



RESEARCH ARTICLE

Vol.2. 2.,2015

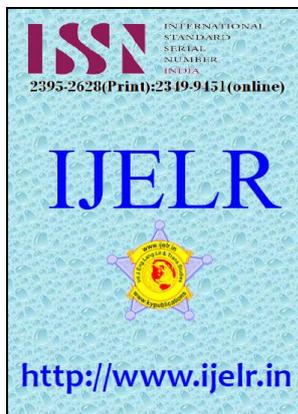
ISSN
INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA
2395-2628(Print):2349-9451(online)

THE EFFECT OF CRITICAL THINKING ON WRITING QUALITY OF IRANIAN 'EFL'
LEARNERS

Dr. MAHDI NASIRI¹, KOBRA GANJKHANLOO²

¹Department of English Language, University of Zanjan. Zanjan Branch, Zanjan, Iran

²Department of English Language, Islamic Azad University. Zanjan Branch, Zanjan, Iran



ABSTRACT

This study was an attempt to investigate the effect of critical thinking on writing quality. To this end, fifty female EFL learners were conveniently selected from Parse institute in Zanjan. They were randomly assigned to two equal groups, (N=25) control and experimental groups. They were in pre-intermediate level of language proficiency. For the homogeneity purposes, an IELTS writing task II was recruited. It should be mentioned that the experimental group were exposed to critical thinking sessions during twelve weeks, whereas the control group enjoyed the placebo effect. In order to grasp the perception of experimental group towards critical thinking, 10 learners were randomly selected to undergo a semi-structured interview. In general, the results revealed that learners' writing quality improved significantly. Furthermore, the analysis of interview data shed lights on the positive attitude of the learners towards the incorporation of critical thinking, and in another layer in critical writing, in their classes. The results of this study, can inform language practitioners.

Key words: Critical Thinking, Writing Quality, IELTS Writing Task II, Critical Writing

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INTRODUCTION

Critical thinking is one of the important factors that affect cognitive learning skills and the way of thinking. Ennis (2011) suggest that critical thinking is thinking clearly and reasonably. This kind of thinking includes the ability to involve in reflective and independent thinking, the ability to decide what to do or what to believe.

Based on Tsai and Lin (2012), writing is measured as a complex task, especially when it is considered as the second or foreign language. At the beginning, for more than fifty years the quality of writing in first language has. At the beginning, for more than fifty years the quality of writing in first language has been studied and then the quality of second language was considered important (Hunt, 1965).

Like other skills which the students learn, critical thinking and writing are the skills that in order to learn how to reason, how to argue logically and how to face a problem from different viewpoints, the students should learn it, too. All these learning make the students to use the information they have in their arguments and think openly and state their opinions about the problem in their writings (Hollowell, 2010). Critical

thinking competence cause the students to have their own thoughts and ideas, although these skills should be as a dual competencies and must be taught in EFL writing classes (Alagozlu, 2007). Based on Ramanathan & Atkinson (1999), to think critically makes you to have an individual voice.

During the recent years, finding a good method for teaching writing for the English learners has been attracting the attention of many of the scholars. Although a lot of investigation has done, but as Gorjian, (2012) points out the main question is how to motivate and encourage students to determine the ideas than learn the ideas and by this the idea of critical thinking advents. To the best knowledge of the researcher, If the students cannot learn to think critically, they cannot participate in the modern world.

Critical thinking in writing expands the learning experience and makes the language more meaningful for the learners as a vehicle through which they can gradually discover themselves in the process of language learning (Rafi,2009). But, Students' inability to write critically and express their views clearly in writing in English despite years of learning is clearly a problem which needs to be investigated. However, there is no study reported on the effect of critical thinking on writing quality among Iranian EFL learners.

The purpose of this study is to attempt to consider the effect of critical thinking on writing quality among Iranian EFL learners. The results of the present study will be useful for English teachers to find the difficulties in teaching writing. Also critical thinking in writing expands the learning experience and uses language as a vehicle for determining themselves in the procedure of language learning.

The following questions were analyzed in this research:

1. Does practice of critical thinking in EFL classes affect writing quality among Iranian EFL learners?
2. What is the attitude of Iranian EFL learners toward critical thinking?

2. Methodology

In order to investigate the research questions, a Mixed Method (MM) was run in this study involving a qualitative and quantitative Method. The quantitative part of this study explored the effect of critical thinking on writing quality and qualitative part explored the responses of learners to the interviews.

