The Effect of MALL Instruction on Teens' Writing Performance

Raghda F. Al-Hamad
raghda-hamad@hotmail.com
Faculty of Education, Yarmouk University, Irbid, Jordan

Dina A.H Al-Jamal
deena.j@yu.edu.jo
Faculty of Education, Yarmouk University, Irbid, Jordan

Ruba F. Bataineh
rubab@yu.edu.jo
Faculty of Education, Yarmouk University, Irbid, Jordan

Abstract

This paper examines the potential effectiveness of MALL for developing teens' writing performance. The results reveal substantial improvement in content and ideas, organization and mechanics, vocabulary, and language use in favor of the experimental groups (viz. Smart Teens and Amazing Teens).

Keywords

instructional program, teens, WhatsApp, writing performance, Yarmouk University.

I. Introduction

Mobile-Assisted Language Learning (MALL) is an approach to technology integration in language learning using "personal, portable devices that facilitate learning, emphasizing continuity or spontaneity of access across different contexts of use" (Kukulska-Hulme & Shield, 2008: 273). In the field of foreign language pedagogy, students often use it more for informal writing than formal writing within the language classroom, as they make use of their writing skills to play and chat with family and friends.

Texting is the preferred means of communication amongst teens (Rempel, Ballantyne, Magill-Evans, Nicholas, & Mackie, 2014). Along with texting, teens are incorporating several devices, platforms and online sites into their interactions with friends, including instant messaging like WhatsApp. In comparison with digital writing, traditional paper-and-pencil writing may seem too formal or even boring. Students seem to enjoy using technology to write since it is easier and more engaging than traditional writing. According to Kukulska-Hulme and Shield (2008:273),

> *[t]eens write a lot, but they do not think of their emails, instant and text messages as writing. This disconnects matters because teens believe good writing is an essential skill for success and that more writing instruction at school would help them.*

The utility of mobile devices has been a debatable issue in foreign language pedagogy. Research (e.g. Abedallah, 2015; Bataineh, Al-Hamad, & Al-Jamal, 2018; Chinnery, 2006; El-Hussein & Cronje, 2010; Jung, 2015; Klopfer & Squire, 2008; Naimie, Siraj, Abuzaid, & Shagholi, 2010; Rossing, Miller, Cecil, & Stamper, 2012; Thornton, & Houser, 2005; Walker, 2006) suggests several advantages for MALL instruction, as it (a) enhances students' motivation and engagement in the language learning context, (b) increases the accessibility of learning, as students can learn with various devices, indoor or outdoor, individually or in group, (c) has knowledge at the learners' finger tips, as it can be saved and easily transported once the mobile device is in the learner's pocket.

Despite these merits, researchers (e.g., Albers & Kim, 2002; Chinnery, 2006; Hew & Brush, 2007) have pointed several disadvantages, most important amongst which are (a) teachers' reluctance to incorporate mobile learning initiatives into their language classroom for lack of technology-supported pedagogical knowledge and classroom management, (b) teacher essentially unfavorable attitudes towards the integration of mobile devices in language teaching as mobiles are often seen as distractions more than catalysts of teaching and learning, (c) usability problems involving small screen size, internet connection, and the limited presentation of graphics, and (d) computational power, battery capacity, and input interface.

Facebook Messenger, Kakao Talk, Viber, Webchat, Snapchat, LinkedIn, WhatsApp, and Twitter are all social network applications that people use mostly to send and receive text messages. Anderson, Rourke, Garrison, and Archer (2001) claimed that such networked tools offer people an opportunity to interact, meet and exchange ideas, artifacts and interests with each other.

Riyanto (2013) summarized the benefits of WhatsApp as it can be used to socialize with friends, to study and learn a new language through membership in a WhatsApp group with teachers and fellow-students through which teachers post assignments for students to either do individually or in groups, as they take part in a discussion, respond to teacher prompts or queries, share images and other illustrations, or seek corrective feedback.

To date, mobile devices in general, and smartphones in particular, have not been integrated fully in the EFL pedagogy. Although there has been a growing number of investigations into how smartphone applications, particularly social media, may improve oral language skills, the effect of such applications on developing EFL writing has not received much attention.

