

**Original Article**

## A Probe into the Efficacy of Teacher-led vs. Student-directed Inquiry-based Approach for Iranian EFL Learners' Expository Writing Betterment

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### Abstract

Though not a newfangled avenue of research in applied linguistics, inquiry-based learning (IBL) has witnessed a renewed outgrowth of research addressing its unexplored perspectives in recent years. Mainly inspired by this new movement and the dire need for exploring the underresearched facets of IBL, the researchers in the current study sought to probe the potential impact of inquiry-based learning on intermediate EFL learners' writing enhancement, particularly as regards the expository mode of writing. In so doing, 45 female EFL learners were chosen from a language school in Khoramabad. It is worth noting that all the participants were female, and their ages ranged between 18 and 20. Opting for a quantitative, quasi-experimental design, the researchers assigned the participants to three groups (two experimental and one control). Two expository writing tasks (selected from IELTS Task 1) were administered to the participants as the pre-and post-test. The treatment was run via two alternative modes of IBL, namely teacher-led versus student-directed inquiry. The findings revealed a significant enhancement in learners' expository writing performance. The study offers fruitful implications for EFL teachers, particularly regarding their increased familiarity with the principles of inquiry-based approach and the proper implementation of IBL in their classes with the aim of fostering the learners' critical thinking and problem-solving abilities.

**Keywords:** EFL Learners, Expository Writing, Inquiry-based Learning, Student-directed Inquiry, Teacher-led Inquiry

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## 1. Introduction

Having its origin in Socrates' philosophy and Dewey's educational psychology, Inquiry-based learning (IBL) has quite recently turned into a major underlying tenet for most educational researchers. Moving in tandem with constructivist school of psychology, on the one hand, and learner-centered pedagogy, on the other, IBL has a lot in common with student-fronted methods of language teaching. Among the proponents of IBL, Friesen and Scott (2013), for instance, hold that inquiry helps learners not only gain knowledge, but also build their life skills. This contribution IBL makes to life-long, sustainable learning for the sake of better functioning in society is among the prominent aims of current education, which goes beyond the mere transfer of knowledge.

Inquiry-based learning provides learners with more freedom and autonomy in making better individual choices for their learning path. Indeed, IBL equips learners with inner criteria by which they can evaluate the quality of their learning without overreliance on teachers and other individuals in the learning environment. As such, in educational settings, inquiry-based learning has proven to be a robust means for fostering independent learning, which leads to better learning outcomes (Hepworth & Walton, 2009).

In IBL, students are very active and operative and seek solutions to problems and tasks. This process makes students autonomous and responsible for their learning and helps them develop their skills and knowledge, which are on the far side of the classroom. Teachers have a vital role in implementing IBL in the classroom. After considering what scientific inquiry is and mastering it in the classroom, teachers should know inquiry very well. More importantly, to implement inquiry in the classroom, there are two typical and ordinary approaches, namely the learning cycle and cooperative learning, which surround constructivism based on the Piagetian constructivist theory of learning (Cavallo et al. 2002). In this approach, the teacher takes the role of a facilitator who can improve learning activities, student debates, and discussions and provide guidance instead of leading and dominating the entire activity.

Though different taxonomies have been put forth for IBL, the researchers in the current study have opted for Banchi and Bell's (2008) classification of inquiry types, encompassing four levels of *confirmation inquiry*: *structured inquiry*, *guided inquiry*, and *open/true inquiry*.

The first category, known as *confirmation inquiry*, deals with a pre-designed set of questions about the content being taught. Teachers play a key role in the process of developing questions and determining the procedure. Thus, teacher agency and control over every phase of inquiry is quite tangible.

The second type of inquiry, referred to as *structured inquiry*, is again heavily teacher-reliant. However, in this case, the teacher acts as the initial provider of questions and the one who outlines the whole procedure. In this kind of IBL, the students' role is reduced to that of analyzer and evaluator of pre-planned questions and procedures. In this process, teacher scaffolding and support can lead the students through the phases of inquiry.

In the third category of inquiry, dubbed *guided inquiry*, the degree of teacher control and intervention is comparatively lower. The role played by the teacher is confined to topic and theme selection and formulation of questions and hypotheses. Unlike the first two types of inquiry-based learning in which the teacher takes the domineering role, in this type of inquiry the learner himself/herself is in charge of designing the procedure for dealing with the whole process of learning.

The last type of IBL, termed *open/true inquiry*, is overly learner-centered, and the teacher only provides assistance and support once needed. As learners play the most overbearing role in this process, true inquiry seems to be the most demanding version of inquiry-based learning. In this course of action, learners take the lead in both devising the questions and determining the entire procedure. As the delineations for these four categories of inquiry-based learning indicate, a transition is gradually made from a high level of teacher control to more learner autonomy and agency in the process of inquiry.

