The Impact of Mobile Language Learning (WhatsApp) on EFL Context: Outcomes and Perceptions

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Abstract

Seeking to identify the impact of mobile language learning (WhatsApp) on the achievements of EFL learners, a quasi-experimental design study was applied at Al-Baha University in Saudi Arabia. This study examines the impact of mobile language learning in enhancing EFL students' English skills ability when learning English as a foreign language context.

Particularly, the study intends to investigate the impact of mobile language learning (WhatsApp) in comparison to traditional learning in learning English skills on the achievement of EFL learners. Thus, the participants in this study included 48 male learners, aged 18–22 years, preparatory year at Al-Baha University.

The results highlighted that there are significant differences between the mean scores of the EFL learners who were taught English in the Mobile language learning (WhatsApp), and those who were taught English by using the traditional learning (the control group) in the post-test. This difference was in favour of the experimental group. However, the findings revealed that are not statistically significant differences between the EFL learners in the experimental classes and the students in the control groups in their English achievement test score at the pre-test.

Furthermore, the results of this research revealed that most EFL learners claimed that they were enthusiastic to join English lessons through WhatsApp groups and expressed the belief that working in a WhatsApp group can boost their motivation and their academic results. Also, most EFL learners highlighted that using mobile language learning method (WhatsApp) enabled them to increase their social skills, confidence, while helping them to create positive relationships with their colleagues and the teacher.

However, there were some obstacles and barriers to join WhatsApp learning groups, such as lack of access to the internet and lack of tendency to share and participate in the WhatsApp group.

Keywords: applied linguistic, mobile language learning, teaching English as foreign language, Saudi Arabia

1. Introduction

Naismith et al. (2014) define mobile technology as any portable and personal device. More precisely, using portable computers on the move is referred to as mobile computing. In the recent past, mobile devices were considered effective and innovative tools, owing to their portability, light weight, and their small size that allows them to fit in the pocket or hand (Kukulska-Hulme, 2009). The past few decades have also seen more people adopt computers and the internet for instructional purposes as evident in various language learning settings (Levy & Kennedy, 2005).

Two-thirds of the population worldwide use mobile phone technology, whereas 25 percent of mobile phones are internet enabled (Brand & Kinash, 2010). Warschauer (2011) studied the use of iPads in America K-12 schools. This study showed that iPads and laptops were easily accessible to private school students. Further comparison between iPads and laptops showed that students prefer iPads over the later in the science class. This was attributed to the iPad's light weight, portability and touch screen, among other attractive features. Some researchers concluded that the iPads were more suitable for practical laboratory tasks as the students are on the move during data collection. Therefore, the education sector should embrace portable computing since it is accessible to every person mobile device (Alshehri, 2014). Additionally, Wu (2014) sought to determine whether smart phones could facilitate vocabulary learning among college students. To meet the study objective, a

program was designed, which consisted of a part of speech, synonym, pronunciation, antonym and example. Two equal cohorts were derived from 50 students, one as the control and the other as experimental. Participants in the experimental group exhibited better performance compared to those in the control group.

2. Background

Hashemi and Abbasi (2013) studied 180 high school students in the third grade with the aim of determining the impact of mobile phones on their vocabulary retention levels. The results obtained from the study showed that mobile phones were of great help EFL students in regards to vocabulary retention. Additional findings from the study indicated that students are more capable of memorizing a word by paying attention to its features, as well as the text environment. Researchers began a project to encourage disengaged youth between the ages of 15 and 19. The project sought to equip the youth with lifelong learning skills by incorporating mobile phone technology and mobile learning strategies in their learning programs. The researchers chose to shift to mobile learning because the targeted students displayed poor performance in the traditional classroom-based learning environment. Networked and collaborative learning environments were introduced to the learners in a bid to boost their language skills. As documented during the project, the students were eager to use messaging as a learning tool. They successfully used mobile phones to communicate in the chosen language. Based on the research findings, mobile learning promotes participation among student, improves their learning capabilities and motivates them to submit assessments on time. According to Godwin-Jones (2008), researchers and instructors have gained interest in mobile language learning through mobile devices, especially mobile phones. This is attributable to their ready availability, portability, familiarity and wide-ownership.

