

Effects of Online Reading on Persian-Speaking EFL Learners' Writing Performance

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Abstract: The present study was an attempt to explore effects of online reading, on Persian-speaking EFL learners' writing performance. 57 intermediate EFL learners were divided into the experimental group (EG) and control group (CG) and participated in a pretest-posttest study. During the 4-week treatment, the EG learners experienced an online reading program as the treatment, while their CG counterparts received traditional writing instruction. At the end of the experiment, a posttest was conducted to assess the possible improvements in each group. To determine whether there were significant differences in participants' performances, independent samples *t*-tests and paired sample *t*-tests were utilized. Findings of this study indicated that online reading activities significantly improved EFL learners' writing performances. Results of this study provide practical implications for language teachers and materials developers to include online activities in EFL classrooms to assist students in establishing their writing abilities.

Key words: Online reading, EFL writing, Writing performance.

Introduction

According to Rivers (1981) writing is one of the most demanding skills that EFL/ESL students have to master; however, Richards (1990) complained about the fact that writing in EFL contexts has been underestimated. The outstanding importance of this fundamental skill is further stated by Olshtain (2001) who viewed writing as a means of conveying one's message to either known or unknown readers. Hacker, Keener,

and Kircher (2009) defined writing as "the production of thought for oneself or others under the direction of one's goal-oriented metacognitive monitoring and control, and the translation of that thought into an external symbolic representation" (p. 154). It is believed that writing proficiency is the key to conveying written messages accurately and effectively. Hence, utilizing effective methods of teaching which enhance students' ability to express ideas and feelings through writing is vital for teachers (Keshta & Harb, 2013).

Historically, writing is taught through product-oriented and process-oriented approaches (Hyland, 2009). In the era of dominance of the audiolingualism, product-oriented approaches in which forms and styles of writing were focused became commonplace (Pilus, 1993). However, in the late 60s and 70s and with the advent of process-oriented approaches toward writing, which emphasized writing as a complex process consisting several stages, a shift of focus from the product to the process took place (Hyland, 2009).

Due to their limited knowledge of structural rules and vocabulary, most EFL learners encounter difficulties accomplishing writing assignments (Al-Meni, 2008). Hence, EFL teachers have always tried to find and utilize approaches to facilitate and improve their students' writing process. In the past two decades, a large body of studies have explored either the relationship between reading and writing, or the effect of reading on learners' writing performance from different aspects, including Flower, Stein, Ackerman, Kantz, McCormick, and Peck (1990) and Kellogg's (1994) on cognitive psychology of learning/writing, Hirvela's (2001) on EAP writing courses, and Kucer's (2005) in sociolinguistics. As Grabe (2003) mentioned, scholars in different fields of study such as education, learning psychology, and applied linguistics are interested in the relationship between reading and writing. As it was mentioned by Kennedy (1994), teaching writing based on reading activities was first used for native English speaking students and different textbooks have been designed to provide numerous articles and topics to help these students in their writing activities.

Hirvela (2004) claimed in order for an individual to become a proficient writer, one needs to be a proficient reader; he maintained that other skills can be blamed for problems language learners experience in writing. He pointed out that “problems in writing might actually start with problems in reading” (p. 39). Moreover, he contended that in L2 writing classrooms not only writing, but also reading proficiency should be focused; otherwise, learners will be deprived of an efficient writing and composing experience.

Tsai (2006) asserted that although many ESL/EFL teachers teach reading and writing as independent and separate skills, their common features can positively affect each other and result in improving learners' skills. Hence, teachers in EFL contexts should introduce reading and writing activities in a connected approach and help learners to be able to use various resources to become both good readers and writers. Moreover, in order to improve learners' literacy abilities, they should help their students realize the significant role of reading activities in constructing their writings.

Smagorinsky (1992) claimed that the implementation of reading model essays as a technique to develop the writing skill has a long history. Moreover, Greene (1993) asserted that reading and imitating well-structured texts play an important role in improving students' writing skills; “The expectation is that students will internalize the style, grace, and correctness that make these works exemplary” (p. 34).

