocabulary knowledge. They also explored the students' perception toward utilizing Telegram to master English vocabulary. The results revealed a major difference between the groups' achievement test scores. Furthermore, the students head positive opinions about the application of Telegram to learning vocabulary. Furthermore, Fang et al., (2021) investigated the effect of applying a mobile-supported task-based language teaching (TBLT) on learners' linguistic and task scaffolding. Based on the results, the mobile-supported TBLT group outperformed the traditional TBLT group in terms of vocabulary and comprehension, but not of the grammar.

Therefore, developing idiomatic knowledge has always been emphasized in EFL contexts. To this end, the researchers believe that the usage of technology, especially cellphones, in classroom activities can help learning aims, for instance assisting the difficulty in learning idioms and enhancing their achievement. In this regard, technology can be one of the means of learning rather than traditional ways such as books to improve learners' English and language learners may be able to improve language proficiency and idiom knowledge (Bahrani & Tam, 2012; Bahrani & Sim, 2012).

Method

Design of the study

In the present investigation, the researchers followed an intact group design. The researcher-designed idiom test was administered online to the learners as pre-test. In the experimental groups, the researchers used two methods: contextualized (idioms were taught in the context of sentences) and

decontextualized teaching of idioms through cellphones (idioms were taught in isolation without using sentences), but the control groups followed the traditional method of translation through mobile apps. That is, in the control group, the researchers taught the idioms through translation. At the end of the treatment, both groups were exposed to the same researcher-designed idiom test as immediate post-test and after a month to the delayed post-test to see if the treatment had any significant effect on the experimental groups.

Participants

The participants consisted of 60 intermediate female EFL learners studying at Iran Language Institute (ILI) in Urmia, Iran. The participants' native languages were Azari, Persian, and Kurdish. and were between 15-20 years old.

Instruments

The researchers utilized the following instruments to collect data:

Preliminary English Test (PET)

PET was used to assess the participants' everyday written as well as spoken English at an intermediate level. PET evaluates all four language skills and consists of 67 items: reading (35 items), writing (7 items), and listening (25 items). The reliability of the test was 0.79.

A Researcher-designed Idiom Test (Pre-test)

Having established homogeneity among the participants, the researchers administered the online researcher-made idiom test including 100 English idioms selected randomly from American Heritage Dictionary of Idioms based on learners' proficiency level. The reliability of the test was 0.81.

Researcher-designed Idiom Test (Immediate and Delayed Post-tests)

Finally, post-tests including 80 idioms were presented to the participants online in three groups. They were asked to write their Persian meanings to explore the effect of treatments in the short term and in the long run. The reliability of the immediate and delayed post-tests was 0.80 and 0.82, respectively.

Teaching materials

The *ILI English* Series: Intermediate Students' Books was used as the teaching material. These books involved eight units containing a dialogue, a reading passage, grammatical points, and a listening comprehension exercise.

Cellphones

WhatsApp is available via the internet and can be installed on any kind of mobile device. Moreover, the program provides interaction between the teacher and other language learners by creating an opportunity for group chats in which teachers and students can share messages, photos, and videos. The researchers chose WhatsApp since it is one of the most popular apps worldwide. Furthermore, it is available without a subscription fee, and is accessible via both desktop/laptop computers and mobile devices.

In the current study, cellphones were utilized to instruct idioms in the three groups. In the contextualized MALL group, the researchers presented the idioms for learners through texting idioms in context (in sentences). However, in the decontextualized MALL group the idioms were sent to learners' WhatsApp groups accompanied by their meaning in English. In the control group, the researchers taught the idioms through translation. The proficiency test, pre-test, and post tests were designed through Google forms and their links were sent to the students' WhatsApp groups and the students were required to answer them in their allocated time.

Procedure

To homogenize the attendees, the PET test was administered online to 85 participants. Sixty intermediate-level participants having the score of one standard deviation above and below the mean were chosen for the treatment. The test was designed through *Google* forms and consisted of 20 multiple-choice vocabulary questions. Thirty minutes were allocated for the test. Afterwards, the attendees were assigned randomly to two treatment groups as well as a control group.