2.1. Participants

A sample of 50 participants were selected from 50 female EFL learners who were all native speakers of Turkish whose average age was 23(M=23).They were randomly assigned to two equal groups (N=25), control and experimental groups. They had different educational background but all learners were in pre-intermediate level of language proficiency.

2.2. Instruments

1. The IELTS task II was considered as the pre-test to check the homogeneity of the learners in terms of their general language proficiency and general writing ability.
2. Writing was scored for critical thinking using a rubric adapted from the AP English Composition rubric (Dixon, 1996). The major focus of this rubric (Table1) was on critical thinking (analysis, synthesis, and evaluation of ideas)

Table.1. Rubric for Scoring Creative Essays

Organized and well written essay that clearly analyzes the literature with specific references and cogent explanations. These essays are free of plot summary that is not appropriate to analysis. (Score = 5)
These essays analyze the topic well but are less incisive, developed, and supported than the highest category. They deal accurately with language and demonstrate the writer's ability to express ideas clearly. (Score = 4)
These essays are superficial. Writers chose a topic but the explanation is vague or over-simplified. They reveal simplistic thinking; they demonstrate inconsistent control over the elements of composition and do not convey higher level thinking. (Score = 3)
These essays are unpersuasive, perfunctory, under- developed, and reflect misguided analysis. They contain little, if any, supporting evidence. They summarize plot at the expense of analysis. (Score = 2)
These essays seriously misread the work of literature they explore. They are unacceptably brief. The views have little clarity or coherence. Essays that are especially inexact, vacuous, ill-organized, illogically argued, and/or are mechanically unsound should receive 1. (Score = 1)

3. Critical thinking instructions book from Bean (1998) guidelines was used to teach critical thinking.
4. In order to interpret the results of the tests, SPSS software was used to analyze the collected data.
5. The qualitative analysis procedure used in this study was Straus and Corbin's (1998) systematic approach. The data gathered through semi-structured interview from ten of the students were transcribed verbatim.

2.3 Procedures

This study was conducted over twelve sessions. The following steps were considered in the present research:

Step 1: First of all a sample of 50 participants were selected from 50 female EFL learners. Selected participants were randomly assigned to two equal groups, (N=25) control and experimental groups. The IELTS writing task II test were considered as the pre-test to check the homogeneity of the learners in terms of their general language proficiency and general writing ability. The learners were asked to write two paragraphs about given topic.

Step 2: The control group was received instructions of writing only based on general English course. In the experimental group, however, writing was taught based on general English course and critical thinking instructions. To instruct the experimental group how to critically analyze the writing texts, the teacher drew upon Bean (1998), guidelines to teach critical thinking.

Step 3: Finally the IELTS task 2 test was administered to both control and experimental groups. The learners were asked to write composition about given topic. Then writing was scored for critical thinking using a rubric adapted from the AP English Composition rubric (Dixon, 1996). The major focus of this rubric (Table 1) was on critical thinking (analysis, synthesis, and evaluation of ideas).

In order to prevent subjectivity and bias in rating, two raters were asked to score the writing. Raters are two English instructors at the institute who are experts in writing and in assessing writing. The internal consistency reliability (coefficient alpha) for the measure was .85.

Step 4: In order to interpret the results of the tests, SPSS software was used to analyze the collected data.

Step 5: In order to grasp the perception of experimental group towards critical thinking, 10 learners were randomly selected to undergo a semi-structured interview. The individuals were selected based on their willingness to participate in the study. The purpose was to explore and understand the students' point of view about critical thinking strategies.

3. Data Analysis

After gathering the necessary data from the subjects, the following statistical tests were used for this study: independent t-tests were used to determine if there was any difference in the mean score of each group in terms of their pre and post tests.

Using statistical procedures and SPSS software were reported. As such, both qualitative and quantitative analysis of data and both descriptive and inferential statistics are going to be applied in the present research. Also, Writing was scored for critical thinking using a rubric adapted from the AP English Composition rubric (Dixon, 1996). By the use of statistical procedure, descriptive information were reported to see in what extent the CT skills will influence on writing quality in some EFL learners.

The view points of ten students were gathered through a semi-structured interview. The aim was to elicit their attitude toward critical thinking strategy.

