A Study of the Role of Using E-mail in Improving High School Students' EFL Writing Skill

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Abstract

The present study investigates the effect of e-mail on Iranian learners of English and focuses on teaching thewriting skillvia e-mail. More specifically, the study investigates (a) whether using e-mail has any statistically significant effect on improving high school students' writing skill, and (b) whether the proficiency level has any relation with students' writing improvement through using e-mail.To this end, 150 high school Iranian students were selected randomly and divided into 3 proficiency levels, namely high, mid, and low, based on their performances on an Oxford Placement Test (OPT). The participants at every proficiency level were divided into 3 subgroups to receive 3 methods of instruction, namely traditional face-to-face, through using e-mail, and through both the traditional method and using e-mail. After 3 months of instruction, a posttest was administered and the results were submitted to ANOVA. The results obtained revealed that using e-mail had a statistically significant effect on improving students' writing skills. The Scheffe post hoc results showed that the group with the e-mail treatment performed almost the same as the other 2 groups at the high proficiency level; in other words, the group at the high level did not benefit much from using e-mail; however, thelow and intermediate proficiency level participants did benefit from it. The findings are finally discussed with regard to how email can be exploited as an educational aid by teachers and learners.

***Keywords*:** e-mail,writing skill, oxford placement test (OPT), proficiency level.

Communications technology has been used for many years. Communications technology, also called telecommunications technology, consists of electromagnetic devices and systems for communicating over long distances. Over the last century, developments in telecommunications have made possible new communicative modalities that blend the presuppositions of spoken and written language.

Nowadays, for a growing number of people, the most useful telecommunication device is electronic mail (e-mail), which conveys messages written at a computer keyboard. In only three decades, "e-mail has grown from a government-initiated, academically implemented system for sharing research information into an international alternative to long distance phone calls, interoffice memos, and face-to-face encounters" (Baron, 2000, p.134). The appeal of the medium is as pervasive in the private world as it is in business or academy. In the corporate world, e-mail is becoming equally ubiquitous. In fact, in some contexts, it has all but replaced more traditional means of communication, from phones to memos to chance encounters in the hall.

E-mail has become an indispensable tool in business and academic institutions. Personal use is increasing every day, and e-mail has become the predominant means of communication in the information society. Therefore, e-mail has been established as an indicator of collaboration and knowledge exchange (Whittaker &Sinder, 1996). By the same token, using e-mail also has an important role in L2 learning, especially in the area of the writing skill. Therefore, using e-mail in the classroom is a good technique to familiarize students with both writing skills and computer literacy.

E-mail provides an opportunity for students to communicate in an L2outside of class. Because of the nature of e-mail, students do not have to be in a specific classroom at a special time of day. So, they can write their e-mail in a comfortable situation with an increasing amount of time.

Literature Review

The History of E-mail

The family tree of e-mail predates modern computing by more than a century. The earliest technologies, Samuel Morris' telegraph in 1838 and Alexander Graham Bell's telephone in 1876, made it possible to send messages at distances in near real-time. The telex, developed in 1900, hard-wired a typewriter to a telephone; the earliest fax machines, developed in the 1950s, joined copy machine technology with telephone transmission (Baron, 1998).

Today, as we know, e-mail has its roots in several intertwined developments in the 1960s and 1970s. In the early 1960s, some researchers were exploring how computers could be used for transmission of information in case of nuclear attack. The goal was to decentralize the distribution of defense data so that no targeted nuclear strike would wipe out American's command and control system (Baron, 1998). By1968, this decentralized computing system was implemented asAdvanced Research Projects Agency Network (ARPANET), run by the US Department of Defense. The system linked geographically dispersed computers in governmental and university research installations, enabling them to share data across dissimilar host machines. Over the next two decades, ARPANET was to undergo a number of transformations (including separation from specifically military functions, and internationalization), eventually emerging as the Internet of the early 1990s.

