The Effect of Technology-based Building Background Information on Iranian EFL Learners' Second Language Writing

Behzad Nezakatgoo

Department of English Language and Literature, Allameh Tabataba'i University
E-mail: bnezakatgoo@atu.ac.ir

Abstract

The present study was an attempt to investigate the effect of technology-based building background information on Iranian EFL learners' second language writing ability concerning their gender. To do so, sixty advanced EFL learners studying English conversation in Iran-Mehr Language Institute (ILI), in Tehran were selected based on the result of their performance on a piloted and validated version of paper-based TOEFL. The participants, in two control and experimental groups, received a pretest of writing, the designed treatment, and a posttest of writing. The study enjoyed a quasi- experimental design and the data collected were put into SPSS version 21 for the purpose of running an analysis of covariance (ANCOVA) to compare the male and female experimental and control groups' means on the posttest of writing while controlling for possible effects of their entry writing knowledge as measured through the pretest. The results of data analysis firstly revealed that providing background information via e-mail by the teacher and writing e-mail by the students highly affected Iranian EFL learners' writing ability and secondly, showed that providing background information via e-mail by the teacher and writing e-mail by the students doesn't have any significant effect on writing ability of the learners regarding their gender. Therefore, technology-based development of background information can be considered successful in helping learners improve their second language writing skill. The Findings have pedagogical implications for language teachers to make the learners more aware of what they are dealing with.

Keywords: Background Information, e-mail, second language writing, EFL learners

Introduction

From its advent up to now, CALL developed in line with the equipment prepared by computer technology. As mentioned by Jones (2001), the significance of computer technologies in foreign language learning and teaching has been founded by many people. Language teachers and administrators find out the movement towards CALL; moreover, students require computers which make them prepared for language learning. Advanced technological facilities have been at the service of CALL to make the highest communicative learning situations for activities that promote listening, speaking, reading, and writing skills. Thus, the present study investigates the effect of providing background knowledge through emails on language learners' written production.

Related Literature

An Overview of Second Language Writing

In the 1960s, large numbers of foreign students entered higher education in the U.S. At this stage, L1 composition instructors perceived major differences in writing between L1 and L2 learners. These differences seriously rekindled interest in teaching writing to non-native speakers. Along with this, a sudden reconsidering of pedagogical approaches to L2 learners developed. Since

studies and approaches to teaching ESL writing had been fully neglected in the past, teaching writing in English to ESL students became a significant subfield of second language studies. The differences of teaching writing between native and non-native speakers resulted in controversial issues. Composition teachers became critical concerning how to teach writing in English to ESL learners and manage classes for ESL writing. Then, writing pedagogy was divided into L1 and L2 issues to establish the "disciplinary division of labor" between composition studies and L2 studies (Matsuda, 1998, 1999, 2003). Thus, it is quite problematic to explicitly demonstrate how writing was instructed in L2 writing settings owing to the little attention put on the pedagogical inquiries.

Taking a case in point, Pincas (1962) illustrated prescriptive writing instruction to ESL students, mastering the target language structure with controlled pattern practices. Her method applied the behaviorism approach to writing instruction since the theoretical pedagogy was insufficient for ESL teachers. Since then, writing teachers have recognized substantial progressive practices in writing beyond the sentence level, encompassing the structural exercises of paragraphs. L2 learners were required to have a fundamental knowledge to produce full compositions with paragraphs (Leki, 1992). Such a practical application of syntactic structure to paragraph creations led second language scholarship to yield to the emergence of "Contrastive Rhetoric" (CR) whose pivotal concern has greater cultural influence on L2 writers' rhetorical conventions (see Connor, 1996; Kaplan, 1966, 1987, 1988).

Activating Background Knowledge

Direct instruction on background knowledge can significantly improve students' comprehension of relevant reading material (Dole, Valencia, Greer & Wardrop, 1991; Graves, Cooke & Laberge, 1983; McKeown, Beck, Sinatra & Loxterman, 1992; Stevens, 1982). For example, in one study, students who received direct instruction on relevant background knowledge before reading an expository text demonstrated significantly greater reading comprehension than peers who received direct instruction on an irrelevant topic area (Stevens, 1982). Dole et al., (1991) extended these findings, showing that teaching students important background ideas for an expository or narrative text led to significantly greater performance on comprehension questions than did no pre-reading background knowledge instruction. By building students' background knowledge teachers might also help to counteract the detrimental effects that incoherent or poorly organized texts have on comprehension (McKeown et al., 1992).

