

Developing the Wireless Digital Technology

*Using Short and Multimedia Messaging
Services to Improve the Fluency and Accuracy
Competences of the EFL Learners: An
Experimental Study*

تطوير التكنولوجيا الرقمية اللاسلكية

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Abstract

Over the past few years, new different types of methods-technology based had brought into FL classes by many teachers depending on results of a number of researches that emphasized the important and the necessity of using technology in classrooms. These different types of technology changed the way of teaching and learning. In

addition, technology changed the learning environment and teachers' experiences. It converted teachers' efforts and students' hard task of learning into an easy mission. The aim of this study was to investigate the effect of using mobile short messaging services (SMS), emails, and voice emails with internet connection to improve learners' fluency and accuracy competences. The researcher selected Al-Elaf Preparatory Boys School to conduct this study. The researcher selected 42 male students randomly to be as a sample of the study. Those students study *Iraq Opportunities* which is the official Prescribed textbook in Iraq during the second semester of the academic year 2015-2016. The researcher divided the sample of the study purposefully into two groups; the first group consisted of 21 students and decided to be an experimental group. The second group consisted of 21 students and chosen as a control group. Data collection period lasted for eight weeks. The researcher used SPSS to calculate and measure differences in students' mean scores after conducting the new method of teaching that is the mobile phone SMS. Results revealed that the experimental group students developed more than the control group students in writing, listening, and oral skills. In other words, the experimental group got higher scores than the control group due to using the mobile phone.

Keywords: Mobiles, Short and Multimedia Messages Services, and Fluency and Accuracy Competences.

1. Introduction and Background of the Study

Using different types of technology in general and technology-Internet-Based in particular in ESL and EL classrooms helped learners to improve their foreign language skills effectively. Technology proved to be a vital tool for enhancing and developing learners' language skills and communicative competence. Mobiles internet-based technology is one of the most recent methods of teaching

through which learners can develop their language learning and their communication abilities via different innovated ways. According to Cherepski & Hunge (2000; 2003 cited in Alharbi, 2013) emphasized on the idea that in spite of using instructional technology in education for decades, but it is still considered a relatively new pedagogy to integrate technology into curricula.

The emergence of mobile-assisted language learning (MALL) into EL classes contributed straightforwardly to develop the English language. Different mobile applications paved the way for using new techniques in the education process. Mobile technology is not only the sole form of technology-based trends, there is a large uncountable number of new forms of technology which are used widely to support learning and changed the philosophy of education. As a supporter of the mentioned idea, Zhao (2005) pointed out that some of the technology forms include multimedia cellular phones, MP3 players, DVD players and digital dictionaries” (p.447).

As learning support tool, SMS as a channel of delivering information can share the learning content information among learners. Mellow (2005) emphasized that SMS is used to convey educational content. Furthermore, the adoption of SMS as an educational resource has become popular in recent years (Hooper, 2007).

Mobile phone technology is one of the most recent methods of developing the English language. Learning via mobiles is regarded as an authentic material because mobile brings authenticity and provides learners with a vast number of opportunities to practice language and enables them to interact with native speakers of English orally and graphically through oral, text, and audio-visual chats. As a result, mobile advanced features opened and paved the way for learners to update their information, stay in contact with the surrounding environment, and express themselves

freely anytime/where they would like using different software and programs to make oral, written, audio-visual chats and interactions with the surroundings world to develop their skills.

Mobile varieties improve learners' language learning. They can access to online library and get information; they also can listen to educational YouTube to develop listening skill. At the same time, they can practice writing skill via chatting with instructors or native speakers of English using Yahoo, Hotmail, and Skype software. Audio-visual chats can, for instance, enable learners developing their whole language communication skills through oral and text chats. Baron (2008) pointed out that the use of SMS in learning to develop the writing skill of the learners enables them to use letters, punctuation, and numbers correctly while writing. This technique increases learners' awareness towards spelling mistakes which occurred while writing and offer them an opportunity to correct these letters and punctuation mistakes. Advantages of using SMS as a tool for learning the writing skill are endless and valuable nowadays.

1. Developing Satellite and Wireless-Based Competence

Many researchers concluded that the use of short text messages (SMS) via cell phones is an important tool for language learning. Some researchers adopted text messages as a means of enhancing vocabulary activities (Levy & Kennedy, 2005; Norbrook & Scott, 2003). Teachers can send SMS, emails, voice mails, and MMS as class activities or homework for learners. Teachers can send these duties to learners out/inside the classrooms. Learners can able to replay the teacher whether they are in classroom or after go homes.

