

Enhancing Critical Thinking Abilities in EFL Classrooms: Through Written and Audiotaped Dialogue Journals

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Abstract: Critical thinking, as an educational trend, has been much discussed and proposed nowadays. In this regard, considerable debate has taken place over the techniques which can provide a forum for cultivating critical thinking considered as an integral part of English language pedagogy. One of the most effective forums for flourishing critical thinking in the content areas is journal keeping which is increasingly gaining popularity in EFL/ESL classrooms. To expand on the literature review, further research was performed to compare two kinds of this topmost pedagogical techniques (namely audiotaped and written dialogue journals) used in EFL classrooms in order to investigate their impact on the enhancement of critical thinking. Participants in this study were 33 Iranian EFL learners in 3 intact classes. The Watson-Glaser Critical Thinking Appraisal -Form A [1] as pretest was given at the outset of the semester. Subsequently, the participants in two experimental groups were asked to keep two different kinds of dialogue journals (audiotaped or written) in each class; however, the comparison group did just their ordinary writing tasks. A post test was distributed at the end of the semester. Analyses exhibited significant difference between the experimental groups and the comparison group giving evidence that overtly teaching for critical thinking abilities through keeping dialogue journals improves students' critical thinking abilities as opposed to using ordinary English writing tasks. However, both experimental groups equally outperformed the comparison group in terms of such an enhancement. The findings of this study provide insight into an effective technique in enhancing learners' critical thinking and present suggestions for further research.

Key words: Critical thinking • Journal keeping • Written dialogue journal • Audiotaped dialogue Journal

INTRODUCTION

The most noticeable characteristics of the modern societies are growth and advancement in educational systems at speed. The outcome of this growth is changing the focus of educational systems from teachers to learners. In this forever changing world, people who can use abundant data in generating new ideas are favored above those who lack the ability to absorb information to create new ideas to solve problems. Therefore, the need for equipping learners with right thinking tools is urgent. It is imperative that people and especially students arrive equipped with the skills to question various points of view while maintaining respect for different opinions. Thinking abilities can be assumed as the most noticeable and effective element in an educational system. "For acquiring this goal, paying attention to critical thinking is one of the fundamental phenomena and dimensions" [2].

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Critical thinking is not typically an intrinsic part of instruction at any level. The goal of critical thinking is providing an environment where students construct their own knowledge and take the responsibility for their own learning. Brown and Keeley [3] put the most recent definition of critical thinking forward; a definition which has some similarities and is in the same trend with the precedent definitions, but their emphasis has placed on asking questions. They accentuated on the term critical thinking as an awareness of a set of interrelated questions, an ability to pose and answer critical questions at appropriate time and a desire to actively use the critical questions. They furthered their idea on critical thinking through this concept into two categories, namely weak-sense and strong-sense critical thinking. "Weak-sense critical thinking is the use of critical thinking to defend your current beliefs. Strong-sense critical thinking is the use of the same skills to evaluate all claims and beliefs, especially your own" (p. 10). Stout [4] has noted that learners should be continually involved in the application of thinking skills if they are supposed to be accustomed to analyzing, conceptualizing, evaluating and synthesizing what they have sought. Several studies [4, 5-15] have suggested that classroom environment is a venue for nurturing a capacity for informed judgment through modeling, rehearsal and coaching for both learners and their tutors alike. If this gained knowledge is going to serve as guidance for their beliefs and actions, they must clearly recognize the relevance, validity and authenticity of what they learned. Norris [16] demonstrated how critical thinking is an educational ideal and it should not be considered as an option. It is a moral right for learners to learn how to think critically. Many researchers [17] do agree that critical thinking has to be learned, but there is no specific course called "critical thinking".