By building students' background knowledge, teachers may also be able to indirectly influence other aspects of academic performance such as writing. For example, Davis and Winek (1989) found that students felt better prepared to write a research paper when they took part beforehand in an extended course of building background knowledge through individual research and in-class sharing and discussion. While this study does not show any direct impact on writing quality, it might be expected that improving students' sense of preparedness might raise their engagement and/or motivation, translating into better performance.

Getting started is the most difficult stage in writing. Much writing is spent not writing but rather wondering, worrying, crossing out and having second thoughts. Therefore, the purpose of this research is to help students to improve their writing ability by teaching them how to get started through electronically receiving background information and writing e-mail and at the same breath to help teachers to find a new way of teaching writing in EFL classes.

E-Mail Learning

Like computer-assisted classroom discussion, Electronic mail has been a way in both first-language and second language education. Not only is it used both for interaction between teacher and student but also for long-distance interactions between students in various places. Hartman et al. (1991), in first language studies, recognized that (a) teachers using e-mail prominently enhanced

their communication with learners over time compared to those using traditional ways of communication such as face-to-face, paper, and phone, (b) instructors using e-mail critically communicated with learners of weaker performance compared to instructors using old modes who communicated in a more desirable way with learners of higher performance; (c) learners in computer networked parts interacted more with one another than learners in non-networked parts did; (d) learners of lower SAT verbal scores used e-mail most often; and (e) anxiety in writing restricted participation less in communication through e-mail than it did in old modes.

Mabrito (1991, 1992) claimed that comparing to what they did in face-to-face discussions, high-concerned writers (a) assisted discussions through e-mail more equally (b) made more text-specific suggestions (1991), (c) presented more viewpoints for reconsideration (1992), (d) were affected more by group suggestions (1992), and formed better works afterwards (1992).

In the area of second language learning, Wang (1993) studied the discourse of dialogue journals written by ESL students in the form of both e-mail and traditional paper. She understood that the learners using e-mail journals prepared text of greater amounts, asked more questions, and used various functions of language more repeatedly than learners writing on paper did.

Levy (1997) believed that, respecting online educational context, e-mail is one of the most useful and practical ways of language learning and teaching. As Kim (2008) mentioned, "E-mail has been used in different educational contexts. Obvious benefits of e-mail include efficiency, convenience, and cost" (p. 189). Correspondingly, Kim (2008) refers to the practicality of e-mail in various situations and mentions that e-mail is broadly used in real-life situations as well as in teaching and learning settings, such as, online educational settings, face-to-face educational settings, and in connected educational contexts. As a matter of fact, use of technology of e-mail has been perused in different situations (p. 188).

Kim (2008) also focuses on a variety of studies confirming the positive effect communication through e-mail in supporting close teacher-student relationship (e.g., De Montes & Gonzales, 2000), triggering mediation capabilities among students (e.g., Van Der Meij & Boersma, 2002), encouraging active involvement in the process of learning (e.g., Clingerman & Bernard, 2004), promoting learners' writing skill (e.g., Brown & Dexter, 2002), and completing "reflective and critical thinking" (Overbaugh, 2002, p.119) among students.

Sproull and Kiesler (1991) refer to the privilege of communication through e-mail and point out those who are introverted and shy can widely profit exchange of information via e-mail because "ephemerality and plain text in electronic mail reduce the fear of appearing foolish in front of others. By removing reminders of a possibly critical audience, electronic mail induces people to be more open". This privilege reduces "social differences apparent in face-to-face communication" (p. 42-43). Kitade (2000) also speaks of the merits of communication through e-mail and mentions that because of the "absence of authority" in computer mediated interaction, it supports learners with more possibilities to take part in interpersonal communications (p. 147). Based on what Shang (2007) declared apart from the profit alleviating learner anxiety, a lot of studies have showed that e-mail is the most fruitful way used in academic settings to develop learners' writing skills more and above their listening, speaking, and reading skills" (p. 81).