Having ensured that the three groups were homogeneous, the researchers launched the instructional procedure. First of all, the learners were asked to download the *WhatsApp* application and install it in their

cell phones since during Covid-19 pandemic all the classes were taught online. The researchers used three intact classes and created a WhatsApp group for each of these classes and then the learners of each class were added to their groups. After that, a researcher-designed idiom test was administered to the attendees in the online pretest. The participants were asked to write the Persian translation of the idioms to understand which ones were totally unfamiliar to all the participants. Thereby, the researchers chose 80 idioms for the intervention. In the intervention, the first treatment group was engaged in contextualized MALL, in other words, the teachers provided the students with idiomatic expressions in a context. The second treatment group was involved in decontextualized MALL; that is, idiomatic expressions merely with their meanings were presented to the students through WhatsApp. This procedure continued for 20 sessions. In each one-hour-and-thirty-minute session, the students were exposed to four idioms. However, the control group received instruction of idioms through translation. In other words, the idioms were presented to them both in English and Persian on their cellphones and learners were asked to practice them for the next session. At the end of the treatment, the immediate post-test of idioms as well as a delayed post-test were administered to learners to check the enhancement and retention of their idiomatic knowledge. Moreover, since the immediate and delayed post-tests were essay-type, and due to the subjective nature of scoring such tests, more than one rater was required. Therefore, inter-rater reliability indexes were used.

Data analysis

In this study, the normality of the sample on the PET test was determined by Kolmogorove-Smirnov. A paired-samples t-test was used to analyze the potential enhancement of participants' idiomatic knowledge within each of the three groups from pre-test to immediate and delayed post-tests. Furthermore, a series of one-way ANOVA was conducted to pinpoint the variations among the groups in PET test, pre-test, immediate and delayed post-tests. Moreover, Tukey HSD tests were performed in post-test steps to discover where precisely the variation among the groups existed. Finally, Pearson correlation coefficients were employed to guarantee the inter-rater reliability of the scores.

Results

Quantitative data

Analysis for normality of all participants using PET

As discussed before, 60 subjects out of 85 learners were selected through PET. For testing the normality of participants on PET test, the researchers used a Kolmogorov-Smirnov test. The results of Kolmogorov-Smirnov test were non-significant for all participants (i.e., p=.07>.05).

Homogeneity of participants in the three groups

Descriptive statistics demonstrated that the mean score and standard deviation of the methods of teaching idioms in pre-test were M = 1.72, SD = .850 in the contextualized group, M = 1.65, SD = .919 in the decontextualized group, and M = 1.85, SD = .727 in the control group. Therefore, no remarkable variations were reported among the groups in pre-test (see Table 1).

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.408	2	.204	.29	.74
Within Groups	39.83	57	.699		
Total	40.24	59			

Table 1. ANOVA Results for the differences among three groups in the pre-test

ANOVA outcomes revealed that there was no statistically outstanding variation (F = .29, p = .74 > .05) among the groups in pre-test.

Analysis of the first research question

According to the outcomes of the descriptive statistics, the mean score and standard deviation of the methods of teaching idioms in the immediate post-test are M=35.34, SD=8.32 in the contextualized group, M=24.50, SD=2.49 in the decontextualized group, and M=12.62, SD=1.47 in the control group. The mean scores demonstrated variations among the groups in immediate post-test. Table 2 specifies ANOVA outcomes manifesting the differences among three methods of teaching idioms (i.e., decontextualized

mobile-assisted, contextualized mobile-assisted, and traditional method) in terms of their immediate effect on learners' idiomatic knowledge enhancement.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	. 5163.2	2	.204	99.71	.00
Within Groups	1475.7	57	58.89		
Total	6639.0	59			

Table 2: ANOVA Results for different methods of idiom teaching in the immediate post-test

The outcomes of ANOVA demonstrated a statistically notable difference (F = 99.71, p = .00 < .05) among the groups in immediate post-test. A Tukey post-hoc test was employed to stipulate the precise points of differences among the groups (see Table 3).

