The Impact of WhatsApp on Primary Pupils' Vocabulary Memorization and Retention

Ali Sabah Jameel Al-Khayyat (Ph.D)

University of Anbar, College of Arts, Department of English

Farah Muayad Ahmed (M.A)
Neynava General Directorate of Education

Abstract

The aim of the study is to investigate the effect of using WhatsApp program via Mobile Smartphone device in developing primary pupils' vocabulary memorization and retention. The participants were 91 pupils from 3rd grade at Al-Budoor Primary School in Al-Ameria District in Al-Karkh First Education directorate in Baghdad, and Oqba Bin Nafie Primary School in Alqudis District in Neynava General Directorate of Education. Vocabulary instructional program, pretest and posttest were used to collect the data of the study. The result revealed that there is positive significant of using WhatsApp program via MALL in developing 3rd pupils' vocabulary memorization and retention.

Keywords: WhatsApp, Vocabulary, Memorization, and Retentio

أثر الواتس اب في حفظ واسترجاع المفردات لتلاميذ الابتدائية

علي صباح جميل الخياط

جامعة الانبار – كلية الاداب ـ قسم اللغة الانجليزية

و

فرح مؤيد أحمد

مديرية تربية نينوى

المستخلص

تهدف الدراسة الى كشف أثير استخدام برنامج WhatsApp عبر جهاز Mobile Smartphone في تطوير حفظ المفردات الأساسية واسترجاعها. كان المشاركون 91 تلميذاً من الصف الثالث في مدرسة البدور الابتدائية في حي العامرية في مديرية تربية الكرخ الاولى، و مدرسة عقبة بن نافعة الابتدائية تابعة لمديرية تربية نينوى. تم استخدام برنامج تعليمي للمفردات، و الاختبار القبلي والبعدي لجمع بيانات الدراسة. كشفت نتائج الدراسة أن هناك دلالة إيجابية لاستخدام برنامج WhatsApp عبر جهاز الهاتف الذكي في تطوير تحفيظ المفردات و استراجاعها لدى الطلبة

الكلمات المفتاحية: واتس اب، مفردات، حفظ، استرجاع.

Statement of the Problem

The primary English text-books include activities and materials that fit pupils' age and cognitive level. Most of the activities (In pupils' books and activity book) are examining pupils' listening skills more than other skills. The big portion of the activities and exercises are for listening skills. The pupils listen to an activity on C.D then do as required. The best method of teaching such activities is the method which must be very closed to pupils' interests. It is fact that pupils learn when they like the subject, if pupils like the subject, method of teaching, and the teacher who teach the subject the learning benefit will last for long time. Nowadays, most children are engaged in the mobile device-most of their times are spent on activities on mobile device. To this and, the researchers try to use Mobile Smartphone in teaching 3rd Primary grade pupils the English language vocabularies.

Aim of the study

The study aims to investigate the effect of using Mobile Smartphone device social-media applications (Whatsapp) on 3rd primary pupils' vocabulary achievement.

Hypothesis of the study

The research seeks to prove the following null hypothesis: "There is no statistical Significance difference in the pupils' mean scores in vocabulary achievement post test due to learning via WhatsApp".

Significance of the Study

The outcomes of the study will help the English language teachers at primary schools to use WhatsApp in teaching the English language subject.

Limits of the Study

The outcomes of the study are limited to the following:

1- Participants: The participants are 91 pupils from 3rd grade at primary schools.

2- Method of Teaching: Mobile WhatsApp was used to teach 3rd Pupils the English language.

3- Location: The research was conducted in Al-Budoor primary school in Al-Karkh 1st Education at Directorate, and in Oqba Bin Nafie Primary School in Alqudis District in Neynava General Directorate of Education.

4- Period: The research was conducted during the first academic year 2019-2020.

