ISSN (print): 2588-5731 E-ISSN: 3060-6535

The Effect of Reflection Supported Learning versus Electronic SupportedLearning on Iranian Intermediate EFL Learners' Argumentative Writing

Fatemeh Ranjdoost[1], Farnaz Sahebkheir[2]*

Received Date:04/09/2024 *Accepted Date:27/12/2024*

Abstract **Pp: 51-68**

Introduction: Reflection is a technique that can aid and reinforce learning in education and professional development. Besides, Electronic Supported Learning (ESL) encompasses various forms of technology-assisted education, offering new opportunities for student-centered and collaborative learning. Therefore, this study aimed to find the effects of reflection-supported learning versus electronic-supported learning on Iranian intermediate EFL learners' argumentative writing.

Methodology: This study was a quasi-experimental one. 46 female EFL learners from Pardisan Institute in Marand - East Azerbaijan participated in this study. PET test was used to homogenize the participants. They were non-randomly assigned into two experimental groups. The first experimental group received reflection-supported learning treatment and the second experimental group received electronic-supported learning treatment. In the first group they used reflective guideline and in the second group they used project's websites for writing. They wrote about two topics in the pre-test and post-test. Their writings were corrected by two trained raters based on Heaton's analytic method. Furthermore, MANCOVA was used to check the scores of the pre-test and post-test.

Findings: The results revealed that the electronic-supported group yielded superior outcomes to the reflective-supported group.

Conclusion: The findings of this study could help textbook designers, educational planners, material developers, foreign language institutes, teachers, and learners to provide a better context for foreign language learning and improve argumentative writing.

Key Words: Argumentative Writing, E-Writing, Electronic Supported Learning, Reflection Supported Learning, Writing.

[1]M.A. student of TEFL, Department of English Language Teaching, Tabriz Branch, Islamic Azad University, Tabriz, Iran

[2] Assistant professor of TEFL, Department of English Language Teaching, Tabriz Branch, Islamic Azad University, Tabriz, Iran

* Corresponding Author: fsahebkheir@iaut.ac.ir

Introduction

Writing is one of the most significant tools for communication (fajrina et al., **2021). Teachers must set practical teaching goals and embrace writing** philosophies to enhance students' writing performances and meet their learning needs efficiently. In line with this purpose, various approaches, perspectives, and methods have emerged to shed light on teaching and learning English writing (fajrina et al., 2021; Hinkel, 2011). However, one must consider that there is more than one way of boosting learning and teaching writing due to the diversity of teaching strategies and learner differences.

One genre of writing that EFL learners should possess is argumentative writing; it is defined as a written composition in which EFL learners construct a persuasive argument to support a specific claim on a given topic. As discussed by Graff and Birkenstein (2010), argumentative writing involves deploying evidence, reasoning, and rhetorical strategies to present a clear thesis statement, develop well-supported arguments, address counterarguments, and devise a logical structure that includes an introduction, body paragraphs, and a conclusion. In the Iranian context, EFL learners will engage with argumentative writing in English to enhance their ability to formulate cohesive and persuasive arguments while adhering to the conventions of academic discourse (Mulgeta, **2021).**

Reflection-supported writing helps learners to have a deeper understanding**:** reflection can help you to gain a deeper understanding of learners' experiences .Reflection can help learners to learn from their mistakes and successes and to apply what they have learned to new situations. Reflection can help learners to identify their strengths and weaknesses and to set goals for personal growth.

Several studies have shown that students in higher education are weak in their writing skills (Mulgeta, 2021; Surur & Dengela, 2019). Having a problem means the inability to complete assignments in the academic context. Also, students will have negative attitudes towards writing. Their motivation will be low and they won't try to participate in written activities. Teachers will have difficulties in motivating students to write. So, researchers suggested new techniques like reflection-supported learning for improving writing. Reflection is a process for changing understanding to conception (Hyeler, 2015). This process engages learners in the learning process and contains self-assessment (Xhaferi & Xhaferi, 2017).

Learners try to construct meaning by relating the received information to their prior knowledge (Mugambi, 2018). For using reflective writing, teachers should ask learners to describe their feelings (Zulfikar & Mujiburrahman, 2018). Writing reflective journals is one of the techniques for expressing feelings and improving writing in this way (Alfalagg, 2020). Deti1 et al., (2023) found out that reflection-supported learning of writing positively affects university students' writing attitudes. It provides a positive attitude and creates interesting assignments. Furthermore, he found that learners through reflective writing can improve their writing. Therefore, this study wants to check the effect of the reflection-supported learning strategy versus the electronic-supported learning writing strategy on developing written skills.

Research question

RQ. Is there any significant difference between Iranian intermediated EFL learners' writing performance receiving reflection-supported writing learning strategy versus electronic supported learning writing strategy?

