

A Comparative Study on the Effectiveness of Garden Path vs. Dictogloss Technique on Writing Accuracy of Intermediate Iranian EFL Learners

Pouya Heidari

English Department

Faculty of Humanities

Islamic Azad University, Shahr-e-Qods Branch

Shahr-e-Qods, Iran

Email: phx4595@gmail.com

Masoomeh Salehi*

English Department

Faculty of Humanities

Islamic Azad University, Shahr-e-Qods Branch

Shahr-e-Qods, Iran

Email: mas.salehi84@gmail.com

Abstract. This comparative study aimed at investigating the effectiveness of garden path vs. dictogloss techniques on writing accuracy of intermediate Iranian EFL learners. In order to conduct the study, 100 intermediate male English language learners whose age ranged from 12 to 16 were asked to take part in the OPT test, and 60 students whose scores fell between one standard deviation below and above the mean were selected to be included in the study. They were divided randomly into three groups, one control and two experimental groups, each consisting of 20 students. The participants then took part in the pretest. The first experimental group was treated via dictogloss, and the second one was treated via the garden path. It is worth mentioning that the control group was treated via deductive teaching in grammar. After 10 sessions, they took part in the post-test. The analysis of the obtained data showed that using dictogloss in teaching grammar outweighed the garden path technique. The results of the study would be significant for EFL/ESL teachers, English language institutes, and teacher trainers.

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*Corresponding author

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Introduction

Writing, one of the English language skills, is seen as an arduous process and the most difficult and complex one (Brown, 2007). Richards and Schmidt (2013) stated that this difficulty is due to the creating and organizing new ideas as well as the ability to transfer these ideas in the appropriate context; therefore, as Price and Kadi-Hanifi (2011) reported, many students have negative attitudes toward writing and are lacking the motivation to improve their writing skills.

Also, Street (2003) said that students do not view learning to write as a necessary part of their education and often writing is viewed as a miserable task. Street also stated that students may encounter frustration when they must repeatedly edit and revise their written work; thus, many students lose interest in writing when they receive reports back that have been covered in red ink. Besides, Emmons (2003) similarly specified that writing is absolutely a 'hard work' for any English language learner (ELL). Likewise, this view is supported by Parker and Campbell (1993) as they expressed that writing is certainly torment for students; however, this problem can be solved by applying new approaches and methods of teaching and assessing writing.

Furthermore, Xiaoxiao and Yan (2010) considered English language writing as a complex social activity including many abilities. For example, the writer has to choose a suitable topic according to certain audience, generate logical and clear ideas, structure rich and proper content, demonstrate accurate language expressions, etc. Moreover, the purpose of writing is achieved by independent thinking skills, such as classifying, evaluating, synthesizing, etc. Additionally, Hyland (2003) expressed that writing includes many factors increasing its difficulty. Factors such as mastering the elements of grammar, vocabulary, mechanics, content, organization, and style are only a few areas to be addressed in the second language writing process.

Numerous theoretical and empirical studies have been conducted on the writing skill throughout many years. A brief review of these stud-

ies reveals the importance of teaching second language writing. It can be said that the skills involved in writing are highly complex ranging from higher-level skills of planning and organizing to lower skills of spelling, pronunciation, word choice, etc. and accuracy is one of these skills (Berninger et al., 1992).

One of these writing skills is accuracy or 'freedom from errors' (Skehan & Foster, 1996), which has a pivotal role in writing and is a focus of a lot of studies. In this domain, different studies have been conducted in different ways to develop language learners' writing accuracy. Although they have learned the grammar points, their writing accuracy is improper and requests more attention. On the one hand, a wider range of research focuses on different kinds of feedback which can aid language learners to develop their accuracy. Findings of recent classroom research have demonstrated the benefit of form-focused instruction to learners because it improves their interlanguage grammar. As a result, it leads to enhanced linguistic accuracy in second language use (Doughty & Williams, 1998; Ellis, 2002; Norris & Ortega, 2000). Two popular form-focused instructions are 'dictogloss' and 'garden Path'.

Dictogloss is a type of focus on form task which proposes to provide a meaning-focused context to raise learners' awareness of the discursal use of the target linguistic feature. According to Wajnryb (1990), the basic procedure of dictogloss consists of learners listening to a short text read to them at normal speed and reconstructing the text, first individually, then in small groups, so that it has the same meaning as the original text. This is different from the traditional dictation which requires learners to write down what is read by the teacher verbatim.

Garden path technique comes from a series of articles published by Tomasello and Herron (1988) and Herron (1991). In these articles, the authors pointed out that a well-known feature of L1 and L2 learning is that learners overgeneralize forms. In this technique, instructors identify the target structures that have exceptions that may cause difficulty for learners. Instructors then teach the general pattern, and as part of practice activity, induce learners to overgeneralize the pattern. Then the correct target form is mentioned by the teacher, and the class goes on.

