

## Mobile Assisted Learning: Impact on Students' Reading Comprehension and Belief

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### Abstract

This study made an attempt to examine the effect of teaching students through mobile assisted language learning (MALL) on their reading comprehension performance and belief. In the study, 79 second year English language linear students in Gondar College of Teachers' Education were taken as participants of the study comprehensively since their size was manageable. Among those, 40 of them were control group and 39 were experimental group. For this effect, the study used quasi-experimental research design. Data were collected via tests (pre and posttests) and questionnaire. The data collected using the pre and posttest were analyzed quantitatively using the independent samples t-test. The questionnaire data were analyzed quantitatively via frequency, percentage, mean and standard deviation. The results of the study divulged that MALL brought difference between the experimental group (EG) and control group (CG). Particularly, with the help of the interventions provided the majority of the EG showed high level of progress in their reading comprehension performance and got affirmative belief towards the use of MALL in reading lessons. However, the CG remained constant. Based on the findings drawn, it was recommended that MALL should be practiced to maximize the students' reading comprehension performance in EFL reading classrooms.

**Keywords:** Belief, CG, EG, MALL, Performance and Reading Comprehension

### Introduction

Reading is regarded as one of the most crucial language skills and contributes a great role to understanding any written documents efficiently. In many situations, it is considered to be an invaluable way of communication. Consolidating the idea, (Dornyei, 2001); (Cowie and Sakui, 2013) said that with the availability of electronic devices, reading seems the major means of learning. (Kim, 2013) also puts forward that developments in information and communication technologies have created new opportunities to promote education quality. In particular, teaching reading with the help of technology facilitates the engagement of learners and maximizes their motivation to learn. Thus, it should be improved in accordance with technologies side by side (Salaberry, 2001; Wroblewski, 2013).

Now a day, since reading is becoming a digital system, online reading (e-reading) has been accustomed with the life of students. To this end, learners are supposed to have adequate familiarity and proficiency in applying it. This is due to the fact that the reading competency with electronic assistance highly conditions their academic success (Mellar, et al., 1994; Ravenscroft, 2001; Pinkman, 2005). And, it can play a significant role in improving students' reading qualities like reading speed, fluency and comprehension. The method may equip students with some types of indirect

means of error correction. Consequently, in the future, electronic learning devices are expected to become parts and parcel of the instructional process (Crompton, Olszewski, & Bielefeldt, 2016).

Thus, MALL as part of electronic learning is the applications of mobiles in order to foster and assist language learning inside and outside classes. In essence, it promotes the implementation of mobile to enhance learners' vocabulary knowledge and reading comprehension (Chinnery, 2006; Kukulska-Hulme & Shield, 2007).

The above claim indicates that most students across the world will probably use mobiles because technology is becoming more accessible and integrated than ever before (Crompton et al., 2016). Nonetheless, by simply connecting technology into the instructional process may not assure the betterment of learning. Instead, considering the proper use of mobile devices ought to also be accompanied with a pedagogical issue makes students benefit from their use in classrooms (Feenberg, 1991; Bax, 2003; Hockly & Clandfield, 2010).

If so, mobile can expand opportunity to enhance foreign language learning. That means, the reading practices in foreign language learning can be ameliorated via this channel. In support of this, (Pilkington and Parker-Jones, 1996; Moore, 2000) and Lee, 2001) state that the application of mobile learning can construct deep comprehension in instructional process. So, the researchers assumed that it may be possible to improve students reading comprehension performance using mobile phone as a reading instrument.

Empirical studies also showed that students have positive belief about mobile assisted language learning. More accessibly, the use of it permits language learning to occur everywhere and every time beyond learning times and classes. This indicates the flexible mode of MALL which can be carried out in formal and informal occasions; it alters the way students could learn, as a result (Pilkington & Parker-Jones, 1996; Pilkington & Grierson, 1996; Moore, 2000; Lee, 2001).

As far as the experiences and observations of the researchers were taken into account, students in Ethiopia inclined to use their mobiles. This might be due to the fact that the conventional/bookish way of language learning got somehow boring/ exhaustive to them and that they should be acquainted with the contemporary technologies so as to make learning English easy, accessible and effective. Or, it might be true because students were simply accustomed to the habit of screening their mobile without any significant benefit for instructional process. No matter how the case was, students were seen using it in reading classes. Therefore, examining the effects of MALL on students' reading comprehension achievement and their belief seemed significant.

