

Investigating Learning Capabilities of Mobile Assistance Language Learning: A Whatsapp Based Study 2018-2019

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Abstract

This study concentrates on the use of MALL (Mobile Assisted Language Learning) for EFL university students, and precisely the Sudanese university undergraduates. SMS WhatsApp messages have been sent to check its soundness in providing authentic vocabulary learning possibilities for these students. A group of 20 students of English BA programme in the third year at Comboni College of Science and technology were selected as a single experimenting group of the study. The group undergone a pretest and a posttest on phrasal verbs that based on an experimental method. The students were sent WhatsApp SMS and mp3fileslearning materials on phrasal verbs for a period of nine sessions. Additionally, a questionnaire was distributed among 20 students from the population of the study to investigate the validity of MALL in providing a pedagogical vocabulary learning tool. Furthermore, statistical measurements were used in this study for analyzing the collected data. The study assured the possibility of using modern smart phone technologies in learning vocabulary with ease for EFL undergraduate Sudanese university students. The researcher recommends further use of mobile technologies by EFL undergraduate Sudanese university students for better vocabulary learning. Moreover, EFL teachers' awareness and acceptance of MALL as a supportive learning tool will have positive influence on the way their students learn vocabulary.

Key words: MALL, WhatsApp, EFL, vocabulary, smart phone, learning

1. Introduction

Vocabulary learning via smart phones has become a norm of today's learning. EFL university students have developed familiarity and thorough awareness of utilising smart phones in a variety of ways to learn any language. Correspondingly, English language is not an exception for its circulatory effect as a dominating language globally. Needles to mention, smart phones of different types have taken the attention of everyone at every corner in the world. The users of these devices, among them EFL students, are seldom found without being attached to their intimate electronic gadgets. As a result, using smart phones for learning purposes has become possible that the students can be sent learning materials by their teachers and can also send SMS messages among themselves. As well, EFL students can practically use different features of their smart phones and adapt them for learning outcomes. It is apparent that the time spent in the classroom for EFL students is less than the time spent outside class boundaries. Grace (1998) stated that learning of vocabulary outside the classroom is the responsibility of the learners. Therefore, EFL students can be possibly sent learning materials and invest a considerable portion of their social time in learning via smart phones with less exerted efforts. Vitaly, sending SMS learning materials proved to have benefited EFL students pedagogically since the global influx of smart phones.

Nowadays, adequate acquisition of vocabulary is crucially a necessity for learning any language. If the students lack sufficient vocabulary, they may come across difficulties in understanding essential language pillars as phrasal verbs. Fortunately, technology has contributed toward solving such problems greatly when Chinnery invented the term MALL, Mobile Assisted Language Learning. Shield (2008) stated that MALL is different from CALL, Computer Assisted Language Learning in 'its use of personal, portable device that enable new ways of learning, emphasizing continuity or spontaneity to access and interaction across different content of use'. Consequently, the way has been paved for the occurrence of modern technologies in the field of learning English language and mainly English vocabulary. Ally, 2009 Ali & Irvine, 2009 stated that m-learning is represented by smart phones, cell phones, laptops, PCs, tabs and any personal media player. Thus m-learning has become widely accepted for its ability to enhance the four language skills; reading, speaking, writing and listening. Therefore, smart phone features such as SMS and mp3 player have become normal in facilitating vocabulary learning and as well increasing rapidly and inevitable. Thornton and Houser stressed the significance of using mobile phones in learning English in their study on Japanese college students (Thornton & Houser 2003, 2004, 2005) which has greatly reinforced the notion of applicability of such contemporary method in learning problematic English language characteristic for EFL students as vocabulary.

As it has been mentioned, difficulties in understanding vocabulary such as phrasal verbs would confuse learning of a highly demanded language as English for EFL learners. Consequently, the learners of EFL, among them the undergraduate university students, deal with the language vocabulary depending on the customary instructions given by teachers or as a result of exerted personal efforts in order to learn vocabulary. Rather importantly, reluctant students cannot express themselves in front of others. In relation to vocabulary acquisition, these learners may encounter vocabulary greater challenges like comprehending and the using of phrasal verbs properly. So, the need for encouraging novel vocabulary learning methods is crucial. In this case, an affiliated MALL feature as WhatsApp may

provide the needed assistance to work hand in hand with the traditional teaching of vocabulary in order to achieve positive pedagogical learning outcomes. This study has attempted at using WhatsApp as learning assisting provider.