Review of the Related Literature

ابحاث المؤتمر العلمي الدولي الرابع المشترك الثاني

"المستجدات الحديثة في التعليم العالي في ظل التعليم الالكتروني"

16-17 كانون الاول 2020 (المجلد الخامس)

جامعة دهوك
كلية التربية الاساس

الجامعة العراقية
مركز البحوث والدراسات

The Iraqi Technology Education System (ITE) in Education for Iraq program is intended to create productive ability in the Iraqi Ministry of Education to continue improving instruction and learning quality, with an emphasis on the use of Computer Teaching program (ICT) and Technology Education System (ITE) (Al-Khayyat, 2016: 273).

The use of technologies in language learning has given rise to a wide variety of concepts and names, from TELL (technology-enhanced language learning) to MALL (mobile-assisted language learning), to name but two (Healey, 2016: 9).

Recently the world of language teaching has seen some improvements and innovations. Pedagogical communication technology, in particular the use of computers in the language classroom, is one of the most important recent developments impacting teachers and learners of language education programs (Al-Khayyat, 2015: 185).

Even though cell phones are ubiquitous and widespread among learners to connect with each other, they can provide a motivational alternative to L2. They also play an important role in the lives of young people in particular. The portability and versatility of mobile phones has tremendous promise. They even supported a pedagogical change from teacher-centered teaching to self –organizing student-centered learning (Abdollapour and Maleki, 2012: 11).

Interactive learning as the application of pervasive mobile devices, according to (Brown, 2010), seeks to improve and expand the accomplishment of teaching and learning targets. He also says that mobile devices create a pervasive learning environment.

Learning via mobile device becomes one of our potential parts of our life, it is our life's partner. Technology was quickly introduced in the teaching and learning phase, and the concept technology became synonymous with education sector (Al-Khayyat, 2019: 213). Cell phone learning is a new discipline which is attracting that popularity because of its educational promises. Such technology can have positive impacts in educational settings due to its extensive use and functions like accessibility, ability to reach, localization and personalization. It helps to raise self – esteem and self- confidence (Levy and Kennedy, 2005). Mobile devices are cheaper compared to laptops, and are used by many because the devices are more convenient and are an important part of our daily lives (Chinnery, 2006: 11).

Learning English vocabulary and improving the quality of the students has been worked with throughout the language teaching history. It would seem that MALL's extension can be very beneficial in vocabulary training (Jalalifarahani and Ghovehnodoushan, 2011: 527)

Fageeh (2013: 425) states that students who are exposed to terms that are actually outside their knowledge base but within their reach by being provided with vocabulary lists via the Whatsapp mobile phone program. Then improvements in vocabulary are accomplished through the contact with these terms provided by strategically placed scaffolds that are defined by the unnecessary and repeated exposure of the learners to an online dictionary. Vocabulary learning via mobile phones can also work well with the theory of social learning.

ابحاث المؤتمر العلمي الدولي الرابع المشترك الثاني

"المستجدات الحديثة في التعليم العالي في ظل التعليم الالكتروني"

16-17 كانون الاول 2020   (المجلد الخامس)

جامعة دهوك
كلية التربية الاساس

الجامعة العراقية
مركز البحوث والدراسات

1) The level of attention provided to the task and the actions needed to complete it are important for learning tasks to be efficient, and it is crucial to use the Whatsapp and Online Dictionary apps to get the tasks.

2) The text, illustrations, multimedia that can be installed to mobile phones and tablets can theoretically improve the memory of the experienced content. Memory and recall are used to arrange the things to be observed and encountered and to label them internally.

3) Teacher's feedback by Whatsapp modified students' behaviors and they reform their responses correctly. learning via WhatsASpp increases learner's intrinsic motivation, such as "feelings of satisfaction that come from learning something through curiosity, exploration, and manipulation, or extrinsic factors, such as incentives, rewards, punishments, co-operation, and completion".

In spite of the positive aspects that reveal from using MALL in learning English language, Al-Khayyat and Adawiya (2019: 1393) found that there are some obstacles that students face in using MALL in learning English language, such as to download the appropriate learning program from Application store. Also, the instructions of using the application programs are not existed in most learning programs. Most of MALL programs lack the intrinsic and extrinsic motivation factor.

