The Effect of Web-Integrated Instruction and Feedback on Self-Regulated Learning Ability of Iranian EFL Learners

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Abstract

The present study intended, firstly, to investigate the effect of web-integrated instruction on self-regulated learning ability in EFL writing, and secondly, to compare and contrast the effects of paper-based feedback and web-assisted feedback on the self-regulated learning ability. To this end, a quasi-experimental design was applied for both cases. In line with the first objective, an experimental group for implementing a web-integrated instruction as treatment, and a control group with a non-web-integrated instruction were formed. Each of the mentioned groups included an average of 15 Iranian EFL students who were pre-post tested through the Academic Self-Regulated Learning Scale (ASRLS) questionnaire. In the next phase of the study, two experimental groups for the paper-based and web-assisted feedback types and a control group with no feedback were randomly taken into account. The results of the Mann-Whitney U Test indicated a statistically significant difference between the self-regulatory ability in writing tasks of the web-integrated and non-web-integrated instruction groups. The participants in the experimental group who were taught through web-integrated instruction outperformed those in the non-web-integrated group in developing their self-regulatory strategies. Moreover, comparing the self-regulatory ability of paper-based feedback, web-assisted feedback, and no feedback groups through the application of the Wilcoxon Signed-Rank Test revealed that there was not a statistically significant difference between them, and with respect to the type of feedback the groups received, no group outperformed another in developing their self-regulatory strategies. As a result, it might be concluded that web-integrated writing instruction might have a significant influence on the self-regulatory ability while feedback type does not.

Keywords: Web-integrated learning, Self-regulation, Feedback, EFL writing

1. Introduction

The use of technology for writing includes computer-based projects, software programs, and word-processing that direct writing instruction and assist students in developing their own writing, emails, and websites (Burner, 1987). Research findings have supported the use of technology in teaching language. First, technology has positive influences on students' motivation (Tsou, Wang, & Li, 2002). Second, technology programs have been encouraged as cost-effective ways that could be used to

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replace or promote direct human input (Ware & Warschauer, 2006, cited in Tsou, 2008). Acting in the electronic community helps learners create, analyze, and produce ideas easier and more efficiently. Using emails and sharing files give students the chance to collaborate with peers and teachers (Belisle, 1996). The use of the Internet and the World Wide Web has affected the educational process, the way teachers teach students, and the field of EFL (Chuo, 2007). The Internet serves both as a communication tool and as an information resource (Cunningham, 2000; Lee, 2009). In fact, the most frequent classroom use of the Internet is searching for information resources (Grabe & Grabe, 2001). Accordingly, exposing students to the use of web-integrated writing instructional programs, the Internet and the World Wide Web may change students' attitudes towards language and this may help them write more efficient and more coherent academic compositions. Pennington (1993), Sullivan and Pratt (1996), and Braine (1997) found that the writing skills of EFL students who used a computer-mediated networked environment and web-integrated materials improved significantly. Use of blended learning technology gives students more control over their academic experience, providing them with the flexibility to learn at their own pace and better manage course loads and other outside responsibilities (Perie, Moran, & Lutkus, 2005). Also, applying web-based methods to teaching the language skills via the internet has become possible in the recent decades leading to a number of advantages over the traditional approaches (Birnbaum, 2000; Reips, 2002). For instance, through web-based methods, teachers can teach and assess large numbers of learners very quickly with heterogeneous classes of particular characteristics in a more cost-effective way in terms of time, space, and labor in comparison with the traditional approaches (Reips, 2006).

As a result, it is believed that such methods may contribute to the learners' sense of autonomy or self-regulation to decide what, when, where, and how to learn (Weinert, 1982). In other words, providing learners with web-integrated/blended learning strategies on their writing tasks may help them to move toward becoming more self-regulated writers (Stubbs, Martin, & Endlar, 2006). Self-Regulated Learning (SRL) in a broad sense happens if the learner is free to decide what, when, where and how to learn (Weinert, 1982). In a narrow sense, self-regulation refers to a learner's competence to plan, monitor, and evaluate his learning activities where the learning goals are usually set by a teacher/instructor or at least arise from an instructional setting. Self-regulated learning is the improvement of knowledge, attitudes, and skills pertaining to cognitive strategies, cognitive skills, and learning goals (Boekaerts, 1999). SRL refers to a learner's competence to plan, monitor, and evaluate his learning activities where the learning goals are usually set by a teacher/instructor or at least arise from an instructional setting. Self-regulated learning is the promotion of knowledge, attitudes, and skills relevant to cognitive strategies, cognitive skills, and learning goals (Boekaerts, 1999). Self-regulation is evident in learners who are both self-directed and goal-oriented, and those who combine and use a variety of strategic behaviors to optimize their academic performance (Lindner & Harris, 1992). It is an active process whereby students set goals for their learning and then try to regulate and control their cognition, motivation, and behavior (Pintrich, 2000). It is important to the learning process (Jarvela & Jarvenoja, 2011; Zimmerman, 2008), and can assist students to strengthen their study skills (Wolters, 2011), use learning strategies to improve academic outcomes (Harris, Friedlander, Sadler, Frizzelle, & Graham, 2005), monitor their performance (Harris et al., 2005), and evaluate their academic improvement (De Bruin, Thiede & Camp, 2011).