Of interest is exploring techniques and methods which can cultivate thinking skills in classrooms. Writing, among others, can be considered as a natural vehicle for exploring ideas, taking them apart and then reforming them- the essence of thinking [18]. While writing, writers are not completely aware of what they know until they have written it, reread it and clarified it further for themselves. Accordingly, for a writing task to be considered effective and useful, it should be in a mode that makes meaning and generates thoughts. Through critical writing, writers concentrate on ideas, problems and issues; identify and challenge assumptions; and explore multiple ways of understanding. As a result, during the past decades, considerable interest has developed in the use of written dialogue journals, as one of the ways, effective in fostering critical thinking abilities. Written Dialogue Journal (WDJ), as Peyton [19] defines it, is a written conversation in which "a learner and teacher communicate regularly. Learners write as much as they choose on a wide range of topics and in a variety of genres and styles. The teacher writes back regularly responding to questions and comments, introducing new topics, or asking questions" (p.3). As a kind of interactive writing, it allows learners and teachers to engage in written communication and conversation [19]. A prolific body of research has investigated the use of written dialogue journals by faculties of different disciplines in order to extend classroom learning and to cultivate critical thinking prowess. Stout [4], for example, states that a variety of studies have shown that when dialogue journal writing is used systematically and judiciously, the expressive mode of the journal can function as an excellent vehicle to promote cognitive growth. These written journals are claimed to equip learners with lifelong learning and thinking skills necessary to acquire and process information in a wavering world. Written dialogue journals provide learners with an opportunity to express them and to develop a personal voice which is lost in traditional education [20].

Written dialogue journals have been used extensively to improve writing skills and to promote critical thinking; however, the dearth of research on audiotaped journals as a tool for oral communication is unfortunate. In addition to fostering oral communication skills, the use of spoken journals can allow learners to use more spontaneous and free expressions because oral language is not bound by the same strict rules of coherence and cohesion as written discourse is.

The lack of employing critical tools does exist in Iranian EFL context, as the context of the present study, as well. Hashemi, *et al.* [2] surveyed the critical thinking from standpoint of many experts. Furthermore, they criticized Iranian educational system due to the fact that this system always tries to accumulate the learner's mind with a plentiful supply of data and information instead of creating thoughtful individuals. Iranian students, from their point of view, resemble computers with the task of storing information. They have precisely pinpointed that "The main problem that Iranian education system encounters is being goal-centered instead of being process-centered" (p. 68). In line with this claim,

Alipour, Mehrabi, Saeid and Safarpour [21] in their longitudinal study evaluated critical thinking abilities of 60 bachelor students at Payam-e Noor University in Shiraz, Southern Iran. The results revealed no significant difference between freshman and senior students. Accordingly, they concluded students' level of critical thinking did not increase during their education in Iran and they did not gain necessary skills at the end of their education. The same claims were also reported by other researchers [22, 23, 24].

Alternative techniques are needed in order to help students and specially EFL learners, as the focus of this study, to actively engage in the information they receive, recognize the message embedded in the information, be aware of the biases of the information and their own biases, estimate the reliability of the information, frame arguments on the issues related to the information and perform other activities which are pertinent to thinking critically. In spite of such a need, there is a lack of research on enhancing, fostering and nurturing critical thinking in EFL contexts. The present study was a step forward toward providing EFL learners with supporting situations in which they will be able to think more effectively. Therefore, the specific objectives of this study are to:

- Explore enhancement of critical thinking skills among Iranian EFL learners through keeping audiotaped and written dialogue journals;
- Examine the most suitable instructional technique (Audiotaped Dialogue Journal and Written Dialogue Journal) in fostering critical thinking abilities to be used in EFL classrooms.

To reach these aims, the following research questions were addressed:

- Is there any significant difference between the performances of EFL learners who have kept dialogue journals and those who have not enjoyed such additional instructional technique, on a critical thinking test?
- Is there any significant difference in critical thinking skills of EFL learners who have kept Written Dialogue Journal (WDJ) and their counterparts with Audiotaped Dialogue Journal (ADJ)?

MATERIALS AND METHODS

Participants: The participants involved in this study included 33 Iranian female advanced EFL learners at Novin Institute located in Arak, Iran. Participants aged 19 to 33 with the average of 25.5; thus, it can be claimed that they were approximately in the same age range considering Thomas and Litowitz's [25] recommendation about the influence of maturation and experience on critical thinking. A random assignment of students to treatment groups was not possible. Based on the oral and written placement tests on the aspects of English which learners should have covered in Top Notch series (course books taught in previous levels), students were placed in three intact advanced classes. The placement test consists of measuring four skills, in written and oral form, thus they were able to use English almost correctly and appropriately at this level. The classes met 3 days a week for a total of 6 hours per week during a 45-day institutional semester.

Instrumentation: Research data were gleaned out through using Watson-Glaser Critical Thinking Appraisal-Form A, WGCTA-FA. The Watson-Glaser Critical Thinking Appraisal-Form A includes five subsections of critical thinking abilities as defined below:

- The ability to define a problem;
- The ability to select pertinent information for the solution of a problem;
- The ability to recognize stated and unstated assumptions;
- The ability to formulate and select relevant and promising hypotheses; and
- The ability to draw conclusions validly and to judge the validity of inferences.