2. Theoretical Framework

Apparently, mobile technologies have become unavoidable in the field of teaching English at the present time. Consequently, mobile phones, tablets, slates, MP3, MP4 and laptops play a considerable role in today's learning and teaching of the languages such as English and precisely the English language vocabulary. Mobility is defined by Elhussein & Gronje as: mobility of technology, mobility of learning and mobility of learner and that the mobility of technology embodies smart phones as one of many aspects such as digital cameras, hand-held computers and their useful applications. These devices are all equipped with wireless applications protocol (WAP or Wi-Fi) and they can make learning easier via internet or satellites. Trinder, 2005 stated that mobile technologies enable users to execute variety of interactive social activities when using phones, SMS, SNS, email, memos etc...Also Kukulska- Hulme, 2009 stated that mobility does not mean merely movement, but it as well means enabling time shifting and boundary crossing. Levy & Kennedy (2008) emphasize that it is of importance to help student utilize portion of their time during the day while waiting for a class or a meeting by sending them regular SMS around the language they are studying. Sharples (2005) highly recommended reconsidering the autonomy of physical classroom.

For the benefit of the EFL learners, mobile devices integrate a number of features that are used in diverse learning environments. In some mobile learning applications currently available, mobile features have been utilized for various educational practices including the use of SMS, GPS, camera, browsing the net, downloading, Bluetooth, Wi-Fi, voice calls and gaming. Lu (2008) conducted a study on 30 high school students who were divided into two groups. One group learned English vocabulary through mobile phone, the other used usual print materials. The result came out proving the viability of using smart phones in learning vocabulary. Additionally, two studies were conducted by Kennedy and Levy (2008) and Kennedy and Levy (2005), showed positive result of utilizing technology in teaching languages when students were sent Italian words, idioms and example sentences SMS messages via their mobile phones. Both projects proved the use of SMS in language learning as a successful learning technique. Prensky (2005) stated that mobile phones are particularly useful computers that fit in a student pocket, are always with students and are nearly on.

Many aspects of English language may represent a critical challenge to the Sudanese university students. In this study the researcher will attempt to focus on phrasal verbs as a challenging area of learning English language vocabulary. More importantly, utilizing smart phones applications such as WhatsApp SMS messages in teaching a difficult English language area such as phrasal verbs to students of EFL would increase adequate understanding and use of the language by the Sudanese undergraduate university students. WhatsApp as an affiliated domain of MALL has become one of the effective ways through which vocabulary learning can be enhanced.

3. Objectives of the study

The following represent the objectives of the study:

- 1- To investigate if the Sudanese university students are in contact with MALL facilities such as WhatsApp application to enhance their vocabulary acquisition inside and outside their classes of English.
- 2- To understand if there is a problem of availability of learning applications among the Sudanese university students who use MALL applications.
- 3- Try to realize if the use of MALL applications is limited in and outside EFL Sudanese university students' classroom.

4. Questions of the study

The questions of the study are represented by the following:

1. To what extent do Sudanese university students of EFL benefit from MALL applications as an enhancement tool for their English language vocabulary?
2. To what degree do Sudanese university students of EFL have problems of availability of MALL to enhance their vocabulary acquisition?
3. To what extent the students are exposed to MALL in Sudanese university EFL class?

5. Hypotheses of the study

The following aspects represent the hypotheses of the study:

1. Sudanese university students of EFL benefit from MALL applications in their studies of English to improve their vocabulary.
2. Sudanese university students of EFL do not face problems of using MALL inside and outside their classes.
3. The use of MALL applications for learning vocabulary by Sudanese university student of EFL is not limited.

6. Methodology

In this study, the researcher has attempted at examine the validity of sending SMS learning materials to 20 undergraduates third level EFL students at Comboni College of Science and Technology. A pre-test has been executed on them before the treatment. The treatment included audio visual materials on phrasal verbs. The students were receiving the materials for a nine-session period. A post-test took place after the treatment to check the applicability of sending SMS as a valid pedagogical learning mean. Also, a questionnaire has been distributed among the population of the study for as a tool of analysis.

