The Effect of Mobile Assisted Language Learning (MALL) on Iranian EFL Learners' Idiom Learning and Perceptions of Classroom Activities

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Abstract

The present study examined the effect of mobile assisted language learning (MALL) on Iranian EFL learners' idiom learning and perceptions of classroom activities. To do so, this study was carried out in six classes at Imam Reza International University in Mashhad, Iran. The participants included 114 BA students of Teaching English field. The present study was quasi-experimental that utilized a mixed methods research design. It contained a control group with 45 participants and an experimental group with 69 participants. MALL for teaching idioms via Telegram was considered as a treatment in experimental group. In the present study, Telegram app was chosen because the researcher, the teachers, and the participants had similar experience of using this app. Pictures, texts, audio, and video files, were used as the materials in teaching idioms. Students' Perceptions of Classroom Activities scale designed and validated by Gentry and Gable (2001) and translated into Persian and validated by Ghanizadeh and Jahedizadeh (2015) was used for assessing students' perceptions of classroom activities (interest, choice, joy, and challenge). Twelve students in experimental group sat for an interview which was audio and video recorded. In the interview sessions, students were asked about the experience of informal learning in this research, the materials used, pros and cons toward the channel and MALL. The results demonstrated the effectiveness of mobile phone usage in enhancing EFL university students' idiom learning as well as in students' perceptions of classroom activities with the highest differences observed in challenge and joy perceptions. The results of the qualitative phase were also in line with those of the quantitate phase.

Keywords: idiom, mobile assisted language learning, perceptions of classroom activities

1. Introduction

The ideal way to learn a new language could be interacting with people who are willing to assist the learners in the learning process and are capable of practicing and communicating with them. Some learners have the support and help of friends and family members. Some of them, however, need to rely on other ways of learning. These learners may use technology-mediated solutions. As Kukulska-Hulme (2016) noted, "assistance is a generic term that can include direct help, collaboration on a task, supportive words and actions, and provision of helpful scaffolds or resources" (p.139). Technology can provide assistance in inclusive education which means focusing on the individual needs of learners and helping them to overcome the obstacles they face and reaching their potential.

Cook and Polgar (2015) asserted that "devices that promote communication, support cognitive activities, and augment hearing and vision enable participation in educational activities although they may not directly contribute to achieving specific educational goals" (as sited in Kukulska-Hulme, 2016, p.141.) In this respect, Palalas (2012) noted the role of mobile technology as an enabler of the learning process and proposed the term mobile-enabled language learning (MALL).

Among modern communicative devices, mobile phones are the most common devices used in the world. It has extensively penetrated to educational domains to the extent that it has become an educational tool for teachers and learners. Hence, it seems logical to try to use these devices in educational system. In this case, a number of studies have investigated the effect of mobile phones on students' learning of different language skills of language (e.g., Akkara et al., 2020; Alemi et al., 2012; Alzubi et al., 2019; Iravi & Malmir, 2022; Jia & Hew, 2019; Khabiri & Khatibi, 2013; Okumuş et al., 2020; Pourgharib & Salamat, 2013). As Kukulska Hulme and Shield (2008) defined, mobile learning (m-learning) can be considered as any portable materials such as audio cassettes and CDs, DVD players and portable radios. By the new technologies, m-learning focusses on new devices to use in teaching. Some of the technology manifestations are smart boards, audio-taped materials, overhead projectors and computer software (Baleghizadeh & Oladrostam, 2010), text-reconstruction software, concordancing software, games, videos, sound and songs, photos and graphics and (Baleghizadeh & Oladrostam, 2010).

An important issue which can significantly be influenced by MALL is students' attitudes towards language learning and classroom environment. A number of studies have proved the effect of stimulating, supportive, and challenging learning environment on performance and growth for every individual in the classroom context (Jannati & Marzban, 2015). Academic performance and cognitive processes can be affected by school, class, teaching methods, and aspects of the school system. In this regard, perception is considered as the process by which a person receives and interprets information from the world and the environment. Perception is a reflection of a person's emotions, expectations, and needs (Ghanizadeh & Jahedizadeh, 2015; Jahedizadeh et al., 2016).

Enhancing students' academic achievement is the goal of any educational program. Academic achievement relies on many cognitive, motivational, and emotional factors. Indeed, all these factors or can promote students' perceptions of their learning environment which in turn is conducive to effective learning. The present study, thus, is an attempt to answer the following research questions:

Q1. Does MALL have any significant impact on Iranian EFL university students' idiom learning?

Q2. Does MALL have any significant impact on Iranian EFL university students' perceptions of classroom activities?

2.1. Does MALL have any significant impact on Iranian EFL university students' perception of interest?

2.2. Does MALL have any significant impact on Iranian EFL university students' perception of joy?

2.3. Does MALL have any significant impact on Iranian EFL university students' perceptions of challenge?

2.4. Does MALL have any significant impact on Iranian EFL university students' perceptions of choice?

Q3. How does MALL influence on Iranian EFL university students' perceptions of classroom activities?

2. Literature Review

2.1. Mobile Assisted Language Learning (MALL)

These days, not only mobile devices have become the most essential instrument for communication but also, they have become the sources of information and entertainment. Because the mobile phones are the most commonly used means of communication among students, mobile learning is seen as an effective development toward teaching and e-learning for students (Pettit & Kukulska-Hulme, 2007).