Turning to the specific context of languages education, in the last 10 years the use of email communication has been successfully integrated into the teaching of languages at university level (Chapelle, 2001). This has profoundly altered the dynamics of interaction creating a learning environment which can be characterized as interactive and collaborative as well as student-centered (Warschauer, 1996). Through the use of email communication, an increasing number of scholars argue that students can exercise and acquire the target language in an authentic, motivating environment which offers real communicative goals (Warschauer, 1996).

Some studies have indicated that there is no significant difference between students who compose on the computer and students who compose with paper and pencil (Batschelet & Woodson, 1991; Lichtenstein, 1996). Other studies have shown that students who use a computer for writing tend to write for longer periods of time, write longer stories with more detail, and score higher than students who write with paper and pencil (Bahr & Nelson, 1996; Kurth & Kurth, 1987). A review of the literature has made apparent that the primary difference between the two groups was the presence (or absence) of explicit instruction in the writing process. Students who received quality instruction in the steps of the writing process were able to use the computer as a writing tool that enabled them to write longer, better quality compositions. However, the vast majority of research has been conducted in high school and college classes.

Gender, E-mails, and Writing Ability

A number of studies have examined the role of writing instruction in second language writing development and its relation with gender and have reported different conclusions: Boxie, (2004) determined that, exceptionally, boys are superior to girls in the essay writing. Similarly, Carr and Thompson (1996) found that men performed significantly better than women in a test of academic writing. In Brown and Dexter (2002), Burgstahler and Cronheim (2001), Absalom and Marden (2004), and Allford and Pachler (2007) males also outperformed females in the second language writing. By contrast, in Cascio and Gasker (2001), Cifuentes and Shih (2001), Castañeda (2005), and Cook-Sather and Mawr (2007) women performed better than men in reporting, essay writing, and summarizing as well note taking.

Regarding email writing, Fotos (2004), in his study, entitled writing as talking: e-mail exchange for promoting proficiency and motivation in the foreign language classroom pointed out that female learners performed better than males in writing development. Another study done by Gonglewski, Meloni and Brant (2001) which focused on using e-mail in foreign language teaching also revealed that women outperformed men in expository writing. The purpose of the present research is to shed more light on the gender difference issue in e-mail studies. In addition, provision of background knowledge has also been taken in consideration as a significant factor.

Rational of the Study

Nowadays, in order to succeed in academic life students need to learn the skills of language well. Among the language skills, writing is the one which can accelerate students' desire of success not only in pursuing their studies in their own countries (by writing and publishing some papers internationally in other languages such as English) but also in pursuing their education in an English speaking country. This skill is also required for anyone who desires to migrate to or work in other countries by applying for different positions. To come to a good way and method to teach writing skill, many studies have been done and to some extent came to some positive findings. On the other hand, in this new age of communication, students tend to communicate internationally through the technologies and they should be provided and supported to express themselves in a broad way. Sending and receiving e-mails is a dominant way of communication for the students to get closer to what they desire.

In the light of the problem statement, the present study aimed to determine whether providing background information via e-mail by the teacher and writing e-mail by the students is effective in learners' writing ability.

Research Questions

Based on the above mentioned problem and purpose, the present research attempted to answer the following questions:

1.   Does providing background Information via e-mail by the teacher and writing e-mail by the students have any effect on Iranian EFL learners' writing ability?

2.   Does providing background information via e-mail by the teacher and writing e-mail by the students has more effect on writing ability of male learners than females?

Methodology

Participants

In order to investigate the effect of providing background information via e-mail by the teacher and e-mail writing on Iranian EFL learners' writing ability, the present researcher examined Iranian advanced learners. To do so, a total number of 90 EFL advanced male and female learners whose ages ranged between 25 and 40 at different branches of Iran Language Institute (ILI) in Tehran, received a valid and reliable sample of paper-based TOEFL which was first piloted with 30 students with similar characteristics to the main participants to check its reliability and then the test was implemented in the study. It should be mentioned that the pilot sample were male and female students of the same level (advanced) in English language proficiency studying at The ILI which had the same teaching materials as the under study institute. The selection of participants was done as follows:

At first, 90 advanced male and female students were selected non-randomly and a piloted TOEFL was administered to them. After the administration of the TOEFL, the students whose scores fell within the range of one standard deviation above and below the mean shaped the main participants of the study. Fortunately, the researcher could select 60 participants from among a total number of 90 learners studying in the advanced level. The students who did not meet the criterion also were allowed to participate in the study but their scores were not included in the related analyses of the study. The selected participants were assigned to two groups: One experimental group with 31 learners (16 females and 15 males) and one control group with 29 students (16 females and 13 males), consisting of 13 to 16 students in each class. Furthermore, the participants had been studying English in the same language school for at least 10 semesters (from elementary to the advanced level). All the participants had studied English courses in the public schooling system which is uniform all over the country. Therefore, the researcher's expectation in terms of the learners' language proficiency level was met into a high extent as they did not differ so much in this regard.