At international level, foreign researchers have made studies in the area. For example, (Sharples, 2006) and (Bracke, 2013) looked into the relevance of computer assisted language learning. Then, they confirmed that CALL is crucial to language learning. Besides, (Cowie and Sakui, 2013) studied on teachers' application and attitude towards the use of electronic learning. Findings reported that EFL teachers were seen applying electronic learning and that teachers believed e-learning is helpful component in students' learning. However, all these works did not investigate its impact on students' reading comprehension and their belief.

To the researchers' knowledge, it looked that very little attention has been given to the area in Ethiopian context: there is no work available with respect to the use of MALL.

The present study differed from the above ones in that it focused on the effects of MALL on students' reading comprehension performance and their belief in EFL reading classes. In particular, to bridge the gap stated above, this study sought to address the following research hypotheses and research questions:

**Null hypothesis (H0):** mobile assisted language learning does not improve students' reading comprehension.

**Alternative hypothesis (H1):** mobile assisted language learning improves students' reading comprehension.

Therefore, the study aimed to answer the following research questions:

1. What effect does MALL have on second year English language linear students' reading comprehension performance?
2. What belief do second year English language linear students have towards the use of MALL in reading comprehension?

#### ***Significance of the Study***

The study is believed to have the following benefits for different stakeholders. It might provide awareness to students about the use of MALL on how to improve their reading comprehension performance using the MALL. The findings of the study would provide exposures to the students to use the contemporary world and give chances to compete at international level. Besides, the application of MALL may help students not only to be their teachers and bookish dependent but also their mobile which is portable at anywhere and anytime with themselves for learning purpose. EFL instructors may also use the results of this study in that they could be aware of the major effect of MALL implementation to develop their professional competence about practicing of it in EFL classroom. Additionally, it will also serve as a stepping-stone for those who are interested in conducting related issues in the field.

### **Literature Review**

#### ***The Introduction of MALL in Instructional Process***

In instructional settings, the application of mobile devices was first attempted in United States and United Kingdom in 1950s, yet it was an artificial attempt this was among the first practice to test mobile devices in educational contexts (Brown, 2008; Ravenscroft, 2001). In this era when the world together is being rapid advancing, the use of technologies seems helpful. And, more interestingly, the use of Mobile Assisted Learning have been commenced and developed in Japan since many learners own phones and they link much of their communication and lives using mobiles (Ravenscroft, 2001).

It was a recent phenomenon that mobile phone was introduced into Ethiopia. At the time, very few users were registered. However, now-a-day, according to ESA (Ethiopian Statistic Agency), approximately 60 million people are subscribers of mobile phone. That means almost half percent of the people are mobile phone users. Among these, around 60% are smart phone users in between the ages of 18-35. In Ethiopian context, students in tertiary level are assumed to be between the ages of 18-30 in average. Therefore, the probability of using smart phones fits to these ages (Kenning & Kenning, 1990; Bahaa El Din, 1997; Ravenscroft, 2001 & Pinkman, 2005).

#### ***Reading in Relation to Mobile Assisted Language Learning***

Reading comprehension is the most essential skill for academic success. Hence, everyone needs to develop it (Pegrum, 2009; Li & Cui, 2011).

The online communication greatly alters the way individuals interact in this era. As mobiles especially smart ones are much easier and accessible to use, they sound effective learning devices inside as well as outside classes (Chinnery, 2006; Kukulska-Hulme & Shield, 2007; Sung et al., 2016). Nowadays, mobile devices are of a greater influence in instructional circumstances (Jin &

Zhirui, 2017). Their use is continuously improving the way individuals communicate and learn (ibid).

### ***Theoretical Framework***

Educational technology researchers seemed to consider and ground the philosophy of behaviorists to the development of teaching and learning. Behaviorists like (Skinner's, 1954) advocated that operant conditioning has a reinforcing schedule in any context in general and in instructional process in particular. Skinner thought that behavior is mainly regulated by the reinforcing consequences which are endowed in a certain environment to responses, or operant made by the learners. In other words, the external factor (the use of mobile assisted language learning) regulated students' behaviour (their reading comprehension performance). In support of this, (Dudeny and Hockly, 2007, p.2) said, "Technology not just as an important new medium of literacy in its own right but rather as an aid for language learning".