From Kukulska-Hulme and Shield's (2008) perspective, m-learning includes any learning materials that can be easily carried, such as audio-cassettes, CD players, DVD players, MP3 players, radios, and so on. M-learning focuses on the latest technologies. Using mobile devices in language learning received more attention since wireless networks got widespread among many people and everyone owns a device that can communicate with such networks. As Kukulska-Hulme and Shield (2008) cited, MALL differs from computer assisted language learning (CALL) in a way that mobile devices are portable and personal that are capable of new ways of learning and individuals can have immediate access and interaction across different contexts of use. MALL contains technologies such as mobile phones, MP3/MP4 players, personal digital assistant (PDAs) and palmtop computers.

2.2. Mobile Phones

Mobile phones seem to be mostly used for MALL activities. In different studies, mobile phones have been used to send chunks of vocabulary through text messaging (Alemi, et al., 2012; Che Mustaffa & Sailin, 2022) and teaching grammar (Baleghizadeh & Oladrostam, 2010). In Stockwell's (2007) study which investigated vocabulary learning, participants completed vocabulary activities via computers or their mobile devices. The intelligent tutor system made a profile for each participant sent activities associated to the eras that they found it difficult.

In an Irish study, the aim was "to facilitate school-based oral assessment and students' self-assessment increase students' communicative competence and motivate students to learn Irish with the fun and familiar props of a mobile phone and web-chat" (Cooney & Keogh, 2007, p .1). In doing so, learners record their voices to answer questions. Teachers were able to listen to these answers. What's more, students were capable of downloading podcasts that includes samples of responses. Also, students took part in text communication via laptops. This offered monitored communication that were supported by teachers.

Okumuş et al. (2020) carried out a study to examine the effect of using mobile phone on EFL students' vocabulary learning in Turkey. Using a quasi-experimental design, researchers implemented a mobile application in the experimental group for 14 weeks. The results of the study indicated that using mobile phones had a significant impact on students' vocabulary retention. The authors finally concluded that using mobile applications is an effective way to improve vocabulary in a foreign context (Okumuş et al., 2020).

2.3. MP3 Players and Podcasting

Abdous et al. (2009) proposed the usage of podcasting in Italian and French learning. 30 university students participated in beginners' Italian class and 18 university students participated in advanced level French class for a 14-week semester. 70% of participants had an MP3 player but only 40% of them used podcasts. Despite this low usage, students claimed that podcasts help them in language learning in different skills such as reading, writing, speaking. Also they claimed that their comprehension and their knowledge of vocabulary and grammar rules has been increased.

Digital voice recorders and multi-function mini-camcorders

In another study, Ghorbandordinejad et al. (2010) revealed that 15 university students who used voice recorders in general English class to learn grammar, performed better in post test than other 15 university students who took notes by paper and pencil during the class. In this study, participants used their mobile phones or MP3 players to record voice.

Learning idioms in second language

Language contains different parts that each part is important in learning. Metaphor and idiomatic expressions are a part of language which has a great role in understanding and learning a language. In fact, idioms are used largely in communication that makes learning idiomatic

expressions important for learners. Gibbs (1980) notes that enough knowledge of idioms will help learners in negotiating and speaking. Besides, they can use their knowledge more appropriately in different contexts. Idiomatic usage is common in daily life. Native speakers use idioms for every day communication and it is very difficult to speak without using idioms.

Some experiments show that by increasing students' awareness of literal origins and source domains of figurative idioms, students can have better understanding and remembering of these expressions. Boers et al. (2004) callthis technique as etymological elaboration. He believes that this technique benefits comprehension because the meaning of many idiomatic expressions is motivated rather than arbitrary (p. 53). Moreover, it benefits retention because knowing verbal information as a mental image makes an extra way for remembering.

Secondly, figurative expressions are widespread in everyday language. It is difficult to express abstract phenomena and concepts without using metaphor. During conversations around nonconcrete subjects, we can hear people use figurative expressions. So, students need to know vast range of figurative expressions to convey messages and have active participation in speaking and for better understanding speakers' intention as a listener.

2.4. Perceptions of Classroom Activities

Perception is considered as the process by which a person receives and interprets information from the world and the environment. Perception is a reflection of a person's emotions, expectations, and needs (Ghanizadeh & Jahedizadeh, 2015; Jahedizadeh et al., 2016).

Jahedizadeh et al., (2016) cite four main components including interest, challenge, choice and joy as components of students' perception of classroom. Each of these plays an important role in students' perception of classroom and activities (Jahedizadeh, et al., 2016; Jahedizadeh, et al., & Akbari, 2015; Sharifi et al., 2017).

Students' perception of teachers' interpersonal behavior is also another salient factor in students' achievement (Ghanizadeh & Jahedizadeh, 2015). It is believed that teacher and peer support and teacher interpersonal behaviour shape students' perception that can predict perception of competence and instrumentality of the goal orientations (Ghanizadeh & Jahedizadeh, 2015).

Recent studies have also shown that both teachers and students have favorable perceptions towards the use of MALL in language classrooms (e.g., Abugohar et al., 2019; Al-Bogami & Elyas, 2020; Ghorbani & Ebadi, 2020; John & Yunus, 2019; Metruk, 2020; Nariyati & Pratiwi, 2020).