The total number of items included in this questionnaire is equal to 80. In addition to the face, content, construct and criterion validity of the appraisal, its test-retest reliability was measured by Watson and Glaser [1] as $r=0.89$. The researcher used the Farsi version of the appraisal [26], of which the reported reliability is 85% (Cronbach's $\alpha = 0.85$) and scoring was facilitated through the availability of an answer key, yielding a composite score for five subsections of the appraisal from 0 to 80. The allocated time for filling up this questionnaire was estimated about 50 minutes: inference, 13 minutes; recognition of assumptions, 6 minutes; deduction, 11 minutes; interpretation, 12 minutes; evaluation of arguments, 8 minutes [1].

Pretest: Prior to the instructional period, WGCTA-FA including the aforementioned features was distributed among the participants as a pretest in order to check their critical thinking abilities prior to any treatment session.

Treatment Materials: The materials used during the instructional period differed across three groups. The experimental groups were instructed to keep journals; yet, the control group received no special treatment except their regular class tasks. The first experimental group kept written dialogue journals and their counterparts in another experimental group were also instructed to keep journals but the difference lay in the form that dialogue journals were kept. They were asked to audiotape their journals (5-10) minutes. To ensure the result of the study, the researcher decided to choose classes which were taught by the same teacher. Choosing only one teacher for all three classes, the researcher made sure that all groups had been receiving the same instruction, activities, task and language practices. The participants wrote and audiotaped their journal entries on a weekly basis during a semester (18 sessions) with no limitation in choosing topics. The two experimental groups, from now on WDJG1 (N=12) and ADJG2 (N=9), were given the treatment for a period of 18 sessions, while the remaining 12 students, from now on CG3 (N=12), were given no special task but their regular classroom tasks. Stout [4] contends that providing a model for learners is one of the most effective ways in convincing students to get familiar with journal as a tool for processing ideas and engaging in significant exploration about their ideas.

After introducing WDJ and providing a model by the teacher on the board, WDJG1 were asked to choose a topic of their interest and not to worry about grammar or spelling mistakes of their writing but instead to focus on expressing their thoughts and feelings freely on paper. They also were allowed to use Farsi words in their sentences if they need a word for which they did not know the English equivalent. Students were informed that they could write journal entries on a wide range of topics: reflection on classroom activities, their teacher's behavior in the classroom, describing and explaining some characters in movies they have recently watched, stories about their life, problems they face while surfing the net and so on. It was somehow crystal clear that the quantity of entries will also vary from students to students and from entry to entry: from less than half a page to several pages. The teacher read and responded to the journal entries weekly. The focus of the responses was the content of the messages the students were trying to convey. The teacher commented on the points that students made, answered their questions and asked questions that guided them to a more critical view. The teacher's comments were written down on the same paper submitted by the learners. Here are some examples of the comments written by teacher:

-Don't you think that police officers have the right to do so?

-you are too vague here, I didn't get the point.

-wow! Really? Interesting! I didn't know that. Explain more about it!

-you are going too far. Focus on the main points and do not be confused.

-have you ever thought about the significance role of speaking in English classes?

Maybe this is the reason of what I have done in the classroom.

-Limit the topic!

-You should have considered different perspectives, not only just supporting your own belief.

-Will you do the same if you were in his shoes?

The other experimental group (ADJG2) was already acquainted with audio-taped dialogue journal through teachers' modeling and instructions. They were asked to prepare reflective audiotaped journals on weekly basis during the semester (18 sessions). Topics of audiotaped journals were also optional. Using an informal and conversational style, they audiotaped a short talk (approximately 5-10 minutes) on their own topics. They analyzed the topic in the light of their personal experiences, opinions and beliefs, focusing on the aspects of the topic that will be most appealing to them. Each time the journals were turned in, the teacher listened to them and responded by recording his/her comments and observations on the same record, thus created a type of asynchronous dialogue with the students. Some examples on these entries may elaborate the point far more:

-[student] Once upon a time, there was a king named Subka who was always searching the most effective ways to be successful and he tried lots of ways. He found out if he could find the answers of three questions he could be successful: when should I start doing something? What should I cheer and what should I neglect? And what is the most important work in his life? He went to an old man ...