### ***Empirical Studies***

(Straub, 2009) conducted a study under the title of 'Understanding Technology Adoption: Theory and Future Directions for Informal Learning'. As a result, successful facilitating technology should address cognitive and emotional aspects for informal learning. (Ocak, 2010) did a study on 'Why are faculty members not teaching blended courses?'. The study finally found that there were challenges to apply blended learning like lack of planning and organization, ineffective communication, need for much time, dearth of institutional help, difficulty of adoption to new technologies and shortage of electronic devices. (Dudeny & Hockly, 2007) and (Cowie and Sakui, 2013) studied on teachers' application and attitude towards the use of electronic learning in Japan. Then, they confirmed that EFL Japan teachers were seen applying electronic learning and that teachers believed e-learning is important component in students' learning. Besides, (Bracke, 2013) and (Wroblewski, 2013); (Lee, 2001); (Salaberry, 2001) examined the relevance of computer assisted language learning and then they reported that CALL is helpful to language learning.

## **Methodology**

### ***Design***

The major intent of this study was to examine the effect of teaching students through the use of MALL on their reading comprehension and belief in Gondar College of Teachers' Education second year English linear students. Thus, the study employed quasi-experimental design involving quantitative research method.

### ***Participants***

The study was carried out in Gondar College of Teachers' Education, Gondar town. In 2019 academic year, in the College, there were 79 second year English language linear students in two sections (40 in Section 1 and 39 in Section 2). Second year were assigned purposively because the course 'Reading and Study Skills' is scheduled to be given to this year learners. 79 of them were comprehensively taken as population of the study since they were manageable in number. From the two sections, Section 1 was the control group, whereas Section 2 was the experimental group as the sections naturally existed through lottery method.

### ***Validity and Reliability***

The purpose of the pilot study was to try out the reliability and validity of the research tools for the study. Before the actual data collection process began, tests were designed primarily to fit the objectives of the study. For this end, the adapted and the prepared instruments were evaluated critically in terms of content validity, face validity and clarity of the items. Then, second year English

linear students in Begie Midir Teachers' College were piloted with the help of a TEFL instructor. Due to the use of pilot study, the reliability of the instrument was tested. The computed coefficient result of the pretest was 0.82 and that of the post-test was 0.78. Hence, the data gathering instruments were reliable for the main study. Following the pilot study, improvements were also made on the tests; revisions were made for the main study regarding unclear instructions and ambiguous items.

#### ***Pre and post test***

Pre-test was made; the pretest titles were 'harmful traditional practices in Ethiopia' and 'natural resources conservation'. The test was prepared consisting of 10 questions and checked the reliability and validity of the pretest questions. The test was to examine the reading comprehension performance of the experimental group. The two groups were given the pre-test, and they scored almost similar results: the score of the control group was 31.1250 and that of the experimental was 31.1026.

After the pretest was taken, the new teaching method, MALL, was offered only to the MALL/the experimental group. In other words, the experimental group was receiving mobile assisted reading exercises and activities. The titles of the reading exercises were trade and globalization, tradition versus progress, communication, family life and the United Nations. These titles were taken from their learning modules designed congruent to their grade level. Then, the intervention was sequentially held on for six weeks to the experimental group via mobile. However, the control group was taught conventionally as usual without the use of mobile in their reading classes. This is to say that the control group is forbidden to use their mobiles for reading comprehension activities. Then, the posttest reading test item were also prepared consisting of 10 questions on topics 'harmful traditional practices in Ethiopia' and 'natural resources conservation'. These topics were accessed from internet and deliberately chosen to make the post-test as equivalent as the pretest. For the development of the posttest, the researchers made the test as equivalent as the pretest.