A good body of research (e.g. Harwati, Melor, Embi, & Ozir, 2017; Ott, 2017; Thornton & Houser, 2005) examined effectiveness of extending mobile devices into e-learning, yet the topic is still under-researched. In their review of MALL research, Viberg & Grönlund (2012) concluded that more research on how mobile technology can assist learners' writing process are needed. Therefore, the present study investigated the effect of an instructional WhatsApp instructional program on eleventh-grade students' writing performance.

II. Method

Two female and two male eleventh-grade sections of 92 students were purposefully selected from Yarmouk University Model School (Irbid, Jordan) in the first semester of the academic year 2016-2017. The participants were randomly assigned into four groups: two experimental (n=37), and two control groups (n=55). A pre-test was administered to all four groups to establish their equivalence. The two control groups were taught conventionally following the guidelines of the Teacher's Book while the two experimental groups were taught through the WhatsApp-based instructional program.

To this end, the researchers adopted a quasi-experimental design which consisted of two variables: the dependent variable, the participants' scores on the writing post-test and the independent variable, WhatsApp-based writing instruction. The test was developed per the general guidelines and general learning outcomes of the eleventh-grade curriculum and scored using the writing scoring rubric of the Ministry of Education (MoE) along the criteria of *content and ideas, organization and mechanics, vocabulary,* and *language use*, as shown in Table 1.

Criterion/ Level	Content and Ideas	Organization and Mechanics	Vocabulary	Language Use
Excellent 60-40	Complete Realization of the task Relevant Communicative	Well organized Clear, coherent Mechanics of writing are well observed	Demonstrate a wide range of vocabulary Effective use of word choice, idioms, etc.	Mostly accurate Few mistakes Communication is not impeded
Acceptable 20-39	No complete realization of the task Lack of ideas Not communicative but meaning is conveyed	Loosely organized No noticeable coherence Frequent errors in mechanics	Limited range of vocabulary No effective use of vocabulary to convey a message	Frequent grammatical errors Use of one straight pattern
Poor 0-19	Irrelevant ideas Not communicative Not conveyed messages	Disconnected ideas. Not organized No use of writing mechanics	Little use of vocabulary Vocabulary is insufficient to convey meaning	Global grammatical errors No mastery of sentence structure

Maximum score per component= 15; Maximum overall score= 60

Table 1: The scoring rubric

a. The Instructional Program

To achieve the objectives of the study, the researchers designed a WhatsApp-based instructional program. The teaching material was taken from Modules 1, 2, and 3 of *Action Pack 11* (namely, Starting Out, Celebrations, and Sport). These modules were content-analyzed and redesigned to suit WhatsApp-based instruction. The program consisted of writing texts, lesson plans and writing worksheets, self/peer editing checklists, and self/peer revise checklist. Some worksheets were designed by the researchers while others were adopted and/or adapted, with permission, from various sources. The following procedures were followed in the implementation of the program:

1. identifying the writing activities within which WhatsApp may be integrated;
2. adapting these activities to WhatsApp mediation, using the Process Approach;
3. defining the procedures to be implemented in each lesson;
4. allocating appropriate time for each lesson per the writing stage to be covered;
5. administering the pre-test to the control and experimental groups, establishing potential equivalence, and determining the students' levels in writing;
6. conducting two meetings with the experimental groups. In the first meeting, the participants were given a short introduction not only to encourage them to participate but also to help them brief their respective parents and get their written permission to participate in the program. In the second meeting, the participants, who got parental consent to participate, were engaged in a review session on paragraph development, essay writing, and peer review; and
7. naming the experimental groups: *Smart teens* for group 1, and *Amazing teens* for group 2.

III. Findings

One-way ANOVA was used to compare the means and standard deviations of the control and experimental groups' students' overall scores on the writing post-test, as shown in Table 2.

Dimension	Group	Mean	SD	F	Sig.
Content and Ideas	Control 1	10.00	3.71	7.10	0.00
	Control 2	11.61	2.22		
	Experimental 1	12.92	1.61		
	Experimental 2	13.03	2.09		
Organization and Mechanics	Control 1	9.58	4.00	6.54	0.00
	Control 2	11.32	2.31		
	Experimental 1	12.31	1.97		
	Experimental 2	12.80	2.16		
Vocabulary	Control 1	8.79	3.56	6.36	0.00
	Control 2	10.94	2.38		