I think the most important point in this story is that we should live in present and we should forget past and neglect future. So if we can live in present, we can have a present life.

-[Teacher] how did you get to this point? How these questions are related to being successful? What could you do to find answer if you were in the same boat?

-[Student] in my opinion, the best way to get the answer of every question is going to a learned person. In this case, asking the questions from successful people and then putting all the data together to get a point is the most effective way of searching.....

The EFL learners submitted their journals weekly. The instructor wrote/ audiotaped response(s) to each entry, commented upon and graded them A through D for the presence of evidences of critical thinking abilities such as analysis, evaluation and so on as well as their paying attention to different viewpoints. The EFL learners were previously informed about the criteria of such grading. Records or writing papers scored low (D) if they showed little evidence of careful thought. Scores, also, encouraged learners to consider more aspects of the topic under their discussion. After returning the audiotaped and written journals, students were supposed to pay attention to the teacher's comments and questions again. Then, students provided an answer to comments and questions offered by their teachers and they added some new points too. They kept and delivered journal entries as a profile to their teacher at the end of the semester.

Regarding the third group (CG3), the teacher had all the activities done in the other two classes except keeping journals. They had an ordinary class with no special tasks or treatment but their regular class tasks. Instead of keeping journals, they received placebo. They were asked by the teacher to submit writing on the topic selected by teacher. They were scored based on grammatical points, punctuation, content and coherence. The three classes were scheduled and planed alike by the teacher. Role plays, listening tasks, reading comprehension task, discussions, watching movies, some other activities were all the typical tasks among the three classes.

Posttest: At a session prior to final exams, the learners took Watson-Glaser Critical Thinking Appraisal once more in order for the researcher to learn whether the difference between groups and also between pretest and posttest is significant or not. The same procedure for ensuring the validity of the pretest was also repeated for the posttest as well as the same method of scoring.

Design: According to Ary, Jacobs, Razavieh and Sorensen [27], this quasi-experimental study will have a pretest-posttest design. This research project is quasi-experimental, quantitative with a pretest and posttest comparative design, using three intact classes.

Data Analysis: To analyze the collected data and test the hypotheses of this study, a series of one-way ANOVAs and independent and paired sample *t*-tests were employed through the use of the 16th version of the Statistical Package for Social Sciences (SPSS).

RESULTS

Descriptive Statistics: Table of descriptive statistics (Table 1) indicates that all the 33 participants who filled out the WGCTA-FA were included in the data analysis procedure as active valid cases. As displayed in the following table, data enjoy normal distributions across the three groups. The ratios of skewness and kurtosis over their respective standard errors are all within the ranges of ± 1.96 , so parametric tests can be run to analyze the data.

Inferential Statistics

The First Research Question

Question 1: Is there any significant difference between the performances of EFL learners who have kept dialogue journals and those have not enjoyed such an additional instructional technique, on a critical thinking test?

Mean scores of pretests were compared to investigate whether groups were homogenous before treatment sessions and to assess the learners' critical thinking abilities. There are not so much differences between the three groups' mean scores on the pretest.

As it can be observed the mean score of critical thinking abilities for ADJG2 and CG3 are equal to 51 and this number for WDJG2 is 44.5. To examine any significant difference in critical thinking abilities of EFL learners in pretest, the following one-way ANOVA was conducted. The three groups enjoyed homogenous variances, an assumption which must be met for an appropriate one-way ANOVA design. As displayed in Table 3, the Levene's *F* of .26 has a probability of .77. Since the probability associated with the Levene's *F* is higher than the significance level of .05, it can be concluded that the three groups enjoy homogenous variances.

The value of *F*-observed for the pretest of control and experimental groups is .733 (Table 4). This amount of *F*-value is lower than the critical value of 3.32 at 2 and 30 degrees of freedom. Based on these results, it can be inferred that there is no significant difference among the pretests of the three groups on WGCTA-FA.

Subsequently, to test the aforementioned null hypothesis, one-way ANOVA was run. The amount of *F*-observed ($F(2, 30) = 4.06, p < 0.05$) is higher than the critical *F*-value of 3.32. Thus, it can be said that the three groups involved in this study (WDJG1, ADJG2, CG3) acted significantly different on the posttest of critical thinking abilities test. The effect size for the *F*-value of 4.06 is .21. It shows that the results of this study are statistically significant and meaningful because the effect size of .14 and above is considered strong.

