

The Effect of Written Corrective Feedback Modes on EFL Learners' Grammatical and Lexical Writing Accuracy: from Perceptions to Facts

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Abstract: *To investigate the effect of corrective feedback on the grammatical and lexical writing accuracy, 164 participants in four groups participated in the study, and each group received a specified written corrective feedback. The participants were presented with a pretest, a questionnaire, and a post-test. Chi-Square and One-Way ANOVA procedures were used to analyse data. Regarding grammatical accuracy, results showed that the direct corrective feedback group performed significantly better than the other groups. The uncoded group also performed significantly better than the control group. As to lexical writing accuracy, the three treatment groups performed significantly better than the comparison group.*

Keywords: *coded feedback; direct feedback; grammatical writing accuracy; lexical writing accuracy; uncoded feedback; written corrective feedback modes*

1. INTRODUCTION

Written language has a documented history of more than 6000 years (Lyons, 1968). According to Boughey (1997), writing is not a skill naturally acquired; it is usually learnt or culturally transmitted as a set of practices in formal instructional settings or other environments. Boughey asserts that writing does not happen in a vacuum; it is the result of the relationship between the writer, the reader, the text and the real life, which are under constant change.

In the process of writing, it is quite common for learners to make errors and for teachers to correct learners' errors. Such errors have always been of interest to teachers, syllabus designers, and test developers (Keshavarz, 2008). The issue of how to treat such errors, however, has not been fully resolved yet. On the one hand, there is the claim that if errors are not identified and corrected, they can become ingrained or fossilized in learners' writing. On the other hand, there are people (like Brown, 2000) who stress that too much negative cognitive feedback will result in the shutdown of the learners' attempts.

An additional problem is that even those who emphasize the necessity of error correction fail to reach an agreement on how to correct errors. In fact, the debate about whether and how to provide corrective feedback on second and foreign language learners' writing errors is of long standing (Baker, 2009; Frankenberg-Garcia, 1999; Lee, 2009; Lundstrom & Muncie, 2000; Sheen, 2007; Truscott & Hsu, 2008).

The present study provides an overview of the currently available research findings and then analyzes the perceptions of learners towards written corrective feedback modes, and assesses the effectiveness of direct, coded, and uncoded written corrective

feedback modes on Iranian university learners' grammatical and lexical writing accuracy. The three treatment groups are also compared with a control group receiving no corrective feedback. It is an attempt to answer the following research questions:

1. Are there any significant differences in the learners' perceptions as to the way corrective feedback modes (direct, coded, and uncoded) influence writing accuracy?
2. Are there any significant differences among the effects of corrective feedback modes on learners' grammatical writing accuracy?
3. Are there any significant differences among the effects of corrective feedback modes on learners' lexical writing accuracy?

2. REVIEW OF LITERATURE

The terms 'writing' and 'accuracy' have been variably defined. Raimes (2002) believes that writing is a chaotic and messy process as well as a generative idea. Leki (2002) states that writing is a text-composing and social construction process. And Chandler (2004) maintains that the increase of accuracy is when learners have learnt to avoid their many errors.

Recently, there has been a growing interest in the application of corrective feedback. According to Ferris (1999) "error correction (corrective feedback) in second language writing is a source of great concern to writing instructors and of controversy to researchers and composition theorists" (p. 1). On the one hand, providing feedback to learners' writing is very much a part of the teaching process of writing (Raimes, 1983). In fact, from her point of view, "feedback is not just tacked onto the end of a teaching sequence, a last chore for teachers and a bore for students. Rather, it is as important as devising materials and preparing lessons" (Raimes, *ibid.*, p. 139). On the other hand, Truscott (1996, 1999) contends that written corrective feedback is actually ineffective and harmful for learners and teachers. He states that it causes stress and demotivates learners. Correcting written work and providing feedback can also be very time-consuming for teachers, and sometimes seems to have little or no effect on learners' progress (Doff, 1988). Similarly, Zamel (1985) urges teachers to "hold in abeyance their reflex like reactions to surface level concerns, and give priority to meaning" (p. 96). Such a position is backed up by studies showing that corrective feedback has little positive effect on learners' writing (Henderickson, 1978; Kepner, 1991; Lalande, 1982; Semke, 1984).