2. Literature Review

2.1. Writing accuracy

Skehan and Foster (1996) defined writing accuracy as the scope to which the language created conforms to the target language norms. As it is discussed earlier, one of the challenging issues which the EFL/ESL teachers encounter is their learners' writing accuracy and reviewing the literature shows that a lot of research has been done to aid the teachers to overcome this problem. Some of the recent studies will be reviewed briefly.

Wolfe-Quintero et al. (1998) defined accuracy simply as "the ability to be free from errors while using language to communicate" (p. 33) and recommended two measures of writing accuracy. The first measure of accuracy they recommended was the error-free T-unit ratio (EFT/T), or the total number of error-free T-units per total number of T-units in a given piece of writing. They point out that while the EFT/T generally has not been effective at showing short-term changes, it has been an important research tool and that a majority of the studies they examined demonstrated high and moderate correlations with measures of L2 writing proficiency. The T-unit was initially developed by Hunt (1965) as a way of assessing writing performance to overcome problems related to using sentences as units of production. He defined a T-unit as "one main clause plus the subordinate clauses attached to or embedded within it" (p. 49). For example, the two-word sentence Bill went contains one main or independent clause and would be considered one T-unit. On the other hand, consider an expanded version of this sentence: Before coming home, Bill went to the library. Though this sentence also contains a subordinate or dependent clause, it would still be counted as only one T-unit.

2.2. Grammar

Grammar knowledge is the fundamental foundation for writing (Fearn & Farnan, 2007). Grammar in writing allows learners to understand the language when they write (Smith et al., 2006). Celce-Murcia and McIntosh (1991) stressed the position of a rational degree of grammatical accuracy in academic writing. They also stated that the high frequency of grammatical errors exists in non-native speaker's academic

writing. Macaro and Masterman (2006) also tried to understand the effect of explicit grammar instruction on writing proficiency and grammar knowledge. In relation to writing, results of studies on L1 showed that self-efficacy associates significantly with writing competence (Zimmerman & Martinez-Pons, 1990).

In addition to the apparent ineffectiveness of traditional approaches to corrective feedback in L2 writing classes, traditional approaches to grammar instruction in grammar classes seem equally ineffective in helping students to write more accurately. At times, the recurring linguistic problems noted above seem particularly perplexing when we realize, for example, that students are making errors with grammatical structures that they have already studied extensively in their grammar classes. In some cases, this may involve grammar that students have studied for a number of years, including grammar that is taught at some of the lowest proficiency levels. This raises serious questions about how we teach and assess students' grammar production. For example, (a) Why do students continue to use particular grammar structures inaccurately after being taught them in their grammar classes? (b) Why do some students continue to struggle with the accuracy of their writing even after demonstrating high levels of cognitive mastery of the grammar they have studied (Hartshorn, 2008)?

Perhaps at issue here is the different nature of the grammar instruction and assessment on the one hand, and the production required in the writing tasks on the other hand. It seems that the most meaningful applications of learning grammar would be in productive tasks such as speaking and writing, yet many assessment tools used widely involved objective test items rather than production tasks. Unfortunately, in interpreting the results of such tests, many erroneously assume they are an indication of students' productive grammar skills. While many intensive English language schools use multiple-choice grammar tests for placement, achievement and proficiency assessments, personal observation suggests that such tests may not always correlate well with grammar performance in productive contexts such as writing. If this is true, multiple-choice tests may not be the most valid measure of productive grammar skills and other methods of assessment should be explored

(Hartshorn, 2008).

One argument on behalf of objective test items is that they allow the tester to assess student knowledge about grammatical structures that students are not likely to choose to produce on their own. While this may be one appropriate way to assess student knowledge of such structures, it raises a compelling question about instructional priorities. For example, consider the students who, in actual production tasks, consistently avoid particular structures. This may be because they do not 'know' the structures or because they simply do not feel comfortable using them. However, they will consistently use a number of other constructions despite the fact that what they actually produce may be laden with errors. Could we conclude based on their written idiolects that they are more ready to learn the correct form of the constructions that they regularly use than to learn the correct form of the constructions they regularly avoid? If so, perhaps our pedagogical focus at higher proficiency levels should be on those constructions that learners demonstrate a willingness to use (Hartshorn, 2008).

2.3. Garden path

Language learners make mistakes in producing the language. When children acquiring their first language (L1) do it, it is often considered cute, and it is also considered part of the natural language acquisition process. In contrast, when second language (L2) learners make mistakes, these mistakes are sometimes seen as something to be eliminated, and a good deal of L2 teaching and assessment focuses on learners' ability to produce error-free, target-like forms. Under audiolingualism, errors were seen as problematic and something to be avoided at all costs because, it was assumed, that errors would become a habitual part of a learner's L2 linguistic system, and that the learner would not be able to eliminate the incorrect forms (Smith & Loewen, 2018).