Previous Studies

Most related studies that investigated the effect of using MALL in teaching English language in general and vocabulary in particular are mentioned here to supports the aim of the current study.

Jalalifarahani and Ghovehnodoushan (2011) investigated the effect of MALL and vocabulary learning in Elementary students' vocabulary achievement. The participants were 55 elementary EFL students. A program of vocabulary learning through realia, pretest and posttest were used to collect the data of the study. The result revealed that MALL has efficacy on students' achievements.

Fageeh (2013) investigated the effect of MALL in improving vocabulary learning and motivation. The participants were 58 students. Pre and posttest were used to collect the data of the study. The results revealed that there is positive statistically significant difference in using MALL that enhanced vocabulary learning.

Gacem (2016) investigated the effect of MALL in enhancing master one students of English lexical competence (vocabulary learning) at Biskra University. The participants were fifty students of master one of English from section one and five EFL teachers were selected randomly for the administration of two semi-structured questionnaires, one to fifty students and the other to five teachers to check out the effect of MALL on learning vocabulary. The results of the study revealed positive results concerning the effectiveness of MALL in enhancing EFL students' vocabulary learning. Both EFL teachers and students are concerned with using mobile devices as new educational tools in order to achieve better lexical knowledge.

Gurkan (2018) investigated students' views on the effects of a MALL vocabulary learning. A semi-structured interview form was used to collect the data of the study. Ten participants were interviewed, five of

ابحاث المؤتمر العلمي الدولي الرابع المشترك الثاني

«المستجدات الحديثة في التعليم العالي في ظل التعليم الالكتروني»

16-17 كانون الاول 2020 (المجلد الخامس)

جامعة دهوك
كلية التربية الاساس

الجامعة العراقية
مركز البحوث والدراسات

which were aural learners and five of which were visual learners. The result revealed that students found the MALL application effective, motivating and useful in vocabulary learning.

Population and Participants of the study

The Population is all 3rd primary grads pupils at Al-Karkh First Educational Directorate and Neynava General Directorate of Education. The Participants of the study are from 3rd primary grade at Al-Budoor primary school, in Al-America District and Oqba Bin Nafie Primary School in Alqudis District in Neynava (Baghdad Road). The 3rd grade is consists of 3 sections (3rd A, 3rd B, and 3rd C). The researchers choose the participants randomly.

Pupils in section "C" (in both schools) represented the sample of the study which consisted of 31 pupils, Section"A" were selected to be the pilot sample of the study, and pupils in section "B" were chosen to represent the control group.

Table 1 shows the distribution of the participants.

Section	Group	Number	
		Al-Budoor school	**Oqba Bin Nafie**
A	Pilot	14	14
B	Control	16	16

C	Experimental	15	16
Total		91	

Instruments of the Study

The researchers built an instructional program. The aim of the program is to develop pupils' vocabulary bank. The materials of the programs are derived from 3rd primary pupil's book from unit one to unit five. There are 77 words that pupils need to learn. Grammar, verbs, prepositions, articles, adverb, and adjective were excluded. The focus in only on: Names, Numbers, and Colors. WahatsApp was used as a mean of teaching. Pretest and Posttest were built to collect the data of the study.

Validity of Instrument

Internal, face, and content validities were used. The posttest was exposed to a jury experts in the field of methodology and educational evaluation and measurement, the jury members have validated the suitability of the items of the test for measuring pupils' vocabulary, and their ability to use the vocabulary with numbers and colors. Modifications to the test time, instructions clarity, size of the font and resolution of pictures were made according to the jury recommendations and feedback.

Reliability of Instruments

A test–retest method was conducted to examine external reliability of posttest, the test was piloted to a sample consisted of 28 3rd grade pupils

جامعة دهوك
كلية التربية الاساس

مركز نون
للبحوث والدراسات المتخصصة

ابحاث المؤتمر العلمي الدولي الرابع المشترك الثاني
"المستجدات الحديثة في التعليم العالي في ظل التعليم الالكتروني"
16-17 كانون الاول 2020 (المجلد الخامس)

الجامعة العراقية
مركز البحوث والدراسات

(Section A). Cronbach's Alpha was used for the pilot study to calculate internal consistency of the test, which found to be 0.91. This proves that the test is statistically reliable.