Guenette (2007, p. 51) believes that "there is no corrective feedback recipe". He concludes that no matter what the nature and role of feedback is, some learners will benefit from focused instruction and corrective feedback, and others will not. However, Lee (2008) holds that despite the efficacy of corrective feedback, the nature hinges on various factors, such as learners' proficiency, motivation, and quality of teacher feedback, including legibility.

Ferris and Roberts (2001) distinguish two modes of corrective feedback; direct and indirect. Direct (or explicit) feedback is when the exact correct form is provided for the learner by the teacher, and if revision is asked, the learner just has to transfer the correct form into the final draft (Bitchener, 2008; Bitchener, & Knoch, 2008). Another form of direct feedback is "written meta-linguistic explanation (the provision of grammar rules and examples at the end of a student's script with a reference back to places in the text where the error has occurred and/or oral meta-linguistic explanation" (Bitchener, & Knoch, 2008, p. 411).

There are three arguments in favor of direct modes of feedback (Chandler, 2003). First, it has been stressed that direct feedback is more helpful to learners because of the reduction of misunderstanding and confusion. Second, learners are provided with more information for resolving the complex errors. And third, immediate feedback is provided to learners based on their hypotheses. However, Ellis (2009) stresses a disadvantage of direct corrective feedback, saying that "it requires minimal processing on the part of the learner and thus, although it might help them to produce the correct form when they revise their writing, it may not contribute to long-term learning" (p. 99).

Indirect feedback is provided to indicate that there is an error, but it is not corrected, leaving the learner to discover and to solve it (Bitchener, 2008; Ferris, & Roberts, 2001). Generally, the different forms of providing indirect feedback might be: underlining errors and specifying what type they are, and noting the number of errors in the margins of each line (Bitchener, & Knoch, 2008).

Another distinction is made between coded and uncoded feedback in the relevant literature (Liu, 2008). Coded feedback is one that specifies the exact location of an error and indicates the type of error with a code. Uncoded feedback, on the other hand, refers to instances when the teacher underlines or circles an error, or places an error tally in the margin, but, in each case, leaves the student to diagnose and correct the error (Bitchener, Young, & Cameron., 2005, p. 193). A number of studies have investigated the effects of different corrective feedback modes on different aspects of language learners' writing accuracy. Some of the more relevant ones are selected to be discussed briefly here.

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Robb, Ross, and Shortreed (1986) investigated a hundred and thirty four Japanese EFL college students. The learners were assigned to four groups of direct, indirect uncoded, and marginal corrective feedback, in which the total number of errors in each line of the text was indicated in the margin. Five essays of each learner were examined and analyzed based on a set of nineteen writing ability measures assessing accuracy, fluency, and complexity over a year; revision after correction was also required. They concluded that all groups improved in accuracy over time but there were no major differences among the treatment modes.

Another study, by Kepner (1991), compared the effect of direct error feedback and message-related comments on learners' writing accuracy. Her study consisted of a control group that received no error correction on their journal entries, and learners were not required to revise their journals after correction. She investigated sixty Spanish EFL learners at a USA college over a semester. Her emphasis was on feedback on form and content; after six times of feedback provision, the learners' journals were analyzed. There was no significant difference in accuracy between those learners who received feedback on form and those who received feedback on content.

Ferris (1997) examined the effect of marginal and end note comments on learners' first and revision drafts over two uninterrupted semesters. It turned out that 73% of the learners improved in their revision drafts after receiving marginal and end note comments from the teacher.

Another study by Polio, Fleck, and Leder (1998) investigated sixty-five ESL learners' journal entries at a US university. The learners were divided into two groups, an experimental group which received direct corrective feedback including grammar reviews and editing lessons, and a control group receiving neither of the above. The experimental group had progress from their first draft to their revision draft, but there was not much difference between the experimental and the control groups in writing accuracy on new writing.

To investigate the timing of corrective and content feedback over two drafts, Ashwell (2000) studied fifty EFL Japanese students, who were assigned to four groups; the first group received a comment on the content followed by indirect corrective feedback (underlining and coding); the second group received indirect corrective feedback (underlining and coding) and then a comment on the content; the third group was a mixture of groups one and two; the last group was the control group which received no corrective feedback. It turned out that learners in groups one, two, and three improved their writing accuracy after one semester.