3. Methodology

3.1. Participants

The participants of the study comprised 114 teaching English and translation B.A. students with Persian as their first language. Among these participants, 69 B.A. students acted as

experimental participants, and 45 B.A. students participated as a control group. They were all female students from Imam Reza University. The course they all had was *English idiom in use.*

Among English learners, university students were chosen for different reasons. First, high school students might not have the proper participation because a few of them have their own individual mobile phones or not all of them have the experience of informal learning. Second, because in private institutes, classes are held with at most 12 to 15 students and not all of them are volunteer to participate, the researcher needed to find several classes to reach the enough number of participants. Besides, finding several classes with the same level, same background of English learning, same experience of informal learning, proper range of age is so demanding. Fourth, high school students and the majority of private institute students do not have experience of participation in a research, or they are not aware of the importance of a research, so they may not take it serious in filling out the questionnaires or participating in the experiment.

3.2. Instrumentation

3.2.1. Students' Perception of Classroom Activities Scale

Students' Perceptions of Classroom Activities scale has been designed and validated by Gentry and Gable (2001) and translated into Persian and validated by Ghanizadeh and Jahedizadeh (2015) was for assessing students' perceptions.

Students' Perception of Classroom Activities scale is a questionnaire that contains two main parts. Part A consists of personal information such as name, gender, age, major, and degree, and part B contains 31 items evaluating how satisfying is the activities in class for students. This scale evaluates four dimensions including *joy, challenge, interest,* and *choice*. This scale measures these four dimensions via a 5-point Likert-type response format (never, seldom, sometimes, often, and always). Participants were provided with directions on how to complete the scale. Both experimental and control group filled out this questionnaire twice. The experimental group filled it out once before the treatment and then after the treatment and the control group filled it out once at the beginning of the term and then at the end of the term.

3.2.2. Proficiency Test

To assess the level of the students' English proficiency level, a multiple-choice test was given to students as a pre-test. In the first part of the test, students were asked to write their personal information such as, age, major, and degree. In the second part, students were supposed to answer multiple choice questions. These items were chosen from TOEFL Test Preparation Kit administered by Educational Testing Service (ETS) (2003). Indeed, due to time constrains, 20 items were selected randomly. For ensuring the reliability of the responses, Cronbach's alpha was computed, which was found to be 0.79.

3.2.3. Post-test of Idioms

To investigate how many of the idioms were learned by students, both experimental and control group took a multiple-choice test from the idioms they have learned during the research. Because idioms are used mostly in communications, all the items of the test were small dialogues between two people. These 10 questions were selected from the book called English Picture Idioms (Soo-Jin, 2016). The idioms used in this research were selected from this book as well. Students filled out the test at the end of the term and they have been told that the score they get will be considered as a part of their final score.

3.2.4. Telegram Channel

Telegram app was chosen because through this app sending audio files, video files, pictures, and texts are possible. This app gives this opportunity to record voices online and send them; also, the researcher was able to send links of other apps and IDs for more communication between researcher and participants. These options were hoped to satisfy choice, joy, interest, and challenge perceptions. Searching a specific word in Telegram channels is possible. Members of the channel can search a word in the channel and find the text in which that word is used; so, the researcher used hashtags in texts to not only make searching a word possible for the members but also to make searching a phrase possible. This follows with the possibility of searching a whole idiom in a channel. Then they have been told that this channel is provided to help them review idioms or learn them if they were absent in a session.

3.2.5. Interview

After the treatment has been finished, 12 students from experimental group volunteered for the semi-structured interview. A brief explanation of perception of classroom activities were given and after the purpose of the interview was explained, the participants were assured that their views would be confidential. Some questions were designed to be asked from students to know their ideas and opinions about the Telegram channel via which idioms were presented in general and how interesting, enjoyable, and challenging it was.

3.3. Procedure
3.3.1. Data Collection
3.3.1.1. Pre-test and Students' Perception of Classroom Activities Scale

This study is a quasi-experimental research with an intact-groups design. Teaching idioms via MALL was considered as a treatment in experimental group. All the participants were volunteer to cooperate with the researcher. To assess the level of the students' background knowledge of

English, a 20-item multiple choice test containing grammar and vocabulary questions was given to both experimental and control group as a pre-test. A week later all the marks were announced to both groups via Telegram messages and SMS.

In the same session, participants filled out the Persian version of the students' perception of classroom activities scale after giving the instruction of the scale and making the meaning of the items clear for them. They were told that the score of the scale would be confidential. Also, the researcher explained that they should rate based on the activities they do in the class not rating their teacher.

3.3.1.2. Treatment

Teacher of the control group was kindly asked to include 3 specified idioms per session in class as a part of her class instruction. Experimental group, on the other hand, received idioms after classes via Telegram app as an informal learning. Both experimental and control group were passing *English idiom in use* course.

For each idiom, a picture, 1 to 3 videos, explanation, native pronunciation of the idiom, example of using the idiom in a sentence or dialogue were provided to give students this chance to choose the proper source for their individual learning style. Each week, after students first learned the 3 idioms in the class, researcher sent each idiom separately on different days during the week.

Figure 1

Part of the Teaching Plan

First, the picture of the idiom was sent that contained the idiom in English, the similar or equal idiom(s) in Persian and an example of the idiom usage related to the picture. To make learning more interesting and joyful, pictures were used.

Second, an audio file was sent via which a native speaker read the idiom. The researcher asked a native speaker of English via Telegram to read each idiom separately and send his voice. With his permission, the voice has been shared in the channel.

Third, the explanation of the idiom, equivalent idiom in Persian, meaning of the idiom, and a funny text explaining the usage of the idiom were sent. Funny texts were considered to be helpful in enhancing the enjoyment and interest of the learning. Also, at the end of each text, the researcher's Telegram ID and a phone number were announced for students to be in touch with the researcher in the case of any question or explanation.

