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Intext Codes or Posttext Comments? Which One Is More Influential in Improving the Intermediate and Advanced EFL Learners' Written Grammatical Accuracy?

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Abstract

Many teachers provide learners with different types of feedback to help language learners write more accurately. In the present research, the author examined the effect of intext coded and uncoded feedback on written grammatical accuracy of Iranian advanced and intermediate learners. The researcher selected three classes of advanced and three intermediate classes of EFL Iranian students. After homogenizing students, the researcher randomly selected one intermediate and one advanced class as control groups and the other four classes as experimental. The experimental groups received posttext and intext coded feedback whereas the control one received uncoded feedback. The results indicated that all feedback types were effective in the posttest. However, posttext and intext feedback were more effective than uncoded feedback. Since feedback provides learners with an opportunity to revise their essays, one can consider its role as an effective one in learning and teaching English. The results also indicated that the advanced language learners outperformed the intermediate ones.

Keywords: Coded feedback, Feedback, Grammatical accuracy, Posttext feedback, Uncoded feedback, Writing.

Introduction

Writing is considered as one of the most challenging skills and also a unique asset for language learners to acquire. Regardless of the content of the writing and learners' proficiency level, teachers must be well-prepared to respond to the learners' written texts and provide them with appropriate feedback on the quality of writing produced by them. Particularly, with the help of feedback, learners can have a greater understanding of their own strengths and weaknesses in learning besides improving their own learning outcome (Yu et al. 2018). In the field of second language acquisition (SLA), the question is whether teachers need to provide some types of feedback on the language learners' writing assignments, and if so, how to provide it, has been a controversial issue. While some researchers (e.g., Truscott 2007; Kepner 1991; Sheppard, 1992) argue that correcting the grammatical errors does not have a positive effect on the L2 writing accuracy development, others (see Bitchener and Knoch 2009a,b, 2010a,b; Van

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Beuningen et al. 2012; Shintani and Aubrey 2016; Bonilla López et al. 2018; Karim and Nassaji 2020; Benson and DeKeyser 2019; Li and Roshan 2019) state that CF has valuable effect on text revision, new pieces of writing, and also on improving the learners' grammatical accuracy. In other words, teacher feedback encourages the learners to recognize their own errors and weaknesses and overcome the problems in order to write a more competent text next time. The aforementioned process is thought to be more influential in developing the EFL learners' writing proficiency (Moncie 2000).

One of the other ways to provide feedback is peer feedback, where students offer constructive criticism after reading and evaluating each other's work. There are several studies which documented the benefits of collaboration in dealing with feedback. For example, in the 2000s, researchers such as Hiros, (2009), Zeng (2006), Jiao (2007), and Kamimura (2006) studied the effect of peer feedback in second language writing instruction. They found out that peer feedback or peer correction is an effective teaching method and proper solution to assist language learners be aware of their own weaknesses and also strengths. It works in a way that those points that remained unnoticed by language learners in a safe atmosphere, can be explained by the peer. Peer feedback can provide opportunity for the language learners to negotiate their weaknesses and strengths (Williams & Cui, 2005) where the language learners can negotiate their ideas, suggestions, corrections, and comments (Zeng, 2006). This can help them to be better writers. Giving the students this responsibility can also strengthen learners' independence. Williams (cited in Behin & Hamidi 2011) believes that peer feedback has positive effect if the learners are trained well and also are well-prepared by their teachers. According to Rollinson (2005) peer feedback, also, trains students read their own writing critically.

In the present study, researchers attempt to find the effectiveness of three different types of feedback, post-text feedback, coded, and uncoded in-texted feedback on improving the written grammatical accuracy of Iranian EFL learners across two proficiency levels (intermediate and advanced).

Theoretical Framework

***Interaction Hypothesis*:** The interaction hypothesis assumes that one way to learn a second language is by interaction. The interaction hypothesis puts both ‘input’ and ‘output’ together by stating that interaction is not only a means for learners to learn a language, but also a way for learners to put into practice what they have already learned. Long (1983), in his Interaction Hypothesis, posited that, if communication is difficult, interlocutors have to negotiate for meaning through different ways such as, comprehension and confirmation checks, clarification request, simplifications and elaboration (pp. 451–452).