Methodology

Participants

The design of this study was a quasi-experimental one. Two experimental groups non-randomly were selected, and a pretest–post-test design was followed. The population of this study was 54 Iranian intermediate EFL learners based on the institution placement test at Pardisan Language Institute in Marand City, East Azerbaijan. They were in two intact classes. In each class, there were **27 learners; of each class 23 were chosen via the (PET) test. Learners whose** scores fell between one standard deviation above and below the mean were selected as the sample of the study, other learners' scores were not considered because they were outliers, but they received the same instruction similar to the participants of the study. The age range of learners varied between 15 to 22. Their first language was Azerbaijani Turkish, and their second language was Persian. One of the classes of each group was considered the first experimental group that received reflection-supported learning, and the other one was considered the second experimental group that received electronic-supported learning. The subjects were non-randomly selected through convenience sampling.

Instruments and Materials

Three instruments were used in the current study:

Preliminary English Test (PET)

As mentioned earlier, a PET test containing 25 reading questions and 25 vocabulary questions was used for homogenizing the participants.

Pre-Test

To collect the research data, the learners were required to write their writing as a pretest in the third session. The topic was selected randomly from the 150 Best Argumentative Essays website for the first writing task. Because topics were standard, the researcher didn't need to standardize again with the help of testing masters. Ten topics by the researcher were selected randomly, and then they were given to the supervisor. She selected one of them as a topic of pretest argumentative writing: Is social media more beneficial or harmful to society? They were given 60 minutes to write their essay with at least 220 words to determine the extent of their initial knowledge.

Post-test

To find out the effect of reflection-supported learning versus electronic-supported learning on learners' writing performance, a post-test on writing was conducted to understand any possible improvement in this language skill compare the possible improvement in writing performance of intermediate EFL learners, and find out which approach of teaching was more effective for improvement of participants. Learners were asked to write their post-tests in the **15th session. Topics of the post-test were modified to reduce the degree of**

familiarity and similarity to the pre-test topic, The Influence of Social Media: Does social media have a more positive or negative effect on society? Therefore, the experimental group participants were required to write their post-test in 60 minutes at least applying 220 words.

Design of the Study

This study is a quasi-experimental one. Participants in two groups were selected non-randomly. Both groups called the experimental groups, received a different treatment and a test before and after the treatment (Farhady, 1996). Non-random selection was used, and a pretest–post-test design was followed. In this study, teaching writing via reflection-supported learning and electronic-supported learning was the independent variable, and the argumentative writing performance of intermediate EFL learners was the dependent variable.

Writing Rubric

In the present study, the assessment procedure was focused on four components of Heaton's model: content, vocabulary, organization, and language use. The mechanical aspects of writing were excluded from consideration. Trained EFL instructors evaluated the compositions, and their ratings were based on examples of components of Heaton's model that were meticulously examined during training sessions. These sessions aimed to ensure consistency in grading between the two raters, and subsequently, their inter-rater reliability was calculated.

Procedure of Data Collection in the treatment

Both groups were taking the Communicative English Language Skills I course. The teacher asked the first group to study the reflection guideline sheet. The researcher explained all parts of the reflection guideline and its importance for developing writing. Students were allowed to ask questions related to the guideline sheet.

Here is the Reflection guideline:

Phase 1

1.What was the topic and type of the writing text I was supposed to write on?

2.What was my personal aim for writing on this topic?

Phase 2

1.How did I feel during the process of writing?

2.How did I feel about the final version of my writing?

Phase 3

1.How do I evaluate my writing performance?

2.What was well in my performance and what was not so well?

Phase 4

1.How did I do in each phase of writing separately?

2.What were the shortcomings of my performance in each phase?

Phase 5

1.Was my overall writing performance satisfactory?

2.What areas in my performance need to be improved?
Phase 6
1. What would I do differently if I were asked to write on the same topic again?

The classes were held three hours a week for both groups. The treatment lasted for 8 weeks and students wrote 6 paragraphs. All the tasks for both groups were taken from the same book "Communicative English Language Skills-I". **I**n both groups, learners should observe the process approach for writing. The first experimental group participants wrote reflections on every paragraph.
The first group wrote their paragraphs with the help of a reflection guideline sheet. The second experimental group however wrote only paragraphs but did not write reflections on the paragraphs. The researcher as the teacher of the class used Google Sites in the second experimental group. She created the main website and learners got access and used a linking page to all written text. Teacher as the researcher used these assignments, produced according to their class requirements, to gather information and data for analysis and evaluation. She created the project's website for using during this study; it was not connected to any university class website. This research project website gives access to the instructor's seven assignments including due dates, weekly expectations and achievement level details. The seven assigned tasks for the course were: responses, narrative essay, informative/explanatory essay, argument essay, mini-lesson teaching exercise, self-directed writing project, and learning letter. With consent of all learners, and signed declaration of intent forms by each member, teacher was able to use their responses as a component of this study. The used websites are as follows: *A Writer Teaches Writing*, Edition Two, by Donald Murray, and *Teaching Grammar in Context*, by Constance Weaver.

Both groups were given 50 minutes. For assessing the writing of both groups a rubric adopted from Santa Cabrera et al. (2017 as cited in Mugambi, 2018) was used. The teacher corrected their papers and discussed their errors. Writing attitude and writing achievement goal orientation questionnaires were used to see whether they had similar mean scores for writing attitude and writing achievement goal orientations.