Although the significant *F*-value of 4.06 indicates statistically significant differences among the three groups (WDJG1=59.33; ADJG2=61.75; CG3=50.03), the post-hoc Scheffe's tests should be run to locate the exact places of differences between any two groups. Table 6 shows that:

- There is a significant difference between the WDJG1 and CG3 mean scores on the critical thinking abilities posttest. The WDJG1 outperformed the comparison group on the critical thinking test with a mean score of 59.33.
- There is a significant difference between ADJG2 and CG3 mean scores on the critical thinking test. The ADJG2 outperformed the control group with a mean score of 61.75.
- There is not any significant difference between the WDJG1 and ADJG2 mean scores on critical thinking posttest.

Discussion and Interpretation of Findings: Question 1: In response to the first research question, it was found that dialogue journal keeping has an effect on critical thinking abilities of EFL learners. According to the results, the experimental groups who had participated in asynchronous dialogues through keeping journals, no matter which of the two types experimented with here, outperformed the comparison group on a critical thinking test task.

Table 1: Descriptive Statistics of Pretests and Posttests

			Skewness	Kurtosis
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Group		N	Normality	Normality
WDJG1	Pretest	12	0.34	-0.30
	Posttest	12	-1.06	-0.14
ADJG2	Pretest	9	0.29	-0.85
	Posttest	9	-0.79	-1.18
CG3	Pretest	12	-0.08	-1.35
	Posttest	12	-0.19	-0.87

Table 2: Descriptive Statistics of Pretest of Critical Thinking Abilities

Tests		N	Mean	Std. Deviation	Minimum	Maximum
Pretest	WDJG1	12	44.50	16.054	18	72
	ADJG2	9	51.11	12.791	36	72
	CG3	12	51.00	15.249	29	71
Total		33	48.67	14.821	18	72

Table 3: Levene's Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
PRETEST	.263	2	30	.771

Table 4: One-Way ANOVA of the Three Groups' Critical Thinking Abilities on Pretest

		Sum of Squares	Df	Mean Square	F	Sig.
Pretest	Between Groups	327.44	2	163.72	.733	.489
	Within Groups	6701.88	30	223.39		
Total		7029.33	32			

Table 5: One-Way ANOVA of the Three Groups' Critical Thinking Abilities on Posttest

Score	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1045.588	2	522.794	4.063	.027
Within Groups	3860.472	30	128.682		
Total	4906.061	32			

Table 6: Post-Hoc Scheffe's Tests

Groups(I)	Groups(J)	Mean Difference (I-J)	Std. Error	Sig.
CG3	ADJG2	-12.97*	5.00	.038
	WDJG1	-10.41*	4.63	.047
ADJG2	WDJG1	2.555	5.00	.878

*. The mean difference is significant at the 0.05 level

The findings of this study are consistent with the previous studies in the literature which have come up with the positive effects for the use of dialogue journals in fostering critical thinking abilities. This study corroborates the findings of Carole [28], Huang [29], Ken [30], Montgomery [31], Reinertsen and Wells [18], Sheila and Trudell [32] and Weigle [33]. Reinertsen and Wells [18] and Kumaravadivelu [20] are among those who have ascertained the fact that learners achieve some awareness of analytical perspectives through using journals.

Freire ([34], cited in Kim, [35]) has criticized the educational context in which learners are regarded as passive objects. Freire added that in such contexts learners are not encouraged to be heard as the participants in their own learning nor encouraged to claim for their right to speak. In response, he proposes a dialogical approach. The findings of the current

study supports Freire's suggestion on the use of the two-way learning processes in teaching contexts and enhancing and empowering learners through putting the responsibility of learning on their own shoulders. Such an engagement in dialogic practices, as the current study suggests, increases reflective abilities among learners.

As mentioned earlier, for a number of years the educational system has recognized the significance of teaching critical thinking. The importance of critical thinking has been recognized by educators, which has led to the search for ways to improve critical thinking skills. Although the focus of these explorations is not limited to in-class variables, recent studies have paid attention to classroom as a venue in which critical thinking abilities can be nurtured [8, 36, 37]. The findings of this study also contribute to this part of the literature. It seems probable to increase learners' critical thinking abilities by providing activities and some techniques in EFL classrooms even in an approximately short period, even though the lasting effects of dialogue journals on thinking critically is not clear yet. The findings of this study are of paramount importance for language teachers because, as Pennycook [38] asserts, it should be considered a must to do more than teaching language skills and growing competent learners in a language and mere proficiency or communicative ability will no more suffice. By applying critical language teaching, EFL learners are not only given the chance to learn the foreign language but also they are given the opportunity to do more than language learning, to think and act as critically conscious beings [39] and autonomous persons [20].