Ferris and Roberts (2001) focused on the revision drafts of learners after self-editing based on their corrective feedback. They examined seventy-two ESL learners for a semester. Learners were divided into three written corrective feedback groups: the coded group (location and code), the uncoded group (location only), and the control group (no corrective feedback provided). Five error categories were classified as, "verb errors", "noun ending errors", "article errors", "wrong word", and "sentence structure". As a pretest, the learners were given a 'Questionnaire' with multiple-choice questions in which the learners were required to express their preference for one of the given feedback modes. Results showed that 48% of the learners favored coded corrective feedback, and none of the learners chose the no corrective feedback mode. There was no significant difference between group one and two, but they outperformed the control group in their writing accuracy as group one revised 64% of their errors, group two 60%, and group three 18%.

Chandler's (2003) investigation included two studies. In the first study, she compared students who did no revision between essays with the ones who did (after trying to correct errors that had been underlined, the experimental group received direct feedback on the remaining errors). The experimental group had fewer errors in their revision drafts during the semester compared with the control group. The second study examined four different corrective feedback modes including direct, indirect (providing location, and codes), just codes (no location provided), and just location (no codes provided). She found that learners had significant progress in their writing accuracy and fluency, but they had the highest level of accuracy when receiving "direct" and "location only" feedback.

Hyland (2003) conducted a case study of six ESL learners at a New Zealand University placed into two classes of a writing course. She observed the effects of a mix of all corrective feedback modes, the proportion of form-focused feedback, and learners' reaction to form-focused feedback over an academic semester. Hyland analyzed two teachers' protocols, both teacher and learner interviews as well as writing texts. It was found that most learners used form-focused feedback and valued it in their revision drafts. Based on the beliefs of both teachers and learners, continuous and repeated corrective feedback aided learners' progress in writing.

Glover and Brown (2006) examined the perceptions of teachers and students towards written corrective feedback. The teachers complained that although written corrective feedback was adequately provided, there was no engagement on the part the students. On the other hand, students reported that they did pay attention to the feedback but did not act upon it.

Rahimi (2009) investigated the effect of written corrective feedback on Iranian EFL learners' writing accuracy over time. The study consisted of two groups: one that received indirect feedback and a control group which received general comments and no written corrective feedback. Both groups wrote four essays during a semester. The errors of the experimental group were underlined and coded with the grammar categories. At the end of the semester, the learners were interviewed, the results of which showed that learners who did not receive written corrective feedback on their grammatical structures were discouraged and demotivated. Moreover, the results of the study showed that corrective feedback helps learners improve their writing over time.

Bitchener and Knoch (2009a.) examined the effect of three written corrective feedback modes on the use of the indefinite article 'a' and the definite article 'the'. They examined fifty-two low-intermediate students at an English Language Department in New Zealand. The participants were placed in three written corrective feedback groups and a comparison group. The corrective feedback groups consisted of: direct error correction with written and oral meta-linguistic explanation; direct error correction with written meta-linguistic explanations; and direct error correction only. The results showed that the three treatment groups outperformed the control group on all the post-tests, but there were no significant differences among the written corrective feedback groups in using the English article.

Despite the relative plethora of previous research in the area of written corrective feedback, few have focused on grammatical and lexical writing accuracy in an EFL context. Even fewer studies have had control groups; most of them have compared the effect of various modes of feedback without a comparison condition. Thus, the present study aims to explore Iranian learners' perceptions towards written corrective feedback and the effectiveness of direct, coded, and uncoded written corrective feedback versus a control condition on grammatical and lexical writing accuracy.

3. METHODS

3.1 Participants

The participants of the present study were 164 Iranian B.A. level students majoring in English Translation at Islamic Azad University of Takestan, Imam Khomeini International University of Qazvin, and Payame Noor University of Qazvin. They were all in their third or fourth semester taking 'Advanced Writing' or 'Essay Writing' courses. So, their proficiency level was approximately lower-intermediate to intermediate. The participants were in six groups. Three of the groups were experimental groups consisting of a total of 85 learners, and three groups acting as control groups comprised a total of 79 participants.