As the final step, 1 to 3 videos for each idiom were sent to show the usage or give the explanation of the idiom. Some of these videos were downloaded from different online teaching English sites and some of them were downloaded from private sites whose videos were home made.

On the weekends, when three idioms of the week were taught through Telegram, an audio file was sent to review those 3 idioms. The researcher chose pop songs and added her voice reviewing and talking about the idioms on the songs by a mobile app named *Edging pro*. Also, the original songs were sent on channel to make learning more attractive and fun. Each reviewing audio file took 3 to 5 minutes to listen but 45 minutes to 1 hour and 30 minutes to produce. A mobile phone, a tablet, a speaker and headphones were used to produce these audio files.

After every five idioms, a 'filling the blanks' test was posted on channel containing 5 questions. Students had 8 to 12 minutes to answer the questions. The researcher chose 5 students randomly and asked them to send the answers. Then, the answers of the test were posted to the channel. These tests were designed to challenge the students and also make an opportunity for students to review the idioms.

For the final part of the treatment, the list of the idioms and their meanings were sent on channel for students. The materials used in this research can be seen in a glance in the sample shown in Figures 2 and 3.
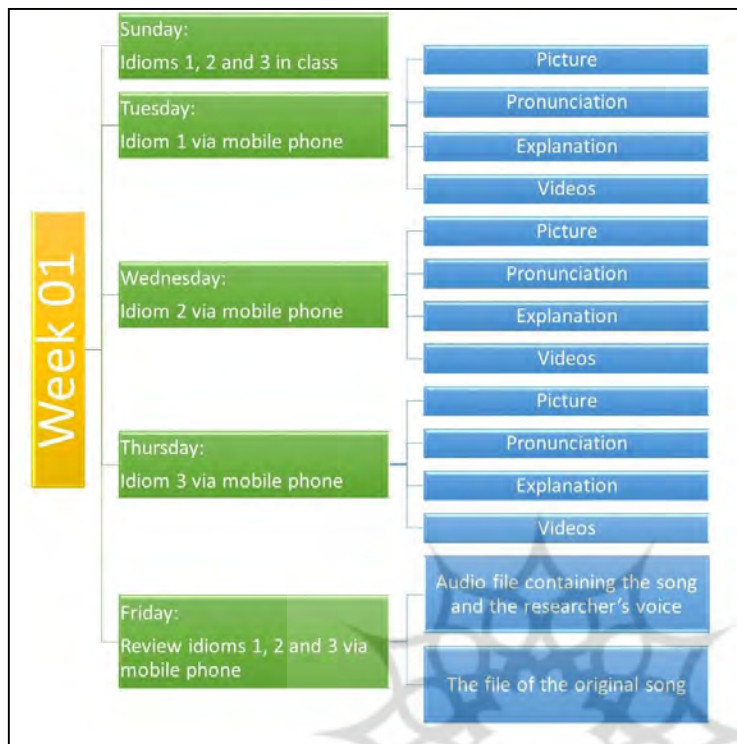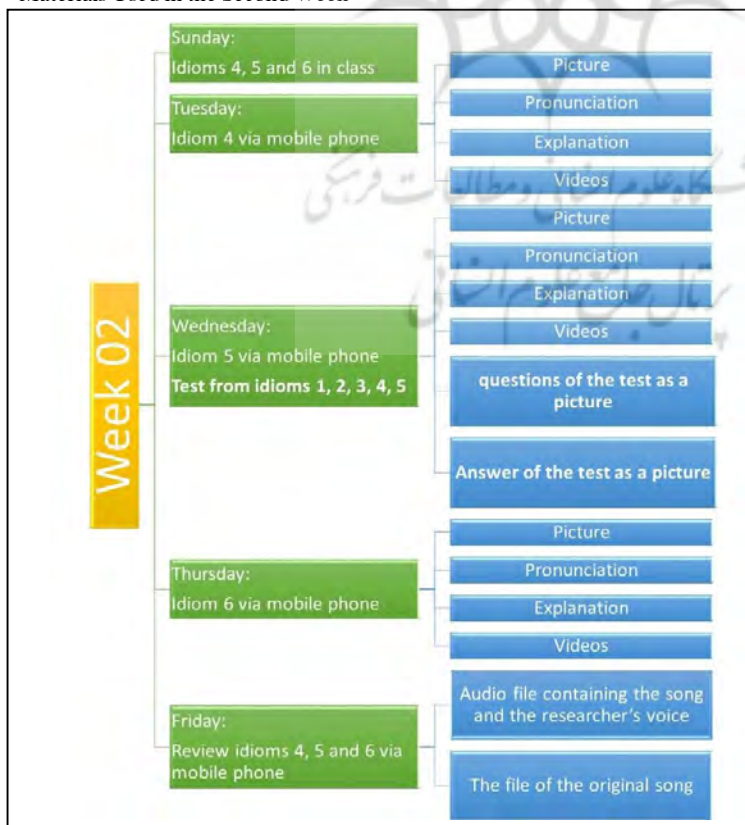
Figure 2

Materials Used in the First Week

Figure 3

Materials Used in the Second Week

3.3.1.3. Post-test

To assess whether there is any significant difference between control and experimental groups regarding their idiom learning, students of the both groups took a multiple-choice test from idioms they learned. These questions were selected from the book entitled English Picture Idioms (Soo-Jin, 2016). All these questions were short dialogues, and the idiom was missed in the dialogue. Students were supposed to choose the correct idiom from 3 choices that best suited. Students filled out the test at the end of the term, and they had been told that the score they got would be considered as a part of the score they achieved for final exam.

