

## The Effect of E-mail and WhatsApp on Jordanian EFL Students' Reading Skill

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### Abstract

This study aims to examine the potential effect of an e-mail and WhatsApp based instructional program on Jordanian EFL tenth-grade students' skimming and scanning skills of reading. To collect the data, two instrument were utilized: a pre-test and a post-test. The study used a quasi-experimental design. The participants of the study were 60 Jordanian tenth-grade female students from four sections who were purposefully chosen from Bahraini Basic School for Girls in Jordan. 15 students comprised the control group and 45 comprised three experimental groups of 15 students each. The findings reveal significant differences (at 0.05) in the students' mean scores on the post-test, in favour of the students in the WhatsApp group, the e-mail and WhatsApp combination group and the e-mail group respectively. The findings also reveal a significantly high effect of the instructional program on scanning than on skimming. A number of implications and recommendations for future research are put forth.

Key words: EFL Jordanian students, e-mail, reading skill, scanning, skimming, whatsApp

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## Introduction

The world witnesses a technological revolution which everything demands a dramatic change in all the life aspects. The technology and its applications, such as electronic mail (e-mail), instant chat, facebook, WhatsApp, and Dropbox have become the daily means by people to socialize, communicate, do business, and learn and teach English as a foreign language (FL). Furthermore, everybody should believe that pens, pencils and papers cannot exist in this digital world where everyone should depend on wireless tools for reading that make reading processes more interactive and collaborative (Bromley, 2010). Accordingly, EFL teachers should not ignore the importance of using the wireless tools in their classroom since most students are familiar with using the Internet and its applications, especially e-mail and WhatsApp, as they use them every day for social purposes (Bataneh & Baniabdelrahman, 2006; Sharadgah, 2013).

Reading is the process of understanding a text by internalizing the needed information efficiently for two reasons, reading for information and reading for fun. Reading sub skills are: skimming, scanning, editing, proof reading, note-taking and predicting. In light of the Communicative Language Learning approach (CLL), there are two major reading sub skills which are skimming and scanning. Skimming means reading for the gist while scanning means reading for specific information. Skimming and scanning are required to read quickly and efficiently (liu, 2010).

Biancarosa & Griffiths (2012) state several advantages of using technology-based tools to increase students' reading skills. Moreover, scholars, (e.g. Motteram, 2013; Taki & Ramazani, 2011) suggest that e-tools, such as e-mail and WhatsApp, develop students' reading skills since they provide them with authentic opportunities to communicate with different people all over the world by using English as a global language. Yunus & Chenzi (2012) state advantages of integrating social networking tools that students gain immediate feedback, real-life interaction and they also help the students to have positive learning attitudes and increase their confidence. Moreover, Nakamoto (2005) claim that WhatsApp is a learner-centered tool and face to face communication that increases the students' motivation to learn inside and outside classroom. Kymes (2005) also argue that students should be taught reading skills, such as skimming and scanning especially through the Internet and technology-based tools since they enhance these reading skills.

Moreover, it is e-mail that plays an important role in helping students to be motivated, enthusiastic and comfortable (Ndemanu, 2012). It also helps students to be independent (Harrison, 2006). Additionally, e-mail exchanging should be taken into consideration in order to reduce students' anxiety in reading (Greenfield, 2003).

## Literature Review

Teaching skimming and scanning skills is important to help students to be skilled readers. Both skimming and scanning are quick basic reading skills for fully comprehending the given text. When skimming, students read the text quickly to get the general meaning. When scanning, students quickly look for a particular piece of information (Grellet, 1981).

Skimming and scanning skills may be easily enhanced through computer-mediated communications (CMC), such as e-mail, WhatsApp, wikis and blogs. The students can participate in collaborative CMC-based reading tasks and benefit from immediate feedback.

CMC also plays a key role in modeling reading skills, proofreading, editing, skimming and scanning. (Davis & Thiede, 2000; Godwin-Jones, 2008).

There is no a perfect strategy or method that can solve all EFL students' problems. However, it is WhatsApp that plays an important role in motivating students by interacting and using English meaningfully beyond the traditional classroom. WhatsApp also helps students develop their language skills, reading, writing, speaking and listening, collaboratively and interestingly (Almeida d'Eca, 2003).

E-mail may help students improve their reading skills as it has several advantages such as being enjoyable, comfortable and suitable learning tool, and time, money and effort saving that make e-mail an important factor that plays a great role in improving reading comprehension (Motallebzadeh, 2011).