3.2 Materials and Instruments

The following materials and data collection instruments were employed: to determine the homogeneity of the participants, a version of the Michigan Test of English Language Proficiency (MTELP) was administered at the outset of the study. It was a 100-item multiple-choice test, including forty grammar items, forty vocabulary items, and four reading passages each followed by five reading comprehension questions.

To make sure that the participants were familiar with the coded corrective feedback, a copy of the codes of feedback was handed out to the experimental group who was supposed to receive this mode of feedback (a copy of the codes of feedback is given in Appendix A). In addition, a four-item questionnaire was used to obtain the learners' attitudes toward various corrective feedback modes (Appendix B). It was a closed-form questionnaire containing four multiple-choice items to which the participants were requested to respond by choosing one of the given corrective feedback modes that they preferred to receive.

To test the effect of the corrective feedback modes on grammatical and lexical accuracy, an in-class writing test was administered to the learners as their posttest.

4. PROCEDURES

To select the participants of the study, an already established Michigan Test of English Language Proficiency (MTELP) was administered to a sample of 203 students. The purpose of this test was to make sure that there were no substantial differences among the participants with respect to their proficiency level. Then, the mean and standard deviation of the participants' scores on the proficiency test were computed; the mean and standard deviation turned out to be 41.2 and 4.4, respectively. To ensure the homogeneity of the participants, those who had scored more than one standard deviation away from the mean (39 participants) were removed from all subsequent statistical analyses, leaving 164 homogeneous students who formed the participants of the study. The reason why a general proficiency test, rather than a writing pretest, was used to homogenize the participants was two-fold. First, since the participants would definitely write different things and would make different types of errors, there was a concern about the comparability of the obtained results and using those results as the sole criterion based on which to determine learner homogeneity. Second, if the participants' homogeneity was determined only on the basis of their pretest writing, there might be the danger of some generally more proficient learners accidentally lacking the background or motivation to write on a specific topic, thus performing worse than other generally less proficient learners. To avoid these problems, the general proficiency test was used to determine the overall language proficiency of the participants. At the same time, the subjective evaluation of the participants' weekly writings confirmed their homogeneity.

The participants were in six intact groups. Each group of learners was randomly assigned to one of the four treatments: one group received direct corrective feedback, one group was given coded corrective feedback, and the third group received uncoded corrective feedback. The three remaining groups together formed the control group and did not receive any corrective feedback.

Next, a 4-item questionnaire, constructed on the basis of studies such as Chandler (2003) and Khodabakhshzade (2008), was administered to the participants to obtain information about their preferences and opinions toward feedback modes. In the questionnaire, the learners were asked to choose which of the given corrective feedback modes they would like to receive, and which type of feedback they thought was more effective on their lexical and grammatical accuracy. The purpose of this questionnaire was to learn about the participants' preferences and to compare them to the results of the statistical analyses. In other words, the purpose was to see whether there was any match between what the learners think is effective and what is actually effective.

Before introducing the treatment, the purpose of the study and the expectations of the researchers as to how the participants were supposed to do their assignments were made clear, and the participants of the coded feedback group were given sufficient instruction with regard to the codes used and their meanings. A copy of the codes given in Appendix A was also handed out to all members of this group to consult upon need. The next step was the learners' paragraph writing, the corrective feedback, and the learners' revisions based on the received feedback. All the four classes were instructed by the same teacher. Each session, in addition to their normal class activities, the participants were asked to write paragraphs on a specified topic. They were given 40 minutes to write a passage approximately one page long (about 150 words). Then, their writings were corrected and they were provided with the specified mode of corrective feedback. The first experimental group received direct feedback; that is, the location and type of each error was indicated and a substitute was suggested for each error. The second experimental group

members were provided with coded feedback in which the location and type of errors were indicated, but no substitute was offered. In the third experimental group, only errors were located for self correction. So, the learners had to identify the type of mistake and to eradicate it. Members of the control groups did not receive any of the above mentioned types of feedback. This continued for a semester (12 sessions). To make the scoring both manageable and objective, only twelve points were focused on. These were the same points for which codes were devised (Appendix A). Errors falling into the categories of 'wrong choice of word' and 'wrong word form' were counted as instances of lexical error, and those falling into the other categories were treated as grammar errors. To be objective, every error which fell into any of the specified categories was counted as one. So, whether there was one letter missing from a word or two, it would constitute one mistake. However, the different categories of errors were weighed differently. For instance, while for every error in other categories, one point was subtracted from the participants' score, errors in indentation, capitalization, and punctuation received half a point of penalty. This was largely due to the higher frequency of occurrence of such errors.