To support the idea regarding necessity of using technology in FL classes, Collins (2005) emphasized that mobile technology can create a rich environment to develop writing skill through SMS (text messaging) and MMS (multimedia messaging services). The MMS technology includes many forms of delivery audio, visual, and text. More importantly, sending and receiving SMS messages with mobile is one of the user-ready-to use mobile learning strategies (Clarke, Keing, Lam, & McNaught, 2008).

Traxler (2005) stated that short Message Service (SMS) texting on phones has a great potential role in education. More clearly, using technology in classrooms makes the lesson more efficient. There are many technology tools that in the ESL and EFL classes to improve foreign students' both English and language skills (Kasapoglu-Akyol, 2010). Mobile can improve learning by putting students in a real context and convert the process of learning from the stressful and fearful atmosphere into more interesting, motivating, and out of the ordinary one. Students may enlarge their acquisition of skills, competencies, may optimize their time of studying and reduction efforts. Mobiles provide learners with online open access English language learning.

2. Questions of the Study

1. Are there any statistically significant differences between the mean scores of the experimental and control groups due to method of teaching (Mobile Phone vs. regular communicative method)?
2. Are there any statistically significant differences between the mean scores of the experimental group students' writing, listening, oral performances and mobile communication competence due to using mobile SMS?

3. Hypothesis of the Study

It is hypothesized that:

1. There are no statistically significant differences between the mean scores of the experimental and control groups due to method of teaching (Mobile Phone vs. regular communicative method) at $\alpha. \leq 0.05$.

2. There are no statistically significant differences between the mean scores of the experimental group students' writing, listening, oral performances and mobile communication competence due to using mobile SMS at $\alpha. \leq 0.05$.

4. The Problem of the Study

The researcher believes that students are unable to write a comprehensive and meaningful sentence whenever they are asked to express their thoughts, ideas, and feelings. In addition, learners respond difficulty to others because they are weak in listening skill. They cannot speak fluently and write accurately, cannot express what is in their mind. The researcher thinks that this problem might be due to the fact that they do not have chances and opportunities to practice language communication skills. In addition to what mentioned above, students cannot respond to teachers because they are unable to listen appropriately and as a result, they are unable to speak. Listening is connected with speaking because a good listener is a good speaker. Another fact is that learners lack new methods and techniques which enable them to get rid of their hesitation and help them to develop their skills via more practice in order to internalize what they acquired and learned. Thus, there is a need to integrate technology in FL classes. The researcher choses this new orientation to show the positive effect of using technology in general and mobiles in particular to develop EFL learners' fluency and accuracy.

5. The Rationale and the Value of this Study

The present study aims at identifying the impact of using mobile phone short text messaging services (SMS), emails, and voice emails and messages with internet capabilities for

teaching and learning purposes to improve learners' writing, listening, oral performances.

In addition, the present study is intended to be valuable to:

1. The researchers and experts in English language teaching since it is an attempt to shed light on the impact of mobile phones to develop EFL learners' writing, listening, and oral competences.

2. EFL instructors and students to try out recent methods of teaching/learning such as SMS, voice mails, and written emails to do their homework and to develop the other skills.

3. Course and syllabus designers who have to consider this new method to develop language skills when designing EFL course books.

1. Operational Definitions

1. Mobile Phone: is a type of short-wave analog or digital telecommunication in which a subscriber has a wireless connection from a mobile phone to a relatively nearby transmitter (Rouse, 2007).

2. Short Messaging Services (SMS): It is a system for delivering short text messages, as from mobile to another.

3. Emails: E-mail is abbreviated of (electronic mail). It is a means of sending and receiving emails through mobiles with the help of internet.

4. Voice Mails and Messages: It is an oral recorded message.

5. Multimedia Messages Services (MMS): It is one of mobile services that allow users to send and receive audio-visual messages including images, sounds, and video messages. It regarded as an extension of SMS messages.

6. Writing Competence: Writing is a productive skill, which makes it more difficult than receptive skills like reading or listening for students. In addition, it is used as a medium of main communication in English language. More obviously,

Caswell & Mahler (2004:3) describe writing as a vehicle for communication and a skill mandated in all aspects of life.

2. Listening Competence: Listening is a receptive skill through which listeners can hear words and sentences and response to the speakers.

3. Oral Competence: Oral is a productive skill by which people can speak to express their ideas, feelings, and thoughts.

1. Methodology

1. Participant of the Study

The sample of the study consisted of 42 male students. Twenty-one students were assigned as an experimental group. Twenty-one students were chosen as a control group. Students' ages are between 18 and 19 years old.