It must be noted that in applying Banchi and Bell's (2008) taxonomy of inquiry types, the first two levels, that is, confirmation and structures inquiry, both of which heavily relied on teacher control and discretion, were merged into one category, termed teacher-led inquiry for the sake of the current study. In a similar way, guided and open inquiry, which was more learner-reliant, were blended into a single category, for which the name student-directed inquiry was selected.

Moreover, due to the importance of writing, on the one hand, and the challenging nature of this language skill for most learners, on the other, the researchers in the current study chose to probe into the writing enhancement of learners through the application of

inquiry-based learning. As Weigle (2002, cited in Mahdian Mehr et al. 2016) maintained, writing in a second/foreign language has gained more significance in the modern era owing to a myriad of "educational, business, and personal reasons" (p. 85).

A highly ubiquitous mode of writing, and one which even counts in standard writing exams like the Test of English as a Foreign Language (TOEFL) and International English Language Teaching System (IELTS), expository writing, which deals with describing, analyzing, and explaining phenomena, mostly relies on the full grasp of relevant illustrations, figures and visual representations accompanying the task (Bosley, 1989).

Though there has been a plethora of research on writing, few studies, to date, have focused on the intricacies of expository writing. Moreover, even if an attempt has been made on the part of materials developers to include small quantities of expository writing practice in high school English books, the proper manner in which this special and demanding mode of writing is to be taught has received comparatively less attention. Furthermore, an appropriate and comprehensive model of expository writing is not at hand for students. Thus, as a highly crucial type of writing for learners' educational and work-related accomplishments, expository writing requires further attention on the part of teachers and educational researchers (Raphael et al. 1998).

## **2. Literature Review**

As stated earlier, having its roots in the Socratic school of thought as well as Dewey's educational psychology, inquiry-based learning capitalizes more on students' autonomy in thinking, learning, and evaluating the quality of learning. Thus, rather than being spoon-fed, the learners are pushed toward discovery learning through inquiry, with the teacher acting as the facilitator and scaffolder (Friesen & Scott, 2013). Learning in this approach is viewed as a process in which the learner is entirely involved and held liable for the learning outcomes he/she gains.

In the continuation of the Socratic tradition, which emphasized the sustained involvement of learners in the process of inquiry practice, Dewey's educational psychology and Piaget's constructivist theory made a prominent contribution to the development and evolution of the concept of inquiry in learning. The constructivist approach rests upon the uniqueness of learners and the dire need for individualization of learning processes in line with learner characteristics. As Uzunosmanoglu et al. (2012, p. 2) put it, the principal

"objective of inquiry-based learning is to help the students to employ the process of knowledge acquisition and his/her abilities to seek information from inside the life, and to develop skills and approaches that can be used or generalize such knowledge."

It is felt that inquiry must be given further attention in primary education, as this is the point at which learners' general outlook of learning is configured. In this regard, Bybee et al. (2006) introduce IBL as the most important building block for students who are at elementary school, for whom inquiry would provide a helping hand in order to both evaluate their responses and communicate their answers along with evidence.

Being an adjacent notion in inquiry-based learning, critical thinking is mostly regarded as one of the major building blocks of the inquiry-based approach. In a study focusing on the efficacy of a pedagogy based on critical thinking, Alnofaie (2013) advocated the implementation of a methodology based on critical thinking tenets. At the culmination of her research, she concluded that a pedagogy in the EFL context based on critical thinking needs to be primarily applied holistically, focusing on all language skills and courses.

In a more recent paper, Jia et al. (2017) conducted research on the influence of inquiry-based instruction on the problem-solving ability of Chinese learners. Implementing two distinct methodologies for applying an inquiry-based approach, the researchers tried to gauge the potential effect of inquiry-based teaching on learners' creativity improvement in terms of problem-finding ability. In the first methodology, the researchers applied lecturing and inquiry-based approaches in isolation, whereas in the second one, they integrated the two approaches. The results were in favor of the group that was exposed to lecturing and inquiry-based teaching simultaneously.

Also, Inoue et al. (2019) touched upon the role of expertise in running appropriate inquiry-based classes. In doing so, they selected eight leading math teachers from a Japanese elementary school. To gather data, they made use of class observation and interviews. As the results depicted, the classes these experienced instructors taught were characterized by a number of key features, including whole-person development, adaptability, inclusiveness, and collective inquiry. This collaborative nature of practice in writing skills is also highlighted by other researchers, including Ameri-Golestan and Nezakat-Alhossaini (2017).