Stubbs, Martin, and Endlar (2006) maintain that web-integrated and blended learning not only provide more choices in learning, but also entail many benefits, such as enhancing learning effectiveness, extending learning scope for learning, economy in time and costs, a faster supply of knowledge and information, and consequently, more self-regulation in learning. Moreover, Kessler, Bikowski, and Boggs (2012) provide a theoretical framework to guide teachers and learners in the development and analysis of academic writing projects. They note that as technology-oriented learning evolves, students' use of technology for learning will change, and teachers' use of technology to

facilitate learning will need to change as well. They note increased opportunities for flexibility and fluidity in the composing and writing process, opportunities for simultaneous many-to-many writing in varied locations and time, and increased attention to the collaborative process through collective scaffolding through web-integrated learning. In other words, students and teachers alike find themselves becoming "co-constructers of content" in "co-constructed participatory" online spaces as English language learners are surrounded by a large amount of information and language on the web (Kessler, 2013, p. 307). Massive collaborative writing in Wikipedia, for example, not only includes the main encyclopedic entries for a topic, but often extensive talk-pages with meta-discussions (Kessler, 2013). At the center of the learning context is the collaborative autonomous language learner; a self-regulated learner who is able and willing to use language and appropriate communication strategies to "contribute personal meanings as a collaborative member of a group" as he/she negotiates the inherent tension between personal and group goals, where members also have their own priorities (Kessler & Bikowski, 2010, p. 53). In this vein, Storch (2005) recommends the "re-conceptualization of classroom teaching" (p. 169) in order for L2 students to be prepared for self-regulatory writing online, so that educators can monitor students' writing in real-time from a distance, for instance, through a wiki or web-integrated word processing, in addition to having increased opportunities for data-driven decision making in the classroom.

2. Literature Review

Generally, self-regulation is described as learners' efforts to direct their own learning by setting goals, planning how to achieve them, monitoring the learning task, using learning strategies to solve problems, and evaluating their own performance. Self-regulated learning models involve a description of what, how, and why students select a specific self-regulatory strategy, approach, response or explanation within learning (e.g. Azevedo & Cromley 2004; Butler & Cartier 2005; Kramarski & Mevarech 2003; Mevarech & Kramarski 1997; Palincsar & Brown 1984). The concept of self-regulation for academic learning originated in the field of educational psychology (Schunk & Zimmerman, 1998; Zimmerman, 1998; Zimmerman & Schunk, 2001) to describe learners who learn for their own purposes in spite of often adverse circumstances. Zimmerman (1998), for example, cites young Asian immigrants to the United States who, despite daunting economic, cultural, and linguistic challenges, have succeeded academically. Second language acquisition theorists have discussed self-regulation as a broader construct than language learning strategies (Cohen & Macaro, 2007; Dörnyei, 2005; Oxford, 2011; Oxford & Schramm, 2007). Thus, self-regulation involves a number of processes and understandings, including autonomy (Benson, 2011; Cotterall, 2008), learning strategies (Chamot, 2013; Cohen, 2011; Griffiths, 2013; Oxford, 2011), metacognition (Anderson, 2008; Chamot, 2009; Vandergrift & Goh, 2012), motivation (Dörnyei & Ushioda, 2011), and self-management (Rubin, 2001, 2005). Through understanding the different aspects of self-regulatory learning as predictors of later writing skills (Cutler & Graham, 2008; Hooper et al., 2010) and using evidence-based instructional practices, such as feedback from teachers and peers during writing (Graham et al., 2012; Troia & Olinghouse, 2013; Zumbrunn & Krause, 2012), learners can see improvements in their writing.

According to prior research in this area, self-regulatory methods include increased time for writing opportunities (Graham et al., 2012; Graham & Hebert, 2010; Zumbrunn & Krause, 2012), explicit teaching and learning of text structure, spelling, handwriting, and keyboarding skills (Graham et al., 2012), and explicit teaching and learning of self-regulated strategy development (Dunn & Finley, 2010; Graham et al., 2012; Graham & Hebert, 2010; 2011; Harris et al., 2003; 2008; Straub & Alias, 2013). Not only does improving writing skill help students learn to be better writers, but it also improves many aspects of other language skills such as reading, including reading comprehension, reading fluency, and word reading (Graham et al., 2012; Graham & Hebert, 2010; 2011). Among the many evolving approaches, technology enhanced collaborative tools have taken L2 writing instruction

into new and exciting spheres. Moreover, former research has focused on many aspects including collaboration between novice and expert students (Lee, 2004); relationships between pairs of students (Storch, 2004); features of collaboration (Fung, 2010); the effect of the environment (Kessler, 2009); the effect of the context, tools, and participants on collaborative writing (Arnold & Ducate, 2006); teacher interference in collaboration (Kessler, 2009); the role of task-type (Aydin & Yildiz, 2014); and the use of online tools (Kessler, 2009; Kessler & Bikowski, 2010; Kessler, Bikowski, & Boggs, 2012; Lee, 2004).