In terms of written corrective feedback, negotiation of meaning happens when a teacher or a knower provides written feedback in the form of vocabulary or grammar corrections, clarification request or elaboration request. This type of interaction provides comprehensible input and encourages learners to see the gap between their own output and the feedback given by the knower and this helps learners to produce modified output.

Schmidt's Noticing Hypothesis: Considering cognitive theories, "corrective feedback improves learning because it entails noticing and noticing-the-gap" (Sheen, 2010, p. 170). Noticing hypothesis is a concept in SLA proposed by Richard Schmidt in 1990. According to Schmidt, learners could not learn the grammatical feature of language without noticing it and the feature the learners notice in input will be changing to intake for learning. This noticing of the gap leads to the learners' internal language processing in order to restructure their internal representation of the rules of L_2 in order to bring the production closer to the target norm. In this regard, corrective feedback helps learners to focus on the gap between the target norm and their interlanguage which provides a path for grammatical restructuring.

Types of Feedback

There are several ways for language teachers to provide learners with written corrective feedback (Ellis 2009; Bitchener & Ferris 2012). Ellis (2009) provided a comprehensive typology of these options including direct and indirect techniques among others. According to Kang and Han (2015), while in direct feedback the teachers provide learners with the correct form, in indirect WCF error location is merely shown and no correction form is provided. The result of the study conducted by Bitchener and Ferris's (2012) indicated that although direct written feedback assist low-proficient learners, indirect feedback is more influential for ones because they are often capable of correcting their careless mistakes themselves. Their study was supported by Esmaeeli and Sadeghi, (2020) who found out that the direct feedback has significant effect on improving pre-intermediate students' accuracy as they had insufficient understanding of second language to correct their error by themselves. But, Ahmadi et al. (2012) believe that indirect feedback works equally well because it involves the students in a kind of noticing and revising. There are also some studies that reported the equal short term effect of indirect and direct feedbacks in improving the learners' accuracy (Salimi & Ahmadpour 2015, cited in Ng & Ishak 2018).

Written Grammatical Accuracy and Feedback

According to Wolfe-Quintero, Inagaki, and Kim (1998) accuracy is "the ability to be free from errors while using language to communicate "(cited in Hartshorn 2008, 37). Using accurate grammar is a vital aspect of any good piece of writing. Students can improve their level of English by creating written work using the learned grammatical structure. The emphasis upon grammatical and lexical accuracy lies in making informed decisions about how and when to react to learners' grammatical and lexical errors (Chandler 2003).

Ferris (1999) put an emphasis upon accuracy. They asserted that "real-life teachers have always known that students 'errors are troublesome, that students themselves are concerned about accuracy, and that responding effectively to students'grammatical and lexical problems are a challenging endeavor fraught with uncertainty about its long-term effectiveness" (15). As Ferris (1999) stated that lack of any form of grammatical feedback could have frustrating effects on learners' motivation and self-confidence

in the writing class. Lack of grammatical accuracy can prevent language learners from achieving their professional and educational goals.

Based on the received feedback, Ferris (2004) classified the studies of written accuracy into three categories. First, studies comparing text accuracy between students who received corrective feedback and those who did not (Ferris & Roberts 2001; Kepner 1991); second, the studies that examined learners ' linguistic accuracy overtime (Chandler 2003; Ferris 1997; Frantzen 1995; Lalande 1982); and the third, studies which took learners 'views of written corrective feedback into consideration (Ferris & Roberts 2001).

There are some studies, which have shown the progress of learners' writing accuracy over time, especially after receiving corrective error feedback (Bitchener & Knoch 2008; Bitchener 2008; Bitchener, et al. 2005; Chandler 2003; Lalande 1982 Ferris & Roberts 2001; Hyland 2003).

Most often in response to the learners' errors, a teacher should take a variety of matters into consideration, including the learners' ideas and rhetorical strategies; error correction; and improvements of learners' writing accuracy (Ferris & Roberts 2001). They have emphasized that paying attention to these matters have been essential and serious for both teachers and learners.