In recent years, inquiry has entered novel domains, including teachers' professional development through collaborative practice of inquiry. As a case in point, Voet and De Wever (2017) devised a training program for IBL for preservice teachers working in the field of history. The findings pointed toward the effectiveness of inquiry-focused training via workshops on student teachers' self-efficacy development as well as attitude change.

In like manner, DeLuca et al. (2017) probed elementary school teachers' perspectives concerning the practice of collaborative inquiry. To conduct the study, 292 teachers chosen from 15 school districts were recruited and asked to voice their attitudes toward collaborative inquiry. The results obtained via survey and focus group interviews pointed to a number of factors enhancing collaborative inquiry, including autonomy, interactivity, improved student outcomes, and access to resources, as well as some hindering facets, such as students' unwillingness, teachers' lack of confidence, colleague's unwillingness, as well as fear and negative perception of the concept.

In still another attempt, Lachuk et al. (2019) embarked on the effect of collaborative inquiry on developing preservice teachers' integrity and trustworthiness. As they concluded, the practice of collaborative inquiry proved helpful in changing the teachers' mentalities regarding the concept and led them to integrate inquiry-based practice into their teaching careers.

Widely known as the most challenging skill, writing takes a long time and an extensive amount of energy and effort to master. Hashempour et al. (2015) tend to use the term 'writer's block' to describe the intrinsic difficulty of writing tasks. Furthermore, Mastan and Maarof (2014, p. 2) state that "Writing is a complicated and complex skill due to its non-linear process of planning, writing, revising and editing. Therefore, it is understandable why learners often face greater anxiety in a writing class than in a mathematics class."

Though writing ability has been sub-divided into different modes, including argumentative, process-oriented, classificatory, cause-effect-related, comparison/contrast-oriented, and narrative types of writing, to name a few, expository writing appears to be one of the most demanding types of writing for both young and adult language learners (e.g., Berman & Verhoeven, 2002; Hall-Mills & Apel, 2012). As Hall-Mills and Apel (2012) contend, despite the quintessential nature of expository writing as a major type of writing in the school milieu, introducing learners to this type of writing and involving them

in practice with this mode of writing is mostly postponed to later years of learners' education at the school. Furthermore, as Berman and Verhoeven (2002) have noted, expository writing takes a longer time to master, and owing to its complexity, more time and effort must be invested toward its appropriate development.

Though manifold studies have been performed on writing, a number of more relevant ones are discussed in this section. In the study conducted by Panahandeh and Esfandiari Asl (2014), 60 intermediate participants at Ardabil Islamic Azad University were divided into control and experiment groups. The experimental group was taught via the use of metacognitive strategies in writing, whereas the control group did not receive any instruction to write. After eight weeks, both groups were post-tested. The results of their study based on t-test analysis suggested that there was a positive outcome for the experimental group since the members of the experimental group outperformed control group participants in terms of argumentative writing skills.

In the midst of a noticeable body of research allotted to writing, especially expository writing, one can refer to the work that was done by Mastan and Maarof (2014). Running a mixed-method study, the researchers were interested in pinpointing the effect of writing strategies on students' expository writing. The participants of the study were 60 students aged 16 and were divided into two comparison groups, each comprising 30 students. Then, they were given a writing strategy questionnaire to pinpoint what kind of strategies are implied to use expository writing. The result indicated that learners could be successful writers in the second English language classroom if they received explicit training in the various strategies.

Finally, concerning the efficacy of an inquiry-based approach for enhancing the learners' writing performance, a number of studies have been done, two of which are reported in the following section. In the study conducted by Derseh (2020), for instance, the efficacy of IBL for enhancing EFL students' argumentative writing was explored. To conduct the research, he selected 20 participants and, using a time series design, gathered data by means of focus group discussions, tests, and reflective journals. As the findings indicated, implementing IBL led to a significant enhancement in students' argumentative essay writing performance.

In a similar vein, Tavanapour and Chalak (2021) considered the viability of Iranian EFL learners' writing enhancement, particularly in terms of grammatical accuracy, through

the application of IBL. In so doing, 90 intermediate EFL learners were involved in a quasi-experimental research design. The findings pointed toward a significant degree of enhancement within the experimental group resulting from exposure to IBL.

As the brief review of literature presented in this section helps reveal, inquiry-based learning has always been in the foreground of researchers' attention (e.g., Author & Author<sup>2</sup>, 2021; Derseh, 2020; Nabhan, 2017; Tavanapour & Chalak, 2021), it appears that the implications IBL can have for writing betterment, in general, and expository writing enhancement, in particular, have remained under-researched. Thus, in an attempt to address this lacuna, the current study strives to investigate the specific effect of IBL on Iranian EFL learners' writing enhancement. Based on the objective of the current study, the following research question was put forth:

1. Is there any significant difference between the effects of two different modes of inquiry-based approach (teacher-led and student-directed) on Iranian senior language school students' expository writing enhancement?