Thus far, evidence has been put forth that demonstrates a positive relationship between success in learning and learners' ability to self-regulate (Harris, Friedlander, Sadler, Frizzelle, & Graham, 2005). In fact, literature shows that learners who possess self-regulatory skills succeed (e.g. Azevedo & Cromley 2004; Butler & Cartier 2005; Kramarski & Mevarech 2003; Mevarech & Kramarski 1997; Palincsar & Brown 1984). In other words, research indicates that when learners are not successful, a lack of self-regulatory skills can be suspected. Many scholars in the literature have suggested supporting and fostering learners' self-regulatory skills.

Although the respective literature generally indicates that building self-regulatory skills scaffolded by web-integrated or technology-oriented strategies can be more effective in language learning, the amount of research in this area is so limited. In other words, no research has been published to date, specifically focusing on the effect of technology-facilitated academic strategies, especially web-integrated and blended-learning strategies, on the learners' self-regulatory learning ability, in particular, in an EFL writing context. Accordingly, since using a web-integrated writing program appears to be an efficacious strategy that may assist students write effectively in a self-regulated sense, the present investigation intends to explore the effect of web-integrated writing strategies on Iranian EFL learners' self-regulated mode of learning. In particular, this investigation is an endeavor to answer the following research questions:

Research Question 1: Does the implementation of web-integrated instruction make a statistically significant difference in Iranian EFL learners' self-regulated learning ability in writing tasks?

Research Question 2: Does the implementation of feedback types (paper-based and web-assisted) make a statistically significant difference in Iranian EFL learners' self-regulated learning ability in writing tasks?

3. Method

This study was a quantitative quasi-experimental research (Ary, Jacobs, Soresen, & Razavieh, 2010), where, firstly, an experimental group and a control group were examined in investigation into the effect of web-integrated instruction on the Iranian EFL learners' self-regulated learning ability in writing tasks, and secondly, two experimental groups for two treatment types and a control group were taken into account to explore the effects of two feedback types, i.e. paper-based and web-assisted feedback, on the Iranian EFL learners' self-regulated learning ability in writing tasks.

3.1. Participants

The participants of this study consisted of Iranian EFL learners from an English language institute in Alborz province, Iran, in 2017. The number of participants in this study was 78 (31 male and 47 female participants) who were homogenized using OPT as well as t-test analysis, resulting in 48 homogeneous participants (22 male and 26 female), who were randomly labeled as experimental and control groups. Two experimental groups were taken into account for the two treatments of paper- and web-based writing feedback, and also one group as a control with no feedback. Each group included 15 participants on the average. Furthermore, regarding the age of the participants, the learners' mean age

was 27 with the SD of 7, and the age range was 16-32 years. They were all at the intermediate level of proficiency based on their scores on OPT test which they took before attending the classes.

3.2. Instruments

The first instrument used in this study to determine the proficiency level of the participants prior to the treatments was the 100-grammar-item Oxford Placement Test (OPT). The second instrument applied was Academic Self-Regulated Learning Scale (ASRLS) questionnaire which was anchored on the framework of self-regulated learning by Zimmerman and Martinez-Pons (1986) with 55 items which evaluates self-evaluation, organizing, goal setting, seeking assistance, environmental structuring, learning responsibility, and memory strategy factors. The validity of the questionnaire has already been established by its developers and also by Jafarigohar and Mortazavi (2013), and its reliability was measured in this study through Cronbach alpha, resulting in a high level of reliability (r=.894).

3.3. Data Collection Procedures

Through OPT, the participants' proficiency was assessed prior to the treatments of the study. With regard to the first objective of the study, an experimental and a control group were sampled. Then, the experimental and control groups received a pre-test on the Academic Self-Regulated Learning Scale (ASRLS) questionnaire. After that, the experimental group received a type of web-integrated and blended-learning treatment during the whole semester, whereas the control group did not. The web-integrated and blended-learning treatment implemented in the experimental group comprised of the following features and strategies. The students in the experimental group sat in a computer center while connecting to the internet in a network fashion. The students' attention was captured at the start of the course before effective learning could take place through surfing the net and showing them some attractive online pages related to English language learning skills. In this phase, the students' curiosity towards web-based learning was activated through the teacher's enthusiasm, immediacy, and an inclusive environment prepared, attempting to illuminate the web benefits for language learning. Clear content structure and unambiguous instructions and guidelines regarding the web-user-friendliness were presented by the teacher at the start of the treatment. Challenging, authentic web-directed tasks; and timely, elaborated respective feedback were among the practiced exemplars in this phase.