The use of this decentralized network for the exchange of electronic messages (as opposed to transfer of data files or remote log-in to other computers) was not part of the original ARPANET design. It was only in the early 1970s that two programmers at Bolt Beranek and Newman (the research company awarded the government contract to develop ARPANET) experimented with sending personal messages, rather than just data, to one another (Lynch & Rose, 1993; Rheingold, 1994).

E-mail as Computer-Mediated Communication

As we see from its history, electronic messaging has emerged as a way of communicating both with a number of individuals simultaneously (as in computer- based conferencing) or with a specific individual. This broad domain information exchange via computers has come to be known as computer-mediated communication, or CMC (Sabourin&Lamarche, 1994; Herring, 1996).

Background and Purpose of Using E-mail

With the rapid development of technology, distance education and online learning are being considered a viable path for adult education (Coryell, 1998). Like any other classroom tool, e-learning technology for language learning should provide opportunities for practicing English in authentic contexts. As we know, Internet technologies can connect students across

national and linguistic boundaries (Blanch,Dekhinet, Duran, & Topping, 2008). Teaching anL2 by using native speakers is very expensive and complicated to arrange (Blanch et al., 1996). Therefore, by using the internet technology, we can use a new power to teach another language.

Significance of Using E-mail in Teaching

Leloup and Ponterio (1995) in their paperinvestigated the importance of using e-mail-based activities in L2 classroom as a way to enrich L2 learning. E-mail is used as a medium for cultural exchange and L2 interactivity in order to enhance the language learning (Kameda, 1999; Leloup&Ponterio, 1995).

The use of technology in the teaching/learning environment has six major contributions (Sabieh, 2000). First, it provides for the learners a power medium to incorporate the cognitive construction. Second, it provides a non-threatening environment, so learners are in a safe environment. Third, it is controlled by the learners themselves in most cases. Fourth, it provides a personal medium, individualized and free of peer judgment. Fifth, it acts as a delivery medium; in fact, the technology links the learner to the task. And sixth, the technology must retain interactivity to maintain a motivating medium for use (Sabieh, 2002).

Sabieh(2002) states that the language educator's main purpose in any teaching language environment is to provide students with target language in a way to be able to communicate in an academic and un-academic medium with near-native language fluency. Sabieh (2002,p. 4) maintains:

To do so successfully, it is believed that there needs to be a change in the perception classroom environment for the language learner. In general, mostclassroom set-ups allow for judgment to take place reinforcing the idea of the classroom being threatening to the wellbeing of a student. Moreover, it tends to be manipulated and controlled by high achievers or by students who have high self-esteem and high confidence in themselves.

The teaching/learning environment for students should not be threatening, and educators should take on very active roles to assist their students. The classroom environment should promote the students' need for autonomy (Sabieh, 2002). Sabieh (2002) believes that two major factors are the basis to the effective teaching/learning setup: one of them is students' needs and the other is a less threatening environment.

According to Haworth, Leahy and McKeon (1999), electronic communication is a significant educational tool because it enables learners to increase relations in authentic settings. Cohen (1996,p. 48) defines e-mail as a tool that “simplifiescommunication” between parties, as Sabieh (2002) has cited.

Wallace and Wingate (2001) define e-mail as “an amazing way to send message from one computer to another” (p. 2). McLester (2001), states that the use of e-mail reinforces the role of active learner since every student is task-oriented and responsible for his or her learning. Students are also responsible for their own writing.So, not only should they check and edit their own work, but also they should reflect on issues and past messages and the use of the Internet helps them to increase the exchange (Jones, 2001).

Dalton, Sargent and Ste (2000), in their research on e-mail communication, stressed its importance as a promoter to bonding. For example, there were bonds between medical students and school children in the use of e-mail to identify communicative needs that made medical students aware of the information they needed to give the children and their parents about the hazards of smoking since it made them aware of what the families wanted out of the relationship (Dalton, Sargent, &Ste, 2000, cited in Sabieh, 2002). Thus, the medium of e-mail may in itself be the ideal tool for the educators to build up students' affective domain because in any learning condition it is important for students to have self-esteem, self-efficacy and self-confidence (Sabieh, 2002).