Laurillard (2008) argued that modern technology and technological advances can provide new teaching and learning techniques and they have become an indispensable part of any educational system. However, As Aghigh and Bodaghi (2011) mentioned, in the 21st century, the ubiquity of information technologies in language education and EFL/ESL contexts has provided learners and teachers with opportunities to access an infinite number online resources required for their learning and teaching improvements disregarding time and place. Moreover, Siemens (2005) coined the term ‘connectivism’ as the learning theory in the digital

age. He claimed learners in the 21st century need to be able to quickly skim and scan what they read and extract the information they need.

As Lambeir and Ramaekers (2007) indicate, employing computers in EFL learning has increased the speed of both reading and writing activities. Most language learners, these days, have access to numerous online information and resources from which they can extract relevant information to use into their writings. Therefore, in line with previous research and taking the potentials of technological advances in education, the present study was intended to examine effects of online reading, as a prewriting activity, on Persian-speaking EFL learners' writing performance.

Review of the Literature

Various studies including Ghaleb (1993), Sullivan and Pratt (1996), and Liou (1997) proved that teaching writing through web-based approaches is more effective than traditional ones in terms of producing large amounts of quality writings. For example, in their study, Al-Haq and Al-Sobh (2010) investigated the effects of a web-based writing instructional program on 122 Jordanian secondary students' writing performance. Participants of the study were 52 male and 70 female students divided into two experimental and two control groups. Before the instruction, all groups were asked to write a composition on a topic introduced by the teacher as the pretest, in order to determine their writing proficiency. The experimental groups were asked to surf the Internet to find relative materials in order to use in their writings. These students were taught through a website on which they shared their ideas and writings with other peers and the teacher to receive feedback and do the necessary revisions.

The control groups on the other hand, orally discussed their ideas in the classroom as a prewriting activity. They then wrote their compositions and the teacher gave feedback and corrected them. At the end of the instruction, a posttest, a composition on the same topic as the pretest, was administered to all groups in order to evaluate students' writings in terms of content, organization, vocabulary, and grammar.

Findings of this quasi-experimental study revealed that experimental groups wrote better compositions and achieved higher scores than the control groups. Moreover, it was observed that the females' experimental group outperformed the males' experimental group in writing achievement.

In another study, Behjat, Yamini, and Bagheri (2011) conducted a pre-experimental study on 156 Persian-speaking EFL learners in order to discover the effects of utilizing e-tools on improving their writing proficiency. According to the results of an essay writing test, conducted as the pretest before the instruction, they were divided into three groups; two groups received in-class instruction and were required to do out of class assignments through using e-tools, such as weblogs and wikis. Finally, the third group were instructed through podcasts. At the end of the instruction, a posttest with a similar topic to the pretest was administered to all students. The findings of this study indicated that all three utilized e-tools enhanced students' writing abilities; however, the effects of using weblogs were more considerable.

Doan and Bloomfield (2014) conducted a study on 49 elementary school students in Virginia, the United States, to discover the influence of using the Internet on their essay writing scores. Participants were randomly assigned to two experimental groups: one received internet instruction and the other received no internet instruction. There was also a control group which received traditional classroom instruction. The experimental groups searched the Internet for 30 minutes to find relevant materials to use in their writings, while the control group did not have access to any resources. Findings of this study indicated that participants of both experimental groups, who benefited from internet resources, outperformed their counterparts in the control group.

Despite the findings of these studies, there are other studies, such as Biesenbach-Lucas and Weasenforth (2001) and Leh (1999), which not only denied the positive

effects of web-based instruction, but also claimed these types of instructions have negative effects on learners' writing performance.

In line with previous research on the topic, the present study was intended to scrutinize effects of online reading activities on Persian-speaking intermediate EFL learners' writing performance. The rationale behind conducting this study was writing difficulties many Persian-speaking EFL learners encounter, which might be the result of traditional product-oriented approaches towards writing which disregard prewriting activities. Therefore, this study was conducted to find answer to the following research questions:

1. Does online reading before writing have a significant effect on Persian-speaking EFL learners' writing performance?
2. Is online reading before writing more effective than traditional methods in terms of their effects on Persian-speaking EFL learners' writing performance?