The students in the experimental class were told to refer to an online site to find information and resources for aspects of the writing course relating to administration and assessment requirements related to each session. Students were urged to check the online site before each session and prior to responding to the questions of teachers. All of the lessons in the study were put in the form of online forums available, but these were mainly used as one-way communication from the teacher. The students were also encouraged to use the online forums to communicate with each other. The teacher in the experimental group valued the ready online contact with students provided by forums, though these messages were only sent as a specific need arose, rather than on a frequent and regular basis. Online quizzes on the vocabulary items and structures pertaining to the writing tasks related to the writing subject in each session were also used. All of these online quizzes and the respective online writing tasks and negotiations generated online engagements that were sustained throughout most of the semester. Pressure on the students to put the related material online was practiced by the teacher in the experimental group. For example, the teacher refused to put PowerPoint slides online before classes for students to download. Online study groups were formed for students to engage and offer peer feedback on the writing course topics through a digital platform.

In fact, the students did not require a central meeting place and could participate from anywhere out of the class. The students in the experimental group were given access to bookmarks, which were points of interest or learning moments in a recording marked for future reference. Bookmarks allowed the students to return to the previously indicated section of the recording regarding the respective

writing task for further clarification or review of the learned points in writing. Online discussion threads on the writing tasks were used to extend classroom learning by providing an asynchronous method of communication for the exchange of meaningful ideas on the writing tasks in order to promote critical thinking and develop thoughtful reflective learning of the writing skill. The major purpose of the online discussion threads was the freedom they offer the students in initiating ongoing academic dialogue outside of scheduled class time regarding the writing points to be learned. Students' communication on web-based social media such as Facebook, WhatsApp, Telegram, and Instagram were encouraged in the experimental group regarding their learning points on the writing skill, but were rarely used to interact with their instructor.

Then, the data related to self-regulatory learning ability were collected again through the ASRLS questionnaire after the treatment. In other words, both the experimental and control groups received the same ASRLS questionnaire at the end of the semester. It is also worth mentioning that the instruction students received were in English in both the experimental and control groups. Then, with the focus on the second objective of the study, three other groups, two experimental and one control, were specified. Each of the two experimental groups plus the control group received a pre-test and a post-test on Academic Self-Regulated Learning Scale (ASRLS) questionnaire. Also, each of the experimental groups received a type of feedback, i.e. paper-based feedback in the first group and web-assisted feedback in the second group; also the control group received no feedback. The data related to self-regulatory learning ability were collected through the ASRLS questionnaire prior to and after the feedback treatments through 10-session feedback treatments throughout a five-week period. It is also worth mentioning that the instruction and feedback the participants received were in English in all the groups.

3.4. Data Analysis Procedures

First of all, an independent-samples t-test was run to ensure the homogeneity of the two groups in terms of their language proficiency so that they could be randomly labeled as the experimental and the control group. The results from the Kolmogorov-Smirnov Test for the scores of the experimental and control groups were significant (Sig. value of less than .05). This suggests violation of the assumption of normality (Pallant, 2007). Hence, nonparametric or distribution-free tests were used in this study. Accordingly, with regard to the first research question, Mann-Whitney U Test was run in order to examine whether there was any significant difference between the experimental and control groups' self-regulated learning ability. Furthermore, Wilcoxon signed-rank test was employed to determine if there was any difference between pre- and post-tests within each group. Also, pertaining to the second research question, Kruskal-Wallis H test was conducted to determine whether there was any significant difference between the effects of feedback methods on self-regulated learning of the participants or not. Moreover, Wilcoxon signed-rank test was used to compare each group's self-regulated learning before and after the instruction to specify to what extent each group performance have been improved.

4. Results

As it was previously mentioned, participants of the study comprised 78 EFL students whose homogeneity was ensured in terms of proficiency level before the treatment through an independent samples t-test. Table 1 below elucidates the results of the analysis.

Table 1: Independent-samples t-tests on Homogeneity of the Two Groups

	t	*df*	Sig. (2-tailed)	Mean Difference
Placement Test Equal variances assumed	-1.208	47	.233	-2.408

As it is evident in Table 1, there was no significant difference (*p*> 0.05) between the two groups with respect to their proficiency level (t = -1.208, *p*> 0.05) before the treatment, so each group could be randomly labeled as either control or experimental.

4.1. Research Question One

In response to the first research question, the mean score on self-regulated learning ability for the end-of-the-term writing achievement, for the two groups, were calculated. Table 2 illustrates the descriptive statistics of the self-regulated learning ability for the two groups.

Table 2: Descriptive Statistics on Post-Comparison of the Two Groups' Self-Regulated Ability

Groups	*N*	*M*	*SD*
Exp. Post-test (SRL)	16	16.571	.746
Cont. Post-test (SRL)	17	14.9	2.409

As Table 2 presents, there are mean differences between the two groups. The SRL mean of the experimental group is larger than that of the control group. The result seems to prove the experimental group was outperforming the control group in SRL during writing tasks. That is, it seems that web-integrated instruction had the desired effect on the improvement of SRL of writing tasks. The result is confirmed by Mann-Whitney U Test presented in Table 3.