#### ***Questionnaire***

Questionnaire was a tool for collecting data regarding the students' belief about the use of MALL in reading comprehension performance. The questionnaire was prepared based on the literature. The questionnaire was designed in a close-ended form having five Likert scale which ranges from 'strongly agree' to 'strongly disagree' to indicate pupils' agreement or disagreement. The questionnaire was grouped into sub-variables like students' awareness, their preference, satisfaction and frequency of the use of MALL in reading comprehension performance. It was prepared in Amharic version to help students not to have communication difficulties. The validity and reliability of it was checked. It was distributed to experimental group students to find out their beliefs towards the use of MALL in reading comprehension due to the experiment. In particular, the reliability of the questionnaire was computed by using Cronbach alpha: the coefficient result of the pretest was 0.82 and that of the post-test was 0.78.

#### ***Procedures of Data Collection***

First, for pilot sake, a pretest was delivered for the two groups of students during their actual classes in order to make a reference mark, and it was assured that both groups (the control and experimental groups) had almost same results. Second, second year English language linear students Section 2 was taken as experimental group and Section 1 was the control group. Third, the experimental group students were given the course 'Reading and Study Skills course via their mobile phones and they were informed to use their mobile for reading comprehension. However, the control group students were offered the hard copy (only the module) to use in reading comprehension. Next, the ex-

perimental group was taught reading comprehension via mobile for six weeks consecutively, while the control group was taught through conventional way of teaching (the modularization) but by the same instructor. After the delivery of six consecutive interventions for the experimental group, a post test was delivered via mobile for the experimental and through hard print for the control groups. Finally, the students' reading comprehension performance in the post-test was compared for both groups in order to determine whether there have been significant differences between the two groups in relation to the treatment or not.

#### ***Method of Data Analysis***

The data gathered via pre-test and post-test were analyzed quantitatively by statistical package for social science (SPSS version 20) in terms of independent samples T-test in order to identify the difference between the experimental and the control groups. The data collected via questionnaire were systematically coded, organized and analyzed quantitatively using percentage, frequency, mean, grand mean and standard deviation.

#### ***Ethical Consideration***

Ethical issues were considered from the planning to the implementation of the intervention. Especially, to conduct such experimental study, first, it demands getting permission from the participants. Therefore, the department head of English language, EFL instructors and all participant students were asked the permission for their cooperation. They were willing as they could be participants in the study. Particularly, the participant students were told that their information would have never been applied for personal use rather it would be used only for the research purpose. Lastly, all the data gathered for the study were kept anonymously and the materials used in the study were properly acknowledged.

### **Results and Discussion**

#### ***Analysis of tests results***

**Table 1. Descriptive group statistics of the pretest results of control and experimental groups**

	<b>Groups</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
Pretest	Control	40	31.1250	0.33493	.05296
	Experimental	39	31.1026	0.30735	.04922

As divulged in Table 1, the mean scores of the pre-test of the control group (CG) and the experiment group (EG) were 31.1250 with the standard deviation (0.33493) and 31.1026 with the standard deviation (31.1026) respectively. This indicates that the CG and EG had nearly the same reading comprehension performance before the treatment. Nonetheless, one cannot conclude that there was no significant difference between the two groups regarding their reading comprehension performance by simply looking at the mean scores. Rather, he/she has to consider the result of an independent samples t-test as in below Table 2.

As in Table 2, the P- value (0.757) is greater than the standard limit of significance (0.05). This shows that there is no significant difference in reading comprehension performance between the CG and the EG before the treatment was given to the EG. Hence, it was from this indication that the study was carried out with teaching the EG through mobile assisted language learning in reading comprehension performance and the control group with no MALL.

**Table 2. Independent Samples t-test of the pretest result of control and experimental groups**

	Levene's Test for Equality of Variances		T-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
								Lower	Upper
Equal variance assumed	.386	.536	.310	77	.757	0.2244	0.7238	-.12168	.16655
Equal variances not assumed			.310	76.722		0.2244	0.723	-.12153	.16640

**Table 3. Post-test results of the control and the experimental groups**

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Post-test	Control	40	31.1500	0.36162	.05718
	Experimental	39	45.3077	1.07981	.17291

**Table 4. Independent Samples t-test of the Post-test Result of control and experimental groups**

Post-test	Levene's Test for Equality of Variances		T-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
								Lower	Upper
Equal variance assumed	4.354	.040	-78.540	77	.000	-14.15769	.18026	-14.51664	13.79875
Equal variances not assumed			-77.740	46.226	.000	-14.15769	.18212	-14.52423	-13.79116

Table 3 witnessed that the mean scores of the CG was 31.15 with the standard deviation of 0.36162 and of the EG was 54.3077 with std. of 1.07981. Here, the mean score of the experimental group surpasses the CG with the average score of 14.1577. This implies that the EG achieved better than the CG did. Nonetheless, by simply looking at the mean values, we may not decide the presence of statistically significant difference between the two groups. Therefore, we need to further consider the result of the independent samples t-test as in Table 4.