7. Pre and Post Tests Results

Pertest result																						
No	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
1	Abdelgadir Alkhair	1	1	1	0	1	1	0	1	0	1	1	1	1	0	0	1	1	1	1	0	14
2	Afnan Bashir	1	1	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0	0	1	1	15
3	Amna Adam	1	1	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0	0	1	1	09
4	Ester Othman	0	1	1	0	1	0	1	0	1	1	0	1	1	1	0	0	0	0	1	0	10
5	Elsa Hadush	1	1	1	0	1	1	1	0	0	1	1	1	1	0	0	0	1	1	1	0	13
6	Fatima Ali	1	1	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	07
7	Fihaa Babikir	1	1	1	0	0	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	16
8	Hoyda Ahmed	1	1	0	1	1	0	1	0	1	1	1	1	0	1	0	0	0	1	1	1	13
9	Mokhtar Omar	1	1	1	0	1	0	1	1	1	1	1	1	1	0	1	1	0	1	1	1	16
10	Mohammed Haroun	1	1	0	0	1	0	0	0	1	1	1	1	1	0	0	0	0	0	1	0	09
11	Mohamed Mokhtar	1	1	0	0	0	1	0	0	1	1	0	0	1	0	1	1	1	1	1	1	12
12	Negoom Isa	1	0	0	0	1	1	0	0	0	1	1	1	1	1	0	1	1	1	1	1	13
13	Nora Treza	1	1	0	0	1	1	1	0	1	1	1	0	1	0	0	1	0	1	1	0	12
14	Rabab Sidig	1	1	1	0	1	0	0	0	1	0	1	0	1	0	1	0	0	1	0	0	08
15	Remon John	1	1	1	0	1	1	0	0	1	1	0	1	1	0	0	0	1	1	1	0	12
16	Sami Abdalah	1	1	0	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	16
17	Sejod Mustafa	1	1	1	0	1	1	1	0	0	0	0	0	1	1	0	0	0	0	1	1	11
18	Sana Abdalah	1	1	0	0	1	0	1	0	1	1	0	0	1	0	1	0	0	1	1	1	11
19	Sundy Chol	1	1	0	0	1	0	0	0	0	1	1	0	1	1	0	1	1	1	1	0	10
20	Tomas Batistota	1	1	1	0	0	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	16
																						243

Post-test result																						
No	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
1	Abdelgadir Alkhair	1	1	1	0	1	0	1	0	0	1	0	0	0	0	1	0	1	1	0	0	09
2	Afnan Bashir	1	1	0	0	1	1	1	1	1	1	0	0	1	0	0	0	1	1	1	1	13
3	Amna Adam	1	1	0	0	1	0	1	1	0	1	1	0	1	1	1	0	1	1	1	0	13
4	Ester Othman	1	0	1	0	1	0	1	0	0	1	1	1	1	1	1	0	0	1	1	0	12
5	Elsa Hadush	1	1	1	0	1	1	1	1	1	1	1	0	1	0	0	1	1	1	1	0	15
6	Fatima Ali	1	1	1	0	1	0	1	0	1	0	1	0	0	1	1	1	1	1	1	1	14
7	Fihaa Babikir	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	1	0	1	1	1	16
8	Hoyda Ahmed	1	0	1	0	1	1	0	0	1	0	0	1	0	0	1	0	1	1	1	1	11
9	Mokhtar Omar	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	17
10	Mohammed Haroun	1	0	1	0	1	0	0	1	0	1	1	0	0	0	1	0	0	0	1	0	08
11	Mohamed Mokhtar	1	1	1	0	1	1	0	0	0	1	0	0	1	0	1	0	1	1	1	0	11
12	Negoom Isa	1	1	1	0	1	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	10
13	Nora Treza	1	1	1	0	1	1	0	1	1	1	1	0	1	0	0	1	0	1	1	0	13
14	Rabab Sidig	1	1	1	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	1	0	08
15	Remon John	1	1	0	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	16
16	Sami Abdalah	1	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	17
17	Sejod Mustafa	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	10
18	Sana Abdalah	1	1	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1	1	1	0	08
19	Sundy Chol	1	1	1	1	0	1	0	1	1	0	0	1	1	1	0	1	1	1	1	1	15
20	Tomas Batistota	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	17
																						253

According to the pre and the post test results, it is obvious that there is a slight enhancement in the performance of the students in understanding of phrasal verbs. They were exposed to SMS WhatsApp and audio files after attending the pertest for a period of nine sessions then they had a post-test. From the results of the pretest and the posttest above, the participants have acquired a slight achievement which in itself is an indication of the validity of such technology. Cheon et al. (2012: 155) stated that m- learning in high education is the best pedagogical choice for its applicability as student- centered capabilities to serve academic purposes and acceptability by the students well. The students in this study assured that it is of beneficiary out come to utilize such technology for its valuable pedagogical befits.

8. The Questionnaire

This part of the study comes as a supportive indication of the validation that WhatsApp can provide enhancing pedagogical instrument in learning vocabulary for EFL students. The questionnaire of this study is based on the hypotheses of the study that has been distributed among 20 students as an experimental group of the study.