Instrumentation

The data for the present study was collected by means of two tests: a paper-based TOEFL and a writing test which was used as pre and posttests.

Test of English as a Foreign Language (TOEFL)

To homogenize students at advanced level, a standard version of paper-based TOEFL released by the ETS in 2002 was employed. However, the listening comprehension section was deliberately omitted to make its administration more feasible. The test then was piloted and used in the present study. The whole test included 40 grammar and written expressions and 50 reading comprehension items (the total score of the test equaled to 90). The administration of the whole test took around 120 minutes.

Pre and Post Tests of Writing

The second instrument in the pre-treatment level was a pretest of writing (selected from among the standard topics of TOEFL) which was given to the participants selected after the pre-test of language proficiency. The writings of the learners were corrected employing the inter-rater method and the ETS rubrics (2000). This revealed how well they were familiar with the concept of writing before the treatment began. Reliability and validity of the test was taken into consideration

as well. It is worth mentioning that in correcting and scoring the writing papers, the writing rubrics and criteria developed by the TOEFL center in the states (ETS) and those of the European Council (2010) were taken into consideration.

Training (making the learners scale wise)

It is worth mentioning that the learners were trained to get acquainted with this scoring system throughout the study and were asked to keep in mind the scoring system when they were dealing with this process. This not only increased the "ethics load" of the scoring system, but also made the learners more test wise and helped them get more aware of and conscious towards what they were doing. Since the rating system and scoring was practiced throughout the study, learners were encouraged to promote their writings towards the excellence and that was why they tried to be creative as much as possible. The learners also were provided with a copy of the scale and scoring system presented by the European Council.

Raters

Since the system employed in scoring in the present study was inter-rater method, at least two raters were required to check the learners' papers. The researcher herself was one of the raters and the other rater was a well-known university lecturer who had been an IELTS examiner in the British Council and had written and compiled more than 30 course books in English, published home and abroad. Based on the rating manual of European Council the raters always considered and checked the scale presented by the Council prior to scoring each and every piece of writing.

Procedure

The present study was conducted in three phases namely, pretest, treatment, and the posttest.

Pretest Phase

The first phase of this study was the pilot phase during which 30 intermediate students with similar features to the target sample took both the assessment instruments comprising the sample TOEFL used for homogenizing and the pretest of writing. The results of the tests in this phase helped the researcher select the appropriate and homogenized participants for the study. In this phase of the study the participants were selected. First, the piloted TOEFL was administered to 90 advanced students to homogenize them regarding their general English proficiency. Out of 90 students, 60 students whose scores had fallen one standard deviation above and below the mean shaped the main participants of the study.

The selected participants were randomly assigned to two groups, an experimental and a control group with 31 and 29 students in each, respectively. Due to the nature of the convenient non-random selection of the samples the discarded students were attending the classes, but their scores on the pre-test and post-test were not included in the study. Then the participants of the study in both groups received the writing pretest to assure their homogeneity regarding their second language writing.

Treatment phase

Since this study lasted 8 sessions within 4 weeks the students were just given 8 topics, one topic for each session. In the experimental group the learners' background knowledge was activated through e-mailing while the control group received no background knowledge activation through e-mail. In this phase, the teacher involved the learners in the new instruction (treatment). Like the TOEFL writing section, all groups were assigned to write about one topic, and were given 30 minutes to write an essay of about 4-5 paragraphs, or 300-350 words in the classroom out of various topics.

Working with these topics was considered as the treatment for the experimental group. During writing topics the experimental groups' background knowledge was activated through e-mail

before writing while the control groups received no background knowledge activation through e-mail.