One of the other affective factors is control. By having an internal locus of control, according to Minsky and Marin (1999), a person is in control of his thoughts, behavior and actions.

Another very important affective factor is the sense of belonging. Sense of belonging is the degree of acceptance that a person receives from being a member of a group (Sabieh, 2002). According to Sarokon (1998), when students are in an environment which has emotional support and less criticism, they feel better and they can communicate better in the classroom. This sense of belonging increases students' motivation.

However, Jones (2001) states that it is the educator who must ensure that students are provided with learning activities. So, the role of educator as a controller for learning processes is very important.

Statement of the Problem

With the rapid development of technologies, computers and information technology (IT) has promoted e-mail as a common interpersonal communication medium. With its high transmission speed and less intrusive nature, e-mail has even been widely used for both personal communication and institutional communication, particularly in academic and business institutions (Baron, 2000; Crystal, 2001). Among the various forms of computer-mediated communication in language teaching, e-mail has been so far the most popular and useful tool for foreign language teaching and learning (Chaffee-Sorace, 1999;Levy, 1997, as cited in Shang, 2005).

Using e-mail for teaching English as a foreign language has been the subject of many studies; for example,Yu and Yu (2000) in a study have investigated the impact of incorporating e-mail into a classroom setting on the students' academic achievements and attitudes within two groups of students: the e-mail diffusion group and non-email diffusion group. Results show that there was a statistically significant difference in their academic performances. In another study by Warschauer (1995) in which e-mail provides the students with an excellent opportunity for real and natural communication, and supplies opportunitiesfor independent learning which is essential for ESL writing and also allows the students to communicate easily with hundreds of other students. For high school students in Iran, as EFL learners, the writing skill is one of the most important skills. However, most of the students at this level, after studying English for many years, still have problems with writing a paragraph or relating paragraphs to each other to form a composition, text or a letter in English. Furthermore, when the teacher asks them to provide a summary of a passage, most of them fail to do so. They cannot even write a word or definition to substitute the word they don't know in writing a text.

Thus, poor vocabulary knowledge, poor grammar learning, and inability to write a short coherent paragraph are among the concerns of high school teachers. Moreover, the use of technology, e.g. e-mail, in improving the writing skill calls for further investigation. However, few studies have tried to find the effectiveness of e-mail as related to writing. Therefore, the lack sufficient study in this area was the earliest impetus for the researchers to conduct this study.

This study aims at investigating the effect of e-mail on high school students' writing skill. Using e-mail for L2 writing skill may help high school students to write cohesive paragraphs and substitute unfamiliar words in the texts and finally improve their writing performance.

Therefore, the purpose of this study is to find out the effectiveness of e-mail as a method for teaching the writing skill. In other words,the researcherswonder whether the effectiveness of e-mail is more significant in teaching writing than the traditional face-to-face method.

Research Questions

The present study is an attempt to investigate the following questions:

1) Is using e-mail more effective than the traditional way (face-to-face communication) in teachingthe writing skill to Iranian EFL high school students?

2) Does student's English proficiency level have any relation with writing improvement through using e-mail?

Research Hypotheses

H_{01}:Using e-mail does not have any statistically significant effect on improving Iranian high school students' writing skills.

H_{02}:Student's English proficiency level does not have any significant relation with writing improvement through using e-mail.

Methodology

Participants

150 students in one of the high schools in Shahreza formed the whole sample of this study.First, the Oxford Placement Test (OPT) was administered to determine their English language proficiency level.They were then divided into three levels: high, mid, andlow proficiency levels.The participants at every level were further divided into three subgroups to receive three methods of teaching writing skills, namely traditional face-to-face, through using e-mail, and through both the traditional method and using e-mail.Then, after three months of instruction, a posttest was administered.