Also, in the same session, they filled out Students' Perception of the Classroom Activities Scale one more time to investigate the effect of MALL on students' perceptions of classroom activities (joy, challenge, choice, and interest) and the differences between the two groups on perception scale.

3.3.1.4. Interview

In the interview sessions, students were asked about the experience of informal learning in this research, the materials used, pros and cons toward the channel and MALL. Also, questions about whether they experienced joy, interest, challenge, and choice in informal learning were followed. These questions were guidelines for students to talk about their opinions and ideas in the specified subject. In some cases, students told their opinions about a specific object e.g. interest in answering only one question so the other questions related to that subject were not necessary to be asked, and the researcher moved to another subject to talk e.g., joy.

3.3.2. Data Analysis

This research compares two groups, experimental and control groups. In statistics, to compare two groups, a t-test is used. In this research, independent samples t-test were used twice. First, an independent samples t-test was used to compare control and experimental groups on their knowledge of the idioms. Second, it was used to compare their scores of the idiom test.

To ensure the participants of the two groups were homogenous in the level of their perceptions of classroom activities (joy, challenge, choice, and interest), a one-way between-groups multivariate analysis of variance (*MANOVA*) was run. This test was also used to examine the effect of MALL on the four perceptions. In this study, *MALL* is the independent variable, and the four perceptions are dependant variables.

4. Results

4.1. The Results of Pretest on Language Proficiency

To examine whether there is any significant difference between control and experimental group regarding their language proficiency level, an independent samples t-test was run. Table 1 below summarizes the descriptive results of proficiency in the two groups. As the Table shows, the mean scores of proficiency across participants in control and experimental groups are slightly different: control ($M = 12.28$, $SD = 2.64$), experimental ($M = 11.97$, $SD = 3.25$).

Table 1

Descriptive Statistics of Proficiency across Control and Experimental Groups

		N	Mean	Std. Deviation	Std. Error Mean
Pre-test	Control	45	12.28	2.64	.39
Proficiency	Experimental	69	11.97	3.25	.39

To see whether this observed difference is statistically significant, an independent samples t-test was run. Table 2 presents the results of t-test run on proficiency.

Table 2

Independent Samples T-Test Showing the Results of Pretest on Proficiency Level

		Levens Test for Equality of Variances						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Proficiency Pre	Equal variances assumed	1.56	.21	.54	112	.585	.317	.580
	Equal variances not assumed			.572	106.597	.568	.31787	.55553

As can be seen, there was not a statistically significant difference between the two groups regarding the degree of their proficiency level ($t = .1.06$, $p < .05$). In other words, the two groups were homogenous regarding their level of language proficiency level prior to the study.

4.2. The Results of Pretest on Perceptions of Classroom Activities

Table 3 displays the descriptive statistics of the four perceptions across the two groups (1= control, 2=experimental).

Table 3

Descriptive Statistics of Perceptions across Control and Experimental Groups

	Groups	Mean	Std. Deviation	N
Interest-Pre	1.00	25.60	6.01	45
	2.00	26.69	6.08	69
	Total	26.26	6.05	114
Challenge-Pre	1.00	27.97	4.98	45
	2.00	26.79	4.89	69
	Total	27.26	4.94	114
Choice-Pre	1.00	27.26	6.54	45
	2.00	28.02	4.56	69
	Total	27.72	5.41	114
Joy-Pre	1.00	29.77	6.10	45
	2.00	29.15	4.99	69
	Total	29.40	5.44	114

Figure 4.

The Mean Scores of Perceptions across the Two Groups. Note: 1: Control, 2: Experimental.
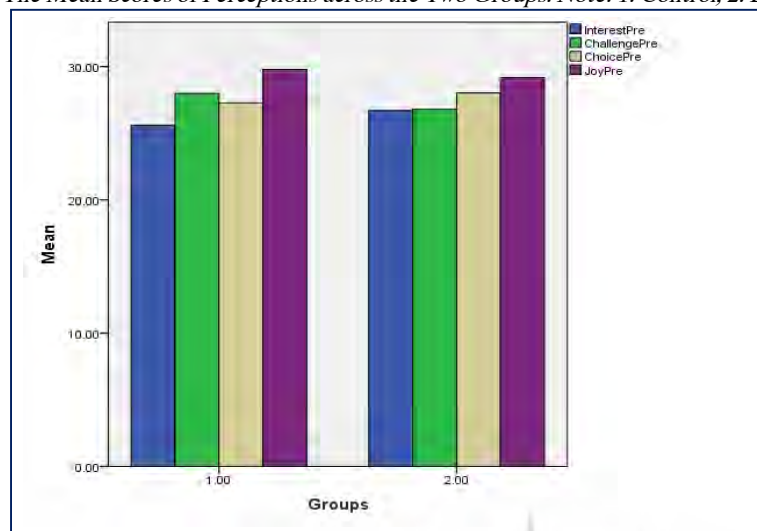
The descriptive statistics is also represented graphically in Figure 4.2. As can be seen here are some slight differences in the two groups regarding their perceptions.

To ensure the participants of the two groups were homogenous in the level of their perceptions of classroom activities (joy, challenge, choice, and interest), a one-way between-groups multivariate analysis of variance (*MANOVA*) was run.