At the end of the experimental period, both the experimental and control groups were tested using an in-class writing post-test. They were required to write an essay three paragraphs long (approximately 200 words) in ninety minutes. This limit was imposed to control the possible effect of the length of writing on the mistakes the learners made. The papers were then corrected in the same manner as their previous classroom assignments. To avoid confusion, the scores of the participants did not indicate the number of errors they had. For, in that case, learners with a larger number of errors would get higher scores. Instead, the errors were counted, and for each error, learners were penalized. The total penalty for each person was then subtracted from the maximum score 100. The obtained data were submitted to statistical analysis.

5. DATA ANALYSIS

The data from the preference questionnaire were analyzed using Chi-Square procedures to answer the first research question. Moreover, the data from the posttest were submitted to two separate one-way ANOVA procedures to answer the second and third research questions, one to measure the effect of corrective feedback modes on grammatical writing accuracy, and the other to measure the effect of the same factors on lexical writing accuracy.

6. RESULTS

6.1 Investigation of the first research question

The first research question sought to investigate if there were any significant differences in the learners' perceptions as to the way corrective feedback modes influence their writing accuracy. For this purpose, a questionnaire containing four questions was administered. For each of the questions, a Chi-Square procedure was used.

The first Chi-Square was used to obtain the learners' general perceptions about which corrective feedback mode they liked best. Table 1 contains the summary of the frequencies of the Chi-Square including the observed and expected values.

Table 1. *The descriptive statistics of the first question of the questionnaire*

Feedback modes	Observed N	Expected N	Residual
Correction	17	41.0	-24.0
Underline and describe	131	41.0	90.0
Describe	10	41.0	-31.0
Underline	6	41.0	-35.0
$\chi^2 = 264.927$ $df = 3$ $p < .001$			

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In order to see whether or not the differences among learners' perceptions toward the feedback modes are statistically significant, the Chi-Square procedure was used, which showed that the Chi-square value of 264.927 was statistically significant ($p < .001$). That is, the learners expressed a significant preference for 'underline and describe, a coded feedback mode.

The same procedure was gone through for the second question in the questionnaire, which sought to investigate whether the participants preferred to receive classroom discussion of common errors, individual feedback to only common errors, classroom discussion of individual errors and individual feedback to individual errors. By classroom discussion of common errors, it is meant that the teacher would put the common mistakes of students on the board and the whole class would discuss them. In classroom discussion of individual errors, the teacher would put on the board all errors of individual learners to be discussed by the whole class. In individual feedback, the teacher either provided feedback to individual learners about only the errors commonly made by all learners or all the errors which that individual had made. Descriptive statistics (given in Table 2) showed that individual feedback to individual errors was the most popular mode followed closely by classroom discussion of common errors.

Table 2. *The descriptive statistics of the second question of the questionnaire*

Feedback modes	Observed N	Expected N	Residual
Classroom discussion of common errors	58	41.0	17.0
Classroom discussion of individual errors	24	41.0	-17.0
Individual feedback to common errors	14	41.0	-27.0
Individual feedback to individual errors	68	41.0	27.0
$\chi^2 = 49.659$ $df = 3$ $p < .001$			

The results of the second Chi-Square procedure showed that there was a significant preference among the learners for individual feedback to individual errors and classroom discussion of common errors ($\chi^2 = 49.659$, $df = 3$, $p < .001$).