Various factors make mobile phones reliable in the education setting. This includes their ability to share learning modules electronically and facilitate communication between peers and their instructors (Brown, 2005). Another positive aspect mobile device in the education sector is that they are more popular among students compared to the teachers (Kukulska-Hulme, 2009). For this reason, they enable more student-centered learning. Kukulska-Hulme (2010) believes that mobile instruction reflects the power of mobile technology to provide new learning approaches with emphasis on continuity, spontaneous access and cross-textual application.

3. Purpose of the Study

The main purpose of this study is to identify the manner in which mobile phones enhance and provide more interactive lessons, while increasing the outcomes of EFL students in English. In this study, the researcher seeks a new method that might assist students to increase their achievements and enable them to interact with their peers**.**

In this light, the mobile language learning method can be the solution, as learners have the opportunity to use their smartphones everywhere, either inside schools or outside, which can aid them in learning English more easily.

4**. Methods**

4.1 Research Questions

1) What is the impact of mobile language learning (WhatsApp) on the EFL learners' achievements?

2) How do EFL learners respond to their new experience in learning English skills in mobile language learning (WhatsApp) environment?

The researcher collected both quantitative and qualitative data in this study. The instruments that were used to collect data consist of a pre-test and post-test English achievement test, along with EFL learners' interviews.

4.2 Quantitative Data

The study implied 48 university male students, aged 16–18 years in preparatory year at Al-Baha University. Classes were randomly assigned to one of two conditions: one class was randomly selected to form the experimental group and another class was randomly selected as the control group. As such, there were 25 University students in the experimental conditions (mobile language learning) and 23 students in the control conditions (traditional learning).

Furthermore, two male English lecturers from the preparatory year were invited to participate in the study. All English lecturers were native speakers, with bachelor degrees in teaching English and similar experiences in the domain.

4.3 Qualitative Data

Students' Interviews

The research involved 10 students, who were randomly selected from experimental classes. They were then interviewed by the researcher with the aim of identifying how they responded to the incorporation of mobile technology approaches into their English language learning environment. The interview questions formulated by the research were tailored in order to gather the perceptions of EFL students towards English lessons facilitated by mobile technology. Each of the participants undertook the interview alone, while the researcher recorded an audio. This process was carried out in the Arabic language, which was later translated into English by the researcher.

The researcher utilized an inductive approach for data analysis where themes were identified through transcription and coding (Creswell, 2012). Through reviewing the data, the researcher was able to determine whether the themes were a representation of the interview data. These themes were identified using keywords, sentences and phrases, as used during the interview. The phrases and keywords were separated, pre-examined and categorized into the different themes emerging from the data analysis.

4.4 Procedures

The researcher organized two separate workshops. One was for the lecturer of the experimental group who trained in Mobile language learning skills and another for the lecturer in the traditional classroom, where students worked in traditional learning, but did not receive training in how to implement Mobile language learning.

The study was conducted from the beginning of semester two 2018 for 10 weeks. At the beginning of the study, the researcher invited two English lecturers from Al-Baha University to participate in the research. Two classes from the preparatory year were then also invited to participate in the study. One class was designated as the experimental group (mobile language learning), while the other was the control group (traditional learning).

The teaching material for both experimental and control groups was a textbook selected by Al-Baha University. Students undertake various tasks, such as reading, grammar, writing, speaking and listening. The researcher focused on three lessons in which the EFL learners learned about the use of some tenses, vocabulary, reading, listening and speaking skills. The teacher of the experimental class and the teacher of the control class taught one class each, delivering the same content to all classes for 10 weeks' period.

The English achievement test was used as both a pre-test and a post-test, in order to investigate the effect of the mobile language learning on EFL learners. There were 30 multiple-choice questions. At the beginning of the test, the participants were asked to choose the correct answer from three options, with the time allocated for this exam being 30 minutes. There was one mark for each correct answer in the multiple-choice question, making the total score obtainable at 30 marks.

The participants' previous achievements in English were evaluated by the pre-test, which was distributed to both conditions (experimental and control) before the study began. The purpose of the pre-test was to assess the students' background knowledge when considering general English skills.

The reliability of the test is high with an Alpha-Cronbach of .89. The same pre-test was presented at the end of the study as a post-test, seeking to evaluate the participants' achievements on the English skills. The purpose of the post-test was to assess the impact of both the traditional learning method and the mobile language learning on students' achievements. Two English lecturers, who did not participate in this study, corrected all the English test papers, including the test papers at the beginning of the study and at the end of the study.