### **3. Method**

#### **3.1 Design of the Study**

In dealing with the research question set forth in the study, a quantitative, quasi-experimental design was employed. Overall, in this design, the impact of the Inquiry-based approach on expository writing was gauged by using the non-parametric equivalent of one-way ANOVA, known as the Kruskal-Wallis test.

#### **3.2 Participants**

Three intact classes were selected through convenience sampling. Each group was composed of 15 participants learning English as a foreign language at TAK English Language Institute in Khorramabad. The participants were at the pre-intermediate level of proficiency, aged from 18 to 20, and joined the on-site, face-to-face classes three times a week in the spring semester.

It should be added that a convenience sampling procedure was opted for in the current study, and only female learners were included due to the inaccessibility of male participants in the institute where the study was conducted. The three classes were non-randomly selected and assigned to one control group and two experimental groups. It

should be stated that the first researcher was the instructor of all three classes. Table 1 depicts the demographic background of the participants.

**Table 1.**

*Demographic Background of the Participants*

No. of Participants	Gender	Level of proficiency	Age Range
45	Female	Pre-intermediate	18-20

### 3.3 Instruments

After administering the homogeneity test (Oxford Placement Test), the participants were asked to compose a 150-word expository writing task (selected from IELTS Task 1) about the given topic in 45 minutes. This piece of writing served as the pretest.

At the culmination of the treatment, a post-test was given in which the learners were asked to complete and submit another expository writing task (an excerpt from IELTS Task 1) in order to measure the effect of the different kinds of instructions they received on their ability to complete an expository task. The point that should not be overlooked is that an attempt was made to select a topic that was at the same level of difficulty as the pretest topic. Since the topics for the pre-and post-test of expository writing were both selected from the IELTS test series, they enjoyed a well-established level of reliability.

### 3.4 Data Collection Procedure

At the outset of the study, informed consent was obtained from all the participants, and they were all assured of confidentiality and anonymity considerations. The first step in the current research was administering the proficiency test (Oxford Placement Test) for the sake of homogenizing learners. Successive to this, the students were randomly assigned to one control and two experimental groups. Each group contained 15 participants, and all of them were female. Next, the participants of all three groups were given the pretest, during which they were given a topic in expository mode.

They were asked to write and complete the expository task in at least 150 words in the same session and within the allotted time, which was 45 minutes. Afterward, the treatment via an inquiry-based approach was implemented in the experimental groups for a matter of 6 weeks. Each session of the treatment was held for 45 minutes and three times a

week for the experimental groups. In fact, while identically going through the writing course, the researchers implemented different kinds of inquiry-based treatment in the two experimental groups.

In running the treatment via inquiry-based learning, the guidelines and the framework offered by Banchi and Bell (2008) were adopted, in which four major categories of IBL were put forth, namely confirmation inquiry, structured inquiry, guided inquiry, and open/true inquiry. However, due to the similarity existing between confirmation and structured inquiry, on the one hand, and guided and open inquiry, on the other, the first two categories were labeled teacher-led inquiry in the current study. In contrast, the other two categories were dubbed student-directed inquiry for the sake of the study. It is worth reiterating that in the former (teacher-led inquiry), more teacher intervention was applied, whereas, in the latter, more learner control and initiation were exercised.

### **3.5 Data Analysis Procedure**

To analyze the research question probing the effect of inquiry-based learning on expository writing enhancement, initially, Normality tests (Kolmogorov-Smirnov and Shapiro-Wilk) were run to investigate the normality of data distribution using Statistical Package for Social Sciences (SPSS) version 22. Since the data violated the conditions for normality both for the pre-and post-test, the Kruskal Wallis test, as the non-parametric equivalent of ANOVA, was conducted.

## **4. Results**

The research question formulated in the study was after pinpointing the possible difference among the three groups of participants on expository writing post-test as a result of applying two distinct methods of inquiry-based learning. In dealing with the research question, initially, the pretest scores of three groups were analyzed. Running the Kolmogorov-Smirnov test revealed that the pretest scores weren't normally distributed, and hence, non-parametric statistics were to be used. Table 2 shows the descriptive statistics for pretest expository writing scores, and Table 2 illustrates the test of normality results. As is seen in Table 2, the data do not enjoy normal distribution.