Croup N		Subset for alpha = 0.05			
Group	N	1	2	3	
Control	20	12.62		-	
Decontext	20		24.50		
Context	20			35.34	
Sig.		1.000	1.000	1.000	

Table 3: Tukey HSD

The Tukey test showed a significant difference among contextualized MALL (M = 35.34, SD = 8.32), decontextualized MALL (M = 24.50, SD = 2.49), and control group (M = 12.62, SD = 1.47). In sum, the contextualized MALL group outperformed the other two groups and the decontextualized MALL group outperformed the control group in immediate post-test.

Analysis of the second research question

According to the outcomes of the descriptive statistics, the mean score and standard deviation of the methods of teaching idioms in delayed post-test are as follows. The mean is 37.02 and standard deviation is 1.867. In the contextualized group, the mean is 24.35 and the standard deviation is 2.345. In the decontextualized group, the mean is 12.12 and the standard deviation is 1.316 in the control group. The mean scores demonstrated variations among the groups at delayed post-test. Table 4 demonstrates ANOVA outcomes for differences among three methods of teaching idioms (i.e., decontextualized mobile-assisted, contextualized mobile-assisted, and traditional method) in terms of their delayed effect on learners' idiomatic knowledge improvement.

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	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6200.7	2	3100.3	86.74	.00
Within Groups	203.7	57	3.574		
Total	6404.5	59			

Table 4: ANOVA Results for different methods of idiom teaching in the delayed Post-test

Table 4 demonstrates a statistically striking variation (F = 86.74, p = .00 < .05) among the groups in delayed post-test. Accordingly, Table 5 indicates Tukey post-hoc test results.

Croup	N	Subset for alpha = 0.05			
Group	N	1	2	3	
Control	20	12.12	•	•	
Decontext	20		24.35		
Context	20			37.02	
Sig.		1.000	1.000	1.000	

Table 5: Tukey HSD

The Tukey test showed a significant difference among contextualized MALL (M = 37.02, SD = 1.86), decontextualized MALL (M = 24.35, SD = 2.34), and control group (M = 12.12, SD = 1.31). In sum, the contextualized MALL group outperformed the other two groups and the decontextualized MALL group outperformed the control group in delayed post-test.

Analysis of the third research question

The results of paired samples t-tests demonstrated that, in the contextualized teaching group, there was a statistically significant increase from pre-test (M=1.72, SD=.85) to immediate post-test [M=35.34, SD=8.32, t(19)=-17.87, p=.00<.05]. Furthermore, outcomes of a paired-samples t-test revealed that, in the contextualized teaching group, there was a statistically significant increase from pre-test (M=1.72, SD=.85) to delayed post-test [M=36.55, SD=1.93, t(19)=-73.35, p=.00<.05].

Analysis of the fourth research question

The researchers utilized a series of paired samples t-tests to analyze the obtained data. The outcomes revealed that, in the decontextualized teaching group, there was a statistically significant increase from pre-test (M=1.65, SD=.91) to immediate post-test [M=24.5, SD=2.4, t(19)=-36.7, p=.00<.05]. Likewise, in decontextualized teaching group, there was a statistically significant increase from pre-test (M=1.65, SD=.91) to delayed post-test [M=23.87, SD=2.4, t(19) = -35.58, p=.00<.05].

Analysis for the fifth research question

According to the results of paired samples t-tests, in the control group, there was a statistically significant increase from pre-test (M=1.85, SD=.72) to immediate post-test [M=12.62, SD=1.4, t(19)=-27.29, p=.00<.05]. Besides, in the control group, there was a statistically significant increase from pre-test (M=1.85, SD=.72) to delayed post-test [M=11.85, SD=1.33, t (19) =-33.43, p=.00<.05].

Analysis for inter-rater reliability

As illustrated in Table 6, Pearson correlation coefficients were employed to address the inter-rater reliability of the scores in post-tests.

Post-test			Rater1	Rater2
Immediate		Pearson Correlation	1	.88**
	Rater1	Sig. (2-tailed)		.00
		N	60	60
		Pearson Correlation	.88**	1
	Rater2	Sig. (2-tailed)	.00	
		N	60	60
Delayed		Pearson Correlation	1	.81**
	Rater1	Sig. (2-tailed)		.00
		N	60	60
		Pearson Correlation	.81**	1
	Rater2	Sig. (2-tailed)	.00	
		N	60	60

^{**.} Correlation is significant at the 0.01 level (2-tailed).