5. Results and Discussions

A total of 48 participants relatively evenly drawn from two classrooms from preparatory year at the Al-Baha University experienced either the experimental condition, (N=25) or the control condition (N=23).

In order to determine whether there were differences in the EFL learner' achievement scores in English skills in the two conditions, an Analysis of Variance (ANOVA) was performed. The means and standard deviation of the English achievement pre-test total score and post-test total are shown in the following Table 1:

Table 1. Means and standard deviation for the total of pre-test and the total of post-test scores for the experimental and control conditions

		N	M	SD
Pre-test total scores	Experimental	25	18.7200	3.79166
	Control	23	17.5217	3.21742
	Total	48	18.1458	3.54299
Post-test total scores	Experimental	25	25.0800	1.86905
	Control	23	19.5652	2.72740
	Total	48	22.4375	3.60795

In order to determine the differences between the pre-test and post-test total score results, two one-way ANOVAs were conducted. As illustrated in Table 2, although there were no significant differences between the experimental and control conditions at Time 1, there were significant differences at Time 2.

Table 2. Tests of between subject effects for pre-test and post-test total scores

ANOVA		SS	df	MS	F	Sig.
Pre-test total scores	Between Groups	17.200	1	17.200	1.381	.246
	Within Groups	572.779	46	12.452		
	Total	589.979	47			
Post-test total scores	Between Groups	364.320	1	364.320	67.714	.000
	Within Groups	247.492	46	5.380		
	Total	611.813	47			

Table 1 highlights that there are no statistically significant differences, p=0.246 (p>0.05) between the mean scores of the EFL learners who were taught English in the mobile learning environment (the experimental group) and those who were taught English by using the traditional method (the control group) in the pre-test.

On other hand, Table 2 reveals certain differences, p=0.000 (p<0.05) between the mean scores of the EFL learners who were taught English in the mobile language learning environment (the experimental group) and those who were taught English by using the traditional method (the control group). Thus, the post-test is in favour of the experimental conditions.

5.1 Discussion

The results showed that there are statistically significant differences, p=0.000 (p<0.05), between the mean scores of the EFL learners who were taught English in the mobile language environment (the experimental group) and those who were taught the English through traditional learning methods (the control group) in the post-test. This difference was in favour of the experimental group. However, the results also revealed that there are no statistically significant differences between the students in the experimental classes and the students in the control conditions in their English achievement test score at the pre-test.

As such, according to the findings, the students had the same background knowledge of the items before implementing the mobile learning method, which confirms that any gain in the students' achievements could be attributed to the mobile learning environment**.**

The famous theorist, Vygotsky, explored the role of social interaction in people's cognitive development. He considers socialization to be an important aspect of cognitive development (Vygotsky, 1980). According to Vygotsky, learning begins at the social setting where people interact then proceeds to the individual level where the acquisition of knowledge becomes an interpersonal process. Further, the process of internalizing knowledge enters the intrapersonal stage.

Vygotsky indicated that socialization helps in the learning process as learners operate comfortably within their zone of proximal development (ZPD) when they work in groups. ZPD refers to the space between the current development level and the level of prospective development. Here, present development level is achieved without external assistance while potential development is determined by how much an individual learns with assistance from his peers or other people (Vygotsky, 1980). According to Vygotsky (1980), the distance from the present developmental level is determined through independent problem solving while the potential development level is obtained through problem solving in collaboration with other views or under the guidance of an adult. Learning is enabled by learner socialization within the external environment. Some of the social-cultural forces

that promote learning and development among children include historical change, social contribution, relationships and varied activity settings (Sfard, 1998).

Students gain additional cognitive value from synchronous and asynchronous discussions on social networks. They get the chance to create and share knowledge leading to good results in their achievement tests. Chan (2005) also believes that learning effectiveness improves through online discussion forums. Through these discussions the students solve learning difficulties; construct and share knowledge more easily. Gillingham and Topper (1999) consider these online discussions effective learning tools as they help develop understanding of different concepts and boost students' cognitive performance.