**Table 2**

*Descriptive Statistics for Expository Writing Pretest Scores*

		Statistic	Std. Error
Expository Pretest	Mean	14.9778	.26872
	95% Confidence Interval for Mean	Lower Bound	14.4362
		Upper Bound	15.5193
	5% Trimmed Mean	15.0309	
	Median	15.0000	
	Variance	3.249	
	Std. Deviation	1.80264	
	Minimum	11.00	
	Maximum	18.00	
	Range	7.00	
	Interquartile Range	2.00	
	Skewness	-.526	.354
	Kurtosis	.393	.695

As revealed in Table 2, the mean of the pretest scores was 14.97, and the variance and standard deviation of the scores were 3.24 and 1.80, respectively. Furthermore, the maximum and minimum scores on the test were 18 and 11, respectively.

**Table 3**

*Test of Normality for Expository Writing Pretest Scores*

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Expository Pretest	.194	45	.000	.921	45	.004

*Note.* a. Lilliefors Significance Correction

As is seen in Table 3, the pretest scores were not normally distributed ( $p < .05$ ); therefore, a non-parametric equivalent of one-way ANOVA (Kruskal-Wallis test) was utilized to compare the pretest means. Tables 4 and 5 illustrate the mean ranks and Kruskal-Wallis results for expository writing scores.

**Table 4**

*Mean Ranks for Expository Writing Pretest Scores*

Ranks			
	Group	N	Mean Rank
Expository Pretest	Cont.	15	20.03
	Exp 1 Teacher-led inq.	15	19.70
	Exp 2 Student-directed inq.	15	29.27
	Total	45	

**Table 5**

*Kruskal Wallis Results for Expository Writing Pretest Scores*

Test Statistics <sup>a,b</sup>	
	Expository Pretest
Chi-Square	5.388
df	2
Asymp. Sig.	.068

*Note.* a. Kruskal Wallis Test b. Grouping Variable: Group

Next, to determine the possible improvement of experimental groups as a result of applying the treatment via an inquiry-based approach, the Kolmogorov-Smirnov test was run on post-test data, which indicated that the post-test scores were not normally distributed. Hence, non-parametric statistics were to be used. Table 6 shows the descriptive statistics for pretest expository writing scores, and Table 7 illustrates the test of normality results. As seen in Table 6, the data did not enjoy normal distribution.

**Table 6**

*Descriptive Statistics for Expository Writing Post-test Scores*

		Statistic	Std. Error
Expository Post-test	Mean	26.0667	.92409
	95% Confidence Interval for Mean	Lower Bound	24.2043
		Upper Bound	27.9290
	5% Trimmed Mean	26.2963	
	Median	29.0000	
	Variance	38.427	

	Std. Deviation	6.19897
Minimum		15.00
Maximum		34.00
Range		19.00
Interquartile Range		13.00
Skewness	-.607	.354
Kurtosis	-1.318	.695

As revealed in Table 6, the mean of the pretest scores was 26.06, and the variance and standard deviation of the scores were 38.42 and 6.19, respectively. Furthermore, the maximum and minimum scores on the test were 34 and 15, respectively.

**Table 7**

*Test of Normality for Expository Writing Post-test Scores*

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Expository Pretest	.194	45	.000	.921	45	.004

a. Lilliefors Significance Correction

As seen in Table 7, the pretest scores were not normally distributed ( $p < .05$ ); therefore, the non-parametric equivalent of one-way ANOVA (Kruskal-Wallis test) was utilized to compare the pretest means. Tables 8 and 9 illustrate the mean ranks and Kruskal-Wallis results for expository writing scores.

**Table 8**

*Mean Ranks for Expository Writing Pretest Scores*

	Ranks		
	Group	N	Mean Rank
Expository Post-test	Cont.	15	8.13
	Exp 1 Teacher-led inq.	15	29.20
	Exp 2 Student-directed inq.	15	31.67
	Total	45	

**Table 9**

*Kruskal Wallis Results for Expository Writing Pretest Scores*

Test Statistics <sup>a,b</sup>	
Expository Post-test	
Chi-Square	29.626
Df	2
Asymp. Sig.	.000

*Note.* a. Kruskal Wallis Test b. Grouping Variable: Group

As the data in Table 9 help reveal, there was a significant difference among the performances of the three groups on the expository post-test, indicating that the treatment via inquiry-based approach proved useful for improving learners' writing in expository mode. Consulting Table 8 regarding the obtained mean ranks for the three groups also suggested that both experimental groups outperformed the control group, though the student-directed inquiry group was found to have made more progress. Thus, the null hypothesis of research postulating no significant difference between the effects of two different modes of inquiry-based approach (teacher-led and student-directed) on Iranian senior high school students' expository writing enhancement was rejected.

## 5. Discussion

The researchers in the current study set out to investigate the possible effect of IBL on learners' writing enhancement in expository writing. As the findings of the study revealed, the methodology for teaching through an inquiry-based approach proved to be beneficial in bringing about the desired changes. Thus, the null hypothesis of the study was rejected.