The aim of the third question of the questionnaire was to investigate whether there are any significant differences in the learners' perceptions as to the way corrective feedback modes influence their grammatical writing accuracy. To this end, another Chi-Square procedure was run, yielding the following results:

Table 3. *Chi-square results on the third question of the questionnaire*

Feedback modes	Observed N	Expected N	Residual
Correction	13	41.0	-28.0
Underline and describe	141	41.0	100.0
Describe	6	41.0	-35.0
Underline	4	41.0	-37.0
$\chi^2 = 326.293$ $df = 3$ $p < .001$			

The above results suggest that a significant number of the learners believe that the 'underline and describe' mode of providing corrective feedback positively influences their grammatical writing accuracy. The fourth question of the questionnaire attempted to investigate the learners' perceptions as to the way corrective feedback modes influence their lexical writing accuracy. To

answer this question, another Chi-Square procedure was used, and the following results were obtained:

These results show that, once again, a significant number of the learners believe that the 'underline and describe' mode of providing corrective feedback positively influences their lexical writing accuracy. Although the differences among the learners' perceptions about the effect of corrective feedback modes on their lexical writing accuracy ($\chi^2 = 91.951$) are noticeably weaker than those of grammatical writing accuracy ($\chi^2 = 326.293$), there are still significant differences.

Table 4. Chi-square results on the fourth question of the questionnaire

Feedback modes	Observed N	Expected N	Residual
Correction	44	41.0	3.0
Underline and describe	90	41.0	49.0
Describe	13	41.0	-28.0
Underline	17	41.0	-24.0
$\chi^2 = 91.951$ $df = 3$ $p < .001$			

6.2 Investigation of the second research question

The second research question attempted to see whether there are differences among the effects of corrective feedback modes on learners' grammatical writing accuracy. To do so, a one-way ANOVA procedure was used. The summary of the descriptive statistics and the results of the ANOVA procedure are presented in Table 5.

Table 5. ANOVA results on grammatical accuracy

Modes	N	Mean	Std. Deviation
Direct group	30	85.433	5.076
Coded group	39	81.230	5.877
Uncoded group	16	84.250	7.224
Control group	79	79.455	5.448
$F = 9.48$ $df = 3/160$ $p < .001$			

Table 6. Post Hoc comparisons of learners' grammatical accuracy

Modes	Modes	Mean Difference	Sig.
Direct group	Coded group	4.20*	.029
	Control group	5.97*	.001
	Uncoded group	1.18	.929
Coded group	Control group	1.77	.468
	Uncoded group	3.01	.364
Uncoded group	Control group	4.79*	.026

*The mean difference is significant at the 0.05 level.

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Based on these results, we can safely claim that there are significant differences among the performances of the four groups. To locate the differences between the means, a Post-hoc Scheffe test was run. The results appear in Table 6.

Based on the results, it can be claimed that there is a significant difference between the effects of direct corrective feedback and coded corrective feedback on the learners' grammatical writing accuracy ($p < .029$). Therefore, it can be concluded that direct corrective feedback is significantly more effective than coded corrective feedback on the learners' grammatical writing accuracy. In addition, there is a significant difference between the direct group and the control group ($p < .001$). This means that direct corrective feedback is an effective factor on the learners' grammatical writing accuracy. Moreover, the uncoded group is significantly better than the control group ($p < .026$). However, the results are indicative of no significant difference between direct and uncoded groups ($p < .929$), coded and uncoded corrective feedback ($p < .364$), and the coded and control groups ($p < .468$).

6.3 Investigation of the third research question

The third research question aimed to investigate if the corrective feedback modes significantly influenced the learners' lexical writing accuracy. To this end, another one-way ANOVA procedure was utilized. Table 7 presents the results.

Table 7. ANOVA results on lexical accuracy

Modes	N	Mean	Std. Deviation
Direct group	30	91.70	4.16
Coded group	39	88.46	5.39
Uncoded group	16	91.93	4.35
Control group	79	81.74	5.75
F = 38.097		df = 3/160	p < .001

The observed F value ($F = 38.097$) and the significance level ($p < .001$) are indicative of significant differences among the groups. The Post-hoc comparisons of means (Table 8) indicate that while there are no significant differences among the effects of direct, coded, and uncoded corrective feedback on the learners' lexical writing accuracy, they are all significantly better than the control group ($p < .001$).

Table 8. Post Hoc comparisons of learners' lexical accuracy

Modes	Modes	Mean Difference	Sig.
Direct group	Coded group	3.23	.100
	Control group	9.95*	.001
	Uncoded group	.23	.999
Coded group	Uncoded group	-3.47	.184
	Control group	6.71*	.001
Uncoded group	Control group	10.19*	.001

*The mean difference is significant at the 0.05 level. To summarize, based on the questionnaire, most of the learners preferred to receive coded feedback with a description of what their mistakes

and errors were. In the same way, on the basis of the experimental results, the learners' highest scores were when they received corrective feedback. Regarding grammatical writing accuracy, the group that received direct corrective feedback preformed best on the writing assignment followed by the uncoded feedback. As to lexical writing accuracy, the groups that received corrective feedback of any kind (direct, coded, and uncoded) performed significantly better than the control Group.