Table 3: Mann-Whitney U Test on Post-Comparison of Two Groups' SRL

	Exact Sig. [2*(1-tailed)]	Z	Mann-Whitney U	Asymp. Sig. (2-tailed)	Mean Rank
Post-tests (SRL)	.007	-2.42	108	.007	16.071

According to Table 3, there is a significant difference between the means of the two groups (Z = -2.42; p<0.05). That is, the participants in the experimental group who were taught through web-integrated instruction outperformed those in the control group, who had not been explicitly taught strategies and only received the formal writing instruction as the pedagogical program required. As a result, it might be concluded that the web-integrated instruction in writing instruction had a significant influence on the SRL ability the participants in the experimental group illuminated. Within-group improvement in SRL ability was also investigated through Wilcoxon signed-rank test, which were run for both groups. The obtained results are illustrated in Table 4 below.

Table 4: Wilcoxon Signed-Rank Test on Within-Group Comparison of Each Groups' Improvement in SRL

	Mean Rank	Z	Asymp. Sig (two-tailed)
Experimental	8.36	-2.80	.000
Control	8.24	-1.03	.032

As Table 4 displays, the control group as well, though not receiving any explicit instruction through web-integrated instruction, has made an improvement as the comparison of the pre- and post-SRL tests shows a significant difference (Z = -1.03; p<0.05). In order to examine how big the mean differences were, the effect size was calculated for both groups. The results revealed that the effect size for the control group was at a medium level (r = .23), very close to the border between medium and small (see Cohen, 1988), while that of the experimental group enjoys a large one (r = .52) based on Cohen's (1988) effect-size criteria for the Wilcoxon signed-rank test (also see Pallant, 2007). This implies that acquiring the writing skill mediated by web-integrated instruction seems to have more effect on the

improvement of self-regulated learning ability than being simply taught through the process of essay writing and practicing and producing individual essays.

4.2. Research Question Two

Moreover, in response to the second research question, participants' scores on the self-regulated learning questionnaire were considered as the dependent variable and the feedback types as the independent ones. In order to indicate whether there was a significant difference between the feedback methods in terms of their effects on self-regulation abilities, Kruskal–Wallis H test was applied (Table 5).

Table 5: Kruskal–Wallis H Test for the Feedback Types

	Mean Rank	Chi-Square	Asymp. Sig.
Paper Feedback	53.633	8.36	.084
Web-based Feedback	23.175		

As Table 5 indicates, the difference between the effects of feedback methods on self-regulation abilities was not significant at the $p>.05$ level: *Chi-Square* = 8.36, p = .084. Moreover, through the application of Wilcoxon signed-rank test, each group's SRL before and after the instruction was also compared. Table 6 shows the mean and standard deviation of the pretest-posttest scores with regard to the control group with no feedback.

Table 6: Descriptive Statistics for Control Group

		M	*N*	*SD*	Std. Error Mean
Control Group	SRL 1	1.51	17	5.24	.94
	SRL 2	1.48	17	4.72	.85

Table 6 presents the descriptive statistics for the SRL scores from pretest to post test. As the table indicates, the mean and standard deviation of the scores for the pretest are 1.51 and 5.24, respectively. For the scores on the posttest, the values are 1.48 and 4.72, respectively. Table 7 shows the degree of pretest-posttest difference within the control group.

Table 7: Wilcoxon Signed-Rank Test for Control Group Without Feedback

	Mean Rank	*Z*	Asymp. Sig (two-tailed)
SRL1-SRL2	8.36	-1.80	.142

As Table 7 shows, there is no statistically significant difference in the effect of writing instruction with no feedback on self-regulated learning of participants from pretest (M= 1.51, SD= 5.24) to posttest (M= 1.48, SD= 4.72), *Z* = -1.80, p>. 05. Also, Table 8 shows the pretest-posttest descriptive statistics of the experimental group with paper-based feedback.

Table 8: Descriptive Statistics for the Experimental Group With Paper-Based Feedback

		M	*N*	*SD*	Std. Error Mean
Exp.1	SRL 1	1.50	16	6.86	1.27
	SRL 2	1.28	16	5.14	.95

As Table 8 indicates, the mean and standard deviation of SRL scores on pretest are 1.50 and 6.86, respectively. For the posttest, the values are 1.28 and 5.14. Table 9 illustrates the pretest-posttest difference within the experimental group with paper-based feedback.

Table 9: Wilcoxon Signed-Rank Test for Paper-Based Feedback

	Mean Rank	Z	Asymp. Sig (two-tailed)
SRL1-SRL2	10.17	.976	.376

According to Table 9, There is no statistically significant difference in the effect of writing instruction with paper-based feedback on self-regulated learning of participants from pretest (M= 1.50, SD= 6.86) to posttest (M= 1.28, SD= 5.14), Z = .976, p>. 05. In addition, Table 10 shows the pretest-posttest descriptive statistics of the experimental group with web-assisted feedback.