Methodology

Participants

A total of 57 EFL learners selected from two branches of Islamic Azad University in Isfahan province, Isfahan (Khorasgan) and Najafabad, in the field of TEFL participated in this study. All the participants were homogenous in terms of their native language that was Farsi; moreover, given the significance of homogeneity, in order to choose homogeneous participants, the Oxford Placement Test (QPT) (Allen, 2004) was conducted. The obtained scores ranged from 29 to 42, which indicated intermediate level of EFL proficiency. Afterwards, participants were divided to experimental and control groups; students from Isfahan (Khorasgan) branch were selected for the former, and those from Najafabad branch were selected for the latter group. The experimental group included 30 students who received online reading before writing as the treatment. Likewise, the control group included 27 students who received traditional methods of writing instruction.

Materials and Instruments

The first instrument employed in this study was QPT (Edwards, 2007), which includes 60 items for which the participants were required to choose the correct answer. As the second instrument, Brown and Bailey's (1984) analytic scoring rubric was employed to evaluate students' writing performance. Using regression analysis and generalizability theory, Brown and Bailey tested and assured the reliability of the instrument. As long as validity is concerned, they named measuring EFL/ESL writing performance as the sole purpose of the scale. In addition, Shehadeh (personal communication) pointed out that "Brown and Bailey's scoring scale is a tested, valid and reliable scale used widely in the literature". The scale includes detailed descriptions and scoring procedures to avoid any subjectivity when scoring writing performances. Furthermore, in order to prevent the impression that the outcome of the study was mainly a function of subjective decisions, we made sure that the raters did not know anything about the samples and the assignments were given codes to make sure that not even the names of the participants would affect their rating. This helped to prevent any possibility of favoring one group over another. As a final stage to prepare the raters and ensure more consistency, a meeting was held and the scale was introduced completely and the researcher explained all the parts of the scale in detail and answered any question the raters had. To assure the reliability of the scale for *this* study, the two independent raters who participated in the study evaluated the essays and the interrater reliability was 0.83, which is acceptable from a statistical point of view.

The materials used in this study were eight webpages, which provided online reading texts related to the writing topics for the students. The topics were selected according to the content and objectives of the study (Appendix A). In selecting the related webpages, both educational content and level of readability, based on McAlpine's EFLAW readability scale (2005), were considered. According to this scale which served as the third instrument, readability may range from 1-20 (very easy to understand), 21-25 (quite easy to understand), 26-29 (a little difficult) and 30+ (very confusing). McAlpine's EFLAW is calculated through the following simple formula:

$$\text{EFLAW} = \text{Number of Words} + \text{Number of Miniwords} / \text{Number of Sentences}$$

Procedure

The study was conducted among students who enrolled in the Essay Writing course at two branches of Islamic Azad University, Isfahan and Najafabad, during the second semester of 1394-95. At the beginning of the study, participants of the study were assigned to the experimental and control groups. Then in order to investigate their writing abilities before the experiment, students in both groups wrote an essay on the topic introduced by the instructor (*The role of technology in learning English*), which served as the pretest of the study. Afterwards students in the experimental group were instructed in online reading before their writing program, while students in the control group received traditional product-oriented instructions.

In the control group, students were provided with no prewriting activities. The instructor wrote the topic on the board and students were required to write an essay about it. In the experimental group, the instructor introduced two web pages where the students found reading texts related to the topic they would shortly be required to write about. In order to decrease the effect of learners' different reading abilities on the results of the experiment, it was essential to select reading materials which were comprehensible for all of the participants. Regarding the results obtained from the QPT, which indicated intermediate learners, McAlpine's EFLAW readability score (2005) was used and materials with the readability score ranging from 15 (very easy to understand) to 25 (quite easy to understand) were provided for the learners.