7. DISCUSSION

The findings of the present study support Ferris and Roberts (2001), who noted that there were no significant differences among the effects of coded and uncoded corrective feedback modes on the learners' writing accuracy. In this study, this was confirmed with regard to both grammatical and lexical writing accuracy. In addition, much like the findings of Ferris and Roberts, this study showed that both coded and uncoded corrective feedback modes are more effective than the no corrective feedback condition. However, the learners' preferences toward the different corrective feedback modes in this study do not correspond to those of Ferris and Roberts' study. Unlike their study, in which only 48% of the participants favored the coded feedback mode, there was a significant preference (79%) for the same mode of feedback here.

Moreover, Bitchener and Knoch (2009a) found evidence suggesting that all kinds of corrective feedback are more effective than the control condition on learners' grammatical accuracy. While this study fully supports such a result with respect to lexical accuracy, it is only in partial agreement with it regarding grammatical accuracy. In this study, 'direct' and 'uncoded' feedback modes turned out to be more effective than the no corrective feedback mode. However, there was an absence of sufficient evidence to indicate that 'coded' feedback is also more effective than the control condition.

The findings of the present study also partially corroborate those of Rahimi (2009). He reported that indirect corrective feedback is more effective than no corrective feedback on learners' grammatical accuracy. In this study, uncoded corrective feedback (a kind of indirect feedback) was indeed significantly more effective than no corrective feedback, whereas coded corrective feedback (another variety of indirect feedback) was no different from the no corrective feedback.

Robb, et al. (1986) found no significant differences among the different modes of corrective feedback. In this study, while this holds true about lexical accuracy, it is not exactly true when it comes to grammatical accuracy. Although there were no significant differences between the effects of direct and uncoded feedback modes on grammatical accuracy, direct feedback was more effective than coded feedback. At the same time, Robb, et al. did not have a control group in their study. A big improvement in the present study was the existence of a control group, which showed that all three feedback conditions were significantly better than the no feedback condition.

The results of this study also lend support to those of Chandler (2003), whose university level ESL learners were primarily East Asian, in several ways. She did not distinguish between grammatical and lexical errors. But she found that direct correction and underlining (uncoded) were the best feedback modes for increasing accuracy on new writing even though her students, like the Iranian students, said they learnt most from coded (underline and describe) feedback. In keeping with the findings of the present study, Chandler also concluded that underlining was best for errors students could correct themselves, presumably most grammatical errors, and direct correction was best for ones they could not, presumably most lexical errors. Interestingly, the Iranian students favored direct correction for more lexical (44 students) than for grammatical errors (13 students) even though the vast majority (90 and 141 students, respectively) said they preferred 'underline and describe' for both. Chandler also mentioned that she gave some classroom instruction to common errors as well as the individual feedback on individual errors, the two responses that most Iranian students favored to question two of the questionnaire.

At the same time, the results of the present study are different from those of a number of studies that were reviewed earlier. These findings contradict Ellis' (2009) claim that direct feedback does not influence long-term learning. In fact, these results show that direct feedback does contribute to improving learners' writing. In addition, the present study revealed that there are significant differences between the effects of direct and coded written corrective feedback modes on learners'

grammatical accuracy, but Frantzen (1995) found no significant difference among the corrective feedback modes. Similarly, Truscott (1996) and Polio *et al.* (1998) concluded that written corrective feedback is not effective for learners. Such results are in contrast with the present study, especially when it comes to the effect of corrective feedback modes on lexical accuracy. In fact, this study indicated that all three feedbacks modes studied here are significantly better than the control group receiving no corrective feedback.

One of the possible reasons for such differences may be partially attributable to the different linguistic background and cultural preferences of the participants in this study in comparison to other studies. It might be argued that because of the linguistic distance between the native language of the learners and the target language, and probably due to social distance, coupled with the fact that satellite is forbidden in Iran, Iranian learners of English lack a strong intuitive (acquired) knowledge of English. That is why giving them opportunities to self correct by giving coded or uncoded corrective feedback may not be very helpful. And checking dictionaries, grammar books, or other reference books to correct every single mistake could prove to be rather laborious and tiresome. As a result, they might practically learn better if ready-made corrections are provided by the teacher.