Cue Cards

Students in the experimental group were sent some cards via e-mail by the teacher relevant to the topics with different pictures or key words illustrated on them. These cards could activate the learners' background knowledge to elaborate their comments on the related topics while the students in control group were just introduced the same topics without cue cards in the classroom to write a paragraph for the next session. Hence, this was just considered as one of the ways of activating background knowledge.

E-mails and Computers

The students in experimental group received e-mails, containing cue cards and some special outline of the topics on the writing topics and they replied the e-mails by typing the topics in the Word Software attaching to their e-mails and sending them to the researcher. Fortunately, in this new age of communication, all of the participants were well conversant with the technology of computer, e-mail, and internet and they all had computers and access to the internet, so the investigator faced no challenge in this important case.

Post test Phase

Following 4 weeks of instruction in 8 sessions the post test of writing was administered. The papers of the participants were collected, scored via the inter-rater method, and analyzed by using SDPSS version 21 and reported.

Results

Pilot study of TOEFL

A sample of paper-based TOEFL was piloted in the first phase of the study. The results represented that the mean was 59.8 and the SD was 10.81.The reliability of the test then was calculated as 0.79 based on Kr-21 method which is an acceptable reliability. Table 1 shows the descriptive calculations related to the paper-based TOEFL pilot study.

Table 1 Calculations of paper-based TOEFL pilot study

Total Numbers:	30
Mean (Average):	59.8
Standard deviation:	10.81
Variance(Standard deviation):	118.012
Reliability based on KR-21	0.79

Subject-Selection Statistics

The piloted and validated TOEFL test of general language proficiency was administered to 90 students. Based on the mean of 61.78 and standard deviation of 11.31 (Table 2), 60 subjects were selected for the main study. Table 2 below represents the descriptive statistics of the subject selection procedure.

Table 2 Descriptive Statistics of subject selection by TOEFL

	N	Mean	Std. Deviation	Variance	KR-21
TOEFL	90	61.78	11.314	128.017	.82
Valid N (listwise)	90				

General Language Proficiency Test (TOEFL)

An independent t-test was run to compare the experimental and control groups' mean scores on the TOEFL test in order to prove that both groups enjoyed the same level of general language proficiency prior to the administration of the treatment. As displayed in Table 3 the experimental (M = 61.39, SD = 7.28) and control (M = 62.69, SD = 6.56) groups showed almost the same means on the TOEFL test.

Table 3 Descriptive Statistics TOEFL by Groups

Group	N	Mean	Std. Deviation	Std. Error Mean
Control	29	62.69	6.569	1.220
Experimental	31	61.39	7.283	1.308

The results of the independent t-test (t (58) = .72, P > .05, R = .095 representing a weak effect size) (Table 4) indicate that there was not any significant difference between the two groups' mean scores on the TOEFL test. Thus it can be concluded that they enjoyed the same level of general language proficiency prior to the administration of the treatment.

Table 4 Independent t-test TOEFL by 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 variances assumed	.274	.603	.726	58	.471	1.303	1.795	-2.290	4.895
Equal variances not assumed			.728	57.928	.469	1.303	1.789	-2.278	4.883

Research Question1

Does providing background Information via e-mail by the teacher and writing e-mail by the students have any effect on Iranian EFL learners' writing ability?

An analysis of covariance (ANCOVA) was run to compare the male and female experimental and control groups' means on the posttest of writing while controlling for possible effects of their entry writing knowledge as measured through the pretest. Based on this statement it was concluded that there were three variables involved in the present ANCOVA; design, gender, and groups (independent variables), posttest of writing (dependent variable) and pretest of writing (covariate). The ANCOVA aimed at comparing the groups on the posttest while controlling for the possible effect of pretest.

The ANCOVA has two more specific assumptions; homogeneity of regression slopes and linear relationship between the dependent variable and the covariate each of which can be probed through scatter plots.