As a reaction to audiolingualism, researchers such as Corder (1982) argued instead that errors are a natural part of L2 acquisition, and that one of the reasons why errors are important is that they allow learners to test hypotheses about the target language. Consequently, communicative approaches to L2 teaching tend to take a more liberal view of

learners' errors. This viewpoint does not mean, however, that contemporary L2 teachers place less emphasis on target-like grammatical forms. Instead, the focus has shifted so that researchers are now concerned with whether, when, and how to correct learners' errors to promote target-like acquisition (Herron, 1991).

One question within second language acquisition (SLA) research is the extent to which overt correction, or negative evidence, facilitates the acquisition of target structures. Although some researchers contend that adults, like children learning their first language, do not use negative evidence to help them acquire an L2, other researchers have argued that learners can and do make use of negative evidence. The garden path technique is one way of providing corrective feedback to learners, attempting to maximize the utility of negative evidence by controlling the type and timing of corrective feedback. It does so by inducing learners to make overgeneralization errors of target forms and then providing the correct form as a recast (Smith & Loewen, 2018).

The garden path technique has clear pedagogical implications. It provides an alternative to explicit grammar instruction and correction, and is specifically designed to help teachers teach the target irregular forms. Teachers who want to make use of this technique could include it as part of their regular classroom practice in the following manner. First, they should present the regular, rule-governed forms and students would practice those forms. Teachers should not explain any exceptions to the rule during the presentation of the target structure. Instead, they should include any exceptions in a practice session, induce students to make an overgeneralization error, and then correct the form (Smith & Loewen, 2018).

2.4. Dictogloss

Dictogloss is a type of focus on form task which proposes to provide a meaning-focused context to raise learners' awareness of the discursial use of the target linguistic feature. Dictogloss is a classroom dictation activity where learners are required to reconstruct a short text by listening and noting down key words, which are then used as a base for reconstruction. According to Wajnryb (1990), the basic procedure of dictogloss consists of learners listening to a short text read to them at normal speed, and reconstructing the text, first individually, then in

small groups, so that it has the same meaning as the original text. The various versions are then analyzed and compared in a whole class setting. In short, the task focuses not only on learner output, but also on learner interaction. This is different from the traditional dictation which requires learners to write down what is read by the teacher verbatim. What the present study aimed to do is to provide children a 'voice' to express their opinions and preference of dictogloss and its task features. In the classroom, dictogloss is often regarded as a multiple skills and systems activity. Learners practice listening, writing and speaking (by working in groups) and use vocabulary, grammar and discourse systems in order to complete the task.

Dictogloss is a relatively recent procedure in language teaching. It borrows a little from traditional dictation (hence part of its name) but in fact is quite distinct from dictation in both procedure and objectives. In dictogloss, a short text is read at normal speed to a class of learners who jot down familiar words as they listen. At the end of the dictation stage, most learners have only a small number of isolated words (or fragments) which together make up a very incohesive, 'battered text'. In small groups, the students then pool their resources to reconstruct their version of the original text. In the final stage, the various versions that the students have produced are subjected to close analysis and comparison. Through both the task of reconstruction and the following error analysis, students refine their understanding of the language they have used (Wajnryb, 1990). The procedure may be summarized as follows:

- a. A short, dense text is read (twice) to the learners at normal speed;
- b. As it is being read, the learners jot down familiar words and phrases;
- c. Working in small groups, the learners pool their battered texts and strive to reconstruct a version of the text from their shared resources;
- d. Each group of students produces its own reconstructed version, aiming at grammatical accuracy and textual cohesion but not at replicating the original text.
- e. The various versions are analyzed and compared and the students refine their own texts in the light of the shared scrutiny and discussion. (Wajnryb, 1990, p. 6).

2.5. Some related studies

The study by Nabei (1996) examined second language learners' interaction in the interaction stage of dictogloss to see how it might facilitate language learning. Dictogloss, a class activity, involves the teacher reading a passage aloud in class at natural speed, students taking notes for reconstruction, and students producing, in pairs or small groups, their own grammatically correct version, which is then analyzed and corrected by the whole class. Subjects were four adult students in an intensive English-as-a-Second Language (ESL) class. Students worked as pairs, then as a group of four. English-language interactions of the groups were analyzed for the occurrence of Critical Language-Related Episodes (CLREs) (meaning-based, grammatical, and orthographic) reflecting attention to or negotiation of those language skills. About half of the 43 CLREs identified were grammar-related and 15 were meaning-based. The grammatical episodes showed the most variation, and meaning-based episodes largely were for confirmation of original passage meanings. The patterns of CLREs indicate that the task does facilitate discussion of both meaning and form and has a process different from that of the jig-saw exercise.