The findings of the current research are partially in line with those obtained by Luke (2006). His main objective was to find out whether learner autonomy can be improved through the practice of inquiry-based learning. As Luke stated, one of the major requirements for the success of IBL is attending to learners' needs and interests. In the current study, one of the major preoccupations of the researchers was taking into account the learners' needs in terms of topic selection for writing. In addition, in implementing the principles of student-directed inquiry, which was mainly highlighted in the second experimental group in the current study, the findings of the study at hand are found to corroborate the ones obtained by Luke, who claimed that for producing a more successful

practice of IBL, the researcher "is to find ways to guide and support learners in their initial excursions into these novel frameworks and environments" (p. 83).

The findings also support the study carried out by Fahim and Hashtroodi (2012), in which the positive influence of critical thinking skills was argued for in producing more enhanced writing. It can be argued that since critical thinking is one of the major components of IBL, their findings comply with the current research where the effect of IBL on writing enhancement has been indicated. In like manner, Hashemi et al.'s (2014) research advocated the usefulness of critical thinking skills for improving writing.

Besides, the findings are thought to corroborate the ones gained by Jia et al. (2017), where the researchers advocated the efficacy of IBL for bringing about more creativity and better problem-solving ability. They also found that integrating inquiry-based learning with students' experience of lecturing can prove to be more helpful in producing the desired outcomes in terms of creativity and problem-solving skills.

The current finding also resonates with the one reported by Nabhan (2017). Though the method of implementing IBL in the current study and Nabhan's study are different (we worked within the framework of Banchi and Bell's model, and he adopted a model integrated with ongoing, formative assessment), the effects IBL had on the learners' writing enhancement are comparable regardless of the method of inquiry-based approach opted for.

Moreover, the study finding is consistent with the one obtained by Derseh (2020), as he also concluded that IBL can bring about noticeable writing betterment. Though Derseh does not provide a vivid explication of how the inquiry-based approach was implemented in his research, and despite the fact that the design and instruments used in the current study are different from his, both his study and ours focused on the gains in argumentative writing resulting from the practice of IBL, and in this respect, both studies came up with similar results.

Furthermore, the current researchers' findings corroborate the ones attained by Tavanapour and Chalak (2021). Though they were mainly concerned with gains in terms of grammatical accuracy as a measure of writing ability, and we had a more comprehensive set of rubrics for learners' writing performance, both studies were quasi-experimental. They came up with comparable conclusions as regards learners' writing betterment.

After all, moving in line with Aulls et al.'s (2015) claim, we might say that though at first glance, inquiry-based and non-inquiry-based instruction may not seem to be drastically different, it does make a big difference to teaching based on inquiry, which is characterized by a number of privileges, including improved planning and assessment, co-constructed, inclusive learning, and the more active student-fronted, learner-initiated and whole-person type of learning. Thus, drawing on the collective results gained through different studies might prove more kosher to opt for classes founded on the tenets of inquiry. This way, not only will our learners feel more responsible for their learning, but they may also approach the learning task as a more enjoyable, thriving experience.

## **6. Conclusion**

The researchers in the present probe were after finding the potential effect of inquiry-based learning on learners' writing enhancement in terms of expository mode of writing. Drawing on the findings of the research, it can be claimed that teachers' attempts to implement IBL in learning contexts, particularly in EFL classes, may prove quite beneficial in tackling learners' writing difficulties. The expository mode of writing, as one of the most demanding genres of writing, was found to be improved through the practice of IBL in the current study. Thus, English language teachers might be advised to take this fruitful teaching technique into account for augmenting learning outcomes. The success of the inquiry-based approach in leading to better learning outcomes, particularly in writing skills, is thought to be attributable to the prominence it gives to critical thinking and problem-solving skills.

All in all, the studies and findings reported substantiate the prominent role of IBL in producing more enhanced writing. Informed by the collective results of the research studies, as well as the findings obtained in the current study, school, and institute teachers are advised to reconsider the influential role of IBL in furthering learning, in general, and writing skills, in particular. Thus, it is hoped that by familiarizing the teachers with the benefits of IBL for enhancing learning outcomes, the researchers would be able to integrate such novel and fruitful teaching approaches into pedagogy. In this regard, mention can be made of Inoue et al.'s (2019) claim in which they properly stressed the critical role of expertise in the successful practice of inquiry-based instruction.

In light of the above-mentioned findings, the results obtained in the current study can be beneficial for school and institute teachers, learners, course designers, and education administrators. Every educational activity should be in harmony with the context and the needs of the students. Students are used to conventionally receiving their lessons from traditional teachers who are dominating them in their classes. Increasing the opportunity for students to be involved in inquiry-based activities can improve engagement with content and assist in the development of analysis and critical thinking skills. Also, with the trend in education to move away from teacher-centered instruction to a more student-centered approach, IBL gives teachers the opportunity to help students learn the content and course concepts by having them explore a question.