Truscott (1996) asserted that grammar corrections have no places in any writing courses and teachers should not provide feedback on learners' grammatical errors in writing assignments. Truscott analyzed the work of Semke (1984), Kepner (1991), and Sheppard (1992), and found no research evidence that correcting errors could ever assist learners enhance their written grammatical accuracy. Not surprisingly, Truscott's view on error correction has raised considerable debate. Truscott claims have been strongly responded to by many researchers (Ferris & Helt 2000; Chandler 2003; Ferris 2004; as cited in Nassaji 2011). For example, according to Ferris (1999), Truscott's view of error correction was premature and lacked adequate evidence. Based on Ferris view, according to the growing research evidence, effective error correction can and does assist at least some student writers, provided that it is prioritized, clear and selective (cited in Bitchener et al. 2005).

Post-text and In-text Feedback

Bankier (2012) worked on two types of indirect feedback known as post-text and in-text. In-text feedback is further divided into two types, coded and uncoded. In-text coded feedback is an indirect feedback that the teacher or the instructor highlights or underlines the error and uses a correction key to mark learners' text errors inside their written text. This key consists of an abbreviation or symbols corresponding to common errors (Bankier 2012). Here are examples of coded feedback:

Table 1: Coded feedback

Teacher's Feedback	Learner's Revision
wf	
I introduction myself	I introduce myself.
I called^teacher	I called my teacher.

While in in-text coded feedback, the teacher uses some codes for helping learners to correct their errors, in in-text uncoded feedback, the errors are merely highlighted or underlined without using any keys and the teacher does not give any guidance to the type of error the learners made (Bankier, 2012). Ferris and Roberts (2001) in their research compared coded feedback, uncoded feedback and no error feedback. The results of their study revealed that the students who received a type of feedback had better performance than those who did not receive any type of feedback. However, there was not statistically significant difference between coded and uncoded feedback. Saukah et al. (2017) compared coded feedback and uncoded feedback, showed indicated different results that the students who received coded CF performed better than those received uncoded CF because coded feedback increases awareness with noticing and understanding."

There is still another type of indirect corrective feedback, named post-text feedback. In this type, the teacher highlights or underlines the learners' errors inside the text and gives the summary of repeated error forms at the end of the students' writing tasks. Post-text feedback has four significant advantages: a) it leads to correct revision, b) it requires cognitive effort, c) it potentially leads to more long term improvement, and d) it is easy to use for review.

According to Bankier (2012), post-text feedback suffers from a main drawback, which is, it cannot be used for all types of error. It cannot be applied to correct the learners' minor errors (like subject and verb agreement) but it is effective for the grammatical errors that affect meaning (like verb tense).

The effect of post-text and in-text feedback on grammatical writing accuracy of the learner was examined by Bankier (2012). The results of his study indicated that, there were some differences between posttext and intext coded feedback. His findings indicated that the post-text feedback made revisions possible which were either correct or not revised. On the other hand, in-text feedback caused several incorrect revisions without leaving any errors unchanged.

In respect to all the controversial results in regard to applying the most effective feedback type to improve writing accuracy, in this study, the three types of written feedback were deployed, i.e., post-text and in-text coded and uncoded to shed light on the issue. Consequently, the findings of this study may help teachers find the most useful types of feedback and enable students to use the correct grammatical form in their sentences. The following research questions were posed in line with the purpose of this study.

Research Questions

1. Does the teacher's posttext and intext coded and uncoded feedback have any significant effect on EFL learners' written grammatical accuracy?
2. Which one is the most effective, posttext feedback: intext coded feedback or uncoded one?
3. Do the advanced learners receiving feedback outperform the intermediate learners?

Methodology

Participants

For the purpose of this study, 180 Iranian female and male English learners were selected. They were students aged between 16 and 45. They were from three intermediate and three advanced language classrooms in Khavarmiane English Institute in Sari. The participants' course book was *Top Notch* by Saslow and Asher (2012). The book follows a communicative approach towards teaching English language. The book addressed all main skills with a focus on speaking. Regarding writing, in each semester, the learners were supposed to complete four writing assignments. The sub-skills like vocabulary and grammar were also presented and explained by the teacher in the classroom.