Instruments

The Oxford Placement Test (OPT). At the beginning and before the treatment started, in order to make sure that the selected groups at each proficiency level were statistically homogeneous, an OPT test was run.

The post test.After administering the treatment, the three groups under comparison were given the posttest to find out about the results of the treatment.

Procedure

First, the OPT was administered to determine their English language proficiency. They were divided into three levels: high, mid, and low proficiency levels. The first subgroup was taught through the traditional face-to-face method; the second subgroup through using e-mail, and the third subgroup through both the traditional method and using e-mail. A pretest was also administered to measure their writing skills. Then, after three months of instruction, a posttest was administered and the results were submitted to SPSS to run ANOVA.

Results

At the beginning and before the treatment started, in order to make sure that the selected subgroups at each proficiency level were statistically homogeneous, an OPT test was run. Then, a one-way ANOVA was employed for each level to make sure that the means were not statistically different.Table1presents the descriptive statistics for the pretest for the low-level participants. It shows that the mean of the subgroup which was taught through the traditional face-to-face method is 24.35; the subgroup which worked with e-mail only is 19,and the mean of the subgroup which was taught through both traditional method and using e-mail is 26.61. Figure 1 depicts the graphical representation of the means of the pretest for the low group.

Table 1.*The Descriptive Statistics for the Pretest for the Low Subgroup*

Group	No.	Mean	*SD*	Min	Max
1*	18	26.61	13.469	7	54
2**	17	24.35	13.057	7	50
3***	13	19.00	9.345	7	40

*1 = subgroup with email and class explanation
**2 = subgroup with class explanation only
***3 =sub group with email only

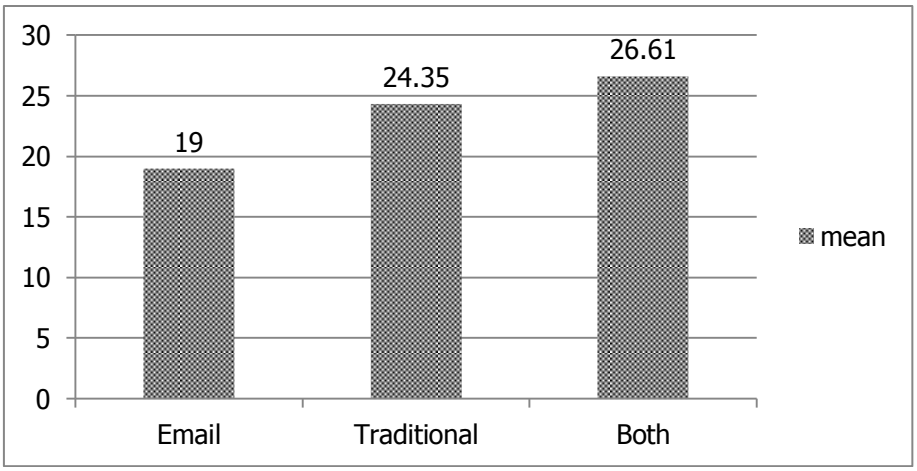

Figure 1.Graphical Representations of the Means of the Pretest for the low subgroup

Table 2 presents the descriptive statistics for the pretest for the intermediate-level participants. It shows that the mean of the subgroup with class explanation only is 31.15 with *SD*=13.694, the subgroup which worked with e-mail only is 22.33 with *SD*=11.790, and the mean of the subgroup with e-mail and class explanation is 33.09 with *SD*=13.694. Figure 2shows the graphical representation of the means of the pretest for the intermediate subgroup.