In the experimental group, participants were required to have their tablet PCs, laptops, notebooks, or smart phones in class so that they can connect to the internet, which was provided freely by the university. For those who had problems connecting to the internet in class, the second author used his own laptop and projected the internet pages on the screen so that students can see the pages too. Afterwards, students read the online pages and based on the topic, they wrote an essay. In addition to the introduced webpages, the students were allowed to surf the net and use other relevant webpages if they were interested in reading more texts; however, they were required to send the related links to the instructor. The students

were asked to write an essay each week in class, using Microsoft Word or the office applications in their mobile devices, and email it to the instructor who checked the assignments to make sure students had not plagiarized. This procedure continued for four weeks.

In the control group, however, no prewriting activities were provided for the students. Each session, the instructor wrote the topic on the board and asked them to write an essay on the topic. In order to establish a unified framework for the students, each session two blank sheets with the topics printed on the top **on** each page were given to the participants. They used one for their planning and outlining the draft and one to be used for their final version. This was done using Microsoft Word's Watermark. The words 'Draft' and 'Final Version' were inserted in the sheets.

At the end of the study, in order to investigate the effects of the treatment, a posttest was conducted which required all the students to write an essay on a topic similar to the pretest.

Data Analysis

In order to answer the first research question, writing performance was assessed by comparing the results of pretest and posttest writings. To do so, firstly Statistical Package for Social Sciences (SPSS) was employed to calculate mean scores and standard deviation in both experimental and control groups' pretest. Secondly, the mean scores of the two groups in writing pretest were analyzed through an independent samples *t*-test. The results indicated that at the beginning of the study they were homogeneous in terms of writing performance. Finally, to answer the second research question, an independent samples *t*-test was run to analyze the results obtained from the posttest. Then, two paired samples *t*-tests were employed to determine the possible improvements in each group.

Results

Results of the Writing Pretest

After making sure that the participants of the experimental group ($M = 34.63$, $SD = 4.18$) and control groups ($M = 34.78$, $SD = 4.57$) were homogeneous in terms of their level of proficiency ($t_{(55)} = -.125$, $p = .901$), participants of both groups took the writing pretest. The purpose of the writing pretest was to investigate whether both experimental and control groups were approximately equal in terms of their writing proficiency at the beginning of the study. Therefore, an independent samples t -test was run with scores as the dependent variable and the groups as the independent variable. Table 1 presents the results of the t -test.

Table 1. Independent samples t -test for the writing pretest.

		Levene's Test for Equality of Variances		t -test for Equality of Means		
		F	$Sig.$	t	df	$Sig. (2-tailed)$
Pretest	Equal variances assumed	3.341	.073	.553	55	.583
	Equal variances not assumed			.560	53.924	.578

Results show that there was no statistically significant difference between the experimental group ($M = 50.13$, $SD = 12.43$) and the control group ($M = 52.47$, $SD = 9.67$), and that they were quite homogeneous in terms of their writing proficiency at the beginning of the study ($t_{(55)} = .553$, $p = .583$). Results of the writing pretest for the both groups are graphically represented in Figure 1.

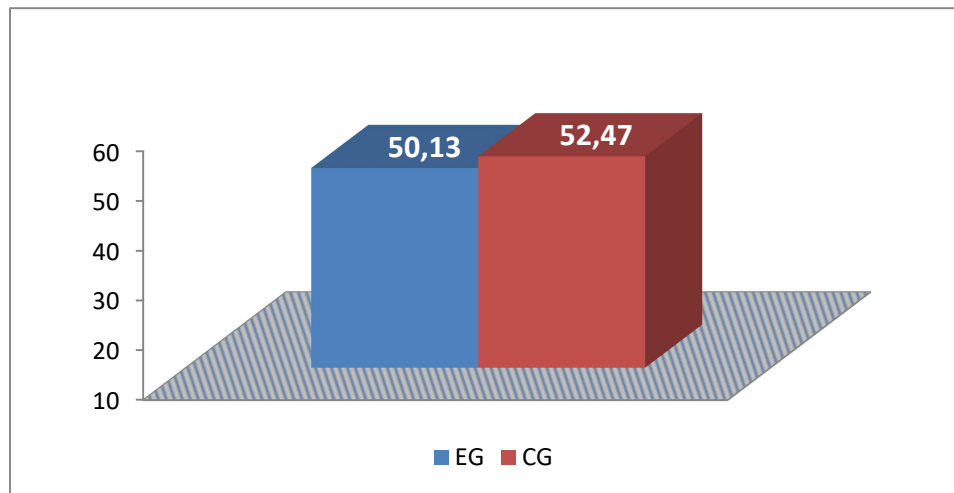


Figure 1. Mean scores of the writing pretest for the experimental and control groups.