The Second Research Question:

Question 2: Is there any significant difference in critical thinking skills of EFL learners who have kept Written Dialogue Journal (WDJ) and their counterparts with Audiotaped Dialogue Journal (ADJ)?

To probe whether written and audiotaped dialogue journal keeping has any influence on the enhancement of critical thinking abilities of EFL learners either in written or in audiotaped form, two series of paired sample t-tests were run. A paired sample t-test was run to compare the mean scores of the EFL learners on the pretest and posttest of critical thinking test to probe the effect of written dialogue journals. The t-observed value is 4.66 (Table 7). This amount of t-value is higher than the critical value of 2.20 at 11 degrees of freedom.

At this point, it can be concluded that there is a significant difference between the mean scores of WDJG1 on the pretest and posttest of critical thinking test. Table 8 displays the mean scores of pretest and posttest of WDJG1. WDJG1 performed better on the posttest with a mean score of 59.33 and written dialogue journal keeping has a significant effect on the enhancement of critical thinking abilities.

For the sake of comparing the mean scores of pretest and posttest of ADJG2, another paired sample t-test was conducted. The results revealed a significant difference between the mean scores of pretest and posttest of critical thinking. The amount of t-observed ($t=4.39$, $p<.05$) is higher than the critical value of 2.36 at 7 degrees of freedom (Table 9).

Table 10 shows that ADJG2 performed better on posttest with a mean score of 61.75. These results also corroborate the effective role of audiotaped dialogue journals on the enhancement of FEL learners' critical thinking abilities.

An independent samples t-test was run to compare the mean scores of WDJG1 and ADJG2 in posttest. The amount of t-observed ($t=.037$, $p<.05$) was lower than the critical value of 2.09 at 19 degrees of freedom.

Graph 1 visually depicts EFL learners' mean score changes on pretest and posttest for both experimental groups. A quick glance at the figure shows that journal keeping in written and audiotaped mediums enhances critical thinking abilities.

Discussion and Interpretation of Findings

Question 2: Following the first research question, in the second attempt the researcher was to find out whether this enhancement of critical thinking abilities is significant or not. The results indicated that both experimental groups enjoyed significant improvement in their ability to think critically. The current findings are supported by many other researchers [4, 40, 41, 42, 43] in favor of dialogue journals as a forum for critical reflection.

Table 7: Paired Sample t-Test Pretest and Posttest of Critical Thinking Abilities in WDJG1

		Paired Differences			95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
WDJG1	Pretest - Posttest	1.48333E1	11.02751	3.18337	-21.83988	-7.82679	4.660	11	.001

Table 8: Descriptive Statistics Pretest and Posttest of Critical Thinking Abilities in WDJG1

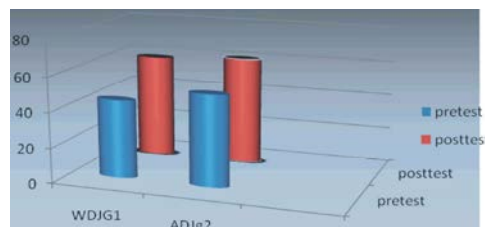
Pair 1	Mean	N	Std. Deviation	Std. Error Mean
PRETEST	44.5000	12	16.05389	4.63436
POSTTEST	59.3333	12	9.07878	2.62082

Table 9: Paired Sample t-Test Pretest and Posttest of Critical Thinking Abilities in ADJG2

		Paired Differences			95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
ADJG1	Pretest - Posttest	-9.87500	6.35694	2.24752	-15.18954	4.56046	4.394	7	.003

Table 10: Descriptive Statistics Pretest and Posttest of Critical Thinking Abilities in ADJG2

Pair 2	Mean	N	Std. Deviation	Std. Error Mean
PRETEST	51.8750	8	13.45296	4.75634
POSTTEST	61.7500	8	10.08181	3.56446



Graph 1: Pretest and Posttest of Critical Thinking for WDJG1 and ADJG2

In favor of written dialogue journals, Stout [4] elaborates on the effectiveness of writing in promoting critical thinking abilities because “writing is inherently slower in pace than speaking. In our attempts to make sense of things through higher order cognitive functions such as analysis (breaking things apart and examining their interrelatedness) and synthesis (reassembling these parts to make new and personal meaning), writing encourages an on-going back and forth movement among past, present and future” [4]. He added that “writing places our thoughts before us and can allow us to interact with and modify them, thus providing exercise in metacognition, in thinking about thinking, inventing, editing and inventing again” (p. 37).