Table 2.The Descriptive Statistics for the Pretest for the Intermediate subgroup

Group	No.	Mean	*SD*	Min	Max
1	22	33.09	13.694	10	67
2	20	31.15	16.191	7	54
3	9	22.33	11.790	10	47

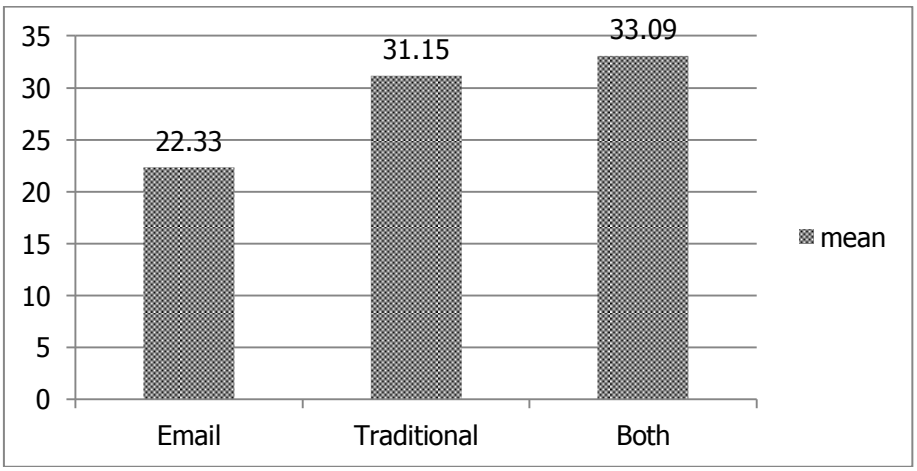

Figure 2.Graphical Representations of the Means of the Pretest for the Intermediate subgroup

Table 3 presents the descriptive statistics for the pretest for the high-level participants. It shows that the mean of the group with class explanation only is 37.30 with *SD*=14.360, the group with e-mail only is 27.13 with *SD*=12.415 and the mean of the group with e-mail and class explanation is 38.27 with *SD*=14.399. Figure 3 depicts the graphical representation of the means of the pretest for the high group.

Table 3. The Descriptive Statistics for the Pretest for the High sub group

Group	No.	Mean	*SD*	Min	Max
1	22	38.27	14.399	10	60
2	20	37.30	14.360	17	70
3	8	27.13	12.415	12	43

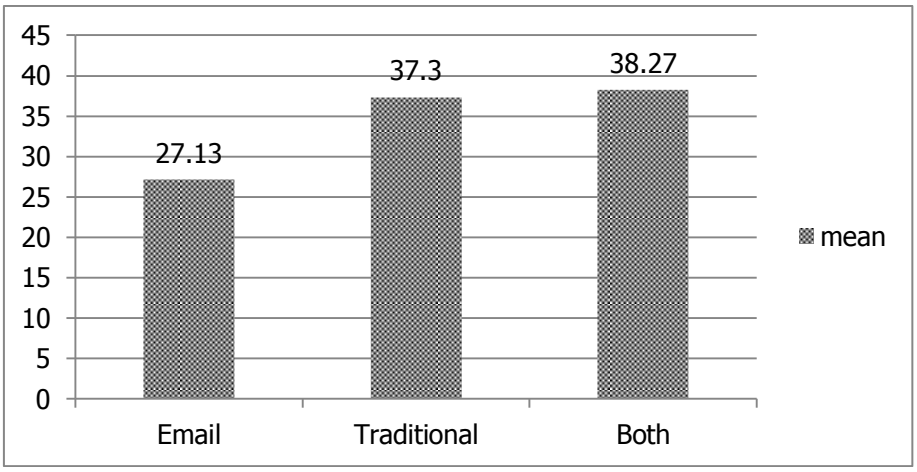

Figure 3. Graphical Representations of the Means of the Pretest for the High Subgroup

Tables 4, 5, and 6 reveal the results of the related ANOVAs respectively. As it can be seen in Tables 4, 5, and 6, the value of *F*-observed for the three ANOVAs is not significant (Low: *F*= 1.466, *p*= .242; Intermediate: *F* = 1.809, *p*= .175; High: *F* = 1.953, *p* = .153); therefore, it can be concluded that the three groups at each level were homogeneous at the beginning of the treatment.