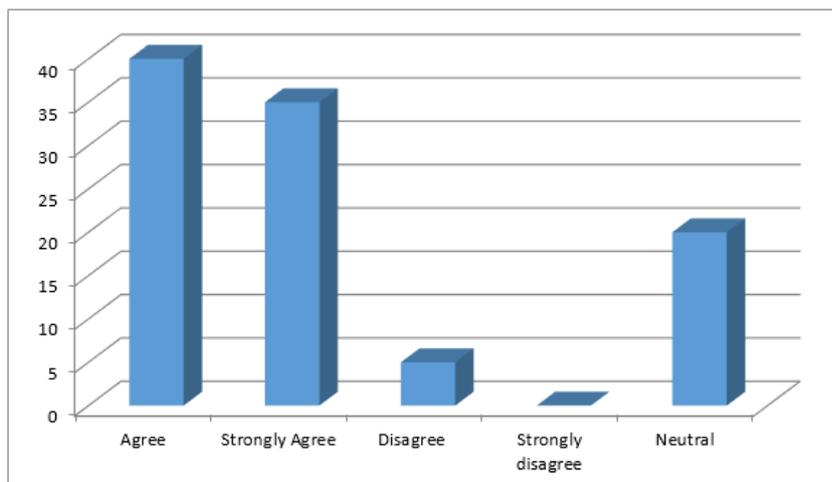
9. Hypothesis1 questions analysis

University students of EFL benefit from MALL applications in their studies in their studies of English to improve their vocabulary.

Table (1) I have a mobile phone and I use it for vocabulary learning purposes:

Answer	Frequency	Percent%
Agree	8	40
Strongly Agree	7	35
Disagree	1	5
Strongly disagree	0	0
Neutral	4	20
Total	20	100

figure (1) show population according to Question

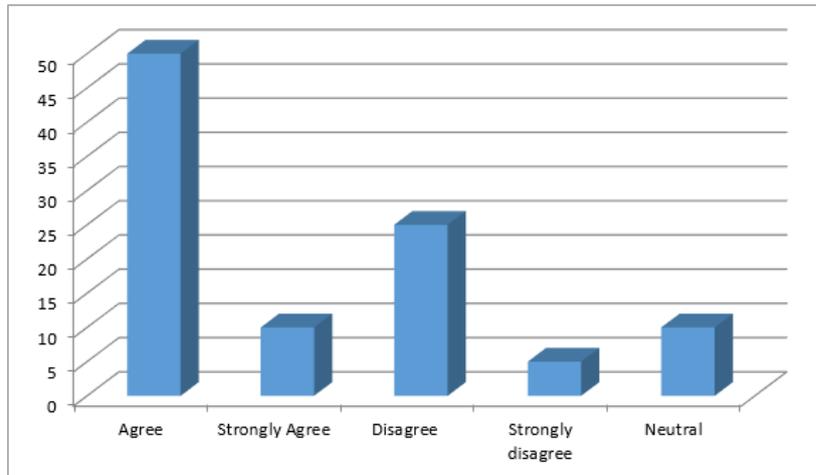


Form the table and figures above we notice that most of the population answered agree with percent (40%), while (35%) of them answered Strongly agree, while (5%) of them answered Disagree, while (20%) of them answered Neutral.

Table (2) I use WhatsApp in learning vocabulary:

Answer	Frequency	Percent%
Agree	10	50
Strongly Agree	2	10
Disagree	5	25
Strongly disagree	1	5
Neutral	2	10
Total	20	100

figure (2) show population according to Question

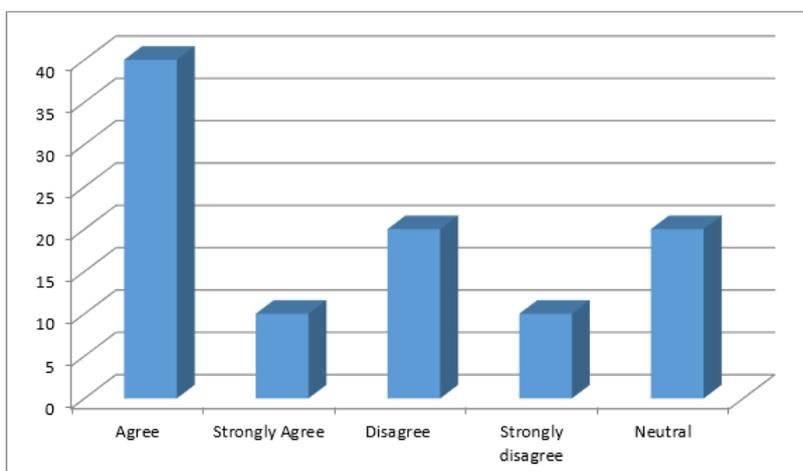


Form the table and figures above we notice that most of the population answered agree with percent (50%), while (10%) of them answered Strongly agree, while (25%) of them answered Disagree, while (5%) of them answered Strongly disagree, while (10%) of them answered Neutral.