Table 10: Descriptive Statistics for the Experimental Group With Web-Assisted Feedback

		M	N	SD	Std. Error Mean
Web-Assisted Group	SRL1	1.65	15	4.54	.88
	SRL 2	1.43	15	5.11	.91

Table 10 presents the descriptive statistics for the SRL scores from pretest to posttest. As the table indicates, the mean and standard deviation of the scores for the pretest are 1.65 and 4.54, respectively. For the scores on the posttest, the values are 1.43 and 5.11, respectively. Table 11 illustrates the pretest-posttest difference within the experimental group with web-assisted feedback.

Table 11: Wilcoxon Signed-Rank Test for Web-Assisted Feedback

	Mean Rank	Z	Asymp. Sig (two-tailed)
SRL1-SRL2	11.50	-1.374	.094

As Table 11 indicates, there is no statistically significant difference in the effect of writing instruction with web-assisted feedback on self-regulated learning of participants from pretest (M= 1.65, SD= 4.54) to posttest (M= 1.43, SD= 5.11), Z = -1.37, p>. 05.

5. Discussion

According to the findings, the web-integrated instruction significantly affected participants' self-regulated learning ability while doing writing tasks. A justification for such significant results may be the students' familiarity with the worlds of computer and the internet in the Iranian EFL context, and as a result, leading to their over-reliance on self-study at home. This issue may be in line with several studies, which indicated that technology-enhanced learning environments are superior to environments without these conditions in terms of self-regulated learning (e.g. Gao, 2003; Graesser et al., 2004; McKendree, 1990). In this respect, Schunk (2001) states that the development and implementation of self-regulated learning behaviors can be contingent upon the contextual or situational factors. Actually, in cases where teachers train learners to be self-regulated prior to the task and scaffold their learning process, learners more often engage in help seeking and conduct co-regulation with the teacher (Azevedo, et al., 2005). Learning gains, including the web-integrated instruction in learning the writing skill, may occur when the intention is also to foster SRL. As Bernacki, Aguilar, and Byrnes (2011) conclude, learning outcomes would be enhanced where participants are pre-trained in SRL. Such justification that Iranian EFL students may have enough familiarity with or knowledge about educational technology is a condition in sharp congruence with what some scholars have stated about web-integrated courses improving individual and active ways of learning (e.g. Germ, 2008; Reinmann, 2005; Schworm & Fischer, 2006; Tergan, 2002).

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In other words, for technology-enhanced instruction, such as web-assisted or web-integrated feedback, to be significantly conducive to self-regulated learning, learners must conveniently have access to educational technology, and must be provided with Technology-Enhanced Learning Environments (TELEs), enabling them to share information and communicate with other students and their teachers independent of time and place. They must have the opportunity to learn at their own time and pace as well as to pick information and contents they currently need (Aksan, 2009; Boekaerts & Corno, 2005; Ramdass & Zimmerman, 2011). Lack of hypertext, for instance, may prevent individual learning from passing through learning contents and increasing the range of choices and sequences of learning contents. Fortunately, many of the Iranian ELT contexts, today, are trying to employ multimedia-based contents or blended-learning strategies from the internet, which support visual, interactive and authentic learning, and as a result, expedite free exploration and self-regulated learning. As Braten, Stormso and Olaussen (2003) claim, if the information and communication technology-based environments are not carefully designed to support the development of self-regulated learning and collaborative skills, there may be a risk that only students already possessing such skills get the potential benefits of the new technology.

According to the present findings, it seems that self-regulated learning is an important concept especially in writing conditions. In fact, it can be inferred from the results that making students autonomous and training those who take the responsibility of their own learning can be a controversial issue in the field of teaching the writing skill through developing different methods of teaching in which the students become more independent and self-regulated. The results imply that knowing about the potential of different learning environments and the way to implement new technology in technology-enhanced environment to foster students' self-regulated learning is of great value. Consequently, the information obtained from the present findings would be influential and applicable to teachers and stakeholders in order to equip learning environments with new tools and new web-integrated instruction which would help fostering this important trait on learners to make them more autonomous, responsible, and self-regulated in their own learning. However, it is worth mentioning that the present study do not claim that the web-integrated instruction is the only contributing factor rather it can be taken into account as the one among the vigorous factors. It can be deduced from the results that if such strategies are directed at the right level, they can assist students to perceive, involve, or create effective strategies to process the writing information intended for self-regulated learning.

Furthermore, in response to the second research question of the study, feedback in general did not significantly affect self-regulated learning ability, and in particular, none of the feedback types, i.e. paper-based and web-assisted feedback, did significantly affect students' self-regulated learning ability. A justification for such insignificant results might be the lack of enough training for self-regulatory learning in the Iranian EFL context, and as a result, leading to the students' over-reliance on the tutors. This issue may be in contrast with several studies, which indicated that learning environments with immediate and elaborate feedback are superior to environments without these conditions in terms of self-regulated learning (e.g. Gao, 2003; Graesser et al., 2004; McKendree, 1990). In this vein, Schunk (2001) states that the development and implementation of self-regulated learning behaviors depend on contextual features. Actually, in cases where teachers train learners to be self-regulated prior to the task and scaffold their learning process, learners more often engage in help seeking and conduct co-regulation with the teacher (Azevedo, et al., 2005). Learning gains, including feedback in learning the writing skill, may occur when the intention is also to foster SRL. As Bernacki, Aguilar, and Byrnes (2011) conclude, learning outcomes would be enhanced where participants are pre-trained in SRL. Another justification may be Iranian EFL students' lack of enough familiarity with or knowledge about educational technology. Such a condition is in sharp contrast with what some scholars have stated about web-based courses improving individual and active ways of learning (e.g. Germ, 2008; Reinmann, 2005; Schworm & Fischer, 2006; Tergan, 2002).