Table 6: Inter-rater reliability for immediate and delayed post-tests

As displayed in Table 6, there was a significant correlation between two raters in immediate post-test (r = .88 between rater 1 and rater 2) and delayed post-test (r = .81 between rater 1 and rater 2).

Discussion

Learning idioms can be considered a necessary dimension of vocabulary development (Nation, 2001). Thus, the present study aimed at investigating the efficiency of MALL on EFL students' idiom learning.

Regarding the research questions, the findings indicated that the contextualized instruction of idioms via MALL had more positive effect on the immediate and delayed improvement of EFL learners' idiomatic knowledge than the decontextualized MALL and control groups. These findings are in accordance with Hassan Taj et al.'s (2017) study which indicated that MALL had a great effect on EFL learners' vocabulary learning. Moreover, the results support Zare and Amirian's (2014) study revealing that intervention which included vocabulary learning via MALL was efficient in improving students' vocabulary acquisition and their motivation to take part in activities related to vocabulary learning. In line with Wang and Shih's (2015) study, the findings indicated that MALL had a crucial impact on the learners' vocabulary knowledge and students hold positive perceptions towards vocabulary learning through cellphones. Moreover, the findings are in line with Thornton and Houser's (2003, 2005) study which displayed that learner taught through SMS learned more vocabulary and their performance improved almost twice as much as learners who had received instructions on paper. The findings are also supported by Levy and Kennedy's (2005) findings

which indicated that teaching idioms, vocabulary, definitions, and example sentences through SMS had a great effect on learners' idiom retention.

Thus, the results suggest that the use of cellphones in language classrooms should be expanded beyond the classroom into daily tasks. Cellphones provide learners with a variety of learning resources that can be uploaded to their smart phones and utilized productively in a wide range of contexts (Steel, 2012). MALL provides more pedagogical assistance in learning a language since it provides opportunities to practice language beyond the classroom, particularly when language learning hours inside the class is insufficient. Besides, since learning a foreign language requires recurrent informal rehearsal (Kukulska-Hulme, 2006), cellphones offer sufficient opportunities to students so that they can have constant interaction with the target language. Regarding the significance context in the analysis of idiomatic expressions (Sadeghi et al., 2010), cellphones facilitate one of the goals of education that is coping with innovative contexts which will be confronted outside of the classroom setting (Larsen-Freeman, 2002; Sharples, 2006). Overall, learning vocabulary in context can increase retention by inducing more evaluation and deeper processing of the target words among learners (Hughes, 2019; Zarfsaz & Yeganehpour, 2021).

From the findings of this study, it is implied that contextualized idiom learning through cellphones can facilitate acquisition as the text messages can be effortlessly conveyed at any time and everywhere, they can be saved and are available for reviewing later. The outcomes, furthermore, provided evidence in favor of Haghighi's (2017), Khansarian-Dehkordi and Ameri-Golestan's (2016), Liu's (2008), and Hulstijn and Laufer's (2001) studies stating that cellphones can be an efficacious means for L2 vocabulary acquisition.

This research supported the findings of the previous studies by indicating that vocabulary can be instructed via means that are both inexpensive and easy to use. Rapid technological advances have led to a type of learning intervention that is free and easy to manage and implement. It has provided the students with a chance to practice iin their preferred place and time. When the students are involved in tasks in such a friendly atmosphere, learning can become fun and not a burden.

It is worth mentioning some drawbacks pertinent to the present examination. First of all, a serious drawback of this exploration was that the participants' proficiency level was limited to intermediate level, therefore, this study failed to incorporate different proficiency levels. Participants' gender, moreover, was limited to females. However, gender and proficiency levels may influence students' idiom learning, thus, the results may be different with males and varying proficiency levels.

Conclusion and Implications

The purpose of the study reported here was to investigate the influence of contextualized as well as decontextualized MALL teaching methods on EFL learners' idiom learning. The results emerging from the current examination suggested that contextualized MALL had a positive effect on learners' idiom learning.