In another study, Yeo (2002) similarly attempted to show that 'focus on form' instruction, which draws learners' attention to a specific language form in a communicative context, is an effective way to teach a second/foreign language. He adopted dictogloss as a 'focus on form' technique in his study. The results of the experiment conducted by this study indicated that the dictogloss group outperformed the input enhancement group in learning English participial adjectives. It can be seen that output focused practice is more effective than covert input focused practice in 'focus on form' instruction.

In another study related to the dictogloss technique, Shak (2006) investigated children's attitudes towards this technique. The compatibility of this language teaching procedure with interests and motivation of learners, in effect, provides a learner perspective of the effectiveness and usefulness of the task. This study can thus be seen as a preliminary step in determining the feasibility and effectiveness of incorporating focus on form instruction into an upper primary ESL classroom. Specifically,

the study addressed whether children found dictogloss compatible with their interests, needs and motivation, and whether teachers found dictogloss appropriate in terms of their learnability, teachability and task usefulness. A total of 78 children from three Primary 5 classes in Brunei Darussalam took part in the study, and they were given attitude questionnaires at the end of each lesson. Findings based on the children's responses showed that there existed fluctuations in children's attitudes to the task during the grammar lessons, thus providing a strong implication that children's focus, through manipulation of task design and implementation, could be reinforced to process the target feature as they perform the task. The results also suggest that further classroom research is needed to find ways for teachers to adapt the Focus on Form (FonF) approach to their specific classes.

In another related study, Shooshtari and Shahri (2014) compared the effect of teaching grammar in three different ways on grammar knowledge of EFL learners: the garden path technique, traditional method with corrective feedback, and traditional method without corrective feedback. The results obtained from one-way ANOVA test showed that the learners in the garden path group significantly outperformed the other groups in their grammar test performance. Among the two other groups, the group which received corrective feedback had a better performance in the grammar test than the group without corrective feedback.

The effect of the garden path technique on grammar learning was investigated in another study, too. This study, conducted by Allaf-Akbary (2015), examined the effect of using the garden path technique on learning of superlative and comparative adjectives in particular. The study consisted of one experimental group, in which the garden path technique was practiced, and a control group, in which grammar was taught in the conventional method. To test the grammar knowledge of the participants with regard to superlative and comparative adjectives at the end of the treatment period, they were given picture prompts and they had to describe the pictures using superlative and comparative adjectives. The data analysis, which was conducted through the t-test method, showed that the experimental group obtained significantly better scores than the control group. Therefore, the garden path technique was effective in

learning these grammatical structures by EFL learners.

Considering the usefulness of the dictogloss technique in EFL classes, Muthmainnah, Asrifan, Al Yakin and Sahabuddin (2019) conducted a study to examine the effect of this technique on listening comprehension of EFL learners. Their study had a quasi-experimental design with a control and an experimental group. The experimental group practiced the dictogloss technique during the semester, while the control group received traditional teaching without any dictogloss technique. The results of the t-test showed that the experimental group significantly outperformed the control group in the listening comprehension test, hence the effectiveness of the dictogloss technique.

More recently, Zohrabi and Tahmasebi (2020) examined the effect of dictogloss technique on the vocabulary and grammar of Iranian EFL learners. In their study, which had a quasi-experimental design, there were one control group and one experimental group. In the control group, vocabulary and grammar were taught through the traditional present-practice-produce method, while in the experimental group, the teaching was performed with the help of the dictogloss technique. The results demonstrated that there was a significant difference between the vocabulary learning of the control group and the experimental group. However, considering the learning of grammar, no significant difference was seen between the two groups.

3. Research Questions

As shown in the previous section, reviewing literature did not reveal exact studies concerning the effect of ‘Dictogloss’ and ‘Garden path’, as two form-focused techniques, on writing accuracy of EFL learners. Consequently, this study aimed at comparing the effectiveness of Garden path vs. Dictogloss technique on the writing accuracy of intermediate Iranian EFL learners. To this end, the following research questions were proposed:

1. Does Garden path technique have a statistically significant effect on the writing accuracy of intermediate Iranian EFL learners?

2. Does Dictogloss technique have a statistically significant effect on the writing accuracy of intermediate Iranian EFL learners?
3. Is there a statistically significant difference between the effect of Garden path and Dictogloss technique on the writing accuracy of intermediate Iranian EFL learners?

4. Method

4.1. Participants

The participants of the present study were chosen from 100 intermediate male English language learners whose age ranged from 12 to 16. They were selected from Kish English language institute in Tehran. In order to choose homogenous participants, the Oxford Placement Test (OPT) was administered and 60 students whose score fell between one standard deviation below and above the mean were selected. Then, they were divided randomly into two experimental groups and a control group, each group with 20 students. The first experimental group was treated via dictogloss and was called the dictogloss group. The second group was treated via the garden path and was called the garden-path group.