Procedure

There were 54 learners in the population of the study at the intermediate level. That is to say, there were two intact classes from Pardisan Language Institute in Marand City; based on PET, 27 of them were selected as a participant of the intermediate level, so nonrandom sampling was used to select participants. Both of the classes were considered as experimental groups: in one of them reflection supported learning approach was used for the development of learners' writing and in the other class electronic-supported learning approach, after 12 sessions of treatment, both classes wrote their posttest.

The learners' course consisted of 32 hours a semester, and they attended classes two times a week. In the second session, PET was administered; in the third session, they wrote their pretest and were asked to write at least 220 words

in their writing. From the fourth session, learners in both experimental groups received their special treatment; it is worth mentioning that in both groups, the same materials were used: American File 2 written by Christina Latham Koenig, Clive Oxenden, and Mike Boyle. Besides having their course book for teaching writing, some chapters of Refining Composition Skills Rhetoric by ReninaL smalley, Mary K, Ruetten, and Joann Rishel Kozyrew and Grammar, and sometimes some samples downloaded from reliable webs were used; the teacher used different materials of argumentative writing and its sub-categories from the internet that is to say the researcher downloaded materials and samples of genre, and 40 minutes of each session was allotted to writing teaching.

In both experimental groups, process-based writing was applied for treatment; in each session, they were taught different stages of writing: brainstorming, drafting, composing, revising, editing, and writing the final draft then. The researcher didn't use just one source for teaching argumentative writing, so they downloaded another book associated with the different types of writing: Writing argumentative essays by Nancy V. Wood. After 15 treatment sessions, the learners were required to write their post-tests. Two raters rated the learners' writings; training was provided to raters: Raters were provided two training sessions to ensure the performance of assessments according to the rubric, that is, Heaton's (1988) analytic scoring.

Data Analysis

The participants' scores were documented in SPSS (version 23). Descriptive statistics were calculated to offer a comprehensive summary of the data. The data was analyzed using inferential statistics, especially the Multivariate Analysis of Covariance (MANCOVA), to draw conclusions and make judgments.

Research Findings

A descriptive statistical analysis was employed to answer the first question. The data collection procedures were meticulously implemented, and the raw data was subsequently entered into the SPSS software program. This facilitated the execution of the necessary statistical tests to examine the research question and test the hypothesis.

Table 1: Descriptive Statistics of PET scores

	N	Minimum	Maximum	Mean	Std. Deviation
Initial participants	**57**	**145.00**	**164.00**	**155.1228**	**3.88019**
Selected participants	**46**	**151.00**	**159.00**	**155.1739**	**1.82944**
Valid N (listwise)	**46**				

Figure 1: Histogram of Initial Participants' Score on PET

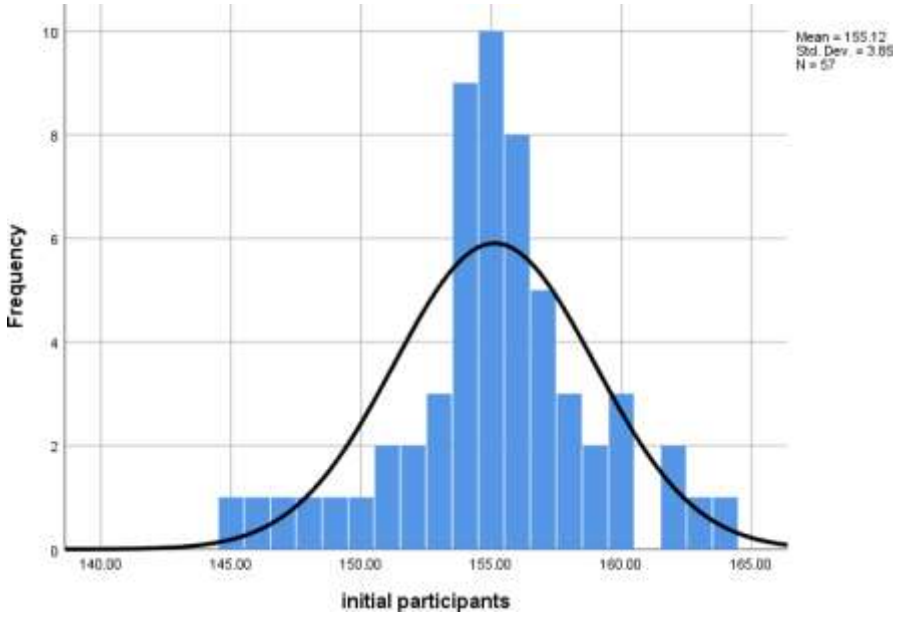
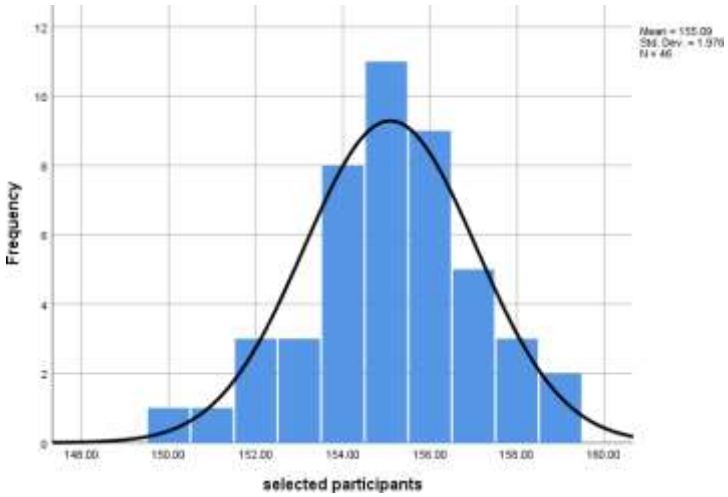