Table (3) I have no problem of validity in using smart phones learning applications:

Answer	Frequency	Percent%
Agree	8	40
Strongly Agree	2	10
Disagree	4	20
Strongly disagree	2	10
Neutral	4	20
Total	20	100

figure (3) show population according to Question

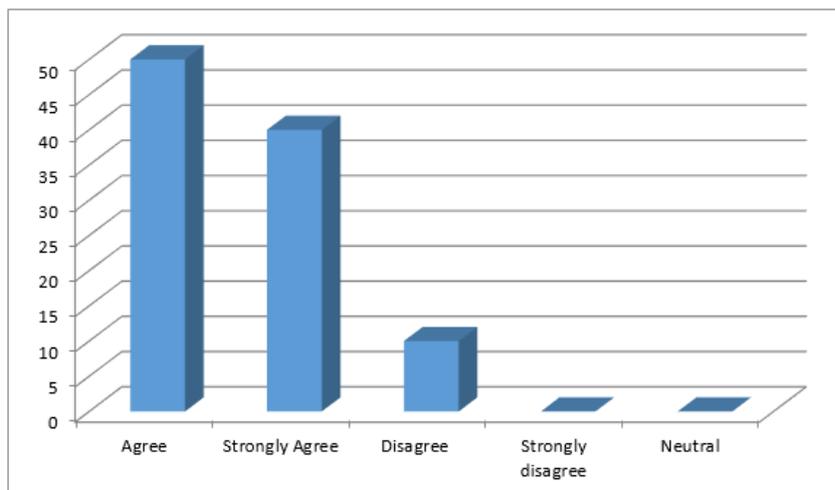


Form the table and figures above we notice that most of the population answered agree with percent (40%), while (10%) of them answered Strongly agree, while (20%) of them answered Disagree, while (10%) of them answered Strongly disagree, while (20%) of them answered Neutral.

Table (4) I can understand difficult vocabulary items through WhatsApp:

Answer	Frequency	Percent%
Agree	10	50
Strongly Agree	8	40
Disagree	2	10
Strongly disagree	0	0
Neutral	0	0
Total	20	100

figure (4) shows population according to Question



Form the table and figures above we notice that the most of population answered agree with percent (50%), while (40%) of them answered Strongly agree, while (10%) of them answered Disagree.

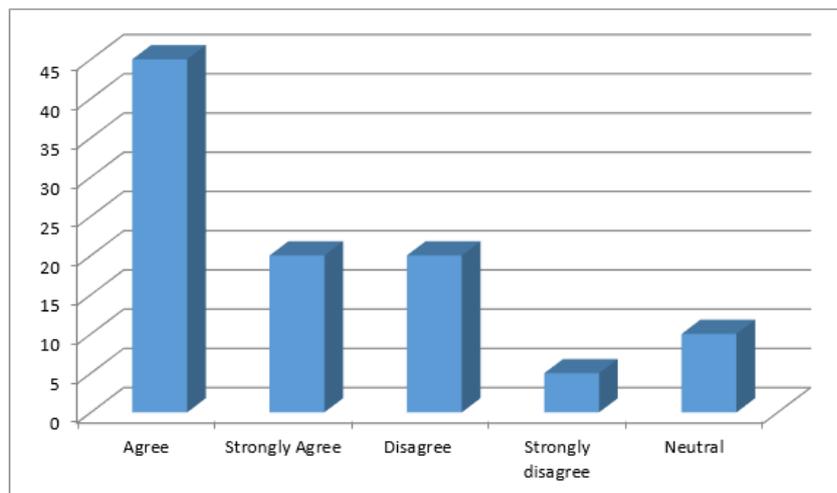
Hypothesis 2 questions analysis

University student of EFL do not face problems of using MALL inside and outside their classes

Table (1) I benefit a lot when I have been sent WhatsApp learning messages by our teachers:

Answer	Frequency	Percent%
Agree	9	45
Strongly Agree	4	20
Disagree	4	20
Strongly disagree	1	5
Neutral	2	10
Total	20	100

figure (1) show population according to Question

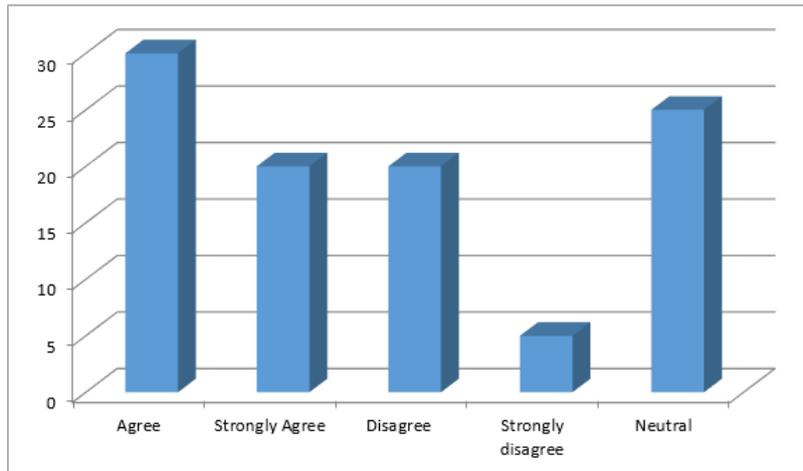


Form the table and figures above we notice that most of the population answered agree with percent (45%), while (20%) of them answered Strongly agree, while (20%) of them answered Disagree, while (5%) of them answered Strongly disagree, while (10%) of them answered Neutral.