Mahmoud (2014) also report that using e-mail and WhatsApp inside the classroom breaks the daily routine. The students have a good chance to communicate with the teacher or with each other electronically doubly increases the value of receiving the immediate feedback away from embarrassment of getting their papers filled with red pen-corrections. Furthermore, using e-mail and WhatsApp help anxious students participate and give an attractive opportunity for the poor students who feel that English learning is something needs abnormal ability.

### **Purpose and questions of the study**

In Jordan, English is taught as a foreign language in both basic and secondary stages over four to five lessons per a week. The main focus is on developing the four language skills, reading, writing, listening and speaking, to enable the students to communicate meaningfully with others. However, the students' achievement is limited and weak (Bataineh & Bani Hani, 2010). Most Jordanian students are anxious when reading English texts, the main reasons for such anxiety are, lack of motivation and enthusiasm, shyness of making errors and discomfort of reading effects (Al-Shboul, Ahmad, Nordin & Abdul Rahman, 2013). Notwithstanding the marked efforts of the Jordanian Ministry of Education in reforming EFL curricula, training EFL teachers and availing schools of state-of-the-art equipment, students continue to lag behind in their proficiency. In the researchers' quest for a solution, an e-mail and WhatsApp-based instructional program is used to improve students' skimming and scanning skills. Thus, the study aims to answer the following question:

1. To what extent, if any, do e-mail and WhatsApp develop Jordanian EFL learners' skimming and scanning skills?

### **Significance of the study**

To the researcher's best knowledge; few studies have been conducted to investigate the effect of e-mail and WhatsApp on skimming and scanning of English language learners in the field of foreign language learning. Various stakeholders are hoped to benefit from the findings of this research. In addition to the more obvious students and teachers, EFL textbook writers and curriculum designers may find practical implications for reading comprehension materials and instruction. Moreover, the findings may also be beneficial to the Jordanian Ministry of Education in its continuous quest for reform and innovation.

### Sampling, instrumentation and data collection and analysis

To achieve the purpose of the research, A sample of four tenth-grade sections was purposefully drawn from Bahraini Basic School for Girls, Irbid, Jordan. They were surveyed if they had smart phones or not and if they had e-mail, WhatsApp or the both applications at their smart phones. Based on the survey, 15 students comprised the control group and 45 comprised three experimental groups of 15 students each. The control group was taught by the conventional method as outlined in the Ministry-prescribed Teacher Book, *Action Pack 10* whereas the experimental groups were taught through the instructional program based on e-mail, WhatsApp and a combination of both. The four groups were pre-and post-tested on reading comprehension. Between the pre-and post-test, the instructional program, which comprises nine reading comprehension passages with different skimming and scanning activities was implemented over an eight-week interim, with four 40-minute sessions a week.

The instructional program is concerned only with improving student' skimming and scanning skills and raising their awareness of the benefits of using e-mail and WhatsApp for the academic purposes, especially for the skills under study.

To answer the research questions, means, standard deviations, adjusted means, ANCOVA, MANCOVA and Bonferroni's Equation of multiple comparisons were used to determine any potentially significant differences in the students' achievement in skimming and scanning skills which can be attributed to the treatment.

### Validity and reliability of the instrument

In order to judge the validity of the reading pre-test, post-test and the instructional program, a jury of nine professors from Yarmouk University were asked to provide their feedback concerning their suitability to the purposes of the study; they looked into their language and their content. Their suggestions (e.g., clarifying the instructions of some activities) were taken into consideration in the final versions of the instruments.

In order to establish the reliability of the reading tests, they were applied to thirty students of a pilot study group. Reliability was measured by the test-retest formula using the Pearson reliability coefficient. The obtained values were (0.80) for skimming, (0.88) for scanning, and (0.88) for the overall test. All calculated values are considered acceptable to achieve the purpose of this study

### Findings of the study

To answer the research question concerning the effect of e-mail and WhatsApp on developing students' skimming and scanning skills, means and standard deviations of the students' scores on the skimming and scanning skills pre-and post-tests were calculated per the teaching method, as shown in Table1.

**Table1: Means and standard deviations of the students' skimming and scanning scores on the pre-and post- tests per the teaching method**

Reading Skills	Teaching Method	N	Reading Pre-test (Covariate)		Reading Post-test	
			Mean	Std. Dev.	Mean	Std. Dev.
Skimming	Control	15	4.07	1.58	4.53	0.99
	E-mail	15	3.40	1.35	6.53	0.99
	WhatsApp	15	3.87	1.36	7.93	0.70

	E-mail and WhatsApp	15	3.80	1.15	7.33	2.02
Scanning	Control	15	9.40	2.35	9.80	2.11
	E-mail	15	9.27	2.05	10.00	2.10
	WhatsApp	15	9.87	1.46	12.87	1.46
	E-mail and WhatsApp	15	9.33	2.41	11.33	2.29

Table 1 shows that there are observed differences among the means of the students' scores on the skimming and scanning per the teaching methods. To investigate whether the differences are statistically significant, MANCOVA was used for the students' scores on the skimming and scanning skills post-test per the teaching method after excluding the students' scores on the pre-test, as shown in Table 2.