These findings could be of great benefit to both EFL teachers and learners. First, it is beneficial for teachers to use various techniques to teach vocabulary because not all learners are in the same age, proficiency level, etc. Moreover, by considering the benefits of contextualized idioms, instructors are able to expand the learners' idiomatic expressions. Teachers can integrate cellphones into English classes through different idiom games and apps downloaded to learners' cellphones. As a result, teachers can use technology including cellphones and the internet as learning tools to facilitate vocabulary learning. Besides, by considering the advantages of MALL in educational contexts, teachers can design appropriate learning conditions for the learners by instructing learners how to use cellphones for English language learning beyond the classroom. Therefore, syllabus designers can design syllabuses for idiom courses according to students' level, gender, and interests.

References

Adkins, P. G. (1968). Teaching idioms and figures of speech to non-native speakers. The Modern Language Journal, 52(3), 148-152. https://doi.org/10.2307/323142

Alavinia, P., & Jahangiri, A. (2016). Input-provision/output-elicitation MALL program and Iranian preintermediate EFL learners' vocabulary enhancement. *Teaching English Language*, 10(1), 133-164. https://doi.org/10.22132/tel.2016.53617

Anglin, J. M. (1993). Vocabulary development: A morphological analysis. Monographs of the Society for Research in Child Development, 58(10), 1-186. https://doi.org/10.2307/1166112

Appana, S. (2008). A review of benefits and limitations of online learning in the context of the student, the instructor and the tenured faculty. International Journal on E-learning, 7(1), 5-22. https://www.learntechlib.org/primary/p/22909