Implementing the Instructional Program

The researchers conduct the following procedures:

1- Selecting the sample of the study.

2- Requesting from each participant to provide his/her parent mobile phone number.

3- Establishing a group on WhatsApp under the name "3rd Primary", then adding pupils' parents mobile numbers.

4- Determine "One hour" each day to teach the English language vocabularies from the Pupil's Textbook Via WhatsApp.

5- To teach the vocabularies, the researchers send a picture followed by a voice message in English on the group. Then ask each pupil to pronounce the activity by recording his/her voice. Then ask pupils for homework assignment. A good example for the homework is as follow:

Sending numbers of photos and asks pupils to record a description of the photo, for example to record voice message such as "book" or 3 cars, red apple … etc.

6- After memorizing the names, numbers, and colors in English language (from unit 1 to 5 as shown in table 2 below), the researchers request from the pupils to combine a name with number by sending a photo of "Three Apples" then sends a voice message explaining the number of the apples, or combining name

with color, for example one pupil may send a picture of a "blue bag" and sending voice message saying "blue bag".

7- Providing the pupils with instant feedback.

8- At the end of the experiment, the participants set for posttest.

Table 2: List of names, numbers, and colors from unit 1 to 5.

1-	Board	2-	Marker	3-	Chair	4-	Pencil case	5-	Paper
6-	Pencil	7-	Crayon	8-	Pencil sharper	9-	Rubber	10-	Ruler
11-	Pen	12-	Notebook	13-	Hand	14-	Head	15-	Shoulder
16-	Foot	17-	Body	18-	Toe	19-	Leg	20-	Knee
21-	Arm	22-	Ants+number	23-	Cats+number	24-	Dogs	25-	Egg
26-	Bag	27-	Finger	28-	Thumb	29-	Hair	30-	Ege
31-	Ear	32-	Nose	33-	Teeth	34-	Mouth	35-	Tongue
36-	Yellow	37-	Red	38-	Green	39-	Orange	40-	Grey
41-	Purple	42-	Blue	43-	Black	44-	Brown	45-	Pink
46-	White	47-	Frog	48-	Mouse	49-	Cow	50-	Camel
51-	Snake	52-	Bee	53-	Cake	54-	Fish	55-	Peas
56-	Apple	57-	Bread	58-	Chicken	59-	Rice	60-	Ice-cream
61-	Cups	62-	Plates	63-	Cap + Color	64-	Scarf +Color	65-	Shirt + Color
66-	Trainers	67-	Shoes	68-	Dress	69-	Bin	70-	Table
71-	Bed	72-	Pillow	73-	Lamp	74-	Bears	75-	Bike
76-	Car								

Result of the Study

To prove the hypothesis of the study "there is no statistical significance difference in the pupils mean scores in vocabulary achievement posttest due to learning via WhatsApp", a mean, standard

deviation, and t-test were computed. Pupils' achievements in control group and experimental group in the posttest are shown in table 3.

Table 3: Mean, standard deviation, and T-values of Pupils posttest for the experimental and control groups.

Group	No.	Mean	St.D	D.F	T-values		Sig
					Calculated	Tabulated	
CG	32	22.73	8.13	63	5.43	2	0.05
Ex.G	31	37.10	12.98				

The results show that the mean scores of the participants in the control group is 22.73, and the experimental group is 37.10. This means that the experimental group achievement in Vocabulary memorizing is better than that of the control group. The result of T-test formula shows that the calculated T-value is 5.43, where as the tabulated T-value is 2. This indicates that there is a significant difference between the two groups at (0.05) level of significant and under 63 degree of freedom. Thus, the null hypothesis is rejected.