4.2. Instruments

The first instrument used in the current study was the Oxford Placement Test (OPT), which was used to check the homogeneity of the participants. Developed by Oxford University Press and Cambridge ESOL, the OPT is a flexible test of English language proficiency that gives teachers a reliable and time-saving method of finding a student's level of English (Hill & Taylor, 2004). All the questions of the test are in multiple-choice format, and it takes approximately 60 minutes to administer. The test assesses the knowledge of English structure, and also is considered as a global measure of ability in English language or other content areas. The test enjoys high reliability ($r = .91$) based on Cronbach's alpha. The test has also been reported to enjoy high construct validity (Nematizadeh, 2011; Wistner et al., 2009). As the purpose of the study was on writing accuracy, the participants were asked to write a paragraph before and after treatment sessions as the pretest and posttest. They were asked to write a paragraph, at least 150 words, about their daily activities

and their plans for the future in 20 minutes. Their writings in both pre- and posttest at that time were rated based on error-free t-unit ratio (EFT/T), the total number of error-free t-units per total number of t-units in a given piece of writing.

4.3. Data collection procedure

In order to conduct the study, the standardized OPT was administered to choose 60 homogenous learners. All the 100 learners participated in this test, and 60 minutes was allotted to take the test. The tests were rated using its answer key, and the participants whose scores were one standard deviation above and below the mean were chosen for the study. The selected learners then were assigned randomly and equally into two experimental groups and a control group.

All the participants were asked to write a paragraph about their family members' and their own daily activities and their plans for the future as a pretest in 20 minutes. Their writing was rated based on error-free t-unit.

The learners course book was American English File (vol. 2). The grammar points were taught in the dictogloss group through dictogloss. Before starting the first session, the learners had a chance to know what the dictogloss is and how to follow dictogloss for teaching grammar. In this group, for teaching grammatical points, the teacher first read a text in a normal speed and asked the participants to listen carefully. For the second time, the text was read again by the teacher at a normal speed and the participants were asked to take notes and write the keywords. Then, the teacher wrote some important key words from the text. The participants, after that, were asked to write and construct the text individually. Finally, they compared their written text in their groups and compared their text with the original text, and the teacher used guided discovery approach to teach the grammatical points.

In the garden path group, these lessons were taught via garden path technique. The participants had a chance to know how to follow this technique. The teachers as a part of his regular classroom practice followed these steps. First, he presented the regular, rule-governed forms and the participants practiced those forms. The teacher did not explain

any exceptions to the rule during the presentation of the target structure. Instead, he included any exceptions in a practice session, induced students to make an overgeneralization error, and then corrected the form.

In the control group, the teacher taught the grammatical points in the deductive way and then asked the participants to do the activities in their course book. After 10 sessions, then the participants took part in the posttest. The posttest topic was the same as the pretest topic and their writing was rated based on error-free t-unit.

4.4. Design

In the present study, it was not possible for the researchers to select the participants randomly; therefore, this study had convenience sampling and a quasi-experimental pretest-posttest design, with two experimental groups and one control group. The independent variables in this study were dictogloss and garden path, and writing accuracy of the participants was the dependent variable.

5. Data Analysis and Results

This section presents the results of data analysis gathered in this study, namely the interrater reliability, normality test results, and the independent-samples t-test results to compare the performance of the groups in the pretest and posttest.

5.1. The results of inter-rater reliability

Table 1 shows the inter-rater reliability of the pretest rated by two expert raters. A Pearson product-moment correlation was run to determine if there was an agreement between two raters. There was a strong, positive correlation between two raters, which was statistically significant ($r = .773$, $n = 60$, $p = .001$).

Table 1: Inter-Rater Reliability of Pretest

		Pretest (Rater 1)	Pretest (Rater 2)
Pretest (Rater 1)	Pearson Correlation	1	.773**
	Sig. (2-tailed)		.000
	N	60	60
Pretest (Rater 2)	Pearson Correlation	.773**	1
	Sig. (2-tailed)	.000	
	N	60	60

** . Correlation is significant at the 0.01 level (2-tailed).

Like the inter-rater reliability of the raters in the pretest, the inter-rater reliability of the raters in the posttest was also computed. Table 2 shows that there was a strong, positive correlation between two raters, which was statistically significant ($r = .742$, $n = 60$, $p = .001$).

Table 2: Inter-Rater Reliability of Posttest

		Posttest (Rater 1)	Posttest (Rater 2)
Posttest (Rater 1)	Pearson Correlation	1	.742**
	Sig. (2-tailed)		.000
	N	60	60
Posttest (Rater 2)	Pearson Correlation	.742**	1
	Sig. (2-tailed)	.000	
	N	60	60

** . Correlation is significant at the 0.01 level (2-tailed).

5.2. Normality test

In order to check the normality of the data, one-sample Kolmogorov-Smirnov test was employed. Table 3 shows the normal distribution of pretest and posttest ($p > .05$); therefore, parametric tests, including the independent-samples t-test could be applied.