**Table 2: MANCOVA of the students' skimming and scanning skills scores on the post- test per the teaching method**

Effect	Type of MANCOVA	Value of MANCOVA	Whole F value	Hypothesis df	Error df	Sig.	Partial $\eta^2$
Skimming Pre-test (Covariate)	Wilks' Lambda	0.96	1.08	2	53	0.35	3.93%
Scanning Pre-test (Covariate)	Wilks' Lambda	0.17	<b>126.25</b>	2	53	0.00	82.65%
Teaching Method	Wilks' Lambda	0.22	<b>19.99</b>	6	106	0.00	53.08%

Table 2 shows that there are significant effects (at  $\alpha=0.05$ ) per the teaching method in the students' scores on the post-tests of skimming and scanning together. To find out which skill of post-test was affected by the teaching method, ANCOVA was used for the students' scores on the post-test of skimming skill per the teaching method after excluding the students' scores on the pre-tests, as shown in Table 3.

**Table 3: ANCOVA of students' skimming skill scores on the post- test per the teaching method**

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Partial $\eta^2$
Skimming Pre-test (Covariate)	3.47	1	3.47	2.20	0.14	3.91%
Scanning Pre-test (Covariate)	1.71	1	1.71	1.08	0.30	1.96%
Teaching Method	99.03	3	33.01	<b>20.89</b>	0.00	53.71%
Error	85.35	54	1.58			
Total	190.58	59				

Table 3 shows that there are significant differences (at  $\alpha =0.05$ ) among the means of the students' scores on the skimming per the teaching method. To investigate in favor of which group the significant differences are for, adjusted means of the students' skimming skill post-test and standard errors were calculated per the teaching method, as shown in Table 4.

**Table 4: Adjusted means and standard errors of the students' skimming skill post-tests per the teaching method**

Teaching Method	Adj. Mean	Std. Error
Control	4.49	0.33
E-mail	6.62	0.33
WhatsApp	7.88	0.33
E-mail and WhatsApp	7.34	0.32

Table 4 shows that there are observed differences among the means of the students' skimming skill of the post-test per the teaching method in favor of the students in the experimental groups.

Bonferroni's Equation of multiple comparisons was calculated to investigate the significant differences among the adjusted means of the students' skimming skill post-test per the teaching method, as shown in Table 5.

**Table 5: Bonferroni's equation of multiple comparisons of the students' skimming skill post-test per the teaching method**

Teaching Method		Control	E-mail	E-mail and WhatsApp
Bonferroni	Adj. Mean	4.49	6.62	7.34
E-mail	6.62	<b>2.14</b>		
E-mail and WhatsApp	7.34	<b>2.86</b>	0.72	
WhatsApp	7.88	<b>3.40</b>	1.26	0.54

Table 5 shows that there are significant differences of skimming in favor of the WhatsApp group compared to the control group. Then, the observed difference is in favor of the e-mail and WhatsApp combination group compared to the control group. Finally, the observed difference is in favor of the e-mail group compared to the control group.

The practical significance of the teaching strategy was 53.71 on skimming skill which means that there is a moderate affect per the teaching method on the skimming skill post-test.

To find out which skill of post-test was affected by the teaching method, ANCOVA was used for the students' scores on the post-test of scanning skill per the teaching method after excluding the students' scores on the pre-test, as shown in Table 6.

**Table 6: ANCOVA of students' scanning skill scores on the post- test per the teaching method**

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.	Partial $\eta^2$
Skimming Pre-test (Covariate)	0.00	1	0.00	0.00	0.98	0.00%
Scanning Pre-test (Covariate)	181.44	1	181.44	<b>254.05</b>	0.00	82.47%
Teaching Method	66.78	3	22.26	<b>31.17</b>	0.00	63.39%
Error	38.57	54	0.71			
Total	318.00	59				

Table 6 shows that there are significant differences (at  $\alpha=0.05$ ) among the means of the students' scores on the scanning skill per the teaching method. To investigate in favor of which

group the significant differences are for, the adjusted means of the students' scanning skill post-test and standard errors were calculated per the teaching method, as shown in Table 7.