2. The Tool of the Study

The tool of the study was mobile SMSs, voice mails, and emails. Different mobile phones were used. All of them were up-to-dated mobiles like I Phone and Samsung which supplied with Google and mail software and internet capability.

3. Instrument of the Study

A test developed by the researcher was used in this study to measure changes in learners' performance after conducting the new method. However, the instrument of the study consisted of three sections as follows, section one which is a writing section, in this section, learners asked to receive the homework via email and the answers to be sent either by SMS or emails. Section two, which is a listening section, learners listen to the homework materials received from the tutors as a recoded materials, they have to listen to them and send the answers to tutors as a voice mail/messages, audio-visual, or recorded ones. The third section, oral section, not differs from others sections, learners received the material from the tutor and send the

answers orally as to read a paragraph, pronounce words, and make a dialogue, etc. Section one scores (34), section two scores (33), and section three scores (33).

4. Treatments

The researcher explained the nature of the new method to the learners and asked them to send their answer when they in classroom and when they go homes. This means that this method enables learners to do homework inside and outside classrooms which is a good way to save time, simplifies, and facilitates learning, in the same time open new ways of learning far off class face-to-face stress and shyness.

5. Procedures of the Study

1. The researcher asked the experimental group learners to switch on their mobiles stay online waiting any messages or emails.
2. The control group learners taught traditionally by the researcher without using any king of technology.
3. Both groups taught on the same days of the week.
4. Both groups taught the same material.
5. Both groups taught by the researcher.
6. The teacher taught the experimental group learners as a whole and asked them to send their answer individually.
7. The researcher sent back each learner a feedback contains his statues and scores.
8. Learners asked to write fifteen words, ten sentences, and listen to five recorded (MP3 or audio-visual) items and record five speaking exercises daily and send them to their tutor. In addition, learners can receive the duties inside/outside classrooms, this will help them to reduce stress, save time, and get rid of their shyness and fear. On the other hand, teachers also can send students their homework and make assessments even when he is at home. Learners will not only communicate with their

tutors, but also among each other to internalize what they practiced via writing and to still in contact among each other.

8. Literature Review

Jacob (2011) investigated the utilizing mobile short message service (SMS) on comprehension of materials presented through an audio system. He found out that writing SMS improves students' note-taking competence and comprehension. The researcher recommended using SMS as a technique to develop learners' style writing. Al-Qmoul (2011) investigated the use of Short Message Service (SMS) on the development students' spoken and written communicative skills. The findings of the study showed that the students who practice using SMS improved their communicative skills. Recommendations to use SMS to develop other skills are set by the researcher at the end of this study.

Baniabdelrahman (2014) examined effects of online oral diaries on the EFL students' speaking proficiency. The result showed that the experimental group students who use online diaries developed their speaking more than the control group students who used the traditional method. Gasaymeh and Aldalalah (2013) investigated the impact of using Short Message Service (SMS) on students' learning in an introductory programming course. According to the results obtained, a set of recommendations prepared by the researcher regarding using SMS in the Jordanian higher education settings.

A study by Kiernan and Aizawa (2004) who tested the use of mobile as tools for classroom learning. The study suggested mobile device proofs to be an effective language learning resource worthy of further investigation. Thornton and Houser (2003) highlighted the importance of Short Message Service text messages in increasing student

writing skills. It can be concluded that mobile is regarded as one of the most important, effective, and best source for developing English teaching.

Hayati, Jalilifar, and Mashhadi, (2013) aimed to examine students' learning of English idioms through educational SMS in comparison with in-class contextualized learning and paper-based self-study approach. The findings revealed that using SMS enhanced students' gaining of English idioms more than in-class contextualized learning and paper-based self-study approach. In the same vein, Moura and Carvalho (2016) explored the Short Message Service (SMS) technology is as an instrument of learning. The research findings showed that students had positive perceptions about the experiment and SMS use for learning improvement. Students showed interest in receiving pedagogical content via SMS. Some students greatly improved their language learning performance.

Mahmoud (2013) investigating the effect of using (SMS) on the development of students' speaking and writing skills. The findings revealed that using SMS in language learning supports learners and offer them best opportunities for language development to cover learning outside classrooms walls. Like others, Stone (2004) stated that through using SMS technology, students could enroll to receive messages via SMS about examinations and assessment. It was found that students' performances were increased rapidly in popularity in the first six weeks of the semester using SMS in developing writing skill.

A research adopted by MALL Research Project Report (2009), to see if mobile conversation have a considerable effect on boosting students' confidence in both listening and speaking skills. It was found that the experimental students were satisfied with confidentiality and freedom using mobile.