Table 3: Tests of Normality

	Groups	Kolmogorov-Smirnov ^a		
		Statistic	df	Sig.
Pretest	garden path group	.125	20	.200*
	dictogloss group	.118	20	.200*
	control group	.167	20	.148
Posttest	garden path group	.129	20	.200*
	dictogloss group	.282	20	.150
	control group	.135	20	.200*

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

5.3. Addressing the first research question

In order to find out whether using ‘garden path’ technique had a statistically significant effect on the writing accuracy of intermediate Iranian EFL learners, first of all, the pretest results of the control group and the garden path group were compared. Table 4 shows the mean scores of the control group (M=4.63, Sd.=.49) and the garden path group (M=4.66, Sd.=.46) in the pretest.

Table 4: Group Statistics of the Control and Garden-path Groups in the Pretest

	Groups	N	Mean	Std. Deviation	Std.	Error
					Mean	
Pretest of Writing	Garden-path Group	20	4.6300	.49215	.11005	
	Control Group	20	4.6650	.46484	.10394	

Table 5 indicates that there was not a statistically significant difference between, the control group and the garden path group in the pretest ($P > 0.05$, $P = .81$). Therefore, the control group and the garden path group were at the same level in writing accuracy before the treatment.

Table 5: Independent-Samples T-Test of the Control and the Garden Path Group in the Pretest

Levene's Test for Equality of Variances								
t-test for Equality of Means								
F	Sig.	t	df	Sig. (2-Mean tailed)	Difference	Std. Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Pretest of.183	.671	-.231	38	.818	-.03500	.15138	-.34144	.27144
Writing		-.231	37.877	.818	-.03500	.15138	-.34148	.27148

An independent-samples t-test was likewise performed to compare the posttest of the control group and the garden path group. Table 6 shows the mean scores of the control group (M=4.6, Sd.=.49) and the garden-path group (M=5.1, Sd.=.61) in the posttest.

Table 6: Group Statistics of the Control and Garden Path Groups in the Posttest

	Groups	N	Mean	Std. Deviation	Std. Error
					Mean
Posttest of Writing	Garden-path Group	20	5.1800	.61181	.13681
	Control Group	20	4.6450	.49786	.11133

Table 7 displays that there was a statistically significant difference between the, the control group and the garden-path group in the posttest ($t(38) = 3.03, P < .05$).

Table 7: Independent-Samples T-Test of the Control and the Garden Path Group in the Posttest

Levene's Test for Equality of Variances								
t-test for Equality of Means								
F	Sig.	t	df	Sig. (2-Mean tailed)	Difference	Std. Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Posttest of1.888	.1773	0.3338		.004	.53500	.17638	.17794	.89206
Writing		3.03336	4.93	.004	.53500	.17638	.17746	.89254

Therefore, the results of the comparison of the control group and the garden path group in the pre- and posttest rejected the first null hypothesis of this study, and it was confirmed that using 'garden path' technique had a statistically significant effect on the writing accuracy of intermediate Iranian EFL learners.

5.4. Addressing the second research question

To find out if using 'dictogloss' technique has a statistically significant effect on the writing accuracy of intermediate Iranian EFL learners, the performance of the participants in the dictogloss group and the control group were compared. Table 8 shows the mean scores of the control group ($M=4.63$, $Sd.=.49$) and the dictogloss group ($M=4.66$, $Sd.=.46$) in the pretest.

Table 8: Group Statistics of the Control and Dictogloss Groups in the Pretest

Pretest of Writing	Control Group	50	4.6300	.49484	.10384
	Dictogloss Group	50	4.6600	.46512	.11002
Groups		N	Mean	Std. Deviation	Max.
					Min.
					Error

Table 9 shows that there was not a statistically significant difference between the control group and the dictogloss group in the pretest ($P > 0.05$, $P = .81$). Therefore, the control group and the dictogloss group were at the same level in writing accuracy before the treatment.

Table 9: Independent-Samples T-Test of the Control and the Dictogloss Group in the Pretest

Levene's Test for Equality of Variances		t-test for Equality of Means							
								95% Confidence Interval of the	
								Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Pretest	of.183	.671	-.231	38	.818	-.03500	.15138	-.34144	.27144
Writing			-.231	37.877	.818	-.03500	.15138	-.34148	.27148

The independent-samples t-test was also run to compare the posttest of the control group and the dictogloss group. Table 10 shows the mean scores of the control group (M=4.6, Sd.=.49) and the dictogloss group (M=5.9, Sd.=.34) in the posttest.