Four dependent variables were generated: joy, challenge, choice, and interest. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance covariance matrices, and multicollinearity, with no serious violations noted. The results of *MANOVA* presented in Table 4.4 revealed that was not a statistically significant difference between the two groups on the combined dependent variables: (F=1.14, p=.34, Wilks' Lambda=.96).

Table 4

MANOVA Table Displaying the Results of Perceptions across Control and Experimental Groups

Effect		Value	F	Hypothesis df	Error df	Sig.
Level	Wilks' Lambda	.96	1.14	4.00	109.00	.34

4.3. The Results of Posttest on Idiom Learning

Table 5 below summarizes the descriptive results of English proficiency level in two groups. As the table shows, the mean scores of idiom learning across participants in control and experimental groups are different: control (M=8.31, SD=1.25), experimental (M=9.36, SD=1.17).

Table 5

Descriptive Statistics of English Idiom Learning Level across Control and Experimental Groups

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Idiom	1.00	45	8.31	1.25	.18
Post	2.00	69	9.36	1.17	.14

As the figure shows, the mean scores of idiom test in experimental group is higher that of control group. To see whether this observed difference is statistically significant, an independent samples t-test was run. Table 6 presents the results of t-test run on English idiom learning level. As can be seen, there is a statistically significant between the two groups regarding the degree of their idiom learning (t= -4.53, $p<.05$). In other words, the treatment implemented in experimental group (*MALL*) was influential in EFL students' idiom learning.

Table 6

Independent Samples T-Test Showing the Results of Posttest on Idiom Learning

		Levene's Test for Equality of Variances						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Idiom	Equal variances assumed	1.13	.28	-4.53	112	.00	-1.05	.23
Post	Equal variances not assumed			-4.47	89.56	.00	-1.05	.23

4.4. The Results of Posttest on Perceptions of Classroom Activities

To investigate the effect of MALL on students' perceptions of classroom activities (joy, challenge, choice, and interest), the differences between the two groups on perceptions scale were calculated in post-test. The means of the both groups in the post-test were shown to be different. As can be seen in Table 7, the mean of the experimental group in all four perceptions are higher than that of control group:

Interest: control (*M*=29.11, *SD*=5.43)   experimental (*M*=33.15, *SD*=5.46)

Challenge: control (*M*=28.82, *SD*=4.31)   experimental (*M*=31.05, *SD*=5.28)

Choice: control (*M*=25.13, *SD*=4.13)   experimental (*M*=27.98, *SD*=5.12)

Joy: control (*M*=26.04, *SD*=4.84)   experimental (*M*=30.00, *SD*=4.80)

Table 7

Descriptive Statistics Showing the Results of Post-test on Perceptions

	Groups	Mean	Std. Deviation	N
Interest-Post	1.00	29.11	5.43	45
	2.00	33.15	5.46	69
	Total	31.56	5.78	114
Challenge-Post	1.00	26.82	4.31	45
	2.00	31.05	5.28	69
	Total	29.38	5.32	114
Choice-Post	1.00	25.13	4.13	45
	2.00	27.98	5.12	69
	Total	26.85	4.94	114
Joy-Post	1.00	26.04	4.84	45
	2.00	30.00	4.80	69
	Total	28.43	5.17	114

The above statistical result is displayed visually via the following bar graph (Figure 5).

Figure 5

The Mean Scores of Perceptions across the Two Groups. Note: 1: control, 2: experimental.
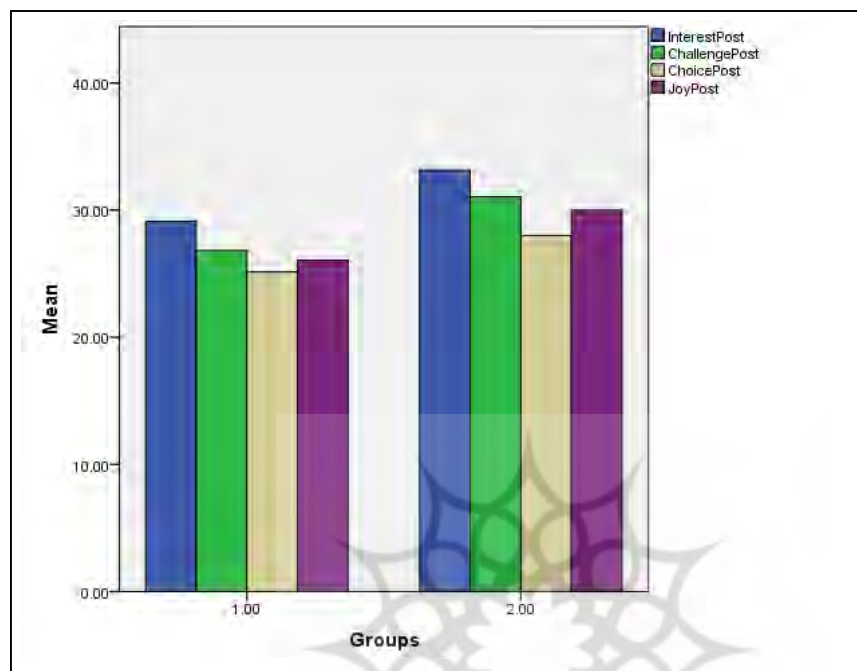
As cab be seen, the graph of each perception is higher in experimental group in comparison with that of control group.