Results of the Writing Posttest

In order to examine the effects of online reading, as a pre-writing activity, on Persian-speaking EFL learners' writing performance, results of the posttest were analyzed using an independent samples *t*-test (see Table 2).

Table 2. Independent samples *t*-test for the writing posttest.

		Levene's Test for Equality of Variances		<i>t</i> -test for Equality of Means		
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig.</i> (2- tailed)
Posttest	Equal variances assumed	10.484	.002	2.897	55	.005
	Equal variances not assumed			2.984	45.284	.005

Results show that there was a statistically significant difference between the experimental group ($M = 69.20$, $SD = 14.05$) and the control group ($M = 60.47$, $SD = 7.52$). In fact, results show that participants of the experimental group significantly outperformed those of the control group as long as writing proficiency was concerned ($t_{(55)} = 2.897$, $p = .005$). Results are also graphically represented in Figure 2.

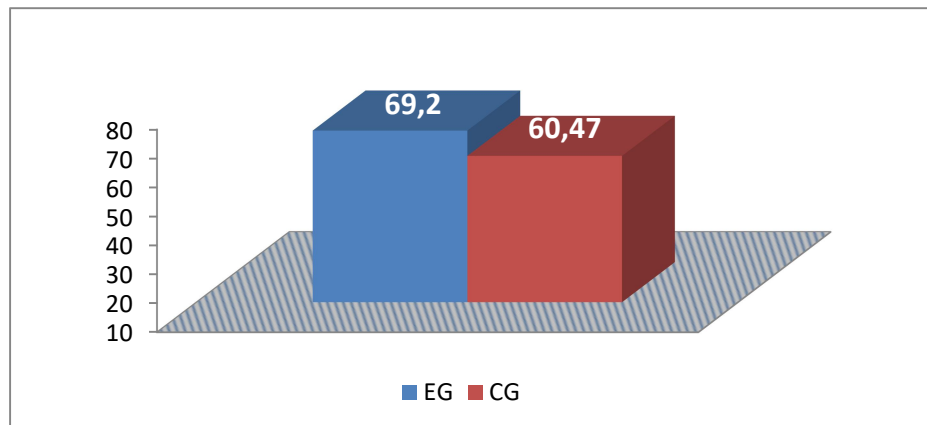


Figure 2. Mean scores of the writing posttest for the experimental and control groups
The results of this part of the study provide answer to the first research question: online reading, as a pre-writing activity, did affect Persian-speaking intermediate EFL learners' writing performance.

Results of Paired Sample T-Tests for Writing Pretest and Posttest

After showing the differences between the performance of the experimental and control groups, it was essential to have a closer look at the performance of each group during the experiment. Posttest results indicated that the writing performance of both experimental ($M = 69.20$, $SD = 14.05$) and control ($M = 60.47$, $SD = 7.52$) groups improved compared with the pretest results (for experimental ($M = 50.13$, $SD = 12.43$) and control ($M = 52.47$, $SD = 9.67$) groups) as a result of their own treatment, disregarding the significant effect which was mainly due to the independent variable, i.e. online reading. Hence, in order to discover the improvements within each group, two paired samples t -tests were conducted (Table 3).

Table 3. Paired samples t -test for the experimental group in writing pretest and posttest.

		Paired Differences		t	df	Sig. (2-tailed)
		Mean	Std. Deviation			
Experimental Group						
Pair 1	Pretest - Experimental Group Posttest	18.77	15.95	-6.445	29	.000

Results indicate that there was a significant difference between the pretest scores of the experimental group ($M = 50.13$, $SD = 14.05$) and those of the posttest ($M = 69.20$, $SD = 12.43$), $t_{(29)} = -6.445$, $p < .001$. Figure 3. illustrates the writing improvements in the experimental group.