4. Results

4.1. The Analysis of the First Question

RQ1. Does practice of critical thinking in EFL classes affect writing quality among Iranian EFL learners?

The purpose of this study was to investigate the effect of critical thinking on students' writing quality among Iranian EFL learners.

At the beginning of the research, to ensure the homogeneity of the participants the researcher administered the IELTS task II test. Then for the comparison of the learners' proficiency scores in two groups the normality of two groups investigated with Kolmogorov-Smirnov Test.

Table.2. Two-Sample Kolmogorov-Smirnov Test

	score
Kolmogorov-Smirnov Z	2.121
Asymp. Sig. (2-tailed)	.247

As is evident from Table 2, the results indicate that the normality of two groups are approved (sig=.247). So, the researcher confirmed that the groups are normal in terms of their general language proficiency. So the researcher utilized an independent t-test to compare two groups.

The data were analyzed through the parametric test of independent t-test. The results are presented in Table 3.

Table 3.The comparison of the mean of the two independent groups

groups	N	Mean	Std. Deviation	Std. Error Mean
control	25	13.88	1.716	.343
experimental	25	13.60	1.893	.379

An independent t-test was run to compare the control and experimental groups mean scores in order to prove that both groups enjoyed the same level of general language proficiency prior to the administration of the treatment. As displayed in Table 4.2, the control group (M = 13/88, SD = 1.716) and experimental group (M = 13/60, SD = 1.893) showed almost the same means on the test.

Table 4.The result of the t-tests for the two groups(before instruction)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
score0	Equal variances assumed	.723	.399	.548	48	.586	.280	.511	-.747	1.307

Checking obtained t-score in t-test reveals that the difference between the means of the two groups is not statistically significant with 95% Confidence Interval of the Difference ($\alpha < .05$). Therefore, it can be concluded that there is no significant difference between two groups. So it can be claimed that any subsequent differences can be attributed to the treatment that they would receive.

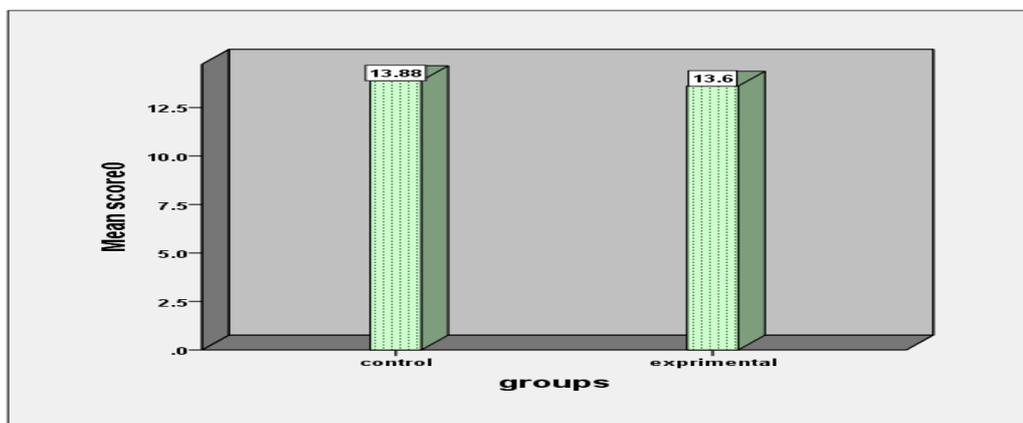


Figure1: Students English Critical Writing Quality before Instruction

The results of the comparison of the post-tests of the two groups after twelve sessions of treatment are presented in tables (5& 6).

Table 5. The comparison of the mean of the two independent groups (after instruction)