- Azar, A. S., & Nasiri, H. (2014). Learners' attitudes toward the effectiveness of Mobile Assisted Language Learning (MALL) in L2 listening comprehension. *Procedia-Social Behavioral Sciences*, 98, 1836-1843. https://doi.org/10.1016/j.sbspro.2014.03.613
- Bahrani, T., & Sim, T. S. (2012). Audiovisual news, cartoons, and films as sources of authentic language input and language proficiency enhancement. The Turkish Online Journal of Educational Technology, 11(4), 56-64. http://www.tojet.net/articles/v11i4/1145.pdf
- Bahrani, T., & Tam, S. S. (2012). Informal language learning setting: Technology or social interaction? The Turkish Online Journal of Educational Technology, 11(2), 142-149. http://www.tojet.net/articles/v11i2/11215.pdf
- Brown, H. D. (2001). Teaching by principles: An interactive approach to language pedagogy (2nd ed.). Longman.
- Burston, J. (2015). Twenty years of MALL project implementation: A meta-analysis of learning outcomes. *ReCALL*, 27(1), 4-20. https://doi.org/10.1017/S0958344014000159
- Cooper, T. C. (1999). Processing of idioms by L2 learners of English. TESOL Quarterly, 33(2), 233-262. https://doi.org/10.2307/3587719
- Cornelia, T. (1999). CALLocations: Multi-word lexemes and their place in intelligent CALL. Basel University.
- Duman, G., Orhon, G., & Gedik, N. (2015). Research trends in mobile assisted language learning from 2000 to 2012. ReCALL, 27(2), 197-216. https://doi.org/10.1017/S0958344014000287
- Fang, W.-C., Yeh, H.-C., Luo, B.-R., & Chen, N.-S. (2021). Effects of mobile-supported task-based language teaching on EFL students' linguistic achievement and conversational interaction. *ReCALL*, 33(1), 71-87. https://doi.org/10.1017/S0958344020000208
- Fotovatnia, Z., & Khaki, G. (2012). The effect of three techniques for teaching English idioms to Iranian TEFL undergraduates. Theory and Practice in Language Studies, 2(2), 272-281. https://doi.org/10.4304/tpls.2.2.272-281
- Gacs, A., Goertler, S., & Spasova, S. (2020). Planned online language education versus crisis prompted online language teaching: Lessons for the future. Foreign Language Annals, 53(2), 380-392. https://doi.org/10.1111/flan.12460
- Ghanizadeh, A., Jahedizadeh, S., & Movaghar, F. (2022). The effect of mobile assisted language learning (MALL) on Iranian EFL learners' idiom learning and perceptions of classroom activities. Iranian Journal of Applied Language Studies, 14(1), 87-108. https://doi.org/10.22111/IJALS.2022.6939
- Godwin-Jones, R. (2011). Mobile apps for language learning. Language Learning & Technology, 15(2), 2-11. http://dx.doi.org/10125/44244
- Goertler, S. (2019). Normalizing online learning: Adapting to a changing world of language teaching. In L. Ducate & N. Arnold (Eds.), Present and future promises of CALL: From theory and research to new directions in language teaching (pp. 51-92). Equinox.
- Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L., & Freynik, S. (2014). Technologies for foreign language learning: A review of technology types and their effectiveness. Computer Assisted Language Learning, 27(1), 70-105. https://doi.org/10.1080/09588221.2012.700315
- Haghighi, H. (2017). The effects of two technological tools on idiom learning of Iranian EFL learners: A MALL perspective. *Modern Language Studies*, 4(1), 101-112.
- Hassan Taj, I., Ali, F., Aslam Sipra, M., & Ahmad, W. (2017). Effect of technology enhanced language learning on vocabulary acquisition of EFL learners. International Journal of Applied Linguistics & English Literature, 6(3), 262-272. https://doi.org/10.7575/aiac.ijalel.v.6n.3p.262
- Hughes, L. S. (2019). Contextualized versus decontextualized vocabulary learning as a pre-reading task. KOTESOL Proceedings, Proceedings of the 27th Korea TESOL International Conference. Seoul, Korea. October 12–13.
- Hulstijn, J. H., & Laufer B. (2001). Some empirical evidence for the involvement load hypotheses in vocabulary acquisition. Language Learning, 51(3), 539-558. https://doi.org/10.1111/0023-8333.00164
- Khansarian-Dehkordi, F., & Ameri-Golestan, A. (2016). Effects of mobile learning on acquisition and retention of vocabulary among Persian-speaking EFL learners. CALL-EJ, 17(2), 43-56. https://old.callej.org/journal/17-2/Alshahrani2016.pdf
- Kukulska-Hulme, A. (2006). Mobile language learning now and in the future. In P. Svensson (Ed.), From vision to practice: Language learning and IT (pp. 295-310). Swedish Net University.
- Kukulska-Hulme, A., Lee, H., & Norris, L. (2017). Mobile learning revolution: Implications for language pedagogy. In C. A. Chapelle & S. Sauro (Eds.), The handbook of technology and second language teaching and learning (pp. 217-233). Hoboken: John Wiley & Sons.
- Kukulska-Hulme, A., & Shield, L. (2008). An overview of mobile assisted language learning: From content delivery to supported collaboration and interaction. ReCALL, 20(3), 271-289. https://doi.org/10.1017/S0958344008000335
- Larsen-Freeman, D. (2002). Language acquisition and language use from a chaos/complexity theory perspective. In C. Kramsch (Ed.), Language acquisition and language socialization: Ecological perspectives (pp. 33-46). Continuum.
- Laufer, B. (2000). Avoidance of idioms in a second language: The effect of L1-L2 degree of similarity. Studia Linguistica, 54(2), 186-196. https://doi.org/10.1111/1467-9582.00059
- Levy, M., & Kennedy, C. (2005). Learning Italian via mobile SMS. In A. Kukulska-Hulme & J. Traxler (Eds.) Mobile learning: A handbook for educators and trainers (pp. 76-83). Taylor & Francis.