Based on Kim [44] and Stapleton [45], dialogue journal writing is a venue for practicing a language in an environment which is meaningful, comfortable and challenging and it is of essence in educational context due to the significance of critically understanding social and cultural contexts of language and learning. The results of this study are in accordance with

that of Mirhosseini and Ghajar's [46] study on the effect of dialogue journals. They clearly demonstrated that dialogue journal writing provides EFL learners with the opportunity to be empowered and let them express their voice.

Unlike written dialogue journals, the use of audiotaped ones are often neglected, perhaps owing to their being time consuming for teachers. But as evidenced from the results, audiotaped dialogue journals represented a forum for nurturing critical thinking. Placing the findings of the current study alongside those of previous studies in the literature, it can be said that this study corroborates the findings of Dantas-Whitney [47] and Ho [48].

In response to the second question, the researcher also concluded that there is no significant difference between the effects of written or audiotaped dialogue journals on EFL learners' performance on a critical thinking test and it seems safe to claim that their impact is almost the same. Teachers may also find both techniques equal in terms of how well they foster critical thinking abilities in EFL learners because they encourage a great degree of participation and interest in the students. They should learn to develop techniques appropriate to their own situation.

In the context of this study and based on what Dantas-Whitney [48] claimed upon the advantages of using audiotaped dialogue journals over written ones, it was expected that EFL learners who had conversed with their teachers through audiotaped journals outperform those who had this dialogue in a written form. On the other hand, Stout [4], however, seconded written form of journals and stated that because of being slower in pace, writing can provide opportunities to reflect upon what has gone and offer an ideal occasion for active involvement and reflection. Nevertheless, the data analyses revealed no significant difference. This seems to indicate that dialogue journals, regardless of their medium, develop critical thinking abilities among EFL learners. One of the reasons why audiotaped and written dialogue journals acted in the same way probably lies in the nature of the journals they were required to perform. It seems that due to including so many skills such as discussions, problem solving, decision making, judging, scaffolding, which are claimed to be effective for critical thinking enhancement [49], the role of medium was overshadowed.

Conclusion and Implications of the Study: In recent years, journaling has occupied the mind of so many researchers to be worked on as an important tool for reflection in EFL/ESL contexts. However, the role of audiotaped journals had been neglected in this field; the current research opened a window of opportunity for critical thinking skilled to be cultivated through recording dialogue journals. In conclusion, the researcher hopes that teachers are able to use these suggestions as a starting point for the development of critical thinking in their own classes. The present findings are hoped to have significant implications for language learning/teaching setting in general and that in Iran in particular. The present researcher believes that, albeit not readily generalizable, the present findings would at least be indicative of the beneficial role of dialogue journals in either form in improving critical thinking abilities. The following section discusses some practical implications which address EFL teachers and teacher trainers. Implementing critical thinking in EFL classrooms is the most straightforward implication of this study. EFL learners are dealing with complex cultural and contextual issues in the realm of learning a language which is considered as an international one. In order to tackle with the challenges and uncertainties they face on the way of learning this foreign language, they need to have an ability to make the right judgments. Toward this goal, EFL teachers should equip their students with the ability to reflect critically, because this ability, as Soeherman [50] proposed, engages students in deepening their understanding of the truth, making right decisions and finding the right answers to the world. As a result, it will be worthy for EFL teachers to invest on dialogue journal keeping as an efficient and practical technique which helps learners enhance their critical thinking abilities. Furthermore, enhancing learners' critical thinking abilities comes with many empirically supported advantages that make its application in any language/ educational context a must. These advantages include learners' involvement, increasing learning motivation [14], fostering engagement [47], achievement [51] and effective communication [3], to name a few.

It can be claimed the small number of advanced EFL learners is mostly a common problem in Iranian language institutes due to learners' lack of motivation in advanced levels. This problem brought about some limitations on the number of samples participated in this study. Further studies in larger groups are the researcher's another suggestion because such studies can facilitate generalization.

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