Another principal implication gleaned from the study findings is the need for endeavors targeted toward the effective education of the current young generation in all stages of learning in order to give the pupils knowledge and skills needed for their personal and social life within modern society and make their knowledge helpful for their future employability. One of the main means to create a challenging and stimulating environment on an international scale is thought to be inquiry-based instruction.

The findings of the current study may also prove helpful in aiding teachers and educational administrators in creating more room and devising better options for the implementation of IBL. As the results of the study at hand indicated, inquiry-based learning can underlie better learning outcomes, particularly when it comes to writing enhancement. Thus, the teachers (both at the schools and institutes) might be advised to make more active use of the inquiry-based approach to produce more enhanced learning outcomes. Expository writing is typically one of the problematic genres of writing for learners. IBL, as indicated in the current study, can help alleviate learners' problems with this painstaking mode of writing.

After all, as IBL has its roots in Dewey and Socrates' groundbreaking theories of thought and reflection, it is thought that the findings of the current study may help all educational stakeholders have second thoughts about implementing the major tenets of these approaches, i.e., critical thinking and problem-solving abilities.

Like all other studies, the current research was not void of limitations. First and foremost, the selection of participants was one of the major sources of the problem, as it is usually difficult to gain the students' consent to take part in research studies. Furthermore,

the partially small size of the sample in the current study may be regarded as another limitation. To get a more understandable knowledge, the results should be obtained with a larger sample. Moreover, as the researchers in the current study dealt with writing skills, the whole process of running the study was time-consuming and demanding. Furthermore, finding a way to get around the problem of subjectivity of writing scores was another major issue that the researchers faced. Next, the present study was conducted only on female students aged between 18 and 20. Thus, the findings cannot be far-reaching to other learners whose gender and age range might be different. Finally, the duration of the experiment was not long enough to determine the effectiveness of the IBL strategies instruction completely. Due to time pressure, the implemented methodology for teaching through IBL, which was initially programmed for eight to ten weeks, had to be reduced to six weeks for the treatment, owing to both the demanding nature of the task and procedure and the lack of cooperation on the part of participants.

In view of the limitations of the study, the findings of this research might provide some incentive for replication, expansion, or evaluation in the future in order to study different unknown perspectives of IBL. Some experimental studies are further required to acknowledge the role of IBL skills with reference to willingness to write (motivation, for example), individual styles of learning, the genre of writing, teacher feedback on writing, and so forth. Future researchers might also need to probe if IBL is applicable to other settings so as to reveal how it will improve students' performance. Currently, writing as an important component in the EFL context is not given enough attention by both learners and teachers in some institutions and universities in Iran. This study opens up more space for conducting several other relevant pieces of research regarding writing in the classes that enable learners to generate better writing skills. Finally, future researchers might be recommended to research the effect of IBL on other genres of writing style (narration, for example), including different age ranges and both genders.

Eventually, based on the findings of the study, teachers might be advised to integrate an inquiry-based approach as the epitome of critical thinking and learner autonomy into their instructional agenda. Moving in this line may produce a more constructive and nurturing learning environment for learners due to the fact that more learner choice, autonomy, and interest can be generated through the appropriate practice of inquiry-based approach. In the end, it is hoped that through the findings of the current research, teachers

might be pushed toward opting for more novel approaches to teaching in line with constructivist, humanistic, and social constructivist psychologies. Students in the new era are in dire need of autonomous learning and critical thinking, and education in the new sense must move toward preparing learners for better social functioning in the postmodern epoch.