- Lewis, M. (1993). The lexical approach: The state of ELT and the way forward. Language Teaching Publications.
- Lewis, M. (1997). Implementing the lexical approach: Putting theory into practice. Language Teaching Publications.
- Li, D., (2022). The shift to online classes during the Covid-19 pandemic: Benefits, challenges, and required improvements from the students' perspective. The Electronic Journal of e-Learning, 20(1), 1-18. https://doi.org/10.34190/ejel.20.1.2106
- Liontas, J. I. (2001). That's All Greek to Me! The comprehension and interpretation of modern Greek phrasal idioms. The Reading Matrix, 1(1), 1-32.
- Liu, D. (2008). Idioms: Description, comprehension, acquisition, and pedagogy, Routledge.
- Malekizadeh, N., & Khoram, A. (2015). Gender and computer-mediated communication: Emoticons in a digital forum. Iranian Journal of Research in Applied Linguistics, 6(2), 81-93. https://doi.org/10.22055/rals.2015.11338 McCarthy, M. (1990). Vocabulary. Oxford University Press.
- McCarthy, M., O'Keeffe, A., & Walsh, S. (2010). Vocabulary matrix: Understanding, learning, teaching, Cengage. McGavigan, P. (2009). The acquisition of fixed idioms in Greek learners of English as a foreign language [Unpublished doctoral dissertation], Swansea University.
- Miangah, T. M., & Nezarat, A. (2012). Mobile-assisted language learning. International Journal of Distributed and Parallel Systems, 3(1), 309-319. https://doi.org/10.5121/ijdps.2012.3126
- Milton, J. (2009). Measuring second language vocabulary acquisition. Multilingual Matters.
- Mohammad sharifi, S., & Heidari Shahreza, M. A. (2021). Effect of MALL on the acquisition of receptive and productive knowledge of L2 vocabulary by Iranian EFL learners: The case of Telegram. International Journal of Research in English Education, 6(2), 102-114. URL: http://dx.doi.org/10.52547/ijree.6.2.102
- Moon, R. (1997). Vocabulary connections: Multi-word items in English. In N. Schmitt & M. McCarthy (Eds.), Vocabulary: Description, acquisition and pedagogy (pp. 40-63). Cambridge University Press.
- Nation, I. S. P. (2001). Learning vocabulary in another language. Cambridge University Press.
- Nation, I. S. P. & Coady, J. (1988). Vocabulary and reading. In R. Carter & M. McCarthy (Eds.), Vocabulary and language teaching (pp. 97-110). Longman.
- Nuraeni, C., Carolina, I., Supriyatna, A., Widiati, W., & Bahri, S. (2020). Mobile-assisted language learning (MALL): Students' perception and problems towards mobile learning in English language. *Journal of Physics: Conference Series*, 1641. https://doi.org/ 10.1088/1742-6596/1641/1/012027
- Okumuş Dağdeler, K., Konca, M. Y., & Demiröz, H. (2020). The effect of mobile-assisted language learning (MALL) on EFL learners' collocation learning. *Journal of Language and Linguistic Studies*, 16(1), 489-509. https://www.jlls.org/index.php/jlls/article/view/1597/566
- O'Malley, C., Vavoula, G., Glew, J., Taylor, J., & Sharples, M., Lefrere, P., Lonsdale, P., Naismith, L., & Waycott, J. (2005). Guidelines for learning/teaching/tutoring in a mobile environment. HAL Open Science. https://hal.science/hal-00696244
- Oxford, R., & Crookall, D. (1990). Vocabulary learning: A critical analysis of techniques. TESL Canada Journal, 7(2), 9-30. https://doi.org/10.18806/tesl.v7i2.566
- Pegrum, M. (2014). Mobile learning: Languages, literacies, and cultures. Palgrave Macmillan.
- Petersen, K., & Sachs, R. (2016). The language classroom in the age of networked learning. In R. P. Leow, L. Cerezo, & M. Baralt (Eds.), A psycholinguistic approach to technology and language learning (pp. 3-22). De Gruyter.
- Rahimi, M., & Miri, S. S. (2014). The impact of mobile dictionary use on language learning. *Procedia--Social and Behavioral Sciences*, 98, 1469–1474. https://doi.org/10.1016/j.sbspro.2014.03.567
- Reinders, H., & Benson, P. (2017). Research agenda: Language learning beyond the classroom. Language Teaching, 50(4), 561-578. https://doi.org/10.1017/S0261444817000192
- Reinders, H., & Pegrum, M. (2015). Supporting language learning on the move: An evaluative framework for mobile language learning resources. In Tomlinson, B. (Ed.), SLA research and materials development for language learning (pp. 116-141). Taylor & Francis.
- Sadeghi, B., Vahid Dastjerdi, H., & Ketabi, S. (2010). Patterns of Persian EFL learners' comprehension of idiomatic expressions: Reading strategies and cross-cultural mappings in focus. Asian Social Science, 6(8), 81-99. https://doi.org/10.5539/ass.v6n8p81
- Schmitt, N. (2000). Vocabulary in Language Teaching. Cambridge University Press.
- Schlosser, K. (2018, June 1). New research finds 95% of teens have access to a smartphone; 45% online 'almost constantly'. GeekWire. https://www.geekwire.com/2018/new-research-finds-95-teens-access-smartphone-45-online-almost-constantly
- Selvaraj, A., Radhin, V., KA, N., Benson, N., & Mathew, A. J. (2021). Effect of pandemic based online education on teaching and learning system. International Journal of Educational Development, 85. https://doi.org/10.1016/j.ijedudev.2021.102444
- Shadiev, R., Hwang, W.-Y., & Huang, Y.-M. (2017). Review of research on mobile language learning in authentic environments. *Computer Assisted Language Learning*, 30(3-4), 284-303. https://doi.org/10.1080/09588221.2017.1308383
- Sharples, M. (2006). Big issues in mobile learning. Report of a workshop by the Kaleidoscope Network of Excellence Mobile Learning Initiative. University of Nottingham. https://telearn.hal.science/hal-00190254/document
- Shopova, T. (2014). Digital literacy of students and its improvement at the university. ERIES: Journal on Efficiency and Responsibility in Education and Science, 7(2), 26-32. https://doi.org/10.7160/eriesj.2014.070201