Figure 2: Histogram of Selected Participants' Score on PET



To answer the first research question investigating any significant difference between Iranian intermediated EFL learners' writing performance receiving reflection-supported writing learning strategy versus electronic-supported learning writing strategy, MANCOVA was run. The normalness of data was calculated through Kolmogorov-Smirnov Test in Table 2.

Table 2: One-Sample Kolmogorov-Smirnov Test

		Pre content	Pre organization	Pre vocabulary	Pre language use
N		**46**	**46**	**46**	**46**
Normal Parameters[a,b]	Mean	**13.3043**	**11.9130**	**11.2174**	**11.1957**
	Std. Deviation	**2.51104**	**2.12735**	**1.88459**	**1.89291**
Most Extreme Differences	Absolute	**.191**	**.108**	**.154**	**.121**
	Positive	**.108**	**.079**	**.154**	**.106**
	Negative	**-.191**	**-.108**	**-.118**	**-.121**
Test Statistic		**.191**	**.108**	**.154**	**.121**
Asymp. Sig. (2-tailed)		**.057[c]**	**.200[c,d]**	**.098[c]**	**.089[c]**

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

As Table 2 shows that participants' scores on pre-test of writing were normally distributed (p= .057, .200, .098, .089, p> .05).

Table 3: One-Sample Kolmogorov Smirnov Test

		Post content	Post organization	Post vocabulary	Post language use
N		**46**	**46**	**46**	**46**
Normal Parameters[a,b]	Mean	**15.5217**	**14.6087**	**14.2391**	**13.6522**
	Std. Deviation	**2.59691**	**2.20583**	**2.08896**	**1.93468**
Most Extreme Differences	Absolute	**.095**	**.114**	**.140**	**.137**
	Positive	**.091**	**.082**	**.140**	**.103**
	Negative	**-.095**	**-.114**	**-.085**	**-.137**
Test Statistic		**.095**	**.114**	**.140**	**.137**
Asymp. Sig. (2-tailed)		**.200[c,d]**	**.169[c]**	**.073[c]**	**.061[c]**

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Table 3 showed that participants' scores on the post-test of writing were normally distributed (p= .200, .169, .073, .061, p> .05).

Table 4: Descriptive Statistics

	treatment	Mean	Std. Deviation	N
Post content	reflection supported	**14.4783**	**1.78044**	**23**
	electronic supported	**16.5652**	**2.88926**	**23**
	Total	**15.5217**	**2.59691**	**46**
Post organization	reflection supported	**13.3913**	**1.94794**	**23**
	electronic supported	**15.8261**	**1.74908**	**23**
	Total	**14.6087**	**2.20583**	**46**
Post vocabulary	reflection supported	**13.3043**	**1.55021**	**23**
	electronic supported	**15.1739**	**2.16695**	**23**
	Total	**14.2391**	**2.08896**	**46**
Post language use	reflection supported	**12.6957**	**1.81996**	**23**
	electronic supported	**14.6087**	**1.55911**	**23**
	Total	**13.6522**	**1.93468**	**46**

The table shows the descriptive statistics for post-content vocabulary, language use, and organization scores for two groups: reflection-supported and electronically-supported. It also shows the total scores for both groups combined. Content: for the reflection-supported group M=14.48 and SD=1.78; for the electronically-supported group M=16.57, SD= 2.89. This suggests that the electronic-supported group scored higher in content than the reflection-supported group, on average. There is also more variation in scores in the electronic-supported group. Vocabulary: for the reflection-supported group M= **13.30 and SD= 1.55; for the electronically-supported group M= 15.17 and** SD=2.17. Similar to content vocabulary, the electronic-supported group scored higher than the reflection-supported group, on average. There is also more variation in scores in the electronic-supported group. Language Use: for the reflection-supported group M=12.69 and SD=1.82; for the electronically-supported group M=14.61 and SD=1.56. Similar to content vocabulary, the electronic-supported group scored higher than the reflection-supported group, on average. The variation in scores is also slightly lower in the electronic-supported group. Organization: for the reflection-supported group M=13.39 and SD=1.95; for the electronically-supported group M=15.83 and SD=1.75. Again, the electronic-supported group scored higher than the reflection-supported group, on average. The variation in scores is lower in the electronic-supported group. Overall, the electronic-supported group scored higher than the reflection-supported group in all three categories (content, vocabulary, and

organization). There was also less variation in scores in the electronic-supported group for language use and organization.