A: Homogeneity of Regression Slopes

This assumption assumes that the relationship between the dependent variable (posttest) and covariate (pretest) shows the same regression slopes across the two groups. As displayed in the scatter plot below (Figure1) the regression line for experimental group (solid line) and control group (dotted line) did not show any interaction, i.e. they showed the same direction. Based on these results it was concluded that the assumption of homogeneity of regression slopes was met.
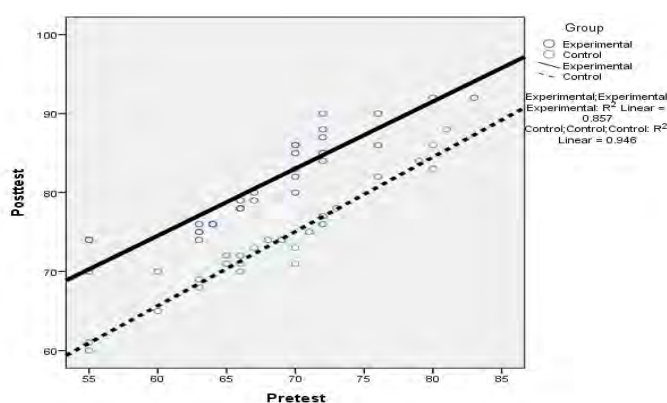
Figure1: Scatter plot representing homogeneity of regression slopes; writing tests by groups

B: Linear Relationship between Dependent Variable and Covariate

If the same scatter plot is drawn for the two groups separately, the linear relationship between the dependent variable and covariate could be tested by examining the spread of dots around the diagonals. If the dots mainly spread around the diagonal, it could be concluded that the second assumption was also met. As displayed in the scatter plot below (Figure 2) the spread of dots for both groups were close to the diagonals.
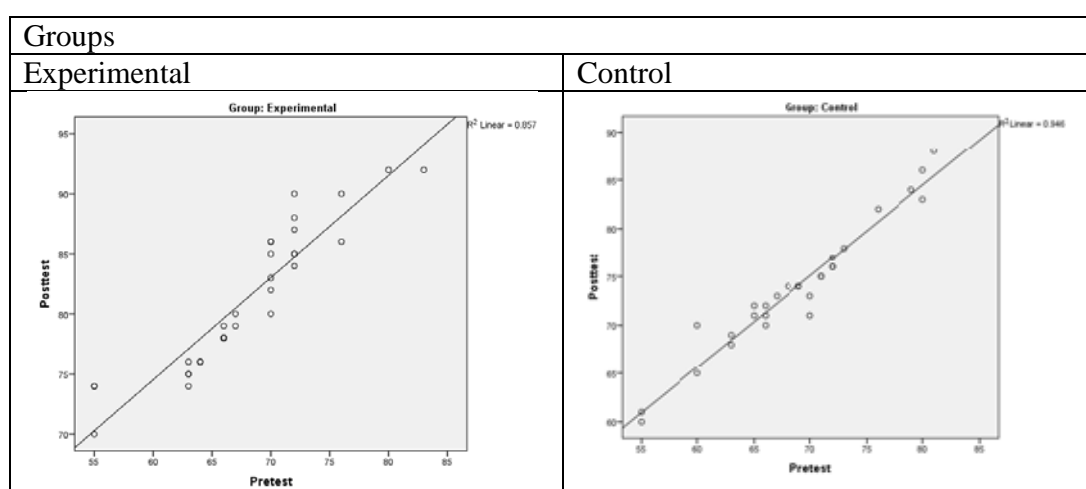
Figure 2: Scatter plot representing assumption of linear relationship between dependent variable and covariate

The results of ANCOVA (F (1, 58) = 259.721, P < .05, Partial η^2 = .82, representing a large effect size) (Table 5 below) indicated that there was a significant difference between the means scores of the experimental and control groups on the posttest of writing after controlling for their entry knowledge as tested through the pretest. Thus the first null-hypothesis as "providing background Information via e-mail by the teacher and writing e-mail by the students did not have any effect on Iranian EFL learners' writing ability" was rejected.

Table 5 Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Pretest	1900.791	1	1900.791	521.370	.000	.905
Group	946.910	1	946.910	259.729	.000	.825
Gender	1.512	1	1.512	.415	.522	.007
Error	200.517	55	3.646			
Total	366274.000	60				

As displayed in Table 6 the experimental group (M = 81.69) outperformed the control group (M = 73.70) on the posttest of writing after removing the effect of the pretest.

Table 6 Posttest of Writing by Groups by Pretest

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Experimental	81.696	.343	81.007	82.384
Control	73.701	.357	72.986	74.417

Research Question 2

Does providing background information via e-mail by the teacher and writing e-mail by the students has more effect on writing ability of male learners than females?