Table (2) We are sent learning materials by our teachers:

Answer	Frequency	Percent%
Agree	6	30
Strongly Agree	4	20
Disagree	4	20
Strongly disagree	1	5
Neutral	5	25
Total	20	100

figure (2) show population according to Question

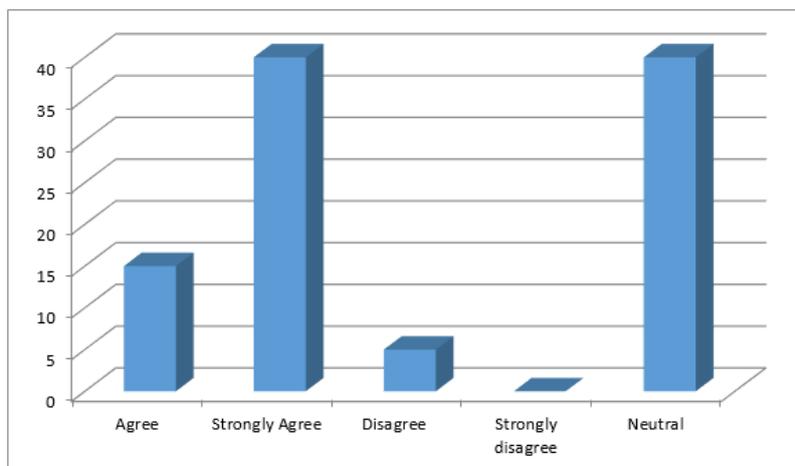


Form the table and figures above we notice that most of the population answered agree with percent (30%), while (20%) of them answered Strongly agree, while (20%) of them answered Disagree, while (5%) of them answered Strongly disagree, while (25%) of them answered Neutral.

Table (3) I sometimes have a problem of internet connection:

Answer	Frequency	Percent%
Agree	3	15
Strongly Agree	8	40
Disagree	1	5
Strongly disagree	0	0
Neutral	8	40
Total	20	100

figure (3) show population according to Question

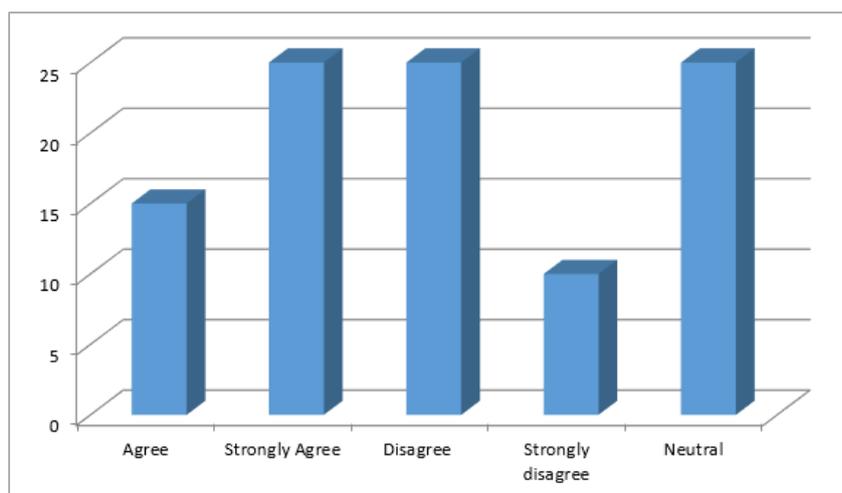


Form the table and figures above we notice that most of the population answered agree with percent (15%), while (40%) of them answered Strongly agree, while (5%) of them answered Disagree, while (40%) of them answered Neutral.

Table (4) There are some problems of authentic smart phone learning materials:

Answer	Frequency	Percent%
Agree	3	15
Strongly Agree	5	25
Disagree	5	25
Strongly disagree	2	10
Neutral	5	25
Total	20	100

figure (4) show population according to Question



Form the table and figures above we notice that most of the population answered agree with percent (15%), while (25%) of them answered Strongly agree, while (25%) of them answered Disagree, while (10%) of them answered Strongly disagree, while (25%) of them answered Neutral.