Table 5: Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	**.430**	**6.966[b]**	**4.000**	**37.000**	**.000**	**.430**
	Wilks' Lambda	**.570**	**6.966[b]**	**4.000**	**37.000**	**.000**	**.430**
	Hotelling's Trace	**.753**	**6.966[b]**	**4.000**	**37.000**	**.000**	**.430**
	Roy's Largest Root	**.753**	**6.966[b]**	**4.000**	**37.000**	**.000**	**.430**
Pre content	Pillai's Trace	**.519**	**9.995[b]**	**4.000**	**37.000**	**.000**	**.519**
	Wilks' Lambda	**.481**	**9.995[b]**	**4.000**	**37.000**	**.000**	**.519**
	Hotelling's Trace	**1.081**	**9.995[b]**	**4.000**	**37.000**	**.000**	**.519**
	Roy's Largest Root	**1.081**	**9.995[b]**	**4.000**	**37.000**	**.000**	**.519**
Pre organization	Pillai's Trace	**.182**	**2.064[b]**	**4.000**	**37.000**	**.105**	**.182**
	Wilks' Lambda	**.818**	**2.064[b]**	**4.000**	**37.000**	**.105**	**.182**
	Hotelling's Trace	**.223**	**2.064[b]**	**4.000**	**37.000**	**.105**	**.182**
	Roy's LargestRoot	**.223**	**2.064[b]**	**4.000**	**37.000**	**.105**	**.182**
Pre vocabulary	Pillai's Trace	**.172**	**1.921[b]**	**4.000**	**37.000**	**.127**	**.172**
	Wilks' Lambda	**.828**	**1.921[b]**	**4.000**	**37.000**	**.127**	**.172**
	Hotelling's Trace	**.208**	**1.921[b]**	**4.000**	**37.000**	**.127**	**.172**
	Roy's Largest Root	**.208**	**1.921[b]**	**4.000**	**37.000**	**.127**	**.172**
Pre	Pillai's Trace	**.111**	**1.157[b]**	**4.000**	**37.000**	**.345**	**.111**

language use	Wilks' Lambda	.889	1.157[b]	4.000	37.000	.345	.111
	Hotelling's Trace	.125	1.157[b]	4.000	37.000	.345	.111
	Roy's Largest Root	.125	1.157[b]	4.000	37.000	.345	.111
treatment	Pillai's Trace	.680	19.686[b]	4.000	37.000	.000	.680
	Wilks' Lambda	.320	19.686[b]	4.000	37.000	.000	.680
	Hotelling's Trace	2.128	19.686[b]	4.000	37.000	.000	.680
	Roy's Largest Root	2.128	19.686[b]	4.000	37.000	.000	.680

a. Design: Intercept + pre content + pre organization + pre vocabulary + pre language use + treatment
b. Exact statistic

Table 5 showed there was a statistically significant difference between reflection-supported versus electronic-supported groups' writing performance on the combined dependent variables after controlling for pre-test scores, $F(4, 37) = 19.86$, **p=.00. considering dependent variables separately, it showed that** content, vocabulary, organization, and language use scores of reflection-supported organizer, and electronic-supported groups significantly differed from each other (F= 47.18, 34.80, 32.55, 30.71, p<.05).

Table 6: Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
CorrectedModel	Post content	241.910[a]	5	48.382	31.433	.000	.797
	Post organization	168.415[b]	5	33.683	26.658	.000	.769
	Post vocabulary	110.582[c]	5	22.116	10.312	.000	.563
	Post language use	117.155[d]	5	23.431	18.277	.000	.696
Intercept	Post content	8.991	1	8.991	5.842	.020	.127
	Post organization	26.483	1	26.483	20.959	.000	.344
	Post vocabulary	27.965	1	27.965	13.039	.001	.246
	Post language use	11.369	1	11.369	8.868	.005	.181
Pre content	Post content	55.113	1	55.113	35.806	.000	.472
	Post organization	7.433	1	7.433	5.883	.020	.128