To see if these observed differences are significant statistically, a one-way between-groups multivariate analysis of variance (*MANOVA*) was run. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance covariance matrices, and multicollinearity, with no serious violations noted. The results of *MANOVA* presented in Table 4.8 revealed that was a statistically significant difference between the two groups on the combined dependent variables (perceptions): (F=6.59, p=.000, Wilks' Lambda=.81). The effect size computed via partial eta squared was found to be .205 which is a moderate magnitude according to Cohen's F. This implies that about 21 percent of variance in perceptions can be accounted for by the MALL technique utilized in the experimental group.

Table 8

MANOVA Table Displaying the Results of Perceptions across Control and Experimental Groups

	Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Square
Level	Wilks' Lambda	.81	6.59	4.00	109.00	.000	.205

The follow-up analysis is represented in Table 9. It was conducted to see whether the difference holds true across the four perceptions and if yes, which perception is more affected by MALL.

Table 9

MANOVA Table Displaying the Results of Three Types of Perceptions across Control and Experimental Groups

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Groups	Interest Post	446.37	1	446.37	14.99	.000	.118
	Challenge Post	488.67	1	488.67	20.14	.000	.152
	Choice Post	221.56	1	221.56	9.77	.002	.080
	Joy Post	426.15	1	426.15	18.34	.000	.141

As Table 9 demonstrated that this difference holds true across all four perceptions: Interest ($F=14.99$, $p=.000$, partial eta squared$=.12$), Challenge ($F=20.14$, $p=.000$, partial eta squared $=.15$), Choice ($F=9.717$ $p=.002$, partial eta squared$=.08$), and Joy ($F=18.34$, $p=.000$, partial eta squared $=.14$). As can be seen, the highest differences are observed in Challenge and Joy perceptions.

4.5. Qualitative Phase

This section presents the interview protocols extracted from the questions presented to the students to find out their perception of mobile learning.

Table 10

Interview Protocols Extracted from the Interview Questions

Dimensions of students' perception	Interview extracts
Interest	1) "Idioms are so interesting to me. The number of idioms we learned during the week was so suitable. It wasn't a huge amount nor little. I checked the channel every day. If there were a huge amount I couldn't check and work on it every day". 2) "I have passed the advanced level in Safir institute. In that level, we learned idioms but I cannot remember them now. In this channel, we learned idioms and I can remember them because it had examples and other files to help learning. I answered the tests in the channel and I almost knew all the answers. I had fun using the channel and it also showed the context of each idiom usage. I checked the channel every day. On the other hand, I think that one example for each idiom wasn't sufficient. I think more examples in daily life usage of idioms were needed and I wished the audio files that reviewed the idioms were all in English. Sometimes I didn't like the text but I liked pictures and the voices you recorded. I liked the pronunciation files because it was recorded by a native speaker and that was interesting and motivating to me". 3) "I checked the posts as I received them. I liked the audio files. I found them more interesting and I learned better when I listened to them". 4) "I learned practical idioms that I haven't knew before. As soon as I could have access to the internet, I checked the channel, maybe twice a day! I liked the pictures more, because I understand better by using pictures. I think I have visual mind. Then texts were more interesting for me and then voices in the third place. Channel was an online learning experience for me and it was so useful".
Joy	1) "The channel was very good because it contained different files like audio files, pictures. The inputs were comprehensive. I liked the texts a lot and the pronunciation files were very useful. I liked using the channel because it was handy. I could access to it anywhere. For example, if I wanted to study grammar, I needed to have

	the book wherever I go, but now for learning an idiom I can only check my phone. You know, mobile phones are part of our life these days".
	2) "I liked the voices you recorded and sent them. I got curious to listen to them because you mixed them with the pop music. Also, I enjoyed the accessibility. I could study idioms in subway station while I'm waiting. Sometimes I reviewed two or three times because I had to wait for the subway. I liked it because the posts told the gist of the idiom. It used pictures and your voices were joyful. It made me feel like I'm in touch with a person".
	3) "It was a fun channel and you are friendly. You defined idioms in an interesting and fun way. I liked this fun and I was motivated to follow this channel. The number of idioms we received was suitable so I didn't get bored. I liked the list of idioms you gave at the end. I could check the idioms in a glance".
	4) "Pronunciations that were recorded by a native was so attractive and educational at the same time. I enjoyed the files. I find receptive skills more attractive! I think this is a good idea to have such a channel for other classes specially grammar classes. We can learn the grammar in the class and also, we can have the notes on the channel so we are not worried to miss a point. Channel can play the role of a notebook".
Choice	1) "Because there were different files in the channel for one idiom, it was up to me to choose the way I like to learn. It covered all we need. I chose to read the text first then listen to the pronunciation. That's the way I learn better".
	2) "This channel had different files like pictures, audio files, texts. I used the pictures more than others. It easier for me to learn. It was easy to use. If I didn't understand an example I could listen to the voice, if I didn't understand the voice, I could read the text, meaning or the examples. Also, there were some videos. Videos were a good idea but it could be more interesting to me if you could make the video and played a role with your friend and use the idiom in it".
	3) "There were different files covering different ways of learning, so I think we could choose which way we want to learn. Files I received in the channel helped me remembering the things I have learned before".
	4) "I could use the channel in different ways to learn an idiom so I feel free to choose one".
Challenge	1) "I was challenged in the class. Because everyone was supposed to use the idioms we learned in the class. If I forgot an idiom, I could check it immediately by my phone before class. In the tests we had in the channel, Sometimes I had difficulties to choose the proper idiom. That's why I used the tests less than the other files. I needed to be so prepared for the tests. But any way they are so challenging in the learning. I like to have such channel for grammar classes that its test can challenge me".
	2) "I challenged myself when I listened to music. Actually, this channel made me to be more cautious. When I listened to a song I tried to find out if it has any idioms in it or not. About tests I didn't used it to feel the challenge! I feel tests are useless. I didn't like to challenge myself by answering the tests. I liked the fun aspect of the channel. I like to challenge myself by producing the inputs. For example, some students can find the picture for the idiom, some writhe text for the idiom and so on, and after that we can share it. About tests I preferred a short story with blanks rather than a short dialogue which I should write an idiom in its blank".
	3) "Mobile is accessible everywhere and its widespread and I didn't have any obstacles in using it. Idiom usage is a bit strange for beginners because the meaning is different from its literal meaning. I found this challenging. Honestly, I sometimes used the test not always. But in those I used I faced to this that I should first understand the meaning of the sentence then choose the proper idiom that suits the situation".
	4) "I think I used 15% to 20% of the tests and I tested myself to know whether I understood the idioms or not. Tests were properly designed students need to think and choose an idiom carefully. Simple words were used in the questions at the same time. University students normally are not interested in tests and exams. They rather fun learning. Channel is always accessible. Most of the people have mobile phones and internet access. I think there is no challenge in using it".