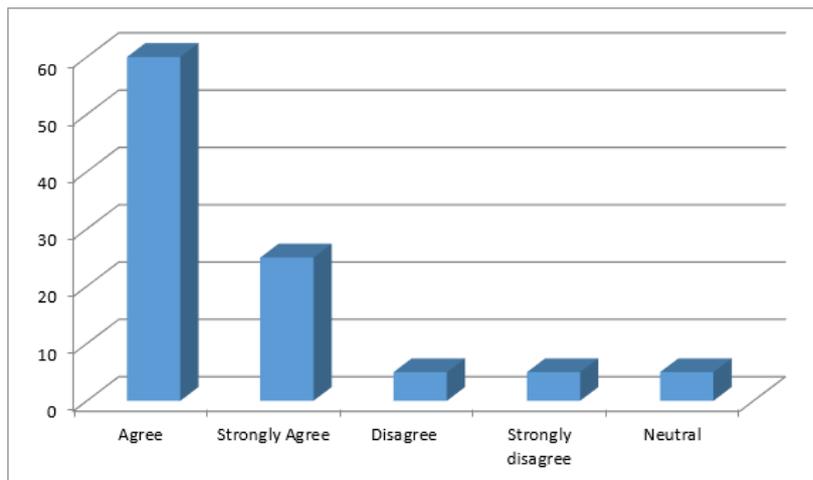
Hypothesis 3 questions analysis

The use of MALL for learning vocabulary by Sudanese university students of EFL is not limited

Table (1) We are allowed to use our smart phones in class such as dictionaries and vocabulary learning applications:

Answer	Frequency	Percent%
Agree	12	60
Strongly Agree	5	25
Disagree	1	5
Strongly disagree	1	5
Neutral	1	5
Total	20	100

figure (1) show population according to Question

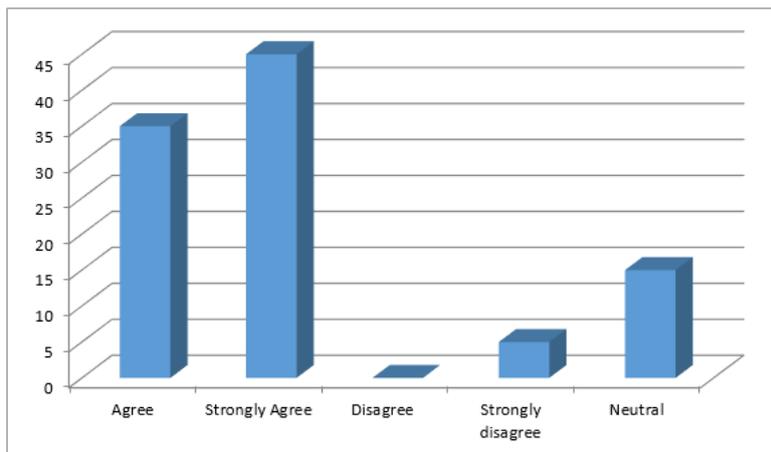


Form the table and figures above we notice that most of population answered agree with percent (60%), while (25%) of them answered Strongly agree, while (5%) of them answered Disagree, while (5%) of them answered Strongly disagree, while (5%) of them answered Neutral.

Table (2) Teachers of EFL in Sundanese universities need to understand the benefit of using smart phone in and outside their classes:

Answer	Frequency	Percent%
Agree	7	35
Strongly Agree	9	45
Disagree	0	0
Strongly disagree	1	5
Neutral	3	15
Total	20	100

figure (2) show population according to Question

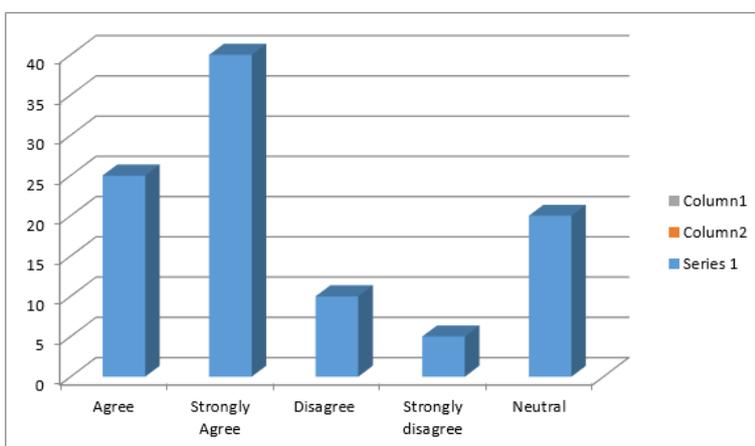


Form the table and figures above we notice that most of population answered agree with percent (35%), while (45%) of them answered Strongly agree, while (5%) of them answered Strongly disagree, while (15%) of them answered Neutral.