## References

- Alnofaie, H. (2013). A framework for implementing critical thinking as a language pedagogy in EFL preparatory programmes. *Thinking Skills and Creativity*, 10(1), 154–158.
- Ameri-Golestan, A., & Nezakat-Alhossaini, M. (2017). Long-term effects of collaborative task planning vs. individual task planning on Persian-speaking EFL learners' writing performance. *Journal of Research in Applied Linguistics*, 8(1), 146–164.
- Aulls, M.W., Magon, J., & Shore, B.M. (2015). The distinction between inquiry-based instruction and non-inquiry-based instruction in higher education: A case study of what happens as inquiry in 16 education courses in three universities. *Teaching and Teacher Education*, 51(1), 147–161.
- Banchi, H., & Bell, R. (2008). The many levels of inquiry. *Science and Children*, 46(2), 26–29.
- Berman, R., & Verhoeven, L. (2002). Cross-linguistic perspectives on the development of text-production abilities. *Speech and Writing*, 5(1), 1–43.
- Bosley, D.S. (1989). *A national study of the uses of collaborative writing in business communication course among members of the ABC*. Illinois State University.
- Bybee, R., Taylor, J., Gardner, A., Van Scotter, P., Carlson Powell, J., Westbrook, A., & Landes, N. (2006). *The BSCS 5E instructional model: Origins and effectiveness*. Colorado Springs.
- Cavallo, A.M.L., Miller, R.B. & Saunders, G. (2002). Motivation and affect toward learning science among preservice elementary school teachers: Implication for classroom teaching. *Journal of Elementary Science Education*, 14(1), 25–38.
- DeLuca, C., Bolden, B., & Chan, J. (2017). Systemic professional learning through collaborative inquiry: Examining teachers' perspectives. *Teaching and Teacher Education*, 67(1), 67–78.
- Derseh, B. (2020). Enhancing EFL students' writing performance through inquiry-based learning. *Italian Journal of Educational Research*, 13(1), 138–156.
- Fahim, M., & Hashtroudi, P. (2012). The effect of critical thinking on developing argumentative essays by Iranian EFL university students. *Journal of Language Teaching and Research*, 3(4), 632–638.
- Friesen, S., & Scott, D. (2013). *Inquiry-based learning: A review of the research literature*. Alberta Ministry of Education.
- Hall-Mills, S., & Apel, K. (2012). Narrative and expository writing of adolescents with language-learning disabilities: A pilot study. *Communication Disorders Quarterly*, 34(3), 135-143.

- Hashemi, M. R., Behrooznia, S., & Mahjoobi, F. M. (2014). A critical look into Iranian EFL university students' critical thinking and argumentative writing. *Iranian Journal of Applied Linguistics*, 17(1), 71–92.
- Hashempour, Z., Rostampour, M., & Behjat, F. (2015). The effect of brainstorming as a pre-writing strategy on EFL advanced learners' writing ability. *Journal of Applied Linguistics and Language Research*, 2(1), 86-99.
- Hepworth, M., & Walton, G. (2009). *Teaching information literacy for inquiry-based learning*. Chandos Publishing.
- Inoue, N., Asada, T., Maeda, N., & Nakamura, Sh. (2019). Deconstructing teacher expertise for inquiry-based teaching: Looking into consensus building pedagogy in Japanese classrooms. *Teaching and Teacher Education*, 77(1), 366–377.
- Jia, X, Hu, W., Cai, F., Wang, H., Li, J., Runco, M.A., Chen, Y. (2017). The influence of teaching methods on creative problem finding. *Thinking Skills and Creativity*, 24(1), 86-94.
- Lachuk, A.J., Gísladottir, K.R., & DeGraff, T. (2019). Using collaborative inquiry to prepare preservice teacher candidates who have integrity and trustworthiness. *Teaching and Teacher Education*, 78(1), 75–84.
- Luke, C.L. (2006). Fostering learner autonomy in a technology-enhanced, inquiry-based foreign language classroom. *Foreign Language Annals*, 39(1), 71–86.
- Mahdian Mehr, M., Aziz Malayeri, F., & Bayat, A. (2016). The effects of brainstorming as a prewriting activity on Iranian EFL learners prompted expository writing. *International Journal of Education Investigation*, 3(3), 85–93.
- Mastan, M.E., & Maarof, N. (2014). ESL learners' self-efficacy beliefs and strategy use in expository writing. *Procedia-Social and Behavioral Sciences*, 116(1), 2360–2363.
- Nabhan, R.J. (2017). Integration of inquiry-based learning and ongoing assessment to develop English essay writing in upper intermediate level. *Open Journal of Modern Linguistics*, 7(1), 90–107.
- Panahandeh, E., & Esfandiari Asl, S.E. (2014). The effect of planning and monitoring as metacognitive strategies on Iranian EFL learners' argumentative writing accuracy. *Procedia-Social and Behavioral Science*, 98(1), 1409–1416.
- Raphael, T., Englert, C. S., & Kirschner, B. W. (1988). *Acquisition of expository writing skills*. University of Illinois at Urbana-Champaign.
- Tavanapour, S., & Chalak, A. (2021). Impact of inquiry method on the grammatical accuracy of Iranian EFL learners' writing. *International Journal of Research in English Education*, 6(1), 86–95.
- Uzunosmanoglu, E., Gursel, F., & Arslan, F. (2012). The effect of inquiry-based learning model on health-related fitness. *Procedia-Social and Behavioral Sciences*, 47(1), 1906-1910.
- Voet, M., & De Wever, B. (2017). Preparing preservice history teachers for organizing inquiry-based learning: The effects of an introductory training program. *Teaching and Teacher Education*, 63(1), 206–217.