Overall, the results of the qualitative phase (interview analysis) were in line with those of the quantitate phase. It demonstrated that online learning and using channel for idiom learning enhanced students' perception in four dimensions of interest, joy, challenge, and choice. As the results of the interview showed, participants found it interesting and handy to use mobile devices in learning. They also mentioned that cell phones are a part of their lives and they can have access to the idioms whenever and where ever they need and are willing to.

5. Discussion

To accomplish the objectives of the present thesis, three research questions were posited. Regarding the first research question asking whether MALL enhanced idiom learning, the results indicated that there is a statistically significant difference between experimental group and control group in idiom learning. Using mobile devises in experimental group positively influenced students' idiom learning. In other words, using cell phones in experimental group resulted in better idiom learning.

Concerning the second research question probing the impact of MALL on students' perceptions of classroom activities, the results indicated that experimental group's perceptions of classroom activities enhanced after using mobile phones for idiom learning. Participants expressed that using mobile devices for learning in universities was an innovative way of teaching which is in accordance with Ghanizadeh and Jahedizadeh's (2015) study that indicated perception is important in education and for designing effective educational experiences, teachers' and students' perception of classroom activities are important.

Regarding the interest perception, it was found by statistical results that using mobile devices resulted in more interest in experimental group. Results from the interviews showed that students found using cell phones for learning as an interesting and fun activity. They claimed that the different files of the channel were captivating and motivating. Some participants also expressed that using channel was their first online learning experience, and they mentioned it as a useful way of learning. This finding is consistent with the study of Ally, Schafer, Cheung, McGreal, and Tin (2007) who investigated teaching grammar to ESL adult learners via web-enabled mobile devices. Findings demonstrated positive attitudes and interest toward using a mobile phone to learn English grammar.

Concerning the perception of joy, the statistical results showed that the experimental group who learned idioms via cellphones, enjoyed idiom learning more than the control group who learned idioms only in the class. As the results of the interviews revealed, participants enjoyed the accessibility of the cellphones. Also they mentioned that channel gave them different files for a single idiom and they enjoyed the variety of this.

Regarding the perception of challenge based on the statistical results, the experimental group felt more challenges in comparison with the control group. Participants indicated in the interviews that the tests in the channel were challenging as well as the nature of the idioms whose meaning were different from its literal words. They reckoned these challenges as a useful characteristic in learning.

Concerning the perception of choice, as the statistical results indicated, there were more choices for experimental group than the control group. Participants in the interviews claimed that because the channel provided different files like pictures, texts, examples, audio and video files for each idiom, it covered various types of learning; they felt free to choose the file that was more

suitable for their type of learning. It is obvious from the interviews that each student looked for her personal need as Kukulska-Hulme and Shield (2008) indicated that learners are engaged in their personal learning needs.

The present study can have implications for language teaching in that *MALL* can enhance language learning and positively affect students' perception of classroom activities. Higher educational institutions and university teachers have their own experiences in using technologies in teaching (Kukulska-Hulme & Jones, 2012). On the other hand, students use online sources and technologies based on their personal need and gain their own personal experience in using technologies for learning. The importance here is to identify overlaps between these experiences to make using technology easier for teaching and learning and choose the best possible way for virtual interaction between teachers and learners, and learners among themselves. When the overlap gets clear, it is time for designing the materials that suits the overlap best.

This should not be ignored that the materials, software, apps or even a special device that the educational system chooses to use can get widespread among the students and in the huge amount can get widespread among a generation in a country. The material developers should be aware of the benefits of the software or the dangers of the malicious software and they should feel this responsibility that the materials they design or the software they produce can affect the students of a single class or all the students in a country in the larger scale. Another point here is that the materials should be in the line with enhancing students' perception of classroom activities and motivate them to learn.

In some cases, mobile devices can go beyond a gate. They can play the role of a bridge from Farsi Native speaker in Iran to an English native speaker in US, as an example. The native speaker plays the role of an unlimited source that students can learn something beyond the textbook lines, like street talks that we can hear from a native speaker in a real situation.

Mobile devices are suitable for multitasking, too. A wide range of various files can be sent, watched, listened, and downloaded via mobile phones. Different files like pictures, texts, audio files and video files can be available for each learner by their mobile phones. Learners have different styles of learning whether visual, auditory, or kinesthetic. By these various files, learners can choose the files that suits their learning type better and use them for their personal need.

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