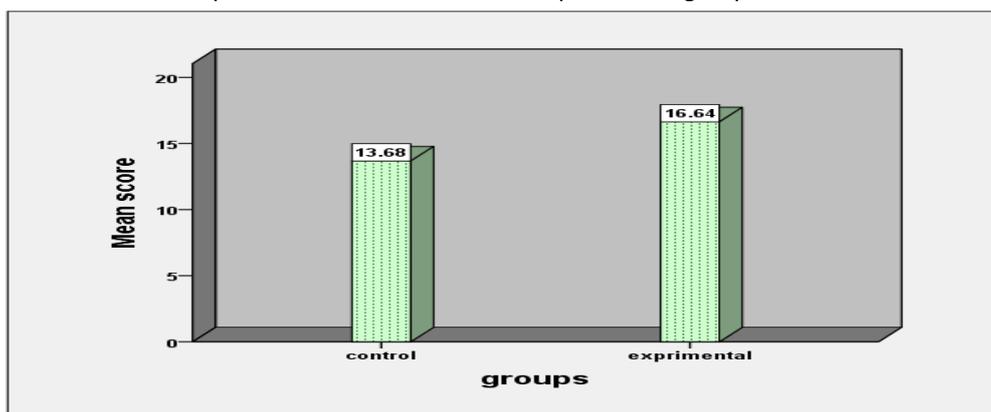
group	N	Mean	Std. Deviation	Std. Error Mean
control	25	13.68	1.952	.390
experimental	25	16.64	1.955	.391

Table 6. The results of the t-tests for the two groups (after instruction)

T-test for Equality of Means					
score	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
score	-5.357	48	.000	-2.960	.553

As is evident from Table 6, there is a statistically significant difference between the mean of the two groups in their post-test performance at $p < .05$ level. This finding was not consonant with Null Hypothesis. So, the hypothesis was, statistically rejected. Therefore it can be claimed that critical thinking was more effective in promotion of students writing quality.

Figure 2 illustrates the comparison between control and experimental groups after instruction.

**Figure2: Students English Critical Writing Quality after Instruction**

In sum, it is obviously the case that critical thinking instructions have improved students' writing quality. Considering the results of above figure and Tables 5 and 6 in post-tests, students can benefit from critical thinking in writing instruction more than general writing instruction. To give a more complete picture of what processes are involved in the students' learning we now turn to qualitative analysis of this study.

4.2. The Analysis of the Second Question

RQ2: What is the attitude of Iranian EFL learners toward critical thinking?

One significant point regarding qualitative data is that the results from EFL learners' interview showed that the participants in experimental group believed that the method they worked improved their writing quality and changed their attitude in a positive way. They believed that critical thinking involves movement from lower order mental function such as memorization and recall to more advanced order mental function such as application, comparing/contrasting, integration, and appraisal." These strategies bring them motivation to think more critically about writing content and assist them in developing their respective cognitive complexity. So, these results reveal that critical thinking can give a sense of achievement to students can enhance positive attitudes toward writing. And they feel more careful, concise, and hesitant over their learning, and become more aware of what is available to them to write and how to find materials that expand their though for writing quality.

Discussion and Conclusions

Having analyzed the relevant data, the researcher concluded that students' writing quality is affected by critical thinking. That is, when students become familiar with the strategy under their teacher's guidance, it helps them to improve their writing quality.

In Iranian EFL learners the students' ability in writing is only practiced by general writing instruction. Students need to "develop and effectively apply critical thinking skills to their studies, to the complex problems that they will face, and to the critical choices they will be forced to make as a result of the information explosion and in real life situations.

The results of this study showed that critical thinking has a positive effect on writing quality of Iranian EFL learners and enable them to reflect it in their writing. Being able to think critically and applying it in their writing can provide learners with better ways for a more successful life. It must also be mentioned that lack of critical thinking should not be considered as a deficit for students and not- utilizing it in educational system of Eastern countries must not be regarded as a shortcoming, because it roots in teachers and learners' lack of knowledge and also socio- cultural notions. However, combining critical thinking with existing educational setting can enrich language competence.

The outcomes of the interview indicated that they were eager to be taught through these strategies. Their viewpoints showed that critical thinking strategies can help them to reach to a better understanding of what they write. Therefore, it is recommendable to teachers to persuade students to creative writing along with general writing activities. This can be achieved by applying various critical thinking strategies to improve writing ability of students. In other words, teachers can highlight the advantages of critical thinking by providing situations in the classroom in which students are encouraged to use these strategies as possible. Therefore, it is suggested that teachers should not have a constraining role by only expecting students to general writing all the time. By contrast, it's better to give the students the opportunities to engage in different critical thinking situation.

The experimental group also strongly believed that this strategy maximized their thinking with reasoning. So, the results of this study recommend that English teachers in our country should not ignore the significant role of critical thinking in language teaching.

ACKNOWLEDGEMENT

Special thanks to my thesis supervisor Mr. Nasiri, who helped me with his insightful recommendations. Here I find the time appropriate to thank all persons who encouraged me to be serious in my studies especially my family and my friends.

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