Dimension	Group	Mean	SD	F	Sig.
	Experimental 1	11.15	2.48		
	Experimental 2	12.03	2.47		
Language Use	Control 1	7.46	2.92	5.46	0.00
	Control 2	9.35	2.92		
	Experimental 1	10.15	3.02		
	Experimental 2	10.63	3.01		
Overall	Control 1	35.92	13.66	6.81	0.00
	Control 2	43.23	9.25		
	Experimental 1	46.23	9.02		
	Experimental 2	48.50	9.12		

Table 2: Means, standard deviations and One-way ANOVA of the students' scores on the post-test

Table 2 shows statistically significant differences (at α=0.05) among the participants' mean scores on the overall writing achievement post-test. To determine the students' overall achievement scores on the post-test for the four groups (Control 1, Experimental 1, Control 2, and Experimental 2), One-way ANOVA, means and standard deviations were calculated. The observed difference between the means of Control group 1 and Experimental group 1 (35.92 vs. 46.23) was found statistically significant (at α=0.05), as was that between the mean scores of the Control group 2 and Experimental group 2 (43.23 vs. 48.50), both in favor of the experimental groups. For further analysis of these results, a paired sample *t*-test was used, as shown in Table 3:

Group	Test	n	Mean	SD	df	t	Sig.
Control 1	Pre-	24	36.79	11.98	23	0.73	0.47
	Post-		35.91	13.66			
Control 2	Pre-	31	44.51	8.87	30	1.97	0.06
	Post-		43.22	9.25			
Experimental 1	Pre-	13	42.00	9.95	12	5.56	0.00
	Post-		46.23	9.01			
Experimental 2	Pre-	30	43.73	10.76	29	4.37	0.00
	Post-		48.50	9.11			

Table 3. Paired sample *t*-test of the pre- and post-tests

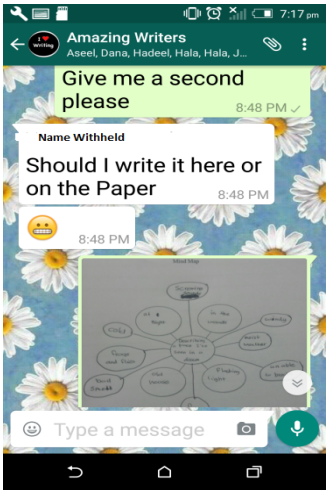
Table 3 shows statistically significant differences between the control and experimental groups on the post-test, in favor of the latter. In other words, the students of experimental groups 1 and 2, who were taught writing through WhatsApp, outperformed those in the control groups.

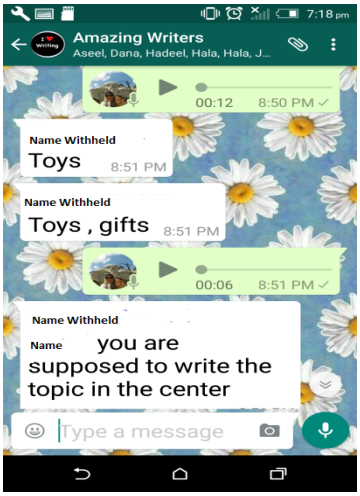
IV. Discussion

The superior writing performance of *Amazing Teens* and *Smart Teens* to that of the control groups in the writing post-test suggests that WhatsApp-based writing instruction positively affects writing performance. As previous research findings on the utility of technology integration are divided, the current findings are consistent with those which report positive effects (e.g., Alfaki & Alharthy, 2014; Allagui, 2014; Amry, 2014; Cakir, 2015; Cavus & Ibrahim, 2008) and inconsistent with those which report a rather adverse effect on the students' written performance (e.g., Stockwell & Hubbard, 2013; Yeboah & Ewur, 2014).

As opportunities for autonomous learning are inherent in mobile learning, students may gain autonomy, learning ownership and self-confidence. During the treatment, WhatsApp allowed students to take decisions about their own learning, especially during self-learning activities. In addition, allowing the students to use their mobile phones in the classroom, which is usually banned altogether, may have catalyzed their sense of autonomy and learning ownership which has translated into more time-on-task and, consequently, more expedient learning. The researchers have observed first-hand how the same students, who did not usually make much effort in the regular classroom, were eager to collaborate with each other and, eventually, to develop their writing performance.

WhatsApp not only catalyzed individual learning but also encouraged collaboration and a sense of community among the participants. Figure (1) below shows screenshots of a student's query to the teacher about where to write and instant replies from her peers. Subsequently, with the role of the teacher as facilitator or a mediator, the students may feel autonomous as they depend on themselves to learn.