Intermediate and advanced language learners in Khavarmiane institute had already taken a standard placement test and they had been studying English for two or three years. Therefore they were homogeneous. However, in order to eliminate extreme cases, a Nelson English Language Proficiency Test (NELPT) was administered to three intermediate classes and three advanced classes. After scoring the test and calculating the mean and standard deviation, the researchers selected students whose scores fell between 1SD above and below the mean for the study (55 intermediate, and 55 advanced learners). One intermediate class and one advanced class served as the control group and the other four classes considered as the experimental groups. The researcher and two other raters corrected and assessed the pre and post-tests.

Instrumentations

To answer the research questions and collect data the following materials were employed:

1. In this study a placement test was used to recognize the true level of the students. The placement test used in Khavarmiane Institute consists of 100 multiple choice grammar questions. Those who scored 61 to 85 (each question has one score) would be placed in intermediate classes, and scores above 86 would mean a candidate would be ready for advanced level.
2. In order to make sure of the elimination of those who were above and under the average proficiency of the control and experimental groups, Nelson English Language Proficiency Tests (200A and 350b) were administered. Each test consisted of 50 multiple choice questions entailing 37 grammar, 7 vocabulary and 5 pronunciation questions, to each of which one score was assigned. The total score of the test was 50 and the allocated time to answer the questions was 40 minutes.
3. The data for this study were gathered from a pre-test and a post-test in the following way. First, as a pretest, the participants of the study were asked to write one or two paragraphs on "technology in three periods of time (present, past and future). And after the treatment sessions, a same in-class writing test about the topic in present and past and write your predictions about future transportation system" was used as a post-test.
4. After counting the number of the specific grammatical errors in writing pre and post-tests, the raters assessed and scored them according to the assessment scale for written work based on Jacobs et al., (1981) ESL profile. The profile includes content, organization, vocabulary, language, and mechanics.

Each has four rating levels of very poor, fair to poor, good to average, and excellent to very good. Each level is also matched with distinctive descriptors of the writing proficiency as well as a numerical scale.

Procedures

To achieve the goal of the study, the following procedures were conducted after the subjects were homogenized using Nelson Proficiency Test. Before starting the treatment, the selected participants were tested using an in-class writing pre-test as mentioned in instruments of the study. Since it is not possible to work on all types of grammatical errors in a short amount of time, this study focused on some main grammatical errors the learners had while writing. Grammatical items focused on in this study included verb tense, passivation, word order, prepositions and articles. In the treatment sessions, the students in two of the experimental groups received post-text comments on their grammatical errors, while in-text coded feedback was provided to the other two experimental groups. Noting that uncoded feedback was provided to the participants in control groups in which the teacher just highlighted the errors. In posttext feedback the teacher highlights or underlines the errors and writes comments about it at the end of the text and give the students some sorts of clues to correct their errors base on them. In coded groups, the teacher highlights the errors and writes some codes above the errors (the codes were taught by the teacher in the first session of the study). Finally, in uncoded groups, the errors were just highlighted and no comments and codes provided to the learners.

Then, in all six groups, the participants were required to write one or two paragraphs on the topics assigned by the teacher each week. Moreover, the participants of all groups had to organize their writing assignments so as to include at least three cases of the mentioned structures. All paper collected up, read and finally returned to the students for revision in coded and posttext groups. While in the in-text coded experimental groups students' errors pointed out by the teacher by writing some codes above the errors (for example, for verb tense errors the teacher wrote "*vt*" above the error which stands for verb tense), in the post-text experimental groups, paragraphs were read by the teacher and comments were given to the learners at the bottom of the page concerning the above mentioned errors. For instance, if the learner wrote *I play in the park yesterday*, the teacher highlighted the word *play* and wrote a comment like, *because of yesterday you need to use past tense*. In other words, the teacher did not correct the learners' errors but underlined them and wrote comments about them. Then, the students took the paper home and corrected the errors based on the written comments and gave the paper back to the teacher for further revision. This process was continued for 10 weeks. In uncoded feedback groups, the teacher just underlined or drew a circle over each error without commenting on them. Like in coded and posttext feedback, in uncoded one the teacher did not correct any errors made by the students. The students had to revise their writing and returned them to the teacher again for further evaluation.