Table 4.The Results of the ANOVA for the Pretest for the Low-Level

Source	SS	*df*	*MS*	*F*	*Sig.*
Between groups	446.84	2	223.420	1.466	.242
Within groups	6860.160	45	154.448		
Total	7307.3	47			

Table 5.The Results of the ANOVA for the Pretest for the Intermediate-Level

Source	SS	*df*	*MS*	*F*	*Sig.*
Between groups	756.142	2	378.071	1.809	.175
Within groups	10030.36	48	208.966		
Total	10786.510	50			

Table 6.The Results of the ANOVA for the Pretest for the High-Level

Source	SS	*df*	*MS*	*F*	*Sig.*
Between groups	777.061	2	388.531	1.953	.153
Within groups	9351.439	47	198.967		
Total	10128.500	49			

The Results of the Posttests

After administering the treatment, the three subgroups at every language proficiency level under comparison were given the posttest to find out about the results of the treatment. What follows are the effectiveness of the posttest.

The High-Proficiency Subgroup. The result of the posttest for the high-proficiency subgroup was analyzed for the presence of any difference among the three subgroups. Table 7 indicates the descriptive statistics for this result. It can be seen in Table 7 and Figure 4 that the three means were different. In order to see whether these differences were statistically significant or not, a one-way ANOVA was employed. Table 8.8 presents the results of this ANOVA. According to the table, the value of *F*-observed (*F*= 3.314) is significant at the probability level of 0.045 ($p<0.045$) which denotes that the differences among the three subgroups are significant.

Table 7.*The Descriptive Statistics for the Posttest for the High subgroup*

Group	No.	Mean	*SD*	Min	Max
1	22	92.96	8.289	67	100
2	20	86.30	8.749	67	100
3	8	89.13	7.680	75	98

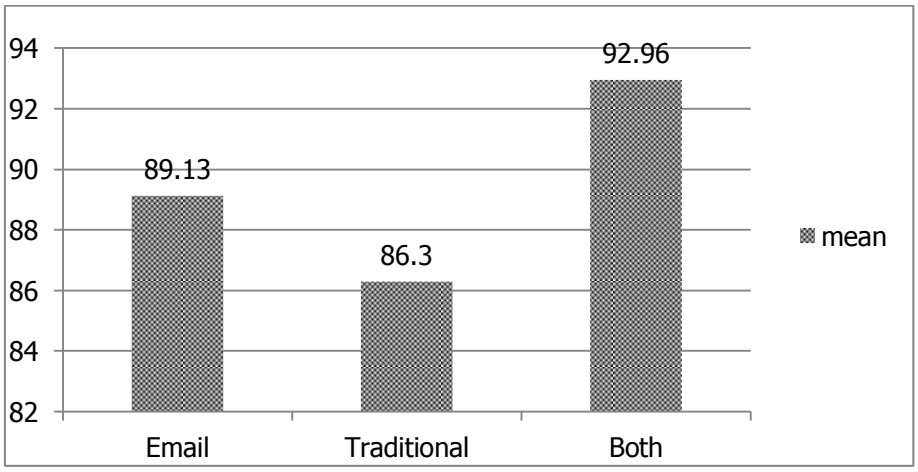

*Figure 4.*Graphical Representation of the Means of the Posttest for the High Subgroup

Table 8.*The Results of the ANOVA for the Posttest for the High Subgroup*

Source	SS	*df*	*MS*	*F*	*Sig.*
Between groups	466.850	2	233.425	13.314	.045
Within groups	3310.030	47	70.426		
Total	3776.880	49			

To find out about the exact place(s) of difference(s),theScheffe post hoc test was run. Table 9 depicts the result. Bylooking at Table 9, one can easily see that the difference

between the subgroups which received both treatments and the subgroups which received only the class treatment was significant, but the other differences were statistically not significant. In other words, the subgroups which received the e-mail treatment performed almost the same as the other two groups.