Table 10: Group Statistics of the Control and Dictogloss Groups in the Posttest

	Groups	N	Mean	Std. Deviation	Std. Error
Posttest of Writing	Dictogloss Group	20	5.9450	.34409	.07694
	Control Group	20	4.6450	.49786	.11133

Table 11 shows that there was a statistically significant difference between the control group and the dictogloss group in the posttest ($t(38) = 9.6, P < .05$).

Table 11: Independent-Samples T-Test of the Control and the Dictogloss Group in the Posttest

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
Posttest	of 5.795	.021	9.606	38	.000	1.30000	.13533	1.02605	1.57395
Writing			9.606	33.779	.000	1.30000	.13533	1.02492	1.57508

Consequently, the results of the comparison of the control group and the dictogloss group in the pre- and posttest rejected the second null hypothesis of this study, and it was confirmed that using 'dictogloss' technique had a statistically significant effect on the writing accuracy of intermediate Iranian EFL learners.

5.5. Addressing the third research question

In order to find out whether there was a statistically significant difference between the effect of the garden path and the dictogloss technique on the writing accuracy of intermediate Iranian EFL learners, the researchers ran one-way ANOVA and Tukey Post Hoc. Table 12 shows that there was a statistically significant difference between the posttests of three group ($P = .001, P < .005$).

Table 12: One-way ANOVA of the Posttests

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	17.076	2	8.538	34.587	.000
Within Groups	14.071	57	.247		
Total	31.147	59			

Table 13 also indicates the result of comparison between three groups in the posttest. The numbers in column Sig. shows that the mean scores of the three posttests are statistically significantly different ($P_{i.05}$, $P=.01$).

Table 13: Multiple Comparisons in the Posttests

(I) Groups	(J) Groups	Mean Difference (I-J)		Sig.	95% Confidence Interval	
			Std. Error		Lower Bound	Upper Bound
Garden-path Group	Dictogloss Group	-.76500*	.15712	.000	-1.1431	-.3869
	Control Group	.53500*	.15712	.003	.1569	.9131
Dictogloss Group	Garden-path Group	.76500*	.15712	.000	.3869	1.1431
	Control Group	1.30000*	.15712	.000	.9219	1.6781
Control Group	Garden-path Group	-.53500*	.15712	.003	-.9131	-.1569
	Dictogloss Group	-1.30000*	.15712	.000	-1.6781	-.9219

*. The mean difference is significant at the 0.05 level.

tween groups in posttests. A Tukey post hoc test revealed that the mean score of dictogloss group ($M=5.94$) was statistically significantly higher than the garden-path group ($M=5.18$) and the control group ($M=4.64$).

Table 14: Tukey HSD Posttest of Writing

Groups	N	Subset for alpha = 0.05		
		1	2	3
Control Group	20	4.6450		
Garden-path Group	20		5.1800	
Dictogloss Group	20			5.9450
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

Hence, the third null hypothesis of this study was rejected, and it was confirmed that there was a statistically significant difference between the effect of the garden path and the dictogloss technique on the writing accuracy of intermediate Iranian EFL learners.

6. Discussion

This study aimed at investigating the effects Garden path vs. dictogloss techniques on writing accuracy of intermediate Iranian EFL learners. The presented results in the preceding sections seemed to suggest that using both dictogloss and garden path techniques had a significant effect on writing accuracy of EFL learners. However, the effect of using dictogloss technique on writing accuracy was more than that of the garden path technique.

In line with the current study, Ratnaningsih (2016) investigated the effect of using dictogloss on writing. He reported the use of dictogloss technique to teach writing in terms of grammar in context. He said that one of the best methods of teaching grammar is to use passages or texts that illustrate grammatical functions within their context. Teaching the students grammar in context shows them how to apply various grammatical concepts. This is commonly believed to improve the students' ability to communicate through written language.

The issue of grammar in context is found in the dictogloss technique. In both the reconstruction stage and the analysis stage of dictogloss, the issue of grammar is approached contextually. In the reconstruction stage, learners are required to perform a context-based task. Using their notes and their knowledge of the language, they reconstruct a text whose topic and points of view are already known. The current study likewise showed that the participants in the construction stage, tend to use appropriate grammatical structure to write the text. Otherwise, the participants' collaboration in text construction might lead them to share their understanding about the grammatical rules.

Dewi's (2017) study also is in line with the current study in terms of using dictogloss technique to develop the participants' grammar. His study intended to describe how the dictogloss technique can improve

students' grammar through collaborative writing. His study also describes the students' participation and their responses to the use of Dictogloss. He reported that there was a significant improvement in the students' grammar competence after implementing the dictogloss technique. The students also gave good responses to learning grammar using the dictogloss technique and all of them were engaged and participated actively in all stages of the dictogloss technique. Likewise, the current study showed the engagement of the participants in constructing the texts and their collaboration in a way that all of them participated in the activities. On the other hand, Dewi's study focused on writing abilities in general while the current study just focused on the grammatical issues and accuracy in writing.