**Table 7: Adjusted means and standard errors of the students' scanning skill post- test per the teaching method**

Teaching Method	Adj. Mean	Std. Error
Control	9.86	0.22
E-mail	10.18	0.22
WhatsApp	12.52	0.22
E-mail and WhatsApp	11.45	0.22

Table 7 shows that there are observed differences among the means of the students' scanning skill of the post-tests per the teaching method in favor of the students in the experimental groups.

Bonferroni's Equation of multiple comparisons was used to investigate the significant differences among the adjusted means of the students' scanning skill post-tests per the teaching method, as shown in Table 8.

**Table 8: Bonferroni's equation of multiple comparisons of the students' scanning skill post- test per the teaching method**

Teaching Method		Control	E-mail	E-mail and WhatsApp
Bonferroni	Adj. Mean	9.86	10.18	11.45
E-mail	10.18	0.32		
E-mail and WhatsApp	11.45	<b>1.59</b>	<b>1.27</b>	
WhatsApp	12.52	<b>2.66</b>	<b>2.34</b>	<b>1.07</b>

Table 8 shows that there are significant differences of scanning skill in favor of the WhatsApp group compared to the control group, the e-mail group then to the e-mail and WhatsApp combination group respectively. Then, the observed difference is in favor of the e-mail and WhatsApp combination group compared to the control group then to the e-mail group.

The practical significance of the teaching strategy was 63.39 on scanning skill which means that there is a high affect per the teaching method on the scanning skill post-test.

### Discussion of the findings

The findings of the study demonstrate statistically significant differences in the skimming and scanning in favor of the participants in the WhatsApp group, the e-mail and WhatsApp combination group, and the e-mail group respectively. This confirms the effectiveness of e-mail and WhatsApp as catalysts for skimming and scanning. Yet, these differences are higher on scanning than they are on skimming.

The positive effect of WhatsApp on skimming and scanning could have been resulted from two reasons. Firstly, WhatsApp creates a unique interactive environment. For example, during the program, students directly benefited from different types of interaction: student-with-student interaction, student-with-teacher interaction, student-with-online interaction, and within the group interaction as all members of the group collaborated with each other and teacher monitored and helped when needed.

Secondly, WhatsApp facilitates student-centered learning and non-limited learning environment which enable students to stay collaboratively on-task inside or outside the school.

WhatsApp also provides students with synchronous feedback from the teacher on one hand and from other members of the group on the other.

Similarly to the WhatsApp group, the e-mail and WhatsApp combination group benefited from the key feature of WhatsApp-based learning as being interactive learners all the time inside and outside the school. However, e-mail and WhatsApp combination group did not fully benefit from the features of WhatsApp as a learning tool. Over the teaching duration, four classes were given to the students of the e-mail and WhatsApp combination group each week, two classes were based on WhatsApp and two others were based on e-mail. In contrast to WhatsApp-based lessons, lack of interaction was the main character of e-mail-based lessons. Thus, the e-mail and WhatsApp combination group received intermittent interaction along two months of the treatment.

On the other hand, the e-mail group did not have any chance to receive neither continuous interaction nor intermittent interaction. In this way, the e-mail group seems similar to the control group but a possible contribution to its superiority to that group was the students' enthusiasm to learn and do assignments through technological tool inside-and outside the school.

Furthermore, not only the positive effect may have attributed to the e-mail and WhatsApp, but it may have also resulted from the explicit skimming and scanning activities that the students participated during the program. These activities provide students with the opportunity to grasp skimming and scanning skills as they read texts. Yet, the increase of the number of scanning activities rather than skimming activities is mainly affected the students' improvement at these skills.

### Conclusions

The findings of the study warrant the following conclusions:

- 1- The treatment has brought about improvement in the students' skimming and scanning skills which may signal a positive relationship between the students' awareness of the benefits of using e-mail and WhatsApp for academic purposes on one hand and the language skills especially for the skills under study on the other.
- 2- The instructional program improved the participant's skimming and scanning skills.

### Recommendations

Based on the findings of the study, the researcher presents the following recommendations:

- 1- EFL teachers are advised to give more focus on teaching skimming and scanning skills to improve their students' reading skill.
- 2- Textbook writers and curriculum designers should take into consideration the advantages of incorporating e-mail and WhatsApp that may play in reading skill.
- 3- More research needs be carried out on the effect of e-mail and WhatsApp on reading comprehension. Future research might also involve a larger sample in other EFL contexts and other genres.

**About the author:**

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