Instant messaging is another effective learning and teaching tool made possible by social interactions. WhatsApp, as an instant messaging tool can be used for academic purposes. According to Chan (2005), WhatsApp gives the students a chance to interact, create and share knowledge. This instant messaging tool is very easy to operate. Many students utilize this mobile system in academics and other fields. Through WhatsApp, the students get timely updates on issues through messages sent by other group members. This tool has a simple user interface, which helps the students develop a positive attitude towards this technology. In this regard, the results of this research match those of past research projects such as Cheung et al. (2008) that emphasize for need for user-friendly web-based platforms. Cheung et al. (2008) conducted a study of social interactions among online communities who are able to learn online using mobile devices. They identified social presence as one of the main factors affecting students' motivation to participate in social interacts meant for creating and sharing knowledge. Their research confirmed that online social presence is crucial in ensuring that students are more engaged.

Further, classrooms often use face-to-face learning. This formal learning process mainly entails disseminating information to individuals rather than promoting students' social interaction. This social dimension is crucial in the creation of knowledge. It also orients students for the adoption of new educational technologies powered by social networks. Using WhatsApp as a mobile learning tool is likely to improve community level interaction and boost the students' social presence. Other studies have also been conducted to determine the factors affecting the students' willingness to participate in social interactions. Research by Cheung et al. (2008) proved that students' online social presence using mobile technologies affects their engagement.

5.2 Findings of Qualitative Data

Findings from the Post-Task Semi-Structured Interviews

Ten EFL learners were interviewed individually by the researcher at the end of semester in order to obtain their feedback, opinions and experiences in learning English language during mobile learning environment. The interview sought to gather data about the EFL learners' experiences and their perceptions about learning English in EFL classroom, along with the extent to which they believed they benefited from mobile language learning in a classroom environment. Moreover, the interview investigated EFL learners' perceptions of the benefits, academic achievements obstacles and barriers that they encounter when learning English in the EFL context. The researcher grouped the different themes that emerged from the interview data into four main themes: motivation, academic achievements, positive relationship between students, obstacles and barriers to mobile language learning.

5.2.1 Motivation

The first of the four themes that emerged from the data was motivation of the EFL learners when learning English via mobile language learning. Most students indicated that they were enthusiastic to learn English lessons during WhatsApp groups. One student commented, "It was a new teaching method and it was wonderful." Another student highlighted: "My tendency to learn English was so weak, now my tendency is strong because of using WhatsApp group."

Moreover, most EFL learners expressed the belief that working in a WhatsApp group boosted their motivation to learn English skills, one student declaring that "IT was very fantastic, I can work with my colleagues at any time and we can play games, pronounce some English words, write some sentences."

On the other hand, few students highlighted that they do not prefer using WhatsApp groups. One student indicated that "I dislike using WhatsApp group and it is boring to me." Also, another student stated that "We should contact with our teacher physically not through online".

A study conducted by Ally, Tin and Woodburn (2011) examined the use of iPhones in learning French and utilized vocabulary and grammar lessons available online, asking questions from the five selected lessons. Many researchers MALL approach an adaptive process influenced by the learning behaviour, the perceptual learning

style and the learner's language proficiency level. Therefore, the researchers created the system names, MyEVA, employing mixed-mode BL for mobile phones. The use of this application in the vocabulary lessons showed how VL is influenced by learning behaviour and learning style. There were 22 participants who used their iPhones and the Internet for the lessons. The researchers also examined the participants' perceptions. This learning approach displayed a positive effect on the students' grammar and VL, and revealed the learners' positive attitude towards the newly introduced learning technique.

5.2.2 Academic Achievements

The second of the four themes that emerged from the data was that of academic achievement in the mobile language environment. Most EFL learners highlighted that they learned more through WhatsApp groups and that they were happy with their academic results. After implementing the WhatsApp group in the EFL English class, the EFL learners worked in online groups and expressed satisfaction that mobile learning assists them to gain more outcomes.

One student stated, "It [WhatsApp groups] helped me to develop my English and also assisted me to improve my writing skills." Similarly, another EFL learner confirmed that "Absolutely, I have a chance to communicate with my teacher and my classmates at any time, even outside school time, as a result, I noticed my English is getting better." Another student highlighted, "I am satisfied with learning during WhatsApp groups because it pushes us to communicate, share different ideas."

Other available literature indicates that a large number of higher learning institutions are willing to embrace text and instant messaging in the teaching process (Kennedy et al., 2008). Nah (2008) also noted that the internet and technology in general can help improve students' collaboration, engagement and interaction. Moreover, Ison et al. (2004) sought to uplift disengaged youth aged between 15 and 19. Thus, they initiated a project aimed at giving these youth lifelong learning skills. Through this project, mobile phone technology, together with mobile learning strategies, was introduced to the students' learning programs. The students performed poorly in the traditional classroom learning environment, hence, the need to move to mobile learning. The researchers also gave the students more networked and collaborative environments in order to boost their language learning skills.