The above table disclosed that the p-value (0.000) is less than the standard limit of significance. This infers that there was a statistically significant difference in reading comprehension between the control and the experimental groups. Therefore, the EG, which was taught through mobile assisted language learning, performed better results than the CG did. On the basis of this, it can be concluded that mobile assisted language learning has a positive impact on students reading comprehension.

### *Analysis of Questionnaire*

**Table 5. Students' awareness on the application of MALL and its importance in reading classes**

No.	Item	Responses										Total	Mean	Std.
		5		4		3		2		1				
		F	%	F	%	F	%	F	%	F	%			
1	MALL helps me to comprehend reading passages better.	12	30.8	15	38.5	4	10.3	5	12.8	3	7.7	39	3.71	1.255
2	MALL should be used for reading comprehension.	9	23.1	18	46.2	6	15.4	3	7.7	3	7.7	39	3.69	1.150
3	Reading comprehension would be easy when I employ MALL.	6	15.4	21	53.8	4	10.3	2	5.1	6	15.4	39	3.48	1.274
4	I think MALL is vital for reading comprehension.	11	28.2	17	43.6	4	10.3	3	7.7	4	10.3	39	3.71	1.255
5	I believe learning has to be supported with the technology.	8	20.5	19	48.7	7	17.9	3	7.7	2	5.1	39	3.71	1.050
6	Our reading could be successful when we use mobile.	13	33.3	13	33.3	7	17.9	3	7.7	3	7.7	39	3.76	1.274
7	Reading seems more complex if presented with mobile phones.	3	7.7	4	10.3	5	12.8	12	30.8	15	38.5	39	2.17	1.274
8	Mobile reading inspires students.	17	43.6	10	25.6	2	5.1	8	20.5	2	5.1	39	3.82	1.335
Grand mean												3.50		

**Key:** 5 stands for 'strongly agree' 4 refers to 'agree' 3 stands for 'undecided' 2 stands for 'disagree' 1 stands for 'strongly disagree' F=Frequency%=Percent Std.= standard deviation

The data responded in Likert scales of 'Agree' with 'Strongly Agree', and 'Disagree' with 'Strongly Agree' are combined together for the convenience of the analysis.

As is evident in Table 5, the data in item 1 showed 20.5% of the students did not agree on the idea that mobile assisted language learning helps learners to comprehend passages better in reading lessons. And, 10.3% of the respondents also could not decide on the idea. However, the dominant



(69.3%) participants agreed that mobile assisted language learning aids students to comprehend passages in reading lessons. Emphasizing the idea, the mean (3.71), which is moderately greater than the grand mean (3.5) and the standard deviation (1.255) asserted that mobile assisted language learning helps students to comprehend passages better in reading lessons.

With respect to item 2, the data witnessed that 15.4% of the respondents did not rapport that MALL should be used for reading comprehension performance in reading classes. 15.4% of them could not also determine on the idea that MALL ought to be used for reading comprehension. Nonetheless, 69.3% of the respondents assured that MALL should be used for reading comprehension performance in reading classes. This is also supported by the mean value (3.69) which is slightly greater than the grand mean (3.50).

Regarding item 3, it is also divulged that 10.3% and 20.5% of the respondents did not decide and agree respectively upon the idea reading comprehension would be easy when students use MALL. On the contrary, 69.2% of the respondents reported that reading comprehension would be easy when they use MALL in English lesson. This is also supported with the values of the mean (3.48).

In response to item 4, the respondents (10.3%) did not decide but 18% of them didn't rapport that mobile assisted language learning is important for reading comprehension. Yet, the majority of the respondents (71.8%) asserted that mobile assisted language learning is vital for reading comprehension. The idea is also advocated with the values of the mean (3.9), which is notably more than the grand mean (3.50), and the standard deviation (1.12).