The results of ANCOVA (F (1, 55) = .415, P > .05, Partial η2 = .007, representing a weak effect size) (Table 5 above) indicated that there was not any significant difference between the male and female subjects' means scores on the posttest of writing after controlling for their entry knowledge as tested through the pretest. Thus the second null-hypothesis as "providing background information via e-mail by the teacher and writing e-mail by the students doesn't have more effect on writing ability of male learners than females" **was supported.**

Table 7, below displays the means for the male (M = 77.85) and female (M = 77.53) subjects on the posttest of writing after removing the effect of the pretest.

Table 7 Posttest of Writing by Gender by Pretest

Gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Male	77.858	.362	77.133	78.583
Female	77.539	.338	76.863	78.216

The present study aimed at investigating the effect of providing background information via e-mail by the teacher and writing e-mail by the students on Iranian EFL learners writing ability. The data were analyzed through the parametric tests of independent t-test and analysis of covariance

(ANCOVA) which are based on three main assumptions of interval data, independence of subjects, and normality. The first two assumptions do not have a statistical test. The researcher confirmed that the data were measured on an interval scale and the subjects performed on the tests independently. The normality assumption was also met. As displayed in Table 8 the ratios of skewness and kurtosis over their respective standard errors were within the ranges of +/- 1.96.

Table 8 Testing Normality Assumption

Group		N	Skewness			Kurtosis		
		Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
Experimental	TOEFL	31	-.136	.421	-0.32	-.952	.821	-1.16
	Pretest	31	-.121	.421	-0.29	.518	.821	0.63
	Posttest	31	.128	.421	0.30	-.994	.821	-1.21
	Valid N (listwise)	31						
Control	TOEFL	29	-.066	.434	-0.15	-1.028	.845	-1.22
	Pretest	29	-.124	.434	-0.29	-.090	.845	-0.11
	Posttest	29	.100	.434	0.23	.392	.845	0.46
	Valid N (listwise)	29						

The assumption of homogeneity of variances was not reported because it is an obsolete test as noted by Filed (2013, P. 297):

Statisticians used to recommend testing for homogeneity of variance using Levene's test and, if the assumption was violated, using an adjustment to correct for it. However, people have stopped using this approach for two reasons. First, when you have violated this assumption it only matters if you have unequal group sizes: if you don't have unequal group sizes, this assumption is pretty much irrelevant, and can be ignored. Second, the tests of homogeneity of variance like Levene's tend to work very well when you have equal group sizes and large samples (when it doesn't matter as much if you have violated the assumption) and don't work as well with unequal group sizes and smaller samples (which is exactly when it does matter).

Construct Validity

A factor analysis was run to probe the construct validity of the tests employed in this study. The SPSS extracted two factors which accounted for 92.73 percent of the total variance.

Table 9 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.064	68.789	68.789	2.064	68.789	68.789
2	.718	23.948	92.737	.718	23.948	92.737
3	.218	7.263	100.000			

Table 10 displays the factor loadings of the tests under the extracted factors.

Table 10 Rotated Component Matrix

	Component	
	1	2
Pretest	.924	
Posttest	.922	
TOEFL		.978

Inter-Rater Reliability Indices

The inter-rater reliability indices between the two raters who rated the subjects on pretest of writing (R (58) = .90, P < .05 representing a large effect size) and posttest of writing (R (58) = .89, P < .05 representing a large effect size) indicated significant agreement between the two raters.

Table 11 Inter-Rater Reliability

		PreR2	PostR1
PreR1	Pearson Correlation	.905[**]	
	Sig. (2-tailed)	.000	
	N	60	
PostR2	Pearson Correlation		.898[**]
	Sig. (2-tailed)		.000
	N		60

**. Correlation is significant at the 0.01 level (2-tailed).

Discussion

The findings of the present study firstly revealed that providing background information via e-mail by the teacher and writing e-mail by the students highly affected Iranian EFL learners' writing ability. Secondly, the results revealed that providing background information via e-mail by the teacher and writing e-mail by the students doesn't have more effect on writing ability of male learners than females. This signifies that providing background information via e-mail by the teacher and writing e-mail by the students doesn't have any significant effect on writing ability of the learners regarding their gender. Both of these findings are in line with the findings of other researchers recorded in the literature:

Sergeant (2001), comparing students' writing performance written by pen and pencil with students' writing performance written through technology, claimed that technology can have a positive impact on learners' writings.