The result revealed that the pupils who learn via WhatsApp have memorized more names, number and colors than those who didn't expose to the experiment. This result led to reject the null hypothesis.

It infers that using WhatsApp in teaching vocabulary is considered more effective, useful, and interesting method for pupils in memorizing vocabulary.

There are several reasons behind this result as following:

1- WhatsApp provides save and familiar method of learning.

ابحاث المؤتمر العلمي الدولي الرابع المشترك الثاني
"المستجدات الحديثة في التعليم العالي في ظل التعليم الالكتروني"
16-17 كانون الاول 2020 (المجلد الخامس)

جامعة دهوك
كلية التربية الاساس

الجامعة العراقية
مركز البحوث والدراسات

2- Learning Via WhatsApp is interesting for children ages between 9-10 years.

3- The pupils have opportunity to use the language from early age.

4- Learning vocabulary via parents' mobile phones shed the light on parents' interest on following-up their children learning progress.

The results are in-line with the outcomes of Fageeh (213), Jalalifarhni and Ghovehnodoushan (211), Gacem (216), Abdollapour and Maleki (2012), Kassem (2018), and Gurkan (2018) which found positive influence of MALL on learners' memorization and a acquisition of vocabulary.

References

Abdollapour, Z., and Maleki, N. (2012). Second Language Vocabulary Acquisition in CALL and MALL Environments and Their Effect on L2 Vocabulary Retention: A Comparative Study. Australian Journal of Basic and Applied Sciences, 6(9): 109-118.

Al-Khayyat, Ali (2019). The Effect of Using Mobile Assisted Language Learning (MALL) in Developing University Students' English Language Achievement. Journal of the College of Basic Education – University of Mustansirya, special issue: proceeding of the first international scientific conference of Iraqi Academic Union- Duhok University.

Al-Khayyat, Ali (2016). The Impact of Audio-Visual Aids (AVA) and Computerize Materials (CM) on University ESP Students'

Progress in English Language. *International Journal of Education and Research,* 4 (1): 273-282.

Al-Khayyat, Ali, and Shawaqfeh, Adawiya (2019). Investigating the Limitations that Encounter University Students in Using Mobile Assisted Language Learning (MALL). Proceeding Education and Higher Education in the Arab World : Problems and Solving Confereve, Yarmouk University, Jordan, April 2019. Hamada Institution of Publishing and Distribution, and Zamzam Co. Publisher and Distributors.

Al-Khayyat, Ali (2015). The effect of CALL proposed Program on University Students' Achievement in English. *Arab World English Journal* (AWEJ), Special Issue on CALL No.2 July, Pp: 183-194.

Brown, J., 2010. Training and Development, 64(2): 28-30.

Chinnery, G.M. (2006). Language Learning and Technology, 10(1): 9-16.

Fageeh, A. (2013). Effects of MALL Applications on Vocabulary Acquisition and Motivation. Arab World English Journal (AWEJ), 4 (4): Pp.420-447

Gacem (2016). Exploring the Impact of Mobile-Assisted Language Learning on Developing Learner's Lexical Competence Case of Master One Students of English at Biskra University. (Published Master thesis) Biskra University. Available at: http://archives.univ-

biskra.dz/bitstream/123456789/8635/1/a61.pdf

Gurkan, S. (2018). The Effects of a Mobile Assisted Vocabulary Learning Application on Vocabulary Learning. *Turkish Online Journal of Qualitative Inquiry* (TOJOI), 9 (3): 288-311.

Healey, D. (2016). Language learning and technology: Past, present and future. In F. Farr & L. Murray (Eds.), The Routledge Handbook of Language Learning and Technology. New York: Routledge, 9-23.

Jalalifarahani, M. and Ghovehnodoushan, M. (2011). International Conference on Languages, Literature and Linguistics IPEDR vol.26: 526-529.

Levy, M., and Kennedy, C.(2005). Learning Italian via mobile SMS. Handbook for Educators and Trainers, London: Routledge, pp: 76-83.