In item 5, the data indicated that 17.9% of the respondents could not decide their ideas that learning has to be supported with the technology. Furthermore, 12.8% of them did not agree upon the idea. In contrast, 69.2% of them assured that learning has to be helped with the technology. This result seemed to be emphasized by the mean value (3.71), which is fairly greater than the grand mean (3.50), and the standard deviation (1.050).

With regard to item 6, the respondents (17.9%) were unable to determine whether or not students' reading could be successful when they use mobile. The 15.4% of them did not agree that reading could be effective when using mobile. But, 66.6% of them reported that their reading could be successful when they use mobile. This is consolidated with the mean (3.76) and the standard deviation (1.274).

As is also evident in item 7, the participants (12.8%) could not pass their decision on the idea that reading is intricate if delivered with mobile phones. The 18% of them also agreed that reading is more complex if presented with mobile phones. On the contrary, the 69.3% of the students did not rapport that reading is more sophisticated if presented with mobile phones. The data, with the mean (2.17) and the standard deviation (1.274), also pointed out that reading could be easy if assisted with technology in agreement with the data gained in item 3.

In item 8, the data indicated that 25.6% of the respondents did not agree that mobile reading could inspire students to read passages. The 5.1% of the participant also could not decide on the motivational function of mobile reading. In the reverse, 69.2% of them reported that mobile reading could motivate students to read passages. The idea is also supported by the mean (3.82).

To conclude, the grand mean (3.50) disclosed that learners tend to report that they positively believed the use of mobile assisted language learning in EFL reading classes. From this, it could be inferred that students seemed to hold positive awareness about the use of MALL and its importance English language reading classes.

**Table 6. Students' preference and satisfaction on the use of MALL in reading lesson**

No.	Items	Responses										Total	Mean	Std.
		5		4		3		2		1				
		F	%	F	%	F	%	F	%	F	%			
1	I want to use mobile for reading comprehension in EFL reading classes.	12	30.8	18	46.2	4	10.3	3	7.7	2	5.1	39	3.89	1.095
2	I like to assist my learning with the advancement of technology.	16	41	10	25.6	3	7.7	6	15.4	4	10.3	39	3.71	1.413
3	I do not prefer using mobile to handouts and modules in reading classes.	5	12.8	3	7.7	3	7.7	12	30.8	16	41	39	2.2	1.398
4	I feel comfortable with the use of mobile to properly comprehend reading texts.	27	69.2	4	10.3	2	5.1	3	7.7	3	7.7	39	4.25	1.312
Grand mean													3.51	

As also displayed in the table above, the data in item 1 evidenced that 10.3% of the respondents were unable to decide on the issue that whether or not they want to use MALL for reading comprehension. Similarly, 12.8% of them did not want to use MALL to comprehend reading texts. On the other hand, the prevalent respondents (77%), with the mean (3.89) and the standard deviation (1.095) values, confirmed that they prefer using MALL for reading comprehension performance in EFL reading classes.

As also shown in item 2, the respondents (7.7% and 25.7%) did not decide and agree on the issue that they like assisting their learning with the advancement of technology respectively, whereas 66.6% of the respondents reported that they love. The idea is advocated with the mean (3.71), which is fairly greater than the grand mean (3.51), and the standard deviation (1.413).

Item 3 divulged that 7.7% of the respondents neither agreed nor disagreed on the preference of mobile to handouts and modules in reading classes. The 20.5% of the respondents reported that mobile is not preferable to handouts and modules in reading classes. The rest (71.8%) of them, however, reported that they prefer using mobile to handouts and modules in reading classes.

Besides, item 4 signaled that 5.4% of the respondents reported that they did not feel comfortable with the use of mobile to properly comprehend reading texts. Yet, the 79.5% of the students confirmed that they felt comfortable. This is further emphasized with the mean (4.25), which is notably more than the grand mean (3.51), and the standard deviation (1.312). It is, therefore, possible to say that students prefer using their mobile and felt comfortable to apply it in reading comprehension classes.