6. Conclusions and Implications

To be considered as an effective self-regulatory factor, web-integrated instruction needs to be intelligible, determined, relevant, and compatible with students' prior knowledge to provide logical connections with the learning tasks. To prompt self-regulated learning ability, web-integrated instruction should entail active information processing on the part of learners, low task complexity, connection with particular and significant objectives, and low task threat. Certainly, a critical conclusion is that teachers need to reflectively seek and learn from web-integrated instruction. When web-integrated instruction is integrated with effective teacher experience in the classrooms, it can be efficiently conducive to enhancing self-regulated learning ability. In fact, learners' SRL should be improved through pedagogical strategies followed by the classroom teacher, among which web-integrated instruction can be one of the most influencing contributions in the EFL classes.

For technology-enhanced instruction, such as web-assisted feedback, to be significantly conducive to self-regulated learning, learners must conveniently have access to educational technology, and must be provided with TELEs, enabling them to share information and communicate with other students and their teachers independent of time and place. They must have the opportunity to learn at their own time and pace as well as to pick information and contents they currently need (Aksan, 2009; Boekaerts & Corno, 2005; Ramdass & Zimmerman, 2011). Lack of hypertext, for instance, may prevent individual learning from passing through learning contents and increasing the range of choices and sequences of learning contents. Unfortunately, most of the Iranian ELT contexts may not employ multimedia-based contents, which support visual, interactive and authentic learning, and as a result, expedite free exploration and self-regulated learning (Van den Boom, Paas, & Van Merrienboer, 2007; Zimmerman, 2000). As Braten, Stormso and Olaussen (2003) claim, if the information and communication technology-based environments are not carefully designed to support the development of self-regulated learning and collaborative skills, there may be a risk that only students already possessing such skills get the potential benefits of the new technology.

The search for the most efficacious way to apply web-integrated instruction, contributing more to self-regulated learning, may in fact be fundamentally mistaken if it is accepted that web-integrated instruction needs to take account of the specific institutional, classroom, and task contexts. Thus, at the same time, teachers should pay attention to learners' needs as well as their attitudes towards the web-integrated instruction and their potentiality that they may provide for internalizing self-regulated learning. Accordingly, it can be expected from high achievers to be more self-regulated since there may be a reciprocal relationship between the effect of their needs and their particular attitudes towards web-integrated instruction contributing to their self-regulation and as a result better achievement in EFL learning.

References

Anderson, N. J. (2008). Metacognition and good language learners. In C. Griffith (Ed.), *Lessons from good language learners*, pp. 99-109. Cambridge: Cambridge University Press.

Ary, D., Jacobs, L. C., Sorenson, C. K., & Razavieh, A. (2010). *Introduction to research in education* (8th Ed.). Belmont, CA: Wadsworth, Cengage Learning.

Ashwell, T. (2000). Patterns of teacher response to student writing in a multiple-draft composition classroom: Is content feedback followed by form feedback the best method? *Journal of Second Language Writing, 9*, 227-258.

Azevedo, R. (2005). Using hypermedia as a metacognitive tool for enhancing student learning? The role of self-regulated learning. *Educational Psychologist, 40*,199–209.

Azevedo, R. & Cromley, J. G. (2004). Does training on self-regulated learning facilitate students' learning with hypermedia? *Journal of Educational Psychology, 96*(3), 523-535.

Benson, P. (2011). *Teaching and researching autonomy in language learning* (2nd Ed.). London: Pearson Education.

Birnbaum, M. H. (2000). SurveyWiz and FactorWiz: JavaScript Web pages that make HTML forms for research on the Internet. *Behavior Research Methods, Instruments, and Computers, 32*, 339-346.

Boekaerts, M., Pintrich, P. R., & Zeidner, M. (Eds). (2000). *Handbook of self-regulation*. San Diego: Academic.

Butler, D. L., & Cartier, S. (2004). Promoting students' active and productive interpretation of academic work: A Key to successful teaching and learning. *Teachers College Record, 106*, 1729- 1758.

Chamot, A.U. (2013). Language learning strategy instruction: Current issues and research. *Annual Review of Applied Linguistics, 25*, 112-130.

Chuo, T. (2007). The effects of the web quest writing instructions program on EFL learner's writing performance, writing apprehension and perception. *TESL-EJ, 11*(3), 1-27.

Cotterall, S. (2008). Autonomy and good language learners. In C. Griffiths (Ed.), *Lessons from good language learners* (pp. 110-120). Cambridge: Cambridge University Press.