Table (3)Teachers of EFL should consider MALL as appositve learning tool:

Answer	Frequency	Percent%
Agree	5	25
Strongly Agree	8	40
Disagree	2	10
Strongly disagree	1	5
Neutral	4	20
Total	20	100

figure (3) show population according to Question



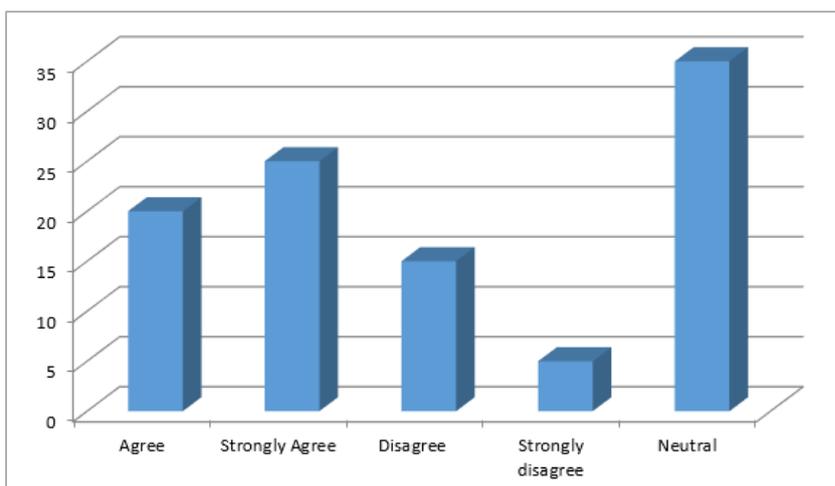
Form the table and figures above we notice that most of population answered agree with percent (25%), while (40%) of them answered Strongly agree, while (10%) of them answered

Disagree, while (5%) of them answered Strongly disagree, while (20%) of them answered Neutral.

Table (4) Most of the student use smart phone learning materials:

Answer	Frequency	Percent%
Agree	4	20
Strongly Agree	5	25
Disagree	3	15
Strongly disagree	1	5
Neutral	7	35
Total	20	100

figure (4) show population according to Question



Form the table and figures above we notice that most of population answered agree with percent (20%), while (25%) of them answered Strongly agree, while (15%) of them answered Disagree, while (5%) of them answered Strongly disagree, while (35%) of them answered Neutral.

10. Conclusion

The core reason behind the study has been to execute an investigation on the validation of MALL as vocabulary authentic aid outside the classroom. A number of 20 students at Comboni College English language department has been selected for the purpose. They were chosen as a single experimental group and they were sent WhatsApp phrasal verbs learning materials. The learning materials included illustrated phrasal verbs in addition to related mp3 resources. The group attended a pertest prior the experiment of receiving the learning materials. After the end of the experimenting period, the group was given a post-test. By comparing the results of the pertest and the post-test, the group has achieved an increase in

their performance in the post-test. Also, a questionnaire was given to the population of the study. The result reflected a positive tendency towards dealing with WhatsApp as an authentic vocabulary learning mean.

Hypotheses Analysis

Hypothesis 1 questions analysis

University students of EFL benefit from MALL applications in their studies in their studies of English to improve their vocabulary.

Factor one	Mean	Std. Deviation	Result
I have a mobile phone and I use it for vocabulary learning purposes	2.25	1.517	Agree
I use WhatsApp in learning vocabulary	2.15	1.387	agree
I have no problem of validity in using smart phones learning applications	2.60	1.603	Agree
I can understand difficult vocabulary items through WhatsApp	1.60	.681	neutral
Result factor one			agree

Hypothesis 2 analyses

University student of EFL face problems of using MALL inside and outside their classes

Factor one	Mean	Std. Deviation	Result
I benefit a lot when I have been sent WhatsApp learning messages by our teachers	2.15	1.348	Agree
We are sent learning materials by our teachers	2.75	1.585	agree
I sometimes have a problem of internet connection	3.10	1.651	Agree
There are some problems of authentic smart phone learning materials	3.05	1.432	neutral
Result factor one			agree

Hypothesis 3 analysis

The use of MALL for learning vocabulary by Sudanese university students of EFL is not limited

Factor one	Mean	Std. Deviation	Result
We are allowed to use our smart phones in class such as dictionaries and vocabulary learning applications	1.70	1.129	Agree
Teachers of EFL in Sundaneses universities need to understand the benefit of using smart phone in and outside their classes	2.20	1.399	agree
Teachers of EFL should consider MALL as appositve learning tool	2.55	1.468	Agree
Most of the student use smart phone learning materials	3.10	1.619	neutral
Result factor one			agree

11. Recommendations

For the popularity and usability of smart phone technology among today's students, the researcher recommends permitting more room for utilizing its beneficiary practical applications in high education. Also, EFL teachers have to update their background in dealing with such technologies.

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