As displayed in Table 7, the respondents (20.6%) felt that reading comprehension with MALL is more challenging. Nonetheless, the 71.8% of the students did not agree that reading comprehension with MALL is more challenging. This might seem to suggest that the prevalent respondents confirmed that the use of MALL is not challenging, rather assisting the reading lessons.

The data in item 2 also disclosed that 7.7% of the participants could not decide on the frequency of MALL use in English language reading lessons; the 33.3% of the respondents agreed that they should occasionally use MALL in English language reading lessons. Nonetheless, the 59% of

the respondents with the mean (2.69) and the standard deviation (1.453) values disagreed on the idea that mobile should be sometimes used in English language reading lessons.

**Table 7. Students' belief on challenges and amount on the use of MALL in reading lessons**

No.	Items	Responses											Total	Mean	Std.
		5		4		3		2		1					
		F	%	F	%	F	%	F	%	F	%				
1	I feel reading comprehension with MALL is more challenging.	4	10.3	4	10.3	3	7.7	18	46.2	10	25.6	39	2.33	1.263	
2	I feel that I should use MALL somehow in English reading lessons.	7	17.9	6	15.4	3	7.7	14	35.9	9	23.1	39	2.69	1.453	
3	I think MALL should usually be employed for reading comprehension.	13	33.3	13	33.3	7	17.9	3	7.7	3	7.7	39	3.76	1.274	
4	Students should not use their phones at all in reading classes.	5	12.8	3	7.7	7	17.9	10	25.6	14	35.9	39	2.35	1.385	
Grand mean													2.78		

The data in item 3 divulged that % of the students were unable to decide on the idea that MALL should usually be used for reading comprehension; the 13.4% of the respondents did not agree that MALL should usually be used for reading comprehension. However, the 73.3% of the participants reported that MALL should usually be used for reading comprehension in EFL classes. The idea is also stressed with the mean (3.83), which is a bit greater than the grand mean (2.78), and the standard deviation (1.14) values.

In line with item 4, the respondents (20.5%) stated that data pointed out that students should not use their phones at all in reading classes. Nonetheless, 62.5% of them reported that Students should not use their phones at all in reading classes. This is also indicated with the mean (2.35) and standard deviation (1.385).

In general, the grand mean (2.78) displayed that students were in favor of using MALL in English language reading lessons. In accordance with the analysis, it can be concluded that the dominant respondents usually prefer using MALL in EFL reading lessons for reading comprehension.

### Discussion

The findings of this study disclosed that the majority members of the controlled group remained constant and those of the experimental group showed a significant progress in their reading comprehension performance with the use of MALL. The rationale for the experimental group to show a significant improvement was due to the interventions provided to the group. Thus, the finding is supported by that of (Cheung, 2012 cited in Bracke, 2013) in which mobile could enhance the learning process and the finding is also in agreement with that of (Bracke, 2013) that confirmed students can learn anytime and anywhere.

Indeed, several literatures encourage the use of technologies like tablets for their flexibility in terms of time and location for students' learning (Bahaa El Din, 1997; Pegrum, 2009; Li & Cui, 2011; Crompton et al., 2016).

As the questionnaire data evidenced, the majority of the students confirmed in their report that mobiles are advantageous in English language reading lessons for reading comprehension. Many of students want to apply MALL in EFL reading lessons for reading comprehension. The data, therefore, indicate the finding that students positively believed the use of mobiles in EFL reading comprehension performance. This result is in congruent to the findings of (Kenning & Kenning, 1990; Ravenscroft, 2001; Sharples, 2006).

In relation to this, it was also reached that students' positive belief has a direct influence or use on their actual classroom utilizations of MALL. The result seemed to match with the idea of (Pajares, 1992) which claimed that one's belief usually conditions his or her own real performance.

### Conclusion

The findings of the study pointed out that the controlled group did not show any change but the experimental group created high level of difference following the use of MALL in reading comprehension. From this, it can be concluded that MALL had a positive effect on students' reading comprehension. Additionally, the majority of the students reported that mobiles are beneficial in reading lessons and many of them prefer applying MALL in EFL reading classes for reading comprehension. It can, thus, be said that students had positive belief about the use of mobile assisted language learning in EFL reading lessons. Accordingly, it was recommended that seminars and trainings should be adjusted to maximize the students' reading comprehension via the use of MALL in EFL contexts.

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