Cutler, L., & Graham, S. (2008). Primary grade writing instruction: A national survey. *Journal of Educational Psychology, 100*, 907-919. DOI: 10.1037/a0012656.

Ellis, R. (2009). A typology of written corrective feedback types. *ELT Journal, 63*, 97-107.

Ferris, D. R. (2006). Does error feedback help student writers? New evidence on short- and long-term effects of written error correction. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing: Contexts and issues*. (pp. 81-104).

Graham, M. J., Frederick, J., Byars-Winston, A., Hunter, A.B., & Handelsman, J. (2013). Increasing Persistence of College Students in STEM. *Science*, *341*(6153), 1455–1456. doi:10.1126/science.1240487

Harris, K.R., Graham, S., & Mason, L.H. (2003). Self-regulated strategy development in the classroom: Part of a balanced approach to writing instruction for students with disabilities. *Focus on Exceptional Children, 35*, 1-16.

Hooper, S.R., Roberts, J.E., Nelson, L., Zelsel, S., & Kasambira Fannin, D. (2010). Preschool predictors of narrative writing skills in elementary school children. *School Psychology Quarterly, 25*, 1-12. DOI:10.1037/a0018329.

Jafarigohar, M. & Mortazavi, M. (2013). The effects of different types of reflective journal writing on learners' self-regulated learning. *Iranian Journal of Applied Linguistics (IJAL), 16* (1), 59-78.

Lee, I. (1997). ESL learners' performance in error correction in writing. *System, 25*, 465–477.

Palincsar, A. S., & Brown, A. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction, 1*, 117–175.

Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using SPSS* (3rd Ed.). Maidenhead: Open University Press.

Perie, M., Moran, R., & Lutkus, A. D. (2005). The nation's report card. NAEP 2004 Trends in academic progress: Three decades of student performance in reading and mathematics. (NCES No. 2005-464). Washington, DC: U.S. Department of Education Institute of Education Sciences.

Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching contexts. *Journal of Educational Psychology, 95*, 667-686.

Rassaei, E., & Moinzadeh, A. (2011). Investigating the effects of three types of corrective feedback on the acquisition of English Wh-question forms by Iranian EFL learners. *English Language Teaching, 4*(2), 97-106.

Ramdass, D., & Zimmerman, B. (2011). Developing self-regulation skills: The important role of homework. *Journal of Advanced Academics, 22*(2), 194-218.

Reid, J. (1998). Responding to ESL student language problems: Error analysis and revision plans. In P. Byrd & J. Reid (Eds.), *Grammar in the composition classroom* (pp. 118-137). Boston: Heinle and Heinle.

Reips, U. D. (2002). Standards for Internet-based experimenting. *Experimental Psychology, 49*, 243-256.

Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics, 11*, 129-158.

Schunk, D. H, & Zimmerman, B. J. (Eds.). (1994). *Self-regulation of learning and performance: Issues and educational applications*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Schunk, D. H, & Zimmerman, B. J. (Eds.). (1998). *Self-regulated learning: From teaching to self-reflective practice*. New York: The Guilford Press.

Schunk, D. H. (2005). Self-regulated learning: The educational legacy of Paul R. Pintrich. *Educational Psychologist, 40*, 85-94.

Stevens, J. (2002). *Applied multivariate statistics for the social sciences* (4th ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

Stubbs, M., Martin, I., & Endlar, L. (2006). The structuration of blended learning: Putting holistic design principles into practice. *British Journal of Educational Technology, 37*(2), 163-175.

Truscott, J. (2007). The effect of error correction on learners' ability to write accurately. *Journal of Second Language Writing, 16*, 255–272.

Tsou, W. (2008). The effect of a web-integrated writing program in college English writing classes. IEEE Computer Society Washington, DC, USA. Retrieved on October 20, 2009 from: http://portal.acm.org/citation.cfm?id=1381740.

Tsou, W., Wang, W., & Li, H. (2002). How computers facilitate English foreign language learners acquire English. *Computers & Education, 39*(4), 415-428.

Zimmerman, B. J. (1998). Academic studying and the development of personal skill: A self-regulatory perspective. *Educational Psychologist, 33*, 73-86.

Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, and M Zeidner (Eds.), *Handbook of self-regulation* (pp. 13-39). San Diego, CA: Academic.

Zimmerman, B. J. and Risemburg, R. (1997). Becoming a self-regulated writer: A social cognitive perspective. *Contemporary Educational Psychology, 22*(1) 73-101.

Zimmerman, B. J., & Bandura, A. (1994). Impact of self-regulatory influence on writing course attainment. *American Educational Research Journal, 31*, 845-862.

Zimmerman, B. J., & Martinez-Pons, M. (1990). Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy use. *Journal of Educational Psychology, 82*, 51-59.

Zimmerman, B. J., & Risemberg, R. (1997). Caveats and recommendations about self-regulation of writing: A social cognitive rejoinder. *Contemporary Educational Psychology, 22*, 115-122.