- Steel, C. (2012). Fitting learning into life: Language students' perspectives on benefits of using mobile apps.

 Proceedings of ASCILITE 2012: Future challenges | Sustainable future. 25-28 November, 2012. Wellington, New Zealand. https://www.ascilite.org/conferences/Wellington12/2012/images/custom/steel%2c caroline fitting learning.pdf
- Tabatabaei, O., & Mirzaei, M. (2014). Comprehension and idiom learning of Iranian EFL learners. Journal of Educational and Social Research, 4(1), 45-56. https://www.richtmann.org/journal/index.php/jesr/article/view/1822
- Tanil, C. T., & Yong, M. H. (2020) Mobile phones: The effect of its presence on learning and memory. *PLoS ONE*, 15(8). https://doi.org/10.1371/journal.pone.0219233
- Thornton, P., & Houser, C. (2003). Using mobile web and video phones in English language teaching: Projects with Japanese college students. In B. Morrison, C. Green, & G. Motteram (Eds.), Directions in CALL: Experience, experiments and evaluation (pp. 24-207). Hong Kong Polytechnic University.
- Thornton, P., & Houser, C. (2005) Using mobile phones in English education in Japan. Journal of Computer Assisted Learning, 21(3), 217-228. https://doi.org/10.1111/j.1365-2729.2005.00129.x
- Wang, Y.-H., & Shih, S. K.-H. (2015). Mobile-assisted language learning: Effects on EFL vocabulary learning, International. Journal of Mobile Communications, 13(4), 358-375. https://dx.doi.org/10.1504/IJMC.2015.070060
- Wray, A., & Perkins, M. R (2000). The functions of formulaic language: An integrated model. Language and Communication, 20(1), 1-28. https://doi.org/10.1016/S0271-5309(99)00015-4
- Winis, N., Saleh, I., & Zakaria, M. H. (2013). Investigating the difficulties faced in understanding, and strategies used in processing, English idioms by the Libyan Students. *International Journal of English Language & Translation Studies*, 1(2), 50-65. http://www.eltsjournal.org/archive/value1%20issue2/6-1-2-13.pdf
- Zare, M., & Amirian, Z. (2014). Exploring the effect of Java mobile dictionaries on Iranian EFL students' vocabulary learning. International Journal of Research Studies in Educational Technology, 3(1), 23-35. https://doi.org/10.5861/ijrset.2013.535
- Zarfsaz, E., & Yeganehpour, P. (2021). The impact of different context levels on vocabulary learning and retention. Shanlax International Journal of Education, 9(4), pp. 24–34. https://doi.org/10.34293/education.v9i4.4049