Another study by Hashemi and Abbasi (2013) focused on 180 high school students, seeking to determine the effect of mobile phones on the level of vocabulary retention among these third-grade learners. The findings derived from the research indicated that mobile phones were effective in boosting vocabulary retention for EFL students. Other results gathered from the research showed that being attentive to different word features helped the students memorize those particular words. The learning environment was also significant in the learning process.

5.2.3 Positive Relationship Between Students and Their Teacher

The third theme to emerge from the interview data was that of strong relationship between EFL learners and the English lecturer. Most EFL learners asserted that using mobile language learning method enabled them to build good relationships with their colleagues. One student stated that "I had just two friends from my class, but after using WhatsApp group, most of them became my friends." Another student highlighted that "I get along with my classmates. Particularly, chatting in WhatsApp increases relationships between students." In addition, EFL learners commented that having a chance to participate and talk in WhatsApp groups was exciting.

One student stated that "I am so satisfied with WhatsApp learning because I have a chance to make voice recording and share it with my teacher and classmates." EFL learners highlighted that they obtained many new social skills in the Mobile language learning environment, such as social self-confidence, respecting different opinions, and sharing different thoughts. In this light, a student claimed that "Frankly, I used to reject all others opinions and did not accept them. By using WhatsApp group, I started to get along with others students and accept different views."

These study results were similar to those obtained by Greenfield (2003) who attributed enjoyable learning experience to the availability of collaborative technology. However, the learners still display some level of scepticism on the use of technological interventions to enhance their exam-related skills. This explains why the students have pragmatic investments in WhatsApp, creating an effective channel of communicating with the teacher.

5.2.4 Obstacles and Barriers to Mobile Language Learning

The fourth and last theme to emerge from the data has to do with the barriers and obstacles in mobile language learning. Certain EFL learners highlighted that they did not like to work in WhatsApp groups with their

colleagues. One EFL learner stated that "I dislike it; it takes much time to learn new skills." Another student revealed that "I prefer to work alone because working in WhatsApp group wastes my time." Also, the third student added that "there are many students participating in the WhatsApp group and it is so noisy and confusing."

Furthermore, some students said that they did not have a natural tendency to share and participate in the WhatsApp group, with one student claiming that "English teachers should explain and clarify different tasks to the students inside the classroom not in the WhatsApp group." Equally, another EFL learner stated that "some students did not participate during discussions in online. Some students just play during group discussions and send different video clips."

On the other hand, some EFL learners highlighted that they do not have access to internet and they can not to join their colleagues in online. One student stated that "I don't live in the city and I don't have internet services." Another student added that "the internet is not available to us all the time and it is hard to be online." Moreover, research revealed that nearly 87% of learners at a young age spent long hours online. Some of the most popular mobile phone activities for these students are gaming, instant messaging and emailing.

According to Kolb (2008), the cost factor is crucial for social Web 2.0 sites, as they undertake substantial data downloads. This implies that these sites pose a financial burden. 3G, 4G and other fast mobile networks are more expensive compared to other slow networks. Therefore, students whose personal income is limited do not spend much on mobile phone internet as they cannot afford it. Unfortunately, GPRS networks have very slow mobile phone internet compared to 3G and 4G networks.

6. Study Limitations

Limitations of the present experimental study include the fact that study was conducted in the context of only one learning unit (i.e., unit 3) of the course, General English, being necessary to be used with a full course. Equally, the sample size is small (i.e., 25 students for each group).

7. Conclusion

In conclusion, to identify the effect of mobile language learning on achievements of EFL learners, a study was conducted among students from the preparatory year at the Al-Baha University. The findings highlighted that there was a significant difference between the two conditions (experimental, control), indicating statistically significant differences between the mean scores of the EFL learners who were taught English in the mobile language learning environment (the experimental group) and those who were taught the English through the traditional learning method (the control group) in the post-test, which was in favour of the experimental conditions. Moreover, the findings of this study also revealed that the EFL learners were enthusiastic to join English lessons, while they have strong motivation, good academic results, and witness an increase in their social skills and confidence.

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