Finally, at the end of the experimental period, all groups sat for writing post-test the same as the pre-test. They had to write an essay about the "transportation" in three different periods of time, namely, past, present, and future. The errors were counted, and normalized by the raters.

Data Analysis and Results

The early step used in analyzing data is to determine whether the students are homogeneous regarding their general proficiency levels. In the present study Nelson Proficiency Tests (200 A and 300 A) were administered to the students in 6 classes (three intermediate and three advanced). It must be mentioned that the researcher scored the test out of 50.

After scoring the test and collecting the data, the researcher observed the following descriptive statistics. Table 2 indicates the descriptive statistics like, standard deviation, frequency, mode etc. regarding the test of homogeneity.

Table 2: Descriptive Statistics of the two groups' homogeneous test

		Inter	Advanced
N	Valid	90	90
Mean		39.4750	39.1928
SD		5.41908	5.19957
Variance		29.366	27.036
Minimum		27.00	27.00
Maximum		50.00	50.00

Those participants whose scores fell between one standard deviation above and below the mean were selected for the present study.

After the homogeneity of the students was confirmed, the researcher administered SLWAI questionnaire to find learners with high level of \77. 55 intermediate and 55 advanced learners were found to be high apprehensive learners. Then, the researcher randomly selected one intermediate and one advanced group as control groups and the other four classes as experimental ones. After that, the researcher gave the pretest to the students in all six groups. The students were supposed to write in 100 to 150 words about the technology comparing present versus past and then write their prediction about how technology will be in the future. After the students did so, the researcher and two other raters scored their writing tasks. The method used in scoring the test was error count method in which the number of students' errors was deducted from the total score of 20. The Pearson Moment Correlation Coefficient was applied to check the inter-rater reliability. It was proved that there were no differences in ratings of the three raters. The following table shows the descriptive statistics of all participants' scores in pretest.

Table 3: Descriptive statistics (pretest)

Level	Treatment	Mean	Std. Deviation	N
Advanced	Uncoded	15.5088	1.06208	19
	Intext	15.0741	.40512	18
	Posttext	14.5741	.53389	18
	Total	15.0606	.81673	55
Intermediate	Uncoded	15.2222	1.00976	18
	Intext	15.8070	1.28292	19
	Posttext	15.2222	.48507	18
	Total	15.4242	1.01116	55
Total	Uncoded	15.3694	1.03275	37
	Intext	15.4505	1.01901	37
	Posttext	14.8981	.60063	36
	Total	15.2424	.93293	110

As shown in the above table, the mean score of the advanced uncoded group is 15.5 and for intext coded and posttext groups the mean scores are 15.07 and 14.57, respectively. In intermediate groups, the mean score of the students who received uncoded feedback is 15.22 whereas it is 15.80 and 15.22 for intext and posttext group, respectively. In order to be able to find the appropriate way of analyzing the data, the normality of the data was checked first. The normality of the data was checked using Kolmogorov-Smirnov and Shapiro-Wilk. It was proved that the data was normal since the sigs were greater than 0.05 in all six groups. Therefore, the parametric way of analysis was used.

Table 4: Tests of Between-Subjects Effects

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Level	3.658	1	3.658	4.822	.030
Treatment	6.276	2	3.138	4.136	.069
level * treatment	5.897	2	2.948	3.886	.024
Error	78.899	104	.759		
Total	25651.333	110			
Corrected Total	94.869	109			

a. R Squared = .168 (Adjusted R Squared = .128)

Table 4 reveals that, the sig is 0.03 which is lower than 0.05. Therefore, we can conclude that, there existed a meaningful difference between the two levels (intermediate and advanced). The treatment effect was not significant at p=0.06>0.05 level. The table also shows that the interaction effect had been significant at p=0.02<0.05 level. This shows that there was significant difference between the two independent variables (levels and treatments).

Table 5: Multiple Comparisons

(I) treatment	(J) treatment	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
uncoded	intext	-.0811	.20250	.690	-.4827	.3205
	posttext	.4712*	.20391	.023	.0669	.8756
Intext	uncoded	.0811	.20250	.690	-.3205	.4827
	posttext	.5523*	.20391	.008	.1480	.9567
posttext	uncoded	-.4712*	.20391	.023	-.8756	-.0669
	intext	-.5523*	.20391	.008	-.9567	-.1480

The error term is Mean Square (Error) = .759.