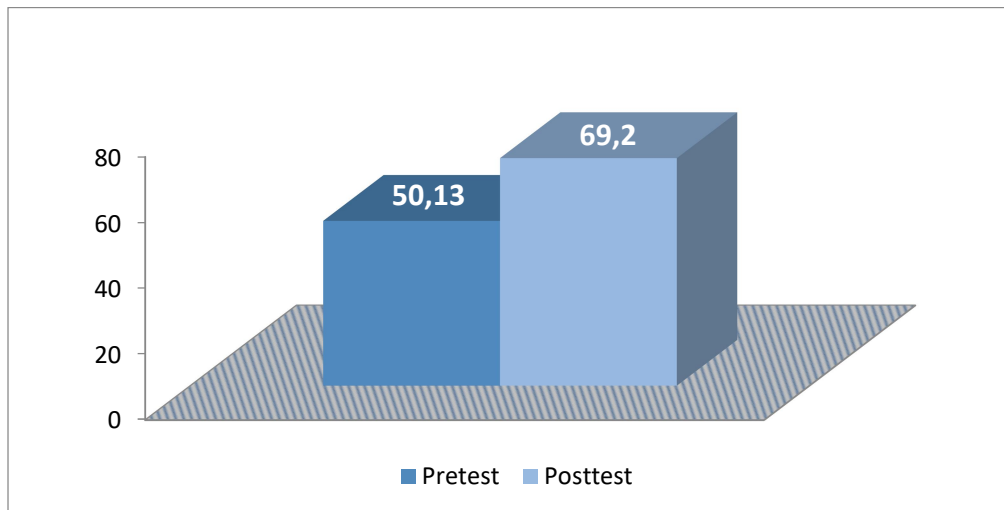


Figure 3. Mean scores of the experimental group pretest and posttest writing

Similarly, results for the participants of the control group were analyzed to examine whether they benefited from their own instruction (Table 4).

Table 4. Paired samples t -test for the control group in writing pretest and posttest.

		Paired Differences		t	df	Sig. (2-tailed)
		Mean	Std. Deviation			
Pair 1	Control Group Pretest - Control Group Posttest	8.33	6.63	6.534	26	.000

Results indicate that there was a significant difference between the pretest scores of the control group ($M = 52.47$, $SD = 9.67$) and those of the posttest ($M = 60.47$, $SD = 7.52$), $t_{(29)} = 6.534$, $p < .001$. Figure 4. illustrates the writing improvements in the control group.

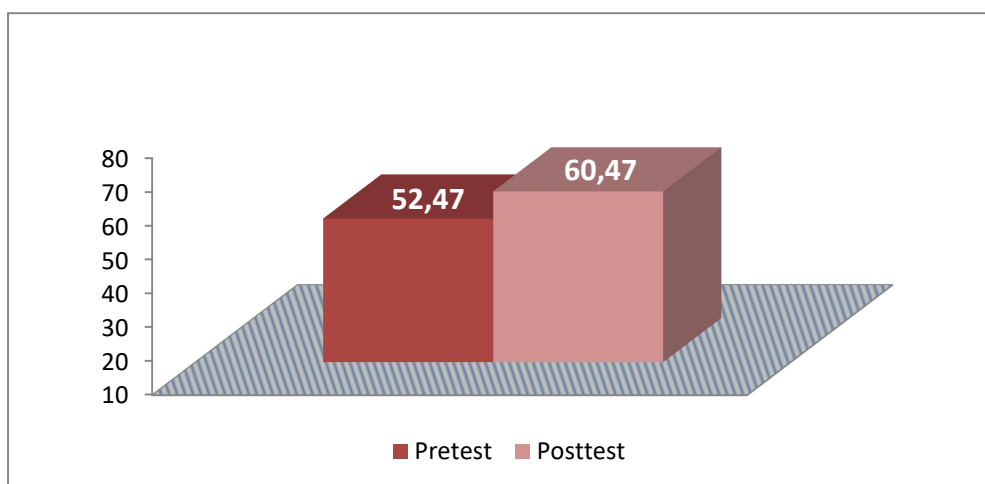


Figure 4. Mean scores of the control group pretest and posttest writing

Considering the results of the paired samples *t*-tests for both groups, it can be observed that the writing performance in both groups improved at the end of the study. However, the improvement in the experimental group was considerably more significant than the control group.