Table 9. *The Results of the Scheffe Post hoc Test for the High Subgroup*

Groups		Mean Difference	*Sig.*
1	2	6.65455*	.046
	3	3.82955	.547
2	1	-6.65455*	.046
	3	-2.82500	.725
3	1	-3.82955	.547
	2	2.82500	.725

*. The mean difference is significant at 0.05 level(p<0.05).

The Intermediate-Proficiency Subgroup. The result of the posttest for the intermediate-proficiency subgroup was analyzed to see if there were any differences among the three subgroups. Table 10 reveals the descriptive statistics for this result. Figure 5 provides the graphical representation of the means.Table 10 and Figure 5indicate that the three means are different.

Table 10.*The Descriptive Statistics for the Posttest for the Intermediate Subgroup*

Group	No.	Mean	*SD*	Min	Max
1	22	92.68	7.668	67	100
2	20	72.60	11.655	37	91
3	9	82.00	5.292	77	90

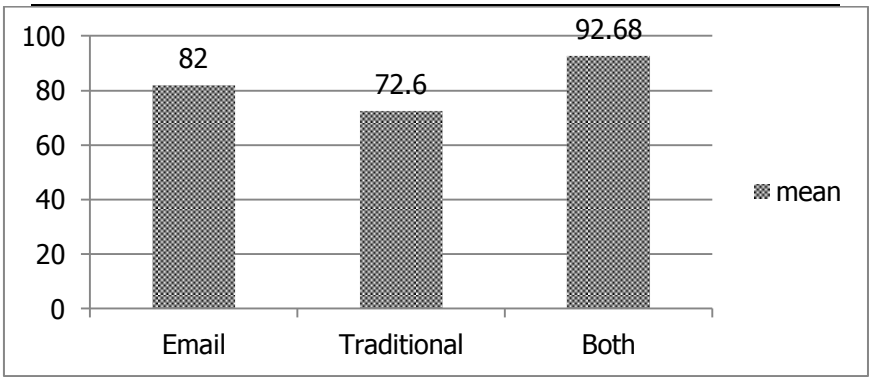

Figure 5. Graphical Representation of the Means of the Posttest for the Intermediate Subgroup

In order to find out whether these differences were statistically significant or not, another one-way ANOVA was run. Table 11 presents the results of this ANOVA.

Table 11 *The Results of the ANOVA for the Posttest for the Intermediate Subgroup*

Source	**SS**	***df***	***MS***	***F***	***Sig.***
Between groups	4234.114	2	2117.057	25.156	.000
Within groups	4039.573	48	84.158		
Total	8273.686	50			

It can be understood from Table 11 that the amount of *F*-observed (F = 25.156) is significant at the probability level of .000 ($p<0.0$), which confirms that the differences among

the three subgroups were significant. In order to find out about the exact place(s) of difference(s), another Scheffe post hoc test was employed. Table 12 depicts the results.

Table 12.*The Results of the Scheffe Post hoc Test for the Intermediate Subgroup*

Groups		Mean Difference	*Sig.*
1	2	20.08182*	.000
	3	10.68182*	.019
2	1	-20.08182*	.000
	3	-9.40000 *	.047
3	1	-10.68182*	.019
	2	9.40000*	.047

*. The mean difference is significant at the 0.05 level (*p<0.05*).

By studying Table 12, it can be seen that the differences between all subgroups were significant. In other words, at the intermediate-proficiency subgroup, any change in the treatment hada positive effect on the students; therefore, the groups working with email outperformed the group which received the traditional way of teaching, and the group which benefitted from both kinds of teaching performed better than the group which received email treatment only.

The Low-Proficiency Subgroup. The posttest results for the low-proficiency subgroup were studied to understand if there were any differences among the three subgroups. Table 13 depicts the descriptive statistics and Figure 6 shows the graphical representation of the means.