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

According to the result of the above Table, there is no significant difference between uncoded and intext feedback, since sig is more than 0.05. However, the researcher witnessed the significant difference between uncoded feedback and posttext feedback since p=0.02<0.05. The comparison between posttext and intext feedback indicated that these two feedbacks were significantly different from each other (p=0.008<0.05).

After the treatment, the researcher administered the post-test to all six groups. The researcher asked the students in all groups to write in 100 to 150 words about the transportation system in three periods of time (present, past and future). Then three raters rated the students' writing task using error count method. The researcher then checked the normality of the data and also correlation among the three raters' scores.

It was proved that the data was normally distributed and there was a correlation among the three raters' scores.

Table 6: Descriptive statistics (posttest)

Level	treatment	Mean	Std. Deviation	N
Advance	uncoded	17.6491	1.20428	19
	intext	18.5789	.78443	19
	posttext	19.1053	.41652	19
	Total	18.4444	1.04337	57
Intermediate	uncoded	16.2157	.98560	18
	intext	17.4386	.43109	19
	Posttext	19.2037	.44485	18
	Total	17.6420	1.38402	55
Total	Uncoded	16.9722	1.31022	37
	Intext	18.0088	.85067	38
	Posttext	19.1532	.42741	37
	Total	18.0541	1.28042	112

The above table shows that the three feedbacks were more effective in advanced groups than the intermediate ones, since the mean score of advanced groups is 18.44 whereas the mean score of intermediate ones is 17.64.

As there are two independent variables, namely types of feedback and levels, the present data analysis utilized a two-way ANOVA to explore the impact of level and feedback on learners' writing skill. As it can be seen in Table 6, there was a statistically significant main effect for level ($p=0.000<0.05$). This shows that levels of the learners had significant effect on students' written grammatical accuracy.

As shown in Table 7, the *p* value for treatment is lower than 0.05 ($0.00<0.05$). It indicates the fact that was significant effect for treatment, and it has significant effect on students' grammatical accuracy in writing. The interaction effect between level and treatment was statistically significant too ($0.00<0.05$). This indicates that there was significant difference in the effect of feedback on grammatical accuracy for intermediate and advanced learners.

Table 7: Tests between Subjects Effects

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Level	18.859	1	18.859	31.655	.000
Treatment	89.987	2	44.993	75.522	.000
level * treatment	12.148	2	6.074	10.195	.000
Error	62.556	105	.596		
Total	36360.667	111			
Corrected Total	180.342	110			

a. R Squared = .653 (Adjusted R Squared = .637)

According to the test of normality, the data was normally distributed. Therefore, paired sample t-test must be used to check the effectiveness of each treatment by comparing each group's pretest and posttest.

Table 8: Paired Sample Statistics

Treatment			Mean	N	Std. Deviation	Std. Error Mean
uncoded	Pair 1	scores in posttest	16.9722	37	1.31022	.21837
		scores in pretest	15.3796	37	1.04548	.17425
Intext	Pair 1	scores in posttest	18.0088	38	.85067	.13800
		scores in pretest	15.4386	38	1.00779	.16349
posttext	Pair 1	scores in posttest	19.1574	37	.43268	.07211
		scores in pretest	14.8981	37	.60063	.10011

The above table indicates the descriptive statistics of feedback groups in pretest and posttest.

Table 9: Paired Sample test

Treatment			Paired Differences					t	df	Sig.(2-tailed)
			Mean	SD	SEM	95% Confidence Interval of the Difference				
						Lower	Upper			
Uncoded	Pair 1	scores in posttest - scores in pretest	1.59259	1.71290	.28548	1.01303	2.17216	5.579	37	.000
Intext	Pair 1	scores in posttest - scores in pretest	2.57018	1.43091	.23212	2.09985	3.04050	11.072	38	.000
Posttext	Pair 1	scores in posttest - scores in pretest	4.25926	.72204	.12034	4.01496	4.50356	35.394	37	.000

Table 9 illustrates that, the probability value for all treatment groups is 0.00 which is lower than the *p* value of 0.05. Therefore, it can be concluded that the students' performance in post-test was much better than their performance in pre-test. The result for paired samples t-test indicated that there was a big difference between the participants' pre-test and post-test scores in posttext. This shows that post text feedback was the most effective feedback. Intext coded feedback was also effective but not as much as posttext feedback. Finally, the mean difference between the pretest and posttest in uncoded feedback is 1.59 which is the lowest mean difference in comparison with the other two feedbacks. In other words, uncoded feedback does have effect on the Iranian EFL learners' written grammatical accuracy but its effectiveness is much less than intext coded feedback and posttext feedback.