The results of this study are to some extents similar to those obtained by Toyoda (2001) who claimed that "the technology can have a positive impact on learner autonomy when learners have extensive experience with technology" (Toyoda, 2001, p. 11). He furthered that "it also can have a positive impact on autonomy only when learners perceive technology as a useful tool" (Toyoda, 2001, p. 11).

The positive effects of technology on language learning also have been demonstrated by Warschauer (1996) who found that using technology in teaching encourages learners to develop their language skills. The common things among all these studies is that, by connecting classroom learning with other learning outside the class situation students may see new ways of learning experience as an extension to the future (Allford & Pachler, 2007).

In other research findings, Donaldson and Kötter (1993) and Kartal (2002) found that CALL applications are interesting and motivate students in foreign language learning.

Different justifications can be brought for this finding. First of all, the participants of this study were advanced students and in lower levels there may be some differences. Advanced students may have the experience of working with computers for some years and their writing ability might have improved to some extent because of dealing with the language before. It seems that for them, the use of technology influences their writing ability.

The second finding of the study focuses on the gender factor, presenting that providing background information via e-mail by the teacher and writing e-mail by the students doesn't have any significant effect on writing ability of the learners regarding their gender.

A number of studies have examined the role of writing instruction in second language writing development and its relation with gender and have reached different conclusions: Boxie, (2004) determined that, exceptionally, boys are superior to girls in the essay writing. Similarly, Carr and Thompson (1996) found that men performed significantly better than women in a test of academic writing. In Brown and Dexter (2002), Burgstahler and Cronheim (2001), Absalom and Marden (2004), and Allford and Pachler (2007) males also outperformed females in the second language writing. By contrast, in Cascio and Gasker (2001), Cifuentes and Shih (2001), Castañeda (2005), and Cook-Sather and Mawr (2007) women performed better than men in reporting, essay writing, and summarizing as well note taking.

Nevertheless, Davis and Winek (1989) in their study concerning improving expository writing by increasing background knowledge discovered no significant gender differences in the writing performance test.

Fotos (2004) in his study entitled writing as talking: e-mail exchange for promoting proficiency and motivation in the foreign language classroom pointed out that female learners performed better than males in writing development. Another study done by Gonglewski, Meloni, and Brant (2001) which focused on using e-mail in foreign language teaching also revealed that women outperformed men in expository writing.

Additionally, highly significant differences were found in favor of females in the mean number of words produced in response to the cues of a lexical availability test (Jiménez & Ojeda, 2009). A set of recent studies compiled in Jimenez (2010) also point to mixed results on gender differences or tendencies. As Sunderland (2010) claims, a careful analysis of this compilation allows us to conclude that the relationships between writing development and gender are not enduring, but may be context and test type-specific with other "third factors" such as L1, age or L2 proficiency, influencing them. Therefore, gender is acknowledged as a complex and nuanced issue. Likewise, regarding the role of gender in second language writing strategies, Davenport (2006) observed that girls were superior to boys in quantitative and qualitative terms. In other words, girls used a greater number of strategies and also a wider range of strategies than their male peers. Shang (2007) also concluded that there are differences in the strategies used by members of both sexes, although she reports similar results for second language writing outcomes.

To sum up, it can be concluded that providing background information via e-mail by the teacher and writing e-mail by the students on Iranian EFL learners' writing ability proved positively effective and it also supported the fruitful and rewarding effect of the cooperative learning as an offshoot of employing such tasks. The role of technology in the second/foreign language development was also emphasized.

Conclusion

The present study revealed that activating learners' background information via technology is effective in enabling learners to improve their writing skill. In accordance with and in support of previous research, the results of the present study indicated that the learners who received

background information via e-mail by the teacher improved their writing skill. Those who did not receive background information did not make progress in their writing skill. It is hoped that the findings of this study provide further directions and guidelines for researchers and those interested in writing skill and background knowledge with the aim of enhancing learning and supporting the needs and requirements of EFL learners in the Iranian context. It is also hoped that by integration of activating background information and writing skill more opportunities are provided for the EFL learners to equally benefit from learning and education.

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