About using other mobile services, Mitchell, Race, McCaffery, Bryson, and Cai (2006) adopted a study to see if using short text messages as a way to make communications between teachers and students possible. They found that text messaging is a cost effective means to express the personalized information to learners' mobile phones in a stylish manner. Additionally, Salamat and Pourgharib (2013) made a study to improve the speaking knowledge of EFL students using mobile. The results suggested that the experimental group participants performed better than the control group on a speaking posttest due to using mobile.

9. Results and Discussions

Table 1: Means and Standard Deviation of the Experimental and Control Groups on the Pre-Test

Group	N	Mean	Std. Deviation	T	Sig.
Control Group	21	39.76	1.23	48	0.77
Experimental Group	21	41.24	1.56		

Table 1 shows the absence of statistical significant differences at the level of significance at $\alpha \leq 0.05$ for the writing, listening, and oral performances for pre-assessment due to group. The findings revealed that student' scores for both groups in the writing, listening, and oral performances were almost equivalent in the pre-test before conducting the experiment.

1. Results Related to the First Question

The first question was " Are there any statistically significant differences between the mean scores of the experimental and control groups due to method of teaching (Mobile

Phone vs. regular communicative method)? ". To answer this question, means and standard deviations of both groups regarding the method of teaching were calculated (see Table 2).

To measure changes in the whole language communication skills and mobile communication competence as a result of using mobile phones, and by using appropriate statistical means, the researcher found out that there is a significant difference in the communication skills of the experimental group in the post-test. It is clear from Table 2 that the mean scores of the experimental group in the post-test were higher than those of the control group. The difference might be attributed to the effectiveness of using the new method of teaching.

After applying the new method, mobile phones improved to be an effect tool that have a great influence on students' performances in writing, listening, and oral. Table 2 shows that there are statistically significant differences in the mean scores of the experimental group. Accordingly, mobiles phone have a great effect of developing learners' language skills. Finally, the hypothesis of the study which reads," There are no statistically significant differences between the mean scores of the experimental and control groups due to method of teaching (Mobile Phone vs. regular communicative method) at $\alpha. \leq 0.05$ was rejected.

Using mobiles improved to be an important and effective tool for enhancing English language learning. This finding is in line with Gasaymeh and Aldalalah (2013) whose study revealed that the use of SMS technology as learning support tool has more advantages on language learning.. This result is in harmony with Kiernan and Aizawa (2004) who concluded that mobile device proofs to be an effective language learning resource worthy of further investigation.

Table 2: Means and Standard Deviation of the Experimental and Control Groups on the Post-Test

Test	Group	N	Mean	Std. Deviation	T	Sig.
Post test	Control	21	50.16	1.40	28.09	0.00
	Experimental	21	75.50	1.09		

Table 2 shows that there is a statistical significant difference between the writing, listening, and oral skills of the experimental group on the post-test. This difference indicates that using mobile phone has positive effect on students' writing, listening, oral performances and mobile communicative competence where the mean score for the experimental group is 75.50 while for the control group is 50.16. To find out the amount of progress that each group had achieved during the period of the study, means and standard deviations of the two groups were calculated as shown in Table 3 below.

Table 3: Means and Standard Deviation of the Two Groups in the Pre and Post-Tests

Test	Group	N	Mean	Std. Deviation	T	Sig.
Pre test	Control	21	44.20	2.13	51	0.49
	Experimental	21	45.70	2.43		
Post test	Control	21	50.16	1.40	28.09	0.00
	Experimental	21	75.50	1.09		

Table 3 shows the amount of progress for each group had achieved. The experimental group got an increase of 29.80 in their mean score on the post-test compared with their mean score on the pre-test. On the other hand, the control group got an increase of 5.96 in their mean score on the

post-test compared with their mean score on the pre-test. In addition, the results indicated that there is a statistical impact of mobile phone on the learners' writing, listening, oral performances and mobile communicative competence in which the experimental group got higher scores than the control group.

2. Results Related to the Second Question

The first question was "Are there any statistically significant differences between the mean scores of the experimental group students' writing, listening, oral performances and mobile communication competence due to using mobile phone?". To answer this question, T-test, means and standard deviations were applied to the experimental group students' writing, listening, oral performances and mobile communication competence for pre/post assessment. Table 4 clarifies that.

There were significant differences in the experimental groups' writing, listening, oral performances and mobile communication competence where all the values of **T** value on the post-test are statistically significant in favour of the experimental group.

According to the results, it was clear that scores of experimental group were clearly higher than those of control group, and the level of the experimental group on writing, listening, oral performances and mobile communication competence has improved after exposure to the authentic materials over eight weeks, while there was no improvement in the level of the control group. Therefore, it can be concluded that mobiles have a positive effect on students' writing, listening, oral performances and mobile communication competence.