	Post vocabulary	**4.194**	**1**	**4.194**	**1.955**	**.170**	**.047**
	Post language use	**4.447**	**1**	**4.447**	**3.469**	**.070**	**.080**
Pre organization	Post content	**1.382**	**1**	**1.382**	**.898**	**.349**	**.022**
	Post organization	**8.143**	**1**	**8.143**	**6.445**	**.015**	**.139**
	Post vocabulary	**1.100**	**1**	**1.100**	**.513**	**.478**	**.013**
	Post language use	**.439**	**1**	**.439**	**.342**	**.562**	**.008**
Pre vocabulary	Post content	**1.712**	**1**	**1.712**	**1.112**	**.298**	**.027**
	Post organization	**2.733**	**1**	**2.733**	**2.163**	**.149**	**.051**
	Post vocabulary	**10.165**	**1**	**10.165**	**4.739**	**.035**	**.106**
	Post language use	**.070**	**1**	**.070**	**.054**	**.817**	**.001**
Pre language use	Post content	**1.757**	**1**	**1.757**	**1.142**	**.292**	**.028**
	Post organization	**.663**	**1**	**.663**	**.525**	**.473**	**.013**
	Post vocabulary	**.622**	**1**	**.622**	**.290**	**.593**	**.007**
	Post language use	**2.109**	**1**	**2.109**	**1.645**	**.207**	**.039**
treatment	Post content	**72.633**	**1**	**72.633**	**47.189**	**.000**	**.541**
	Post organization	**43.980**	**1**	**43.980**	**34.807**	**.000**	**.465**
	Post vocabulary	**69.824**	**1**	**69.824**	**32.556**	**.000**	**.449**
	Post language use	**39.373**	**1**	**39.373**	**30.712**	**.000**	**.434**

a. R Squared = .797 (Adjusted R Squared = .772)
b. R Squared = .769 (Adjusted R Squared = .740)
c. R Squared = .563 (Adjusted R Squared = .509)
d. R Squared = .696 (Adjusted R Squared = .657)

An examination of the means and corresponding eta-squared values revealed statistically significant differences between the two groups writing. The effect sizes, as measured by Eta Squared, indicated a moderate effect for organization (Eta Squared = .46), a large effect for content (Eta Squared= .54), a moderate effect for vocabulary (Eta Squared = .44), and a moderate effect language use (Eta Squared = .43). These findings suggest that the electronic supported group yielded superior outcomes compared to the reflective supported group.

Discussion

The effect of reflection-supported learning versus electronic-supported learning on Iranian intermediate EFL learners' argumentative writing was considered in this paper. The electronic-supported group performed better than the reflective-supported group.

The electronic-supported group scored higher than the reflection-supported group in all three categories of content, vocabulary, and organization which are considered as main rubrics in assessing writing proficiency. Also, there was less variation in scores in the electronic-supported group for language use and organization. The hypothesis proposed in chapter one was rejected receiving a reflection-supported writing learning strategy versus an electronic-supported

learning writing strategy has a different effect on improvement of Iranian EFL learners' writing.

Theoretically, the findings of this study can be backed by the fact that learning is not restricted to a stimulus-response act and involves constructivism, self-regulation, and deep reflection by students as they are the most active participants in their learning process, and through reflection, they can enhance their understanding of this process (Juvova, 2015).

The results are in line with the findings of Sudirman et al (2021) and Johnson (2017), who stated that despite the traditional teacher-centered setting of teaching in which learners were passive participants, now they should contribute to their learning through active involvement and reflection on their learning experiences. The results revealed by Abbas (2016) were also in agreement with the findings of this investigation and proposed that learners' writing performance can be improved by reflection-supported process-based writing teaching and it helps them enhance positive attitudes toward writing. Furthermore, Deti, et al (2023) and Abba (2016) mentioned the positive effect of reflection-supported learning on writing. Furthermore, the findings of this study were in line with the findings of Alvarez (2012) and Godwin-Jones (2009), who proposed that to overcome reading and writing problems, we can use technology and electronic writing tools. This investigation filled the gap of whether using two educational approaches has any effects on improving learners' writing, and specifically, the electronically supported approach resulted in having the most salient effects due to some reasons. First of all, electronic platforms often provide adaptive content tailored to individual learning styles and needs, or in other words, personalize the learning process which makes learning more efficient and effective. Second, they give students more control over their learning and they become more able to work at their speed. Moreover, electronic platforms help them think creatively and provide more opportunities for interactivity among students and students with teachers, which help them, keep motivated and focused. These platforms are also accessible with different devices, services, vehicles, and in diverse environments. Digital learning systems are less expensive than traditional classroom-based learning systems which are used to have higher financial demands. Higher knowledge retention rates could be considered as another benefit for using electronic platforms in learning. Electronic-supported learning also provides an informal and interesting environment in which learners can enjoy using technology. This, in turn, helps them enhance their confidence in writing and gradually expands their skills into formal writing. Electronic platforms also provide an opportunity for learners to regularly get feedback, comments, and suggestions on their writing.

Conclusion

This study looked into the effect of electronic versus reflection-supported learning on Iranian intermediate EFL learners' argumentative writing. In this quasi-experimental study, fifty- four students were divided into two experimental groups. The adopted reflection criteria were taught to the experimental groups for fifty minutes. The learners who used electronics to

learn showed more growth in their capacity for argumentation. This implies that using technology to write more persuasively in English may be a more helpful tactic for ESL students. The participants filled out questionnaires on attitude before treatment to compare the scores for argumentative writing and writing attitude. The experimental group that used electronics for learning had much higher scores in argumentative writing, according to the findings. In comparison to the reflection-supported learning, their attitudes about writing also improved. This shows that ESL students' writing abilities and general writing attitude may benefit from the integration of technology into language learning. The results emphasize how crucial creative teaching strategies are for raising language learners' motivation and performance levels. Subsequently, statistical tests were employed to examine the data and ascertain the efficacy of utilizing electronics as a tactic to enhance ESL learners' argumentative writing abilities. The findings showed that among individuals who used electronics in their writing practice, there was a significant improvement in both writing attitude and argumentative writing abilities. The data was analyzed using inferential statistics, specifically the Multivariate Analysis of Covariance (MANCOVA), to draw conclusions and formulate views.