Tables 10 and 11 show the descriptive statistics and paired sample t-test for the pretest and posttest of the two levels.

Table 10: Paired Sample Statistics

Level			Mean	N	Std. Deviation	Std. Error Mean
advance	Pair 1	scores in posttest	18.4345	57	1.05010	.14033
		scores in pretest	15.0595	57	.80931	.10815
intermediate	Pair 1	scores in posttest	17.6420	55	1.38402	.18834
		scores in pretest	15.4321	55	1.01896	.13866

Table11: Paired Sample Test

Level			Paired Differences					T	df	Sig. (2-tailed)
			Mean	`SD	SEM	95% Confidence Interval of the Difference				
						Lower	Upper			
Advance	Pair 1	scores in posttest - scores in pretest	3.37500	1.47307	.19685	2.98051	3.76949	17.145	57	.000
Intermediate	Pair 1	scores in posttest - scores in pretest	2.20988	1.79715	.24456	1.71935	2.70040	9.036	55	.000

According to table 11, there exists significant difference between the scores of the two levels, since sig is 0.00<0.05. The table also indicated that the advanced group improved more than the intermediate one since the mean difference between the advanced groups pretest and posttest is 3.37 whereas it is 2.20 for intermediate one .

Discussion

In the present study, three types of feedback namely, post-text, intext coded and uncoded written corrective feedback, in two different proficiency levels (intermediate and advanced) were examined. The results of the study indicated that among the three feedbacks, the post-text one was very influential in both intermediate and advanced levels. Intext feedback was influential but not as much as the post-text one. The students in control groups who received uncoded feedback on their grammatical errors in writing could improve their grammatical writing accuracy, but this improvement was not statistically significant. It must be mentioned that all those students who were placed in advanced groups could get better scores in posttest than the intermediate students. In other words, all the three feedbacks were more effective in advanced groups than the intermediate ones. In other words, the results of this study indicated that more proficient learners could benefit more from indirect types of feedback.

The results of this present study show a strong connection between teachers' written corrective feedback and students' grammatical writing accuracy. When the students receive written corrective feedback, either posttext, coded or uncoded, they are able to revise their writing into the good one. This is indicated by reduction in the number of errors that is indicated by the post-test score. This result agrees with the findings of some researchers who explicitly investigate the relation of written corrective feedback and students' grammatical writing accuracy (see Ferris, 2003) and state positive impact of written corrective feedback (see Hyland 2013; Ellis 2010; Lyster & Saito 2010 Li 2010). It also supported researches on feedback conducted by Ferris (2003), Frantez (1995) and Lalande (1982). They indicate that indirect error feedback is beneficial to students because it can draw the students' attention to structures and problems (Ferris 2003).

Researchers suggested that indirect feedback is generally preferred over the direct feedback since it forces students to engage in "guided learning and problem solving" (Lalande, 1982) and helps them to be "independent-self-editors" (Bates et al. 1993 as cited in Hyland & Hyland 2006).

The results of this study were consistent with the study conducted by Bankier (2012). In his study, he examined the effectiveness of three types of indirect feedback. Post-text feedback was found to be more effective than in-text coded and in-text uncoded feedback. The results of the present study are in contrast with those of Ferris and Roberts' (2001) as well as some earlier studies, such as those of Robb, Ross and Shortreed (1986, cited in Bitchener, Young, & Cameron, 2005), whose study posited that although feedback is influential, the type of feedback used does not make a significant difference. They believed that it would be better to use the simplest and quickest form of indirect feedback like uncoded feedback in which with no correction keys were provided to the learners and the teacher just highlights or underlines the errors. However, the present study indicated that those students who received some comments and codes for their errors could perform better in their posttest than the uncoded group.