Discussion and Conclusion

This study was an attempt to explore the efficacy of online reading before writing on Persian-speaking EFL learners' writing performance. In addition, the study was intended to compare this effectiveness with that of the traditional product-oriented approaches towards writing, using a pretest-posttest design.

Regarding the first research question, the results of the writing pretest explicated that at the beginning of the study there were no statistically significant differences between the performance of participants of the control and those of the experimental group. Nevertheless, results of the writing posttest indicated that the writing performance in the experimental group was remarkably enhanced ($t_{(55)} = 2.897$, $p = .005$). Although, at the end of the study, the writing scores of the control group improved as well, it was not noticeable in comparison with those of their counterparts in the experimental group. Therefore, it can be concluded that online reading before writing significantly enhanced the writing performance of the participants in the experimental group.

Findings of this study are in line with two current mainstreams concerning improving writing performance. The first mainstream is the studies on the effectiveness of integrating reading and writing tasks, including Hirvela (2001) who argued utilizing different reading resources in performing writing tasks promotes an integrated reading/writing approach and enhances learners' writing achievements; and, Yoshimura (2009) who found that reading a text related to the writing topic significantly improved Japanese EFL learners writing performance. The second mainstream is the studies on the influence of using online and web-based approaches in improving learners' writing performance, including Al-Jarf (2004) who proved EFL learners who read relevant materials through websites such as "Yahoo Health" and "WebMD" and incorporated them into their writings, were more successful in producing quality writings; Behjat, Yamini, and Bagheri (2011) who discovered using e-tools, such as weblogs, improved students' writing performance; Ritchie and Black (2012) also discovered reading online forums or weblogs highly improved learners' writing performance in terms of producing argumentative essays; Doan and Bloomfield (2014) showed that students who browsed the Internet before writing expository compositions, produced more proficient writing assignments and gained better scores than those in the control group; and, Almelhi (2014) who found that Saudi EFL learners' writing performance was significantly improved after reading argumentative texts, in a web-based environment.

Considering the aforementioned findings, the answer to the second research question is clear. Using online reading which helps students perform their writing assignments through a process-oriented method of prewriting is more effective than traditional product-oriented methods.

Although today the use of the Internet is very common in Iran, its potential to be effectively employed in education has not yet received enough attention. The present study was an attempt to investigate the effect of online reading on Persian-speaking EFL learners' writing performance. Findings of this study confirmed that online reading significantly improved the learners' writing performance. Results of this

study can be helpful for language learners, language teachers, and curriculum designers.

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Appendix A

The Procedure of the Study for the Experimental Group

Session	Topic	Related Websites	McAlpine's EFLAW
Pretest	Can technology facilitate learning English as a foreign language?	-	
Week 1	How necessary is a higher education?	http://www.english-test.net/forum/ftopic55084.html%20December%2023	17
		http://learn.org/articles/What_is_the_Importance_of_Higher_Education.html	25.42
Week 2	The effects of technology on education.	www.securedgenetworks.com/blog/10-Reasons-Today-s-Students-NEED-Technology-in-the-classroom	17.37
		http://edteacherview.in/news/681-technology-in-education	26.82

Week 3	The benefits of reading for EFL learners.	http://www.persistenceunlimited.com/2007/12/the-26-major-advantages-to-reading-more-books-and-why-3-in-4-people-are-being-shut-out-of-success/	12.5
		https://www.englishclub.com/reading/guide-why.htm	15.06
Week 4	Does the Internet facilitate research?	http://www.ukessays.co.uk/essays/theology/advantages-and-disadvantages-internet-research-purposes.php#ixzz3vPMazH1n	22
		http://www.busandman.com/?p=28	26
Posttest	Can technology facilitate learning English as a foreign language?	-	