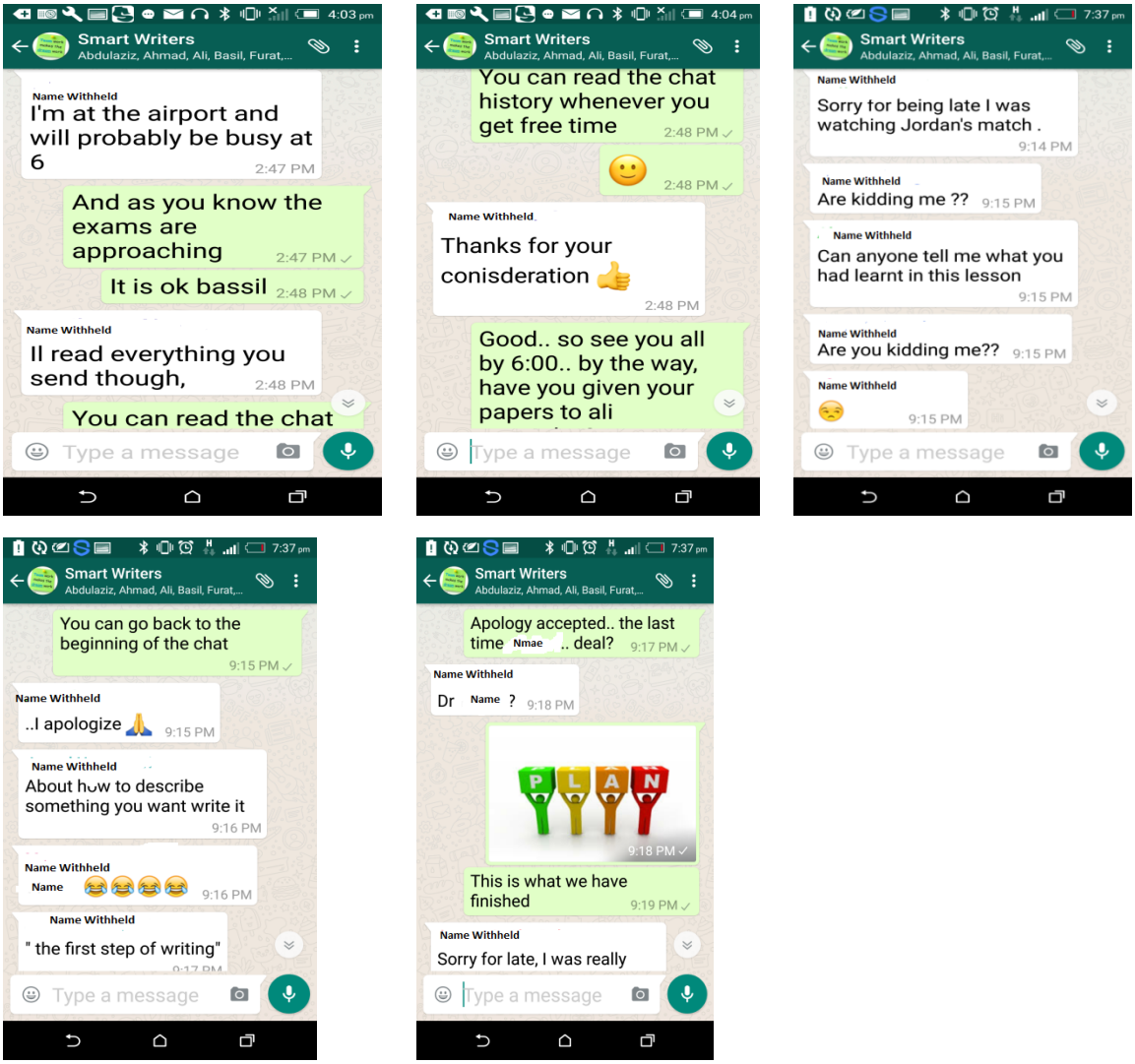


Figure 1: Screen shots of participants' contribution to the group (Names withheld)

The relative accessibility of the learning materials involves using WhatsApp features through which videos could be recorded/listened to, photos could be taken/viewed, audio files could be recorded/listened to, text messages could be sent and received, which could potentially foster students' motivation to learn and, in turn, improve their writing performance. The results are consistent with previous research reports (e.g., Amry, 2014**;** Jung, 2015; Kukulska-Hulme & Shield, 2008; Rossing, Miller, Cecil, & Stamper, 2012) which suggested that access to learning resources at all times enhances deep student learning capabilities, allows students to construct their own knowledge, and makes learning more ubiquitous.