Table 10 and Figure 5 reveal that the three means under study were different. To find out whether these differences were statistically significant or not, still another one-way ANOVA was calculated. Table 14 presents the results of this ANOVA.

Table 13.*The Descriptive Statistics for the Posttest for the Low Subgroup*

Group	No.	Mean	*SD*	Min	Max
1	18	87.50	8.046	70	100
2	17	67.41	11.689	43	82
3	13	78.15	8.581	62	90

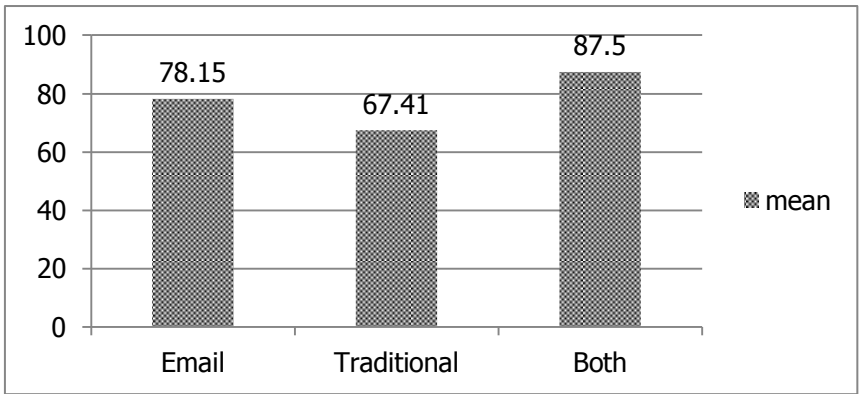

Figure6. Graphical Representation of the Means of the Posttest for the Low Subgroup

Table 14. *The Results of the ANOVA for the Posttest for the Low Subgroup*

Source	SS	*df*	*MS*	*F*	*Sig.*

Between groups	3529.669	2	1764.835	19.044	.000
Within groups	4170.310	45	92.674		
Total	7699.979	47			

It can be seen in Table 14 that the amount of *F*-observed (*F* = 19.044) was significant at the probability level of .000 (*p<0.0*), which means that the differences among the three subgroups were significant. In order to find out about the exact place(s) of difference(s), the last Scheffe post hoc test was employed. Table 15 depicts the results.

Table 15.*The Results of the Scheffe Post hoc Test for the Low Subgroup*

Groups		Mean Difference	*Sig.*
1	2	20.08824*	.000
	3	9.34615*	.037
2	1	-20.08824*	.000
	3	-10.74208 *	.015
3	1	-9.34615*	.037
	2	10.74208*	.015

*. The mean difference is significant at the 0.05 level.

Conclusion

Based on the findings of the current study,once again by studying Table 15, it can be seen that the differences between all subgroups were significant. In other words, here again any change in the treatment had a positive effect on the students; therefore, the groups working with e-mail outperformed the group which received the traditional way of teaching, and the group which benefited from both kinds of teaching performed better than the group which received e-mail treatment only.

Regarding the data presented, it can be concluded that the hypothesis stating that "e-mail does not have any statistically significant effect on improving high school students' writing skill" can safely be rejected. In other words, using e-mail does improve the writing skill in students. It should be mentioned, however, among students at high proficiency level, those who used only e-mail did not benefit much, but at the other two proficiency levels, using e-mail produced a positive result in thestudents' writing skill. Therefore, the second hypothesis of the study stating that "students' English proficiency level does not have any significant relation with students' writing improvement through using e-mail" is also rejected, indicating that there is a relationship between students' Englishproficiency level and the degree to which they benefit from the use of e-mail for improving the writing skill.

Therefore, the study provides supporting evidence for the use of e-mail in teaching L2 in general and in teaching the writing skill in particular. In this regards, English language teachers are recommended not only incorporate the use of E-mail as a part of their teaching plan, but also bear in mind that the use of e-mail for improving students writing ability is related to students' current language proficiency.

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