Pingan and Said (2019) similarly investigated the effect of using dictogloss technique on students' skill in writing a paragraph. They concluded that dictogloss technique can enhance students' ability in writing a paragraph. The result of their study is the same as the study conducted by Dewi's (2017) as he also investigated the effect of using dictogloss technique on students' writing ability.

The results of this study are in line with the result of the study conducted by Boggs (2019). Boggs's study aimed to increase written grammatical accuracy by facilitating learners' use of corrective feedback (CF). A quantitative quasi-experimental study design was used to compare effects of traditional (teacher-provided) scaffolding and self-scaffolding, and the study compared these to un-scaffolded direct written CF. His study contributed to existing knowledge by a) using linear regression to demonstrate that quality of metalinguistic reflections does not necessarily predict an increase in grammatical accuracy; b) establishing that there may be difficulties in scaffolding oral metalinguistic reflections with the described population; and c) drawing on data from the background survey and interviews to inform the interpretation of the results. Similarly, the current study contributed to the literature that teaching and practicing grammatical rules via dictogloss technique outweighs the garden path technique.

The results of this study are also in line with the studies summarized in the review of literature section. Considering the garden path

technique, Shooshtari and Shahri's (2014) study revealed that this technique was effective in the learning of grammar in general on the part of EFL learners. Another study by Allaf-Akbary (2015) focused specifically on the effect of the garden path technique on learning of superlative and comparative adjectives. He showed that this technique was effective learning of these structures by EFL learners. The results of both of these studies are similar to the results of the present study, which also showed that the garden path technique had a significant effect in improving grammatical accuracy of EFL learners in their writings.

With regard to the dictogloss technique, Nabei (1996) showed the effectiveness of this technique for improving ESL learner' classroom interactions. Yeo (2002) also demonstrated that dictogloss was an effective method for improving learning in EFL classes. In addition, Muthmainah et al. (2019) showed that the dictogloss technique was effective in improving listening comprehension in EFL classes. The results of all of these studies are similar to the results of the present study.

The only study whose results were different from those of the present study belong to Zohrabi and Tahmasebi (2020). They showed that the dictogloss technique was not effective in improving grammar knowledge of EFL learners, while it was effective in improving their vocabulary knowledge. However, in the present study, it was shown that dictogloss was effective in improving grammatical accuracy of EFL learners. The difference between the results of these studies may be due to the difference between the methods of testing the learners' grammatical knowledge. In Zohrabi and Tahmasebi's study, multiple-choice questions were used to evaluate the participants' grammar knowledge. However, in the present study, grammatical knowledge of the participants was assessed through their writing performance and error-free t-units. The lack of the effect of dictogloss on grammar learning of the participants in Zohrabi and Tahmasebi's study may be due to the fact that multiple-choice tests expose learners to wrong structures and it may lead the test takers to choose the wrong choice and perform poorly in the test.

7. Conclusion

One of the considerable and difficult English language skills for most

of EFL/ESL learners is writing. They often view writing as a despondent task and they may face a hindrance when they need to edit and revise their written work repeatedly and they do lose interest when they receive feedback (Street, 2003). Among writing skills, accuracy is the noticeable problem that the English language learners may encounter while writing. They need suitable techniques to overcome this problem. Dictogloss and garden path are two form-focused techniques which are used in teaching grammar and reviewing the literature did not show any exact studies concerning the effect of dictogloss vs. garden path on writing accuracy of EFL/ESL learners. Consequently, this study aimed at comparing the effectiveness of Garden path vs. dictogloss technique on the writing accuracy of intermediate Iranian EFL learners.

The findings of the current study contribute to the existing literature that using both dictogloss and garden path techniques in teaching grammar have a significant effect on writing accuracy of EFL/ESL learners, although the former one is more effective. Therefore, the EFL/ESL teachers are highly recommended to use this technique in their grammar teaching to enhance their learners' writing accuracy. EFL/ESL teachers can adopt these techniques, as two effective ways in teaching grammar in their classes. The findings put forward this idea that not only is using dictogloss technique an effective way of teaching grammar, but also it is an effective way to enhance the writing accuracy of EFL/ESL learners.

In addition, the EFL/ESL learners, who are the target in English language classes, may profit from applying the results of this study in their classes as they need to develop their accuracy in writing. Therefore, using the techniques examined in this study might be helpful for them.

Furthermore, the results of the study could be significant for English language institutes. The language institutes, which look for effective strategies to aid their learners in developing their writing accuracy, can similarly use the results of this study and ask their teachers to apply them in their classes.

Finally, this study can be significant for teacher trainers. The teacher trainers who run different pre- and in-service courses can use the results of this study.

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