The experimental group, which got electronic-aided learning treatment, showed much higher levels of writing progress, according to the study findings. Those who got electronic-aided learning treatment had a considerable improvement in writing skills when compared to the other experimental group. The results unequivocally showed that the experimental group's electronic-aided learning had significantly enhanced their writing abilities. When the two groups were compared, there were noticeable differences in the writing performances, with the experimental group—which received electronic support—outperforming the group that received reflection support. These findings offer compelling proof of the value of digitally augmented learning for improving writing skills. These findings imply that, in comparison to conventional approaches, integrating electronic tools into the teaching process can result in more notable gains in writing proficiency. The study emphasizes how using technology as a tool to improve educational attainment may have certain advantages. Further research endeavors could delve into the specific mechanisms that facilitate the intervention's positive impact on writing abilities, thereby offering more comprehension of its effectiveness and possibilities for broader educational applications. The study results show strong evidence in favor of the claim that when compared to traditional techniques like reflection, electronic-assisted learning significantly improves writing skills. This finding emphasizes how incorporating electronic learning resources into different learning environments can improve writing training. These technologies' interactive features and multimedia capabilities have the power to completely transform education, giving students access to a more engaging and immersive learning environment. The study also emphasizes how important it is to integrate technology into language instruction to meet students' varied learning preferences and styles. Educators can create a dynamic and engaging learning environment that effectively enhances students' writing competencies by

embracing electronic-aided learning resources. Students who do this will be able to think critically and communicate effectively, which will help them in their future academic and professional endeavors.

People's communication skills can be significantly enhanced by better writing skills acquired through electronic-assisted learning platforms. This can have a significant impact on many parts of people's lives, including their future job goals. These digital tools are crucial for raising students' overall academic achievement since they help with fundamental abilities like writing, which makes them successful. Learners who are completely engaged in electronic-assisted learning environments not only improve as writers but also gain vital digital literacy skills, which are becoming more and more crucial in today's society.

The most recent study adds to the increasing corpus of empirical data that shows how effectively electronic-supported learning can improve writing skills. Now that they have these understandings, teachers can speak up in favor of the smooth transition of electronic-assisted teaching methods and resources into the writing education domain. Embracing the world of electronic-supported learning allows educators to design a dynamic, all-encompassing classroom that expertly prepares students for success in a world where people are accustomed to using technology. Educators may foster a more inclusive and interactive learning environment by including these cutting-edge tools in their lesson plans. This will help students become proficient in the digital age. Finally, it hastens the acquisition of digital literacy by students and prepares them for future success. People can significantly enhance their writing skills through the use of electronic-supported learning, which will enable them to express themselves and communicate more effectively in both personal and professional contexts. These materials offer a means of enhancing writing abilities as well as expanding learning accessibility, which is especially helpful for students who have learning difficulties or who live in remote areas. The effective integration of electronic-supported learning methods can significantly contribute to closing the educational gap between students with different learning styles and backgrounds by creating a more equal and inclusive learning environment. Additionally, students can have experiences that are individually tailored to their requirements and preferences thanks to the customizable nature of electronic-supported learning, which raises motivation and engagement levels. Thus, in a range of learning contexts, this tailored approach can lead to a noticeable improvement in overall academic performance.

The findings have significant implications for language instructors who wish to alter their curricula to better suit each student's particular needs, particularly in terms of assisting them in developing as proficient writers. By utilizing technology in the classroom, educators have a fantastic opportunity to establish a more inclusive and engaging learning environment that benefits a diverse group of students. By carefully integrating digital tools, teachers may create a collaborative learning environment in the classroom where students can work together and obtain quick feedback. This approach fosters a dynamic, student-

centered learning environment that encourages engagement and further development, in addition to improving learning overall.

There are several ways that future research on the effects of electronic vs. reflection-supported learning on the argumentative writing of Iranian intermediate EFL learners can go deeper.

First, research might concentrate on particular e-learning resources that support argument formation rather than a broad "electronic" category, such as online debate forums or group writing settings. Future research may also examine the effects of various reflection exercises, such as reflective journaling or peer feedback sessions, on the ability to write argumentative essays. Additionally, studies could look into how EFL learners' development of argumentative writing skills is impacted by the usage of multimedia resources in electronic learning environments. A more sophisticated comprehension of the connection between argumentative writing skills and electronic vs. reflection-supported learning can be attained by going deeper into these particular areas.

Long-term research studies that monitor learners' progress over time would be beneficial to obtain a longer-term perspective. A more thorough approach might be offered by looking into the efficacy of blended learning, which incorporates electronic resources with reflection exercises. Improving learning outcomes in this area can be accomplished holistically by emphasizing reflective practices and electronic resources. Teachers can make well-informed decisions about how to support writing and critical thinking abilities in the contemporary digital era by carrying out thorough research on the efficacy of blended learning.