Table 4: T-test Results of Both Groups Students' Writing, Listening, Oral Competences, and Mobile Communication Competence on the Post-test

The Test	Group	N	Mean	Std. Deviation	F	Sig.
Writing Skill SMS Emails	Experimental	21	19.86	0.77	3.26	0.00
	Control	21	14.68	1.19		
Listening Skill MP3 Recorded Mails Voice Messages and Mails Audio-Visual	Experimental	21	19.22	1.69	3.60	0.02
	Control	21	13.83	2.48		
Oral Skill MMS Voice Mails	Experimental	21	18.83	2.47	2.92	0.03
	Control	21	11.25	2.84		
Mobile Communication Competence Use Ability	Experimental	21	17.69	1.43	2.77	0.04
	Control	21	10.40	2.22		
Total	Experimental	21	75.50	1.65	2.43	0.00
	Control	21	50.16	2.33		

Table 4 shows that:

1. There were significant differences in students' performance of the writing performance (SMS and Emails) due to the use of mobile, where T value reached 3.26, at $\alpha \leq 0.00$ level. This indicates that there were significant differences due to mobile in favour of the experimental group mean 19.86, whereas the mean for the control group reached 14.68.
2. There were significant differences in students' performance of the listening performance (MP3, Recorded Mails, Voice Messages, Mails, Emails, and

Audio-Visual Chats) due to the use of mobile, where T value reached 3.60, at $\alpha \leq 0.02$ level. This indicates that there were significant differences due to mobile in favour of the experimental group mean 19.22, whereas the mean for the control group reached 13.83.

3. There were significant differences in students' performance of the oral performance (MMS and Voice Mails) due to the use of mobile, where T value reached 2.92, at $\alpha \leq 0.03$ level. This indicates that there were significant differences due to mobile in favour of the experimental group mean 18.83, whereas the mean for the control group reached 11.25.
4. There were significant differences in students' performance of the mobile communicative performance (Use and Ability) due to the use of mobile, where T value reached 2.77, at $\alpha \leq 0.04$ level. This indicates that there were significant differences due to mobile in favour of the experimental group mean 17.69, whereas the mean for the control group reached 10.40.

Accordingly, the hypothesis which reads " There are no statistically significant differences between the mean scores of the experimental group students' writing, listening, oral performances and mobile communication competence due to using mobile phone at $\alpha \leq 0.05$." was rejected.

These findings agree with Jacob (2011) who found out that SMS style of writing improves students' note-taking competence as well as comprehension. The findings are also in line with Baniabdelrahman (2014) who concluded that the experimental group students who use online diaries developed their speaking more than the control group students who traditional method.

5. Conclusion

The researcher's aim behind conducting in this paper was to show and discuss results the impacts of using mobile phones on learners' communication skills and mobile communication competence. The overall purpose of the mission was to examine students' writing development,

listening comprehension ability, and oral fluency when using mobile different services i.e. text messages, voice mails, and written emails. The study also shed light on the use of technology and its different applications to see if it helps EFL student to improve their language skills. To accomplish these goals, an experiment was conducted for eight weeks.

After analyzing the scores of the writing, listening, and oral test as pretest and posttest, findings revealed that technology-based teaching and learning has a significant effect on EFL student language skills development. Additionally, mobile applications and services paved the way and simplified the way teachers can teach language skills and the way students learn, acquire, and develop their learning. With the help of mobile written and spoken offline chats, students became more able to respond to tutors' messages, listen attentively, analyze words and sentences correctly, and write answers appropriately, with good spelling and handwriting. Students, as well as teachers, saved their time and efforts by doing duties and assignments inside and outside the classroom. Students had new chances by which they could reduce classroom teachers' face-to-face stress and help them to increase their feelings free. Students' oral fluency, writing accuracy, and listening ability were enhanced totally through continuous exposure to mobile services. They were able to re-listen to the recorded materials for many times in order to able to prepare answers.

Using the mobile phone in the educational process in general and to learn English language skills in particular can increase opportunities for language learning by taking advantage of means that, students are closely familiar with and carry around at all times. A mobile phone is a recent tool through which teachers can teach a number of words and phrases and for improving learners' different abilities to learn different skills. Through this new orientation, the

researcher found it to be a valuable way to save their time and efforts as well.

6. Recommendations

The researcher recommended to investigate more studies using other variables to show the effectiveness of using this new technology to develop learners' communication skills and to create a motivational environment to learn English language.

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