The instant feedback provided by the teacher and other group members may have also contributed to the experimental groups' superior performance. Students, as all human beings, covet praise and acknowledgement of achievement or progress. Rewarding students' success in the online sessions took different forms such as using one's essay as a model for the rest of the group, encouraging with emoticons to reduce anxiety.

As students used their mobile phones as a medium for learning, they received equitable teaching opportunities in which they engaged both cognitively and metacognitively as they worked on their written essays. Further, the variety of activities engaged students and prevented boredom, as they

worked individually and through the group to better their writing under the watchful eye of the teacher.

As the students posted their brainstorming as soon as they finished it to the group, they opened venues for instant feedback which helped them to revise their work or even do it over. This provided shy and less outgoing students, who hardly ever participate, the chance to interact in the relatively less threatening instructional context provided through WhatsApp. What the participants wrote, how often, and to whom was positively influenced by WhatsApp-mediated instruction, as the volume of their writing increased as opposed to that of their counterparts in the control group. Figure 2 below shows the various forms of feedback provided through WhatsApp.

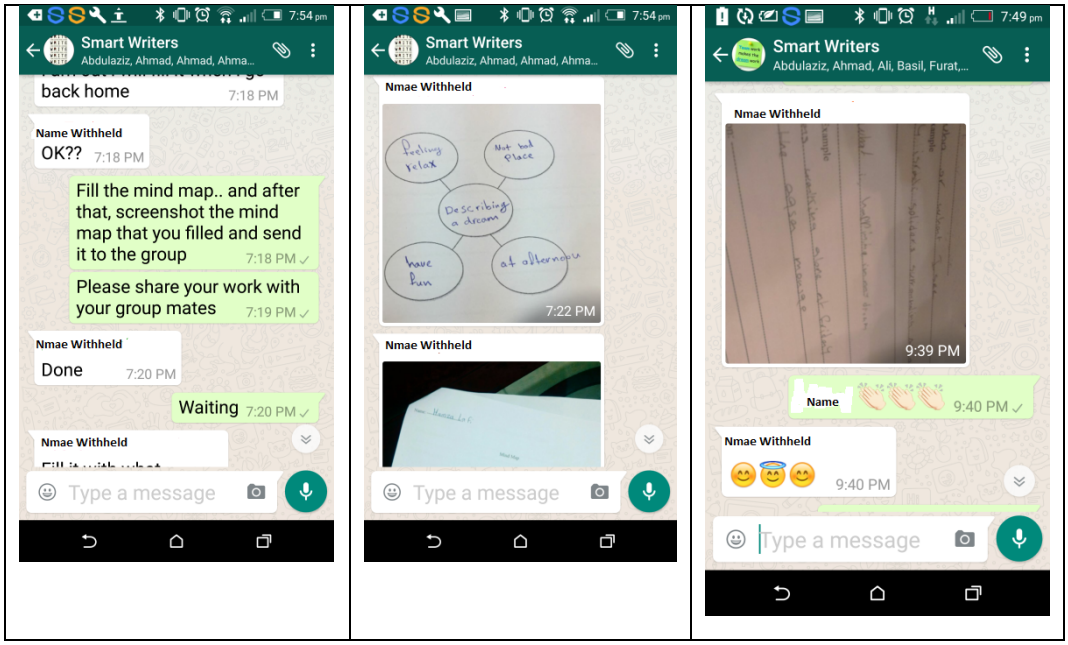


Figure 2: Screen shots of various types of feedback (Names withheld)

V. Conclusions

The findings revealed a significant difference in students' writing performance between the control and experimental groups in favor of the latter. WhatsApp is potentially useful for educators to help students improve their writing. In MALL instruction, students use their devices not only with low cost but also with equal learning opportunities. In the words of Plato, "do not train children by force and harassment, but direct them to it by what amuses their mind, so you may better able to discover with accuracy the peculiar bent of the genius of each". Further, MALL instruction offers a variety of activities to ensure engagement and keep students interested. In the present study, providing interesting and diverse learning activities has led the participants to engage in the learning process in a conducive learning environment which was regulated by both the teacher and students.

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Conflict of Interest

The authors declare no conflict of interest.

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