Regarding the proficiency level, the result of this study indicated that advanced learners could get better score in posttest than the intermediate ones. This is in line with the studies conducted by Bitchener and Ferris (2012**)** as well as Esmaeeli and Sadeghi, (2020**)** who found out that indirect feedback works better for high-proficient learners since their understanding of the second language is more than low-proficient learners to correct their errors by themselves.

Conclusion

This study can support other confirmatory or exploratory studies on the issue of improving learners' grammatical writing accuracy with the help of indirect written corrective feedback. It has been found out that WCF helped high apprehensive learners improve their grammatical accuracy after 10 sessions of instruction. The researcher witnessed a great improvement in grammatical accuracy of intermediate and advanced students who received post-text feedback. Intext coded feedback was effective for both proficiency levels, but its effectiveness was less than posttext one. The students in the control group did improve; their improvement was not very significant. The results of the present study may be useful for teacher-training courses. These types of indirect feedback can be taught to trainees by trainers. EFL teachers can make use of post-text and in-text coded and also in-text uncoded feedback as a way to improve students' written grammatical accuracy. Language institutes and schools can also include this in their syllabi as well as their curricula. The implication of the research questions in this study is that, indirect feedback has the potential to assist language learners write more accurately. However, the result of the present study cannot be generalized to all writing context because according to Ferris (2006), learners might benefit from feedback they are provided with in several ways.

Consequently, the EFL writing teachers are advised to use both in-text and post-text feedback in their classrooms. They should also keep in their mind that a single feedback which is always the best for all the learners and all types of errors, coming up in all situations does not exist. Therefore, the major pedagogical implication of the present study can address the teachers' role in encouraging the learners to make use of the most accurate linguistic structures and forms by finding learners' errors and giving them the proper type of feedback to their writing.

Additionally, the present research suffered from some limitations. First, the efficacy of indirect feedback was examined only on L2 grammatical accuracy of writing, and consequently did not further focused on other major aspects of writing, such as fluency, complexity, or rhetorical conventions.

Secondly, this research was carried out among advanced learners. Further research can be undertaken to see if the findings are also true about writers at other proficiency levels. Finally, factors such as aptitude, motivation attention, might vary among the participants; therefore, in future studies their roles could be investigated.

أكواد النص أو تعليقات النص اللاحق؟ أيهما أكثر تأثيراً في تحسين الدقة اللغوية المكتوبة لمتعلمي اللغة الإنجليزية كلغة أجنبية في المستوى المتوسط والمتقدم؟

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الملخص

البحث الحالي ، قام الباحث بفحص تأثير التغذية الراجعة المشفرة وغير المشفرة على الدقة النحوية المكتوبة للمتعلمين الإيرانيين المتقدمين والمتوسطين. في البداية اختارت الباحثة عينة مكونه من طلبة مسجلين في ثلاثة فصول. بعد تجانس الطلاب باستخدام اختبار إتقان نيلسون، اختار الباحث عشوائياً فئة متوسطة وفئة متقدمة كمجموعات ضابطة والأربع فئات الأخرى كفئة تجريبية. ثم لمدة عشرة أسابيع ، تلقت المجموعات التجريبية ردود فعل مشفرة للنص اللاحق والنص بينما تلقت المجموعة الضابطة ردود فعل غير مشفرة. أشارت النتائج إلى أن جميع الأنواع الثلاثة من التعليقات المكتوبة كانت فعالة في الاختبار البعدي. ومع ذلك، كانت التعليقات اللاحقة والنصية أكثر فاعلية من التعليقات غير المشفرة. نظرًا لأن التعليقات توفر للمتعلمين فرصة لمراجعة مقالاتهم، يمكن للمرء أن يعتبر دورها دورًا فعالاً في تعلم اللغة الإنجليزية وتعليمها. كما أشارت النتيجة إلى تفوق متعلمي اللغة المتقدمين على متوسطيهم.

الكلمات المفتاحية: التغذية الراجعة المشفرة، التغذية الراجعة، الدقة النحوية، التغذية الراجعة للنص اللاحق، التغذية الراجعة غير المشفرة، الكتابة

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