Future studies could look at how electronic and reflection-supported learning affects students' motivation, self-efficacy, or anxiety in argumentative writing, in addition to the development of essential skills. Examining how teacher preparation affects the use of these strategies by instructors can also shed light on their role. Lastly, adding real-world audiences to the learning process through online forums or native-speaker discussions could enhance the learning experience.

Studies could assess the viability of each strategy in various educational contexts by comparing how cost-effective it is to adopt each one. Furthermore, how these strategies are modified to best fit Iranian learners' educational situation may depend on taking into account the cultural features of argumentation and reflection. A future study can offer a deeper knowledge of the most effective ways to assist Iranian intermediate EFL learners in developing strong argumentative writing skills by expanding on previous findings and investigating these recommendations. Further exploration into the specific challenges faced by Iranian intermediate EFL learners in argumentative writing may also be beneficial.

For future research, it may be useful to study the effects of reflection-supported learning versus electronic-supported learning on argumentative writing of other levels of Iranian EFL learners, like beginner or advanced levels; and also, to do this investigation on male learners rather than female ones. And as the last suggestion to be mentioned here, it can also be possible to use other types of scoring methods.

References

Abbas, S. H. (2016).The effect of reflection-supported process-based writing teaching on Iraqi EFL students' writing performance and attitude. *Arab World English Journal*, 10(1), 24-32.

Alfalagg, A. C. (2020). Impact of teacher-student writing conferences on frequency and accuracy of using cohesive devices in EFL students' writing. *Asian-Pacific Journal of Second and Foreign Language Education 5*(1), 34-51. DOI:10.1186/s40862-020-00104-z

Álvarez, G. (2012, July). New technologies in the university context: The use of blogs for We are developing students' reading and writing skills. *RUSC,* ***9*****(2), 185-198.**

Deti, T. , Ferede, T. & Dinsa, D. T.(2023). The effect of reflection on developing writing. *Asian-Pacific Journal of Second and Foreign Language Education, 8*(1), 23-33. DOI:10.1186/s40862-023-00202-8

Fajrina, A., Asra, R., Eriadi, A., & Andani, R. (2021). Best practices teaching argumentative writing. *Best Practices in Writing Instruction, 2*, 113–**140.**

Gibbs, G. (1988). *Learning by doing: A guide to teaching and learning methods*. Oxford University Unit.

Godwin-Jones, R. (2009). Emerging technologies personal learning environments. *Language Learning & Technology, 13*(2), 3-9.

Graff, G., & Birkenstein, C. (2010). *They Say/I Say: The Moves That Matter in Academic Writing.* W. W. Norton & Company

Hinkel, E. (2011). *Teaching academic ESL writing: Practical techniques in vocabulary and grammar*. Routledge.

Johnson, K. E. (2017). Reflective Writing and Cognitive Task Complexity:Understanding Student engagement in the development of higher-order thinking skills. *Studies in Higher Education*, *42*(3), 439-455. https://doi:10.1080/03075079.2015.1038100

Juvova, A., Chudy, S., Neumeister, P., Plischke, J., & Kvintova, J. (2015).Reflection of constructivist theories in current educational Practice. *Universal Journal of Educational Research, 3*(5), 345–349.

Knapp, P., & Watkins, M.(2005). *Genre, Text, Grammar: Technologies for Teaching and Assessing Writing.* University of New South Wales Press Ltd.

Kouicem, K., & Kelkoul, N. (2016). *Constructivist theories of Piaget and Vygotsky: General teaching implications*. Retrieved from: http:// dspace. Univ-eloued. dz/ bitst ream/ 123456789/2775/1/ Constructivist% 20Theories% **20of% 20Pia get% 20and% 20Vygotsky. Pdf**

Mugambi, M. (2018). Linking constructivism theory to classroom practice. *International Journal of Humanities Social Sciences and Education*, ***5*(9), 96–104*.***

Mulugeta, F. (2021). Addis ababa university students' strategy use in a reading-to-writing Task. *The Ethiopian Journal of Education, 41*(1), 75–111.

Sudirman, A., Gemilang, A. V., & Kristanto, T. M. A. (2021). The power of reflective Journal writing for university students from the EFL perspective. *Studies in English Language and Education, 8*(3), 1061-1079.

Surur, A. N., & Dengela,S. T. (2019). The relationship between writing anxiety and students' writing performance at Wolkite University first-year English primary students. *International Journal of English Literature and Social Sciences, 4*(6), 10-19.

Xhaferi, B., & Xhaferi, G. (2017).Enhancing Learning through Reflection: A case study of SEEU. *See Review, 12*(1), 53–68.

Zulfikar, T. & Mujiburrahman, M. (2018). Understanding own teaching: Becoming reflective teachers through reflective journals. *Reflective practice*, ***19*(1), 1-13. DOI:10.1080/14623943.2017.1295933**