Interestingly, this could possibly also explain the discrepancy between the learners' preferences and the empirically obtained results. Most learners prefer to receive indirect (underline and describe) feedback, reflecting both an intuitive resistance to be told everything and a natural inclination to be involved in learning and relying on one's own resources. In other words, learners naturally want to be involved in learning and prefer some sort of discovery learning during which they are provided with opportunities to solve their problems. On the other hand, due to the above-mentioned factors, it is practically more economical and efficient for the teachers to directly correct learners' writing errors.

These findings could also be related to the socio-cultural context of learning. Depending on how democratic the classroom context is (which is a function of the larger social context), there could be varying degrees of resistance to what is delivered to students by the teacher. In more authoritarian contexts, students may be used to (or find it easier) to accept whatever the teacher tells them. Direct corrective feedback will be more useful for such learners than those who learn in more socio-culturally open contexts in which they might have a greater role in everything including learning.

Another possible reason could be the differences in the proficiency level of the participants. The participants of the present study were sophomore learners of English, corresponding roughly to lower-intermediate level of proficiency. There is intuitive support for the claim that learners' level of proficiency may influence the degree of their dependence on the teacher. So, the lower the proficiency level of the learners, the greater their need to be supported by the teacher even if they feel they like to be independent. This might explain why learners performed best when they received direct feedback despite the fact that they preferred to be only partially supported. In much the same vein, the degree of learner autonomy encouraged and supported by the teacher and educational system can influence the effectiveness of various feedback modes on students' learning. The more autonomous learners may tend to prefer or benefit more from indirect types of feedback whereas the less autonomous learners may have to rely on direct feedback.

In addition, one reason why the learners had the lowest scores in the indirect feedback groups (coded and uncoded), could have been their misunderstanding of their teachers' comments and codes. Studies conducted by Hyland and Hyland (2001), and Hyland (2003) revealed that indirectness of the corrective feedback modes could lead to misinterpretation and incomprehension.

8. CONCLUSION

Based on the findings of the present study, it can be concluded that Iranian learners do prefer to receive written corrective feedback in order to identify their errors, and to improve their grammatical and lexical writing accuracy. At the same time, the analysis of the data suggests that various modes of corrective feedback apparently have varying effects on the learners' lexical and

grammatical writing accuracy. Regarding grammatical writing accuracy, it can be concluded that direct corrective feedback was the most effective on the participants' performance, whereas the control condition, in which the participants did not receive any corrective feedback, was shown to be the least conducive. With regard to lexical writing accuracy, uncoded corrective feedback seemed to be the most effective followed closely by direct corrective feedback. The control condition was again the worst.

The findings of this study also suggest that although there might be a degree of mismatch between learners' perceived effect and the actual effect of the various modes of corrective feedback on grammatical and lexical writing accuracy, the kind of feedback teachers give to learners' writing does influence the learners' lexical and grammatical writing accuracy. For this reason, the findings of this study can have implications for language teaching and testing. Based on the information that teachers get from the learners, they can take important and influential steps toward improving the learning-teaching conditions in their classrooms. Moreover, by taking the learners' points of view into consideration, a learner-centered approach can be encouraged and learners may improve their writing. Teachers can also give an appropriate mode of feedback to each individual learner if they know how each learner prefers to be treated. This, of course, requires the individualization of the writing classes, which may not be an easy task.

The awareness of the effectiveness of written corrective feedback on learners' writing accuracy can also have implications for language assessment. The knowledge of how various feedback modes influence learners' writing accuracy can help teachers make more informed decisions as to how to provide feedback and how to assess learners' writing. The washback effect of error treatment methods will, in turn, influence learners' writing process.

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APPENDIX A: Codes for the coded corrective feedback group


Here is a list of the symbols and codes used for the coded written feedback group:

@: Start a new paragraph with indentation

Cap.: Error in capitalization


P.: Error in punctuation

V.: Error in verb form and tense (*they hided themselves;* when I called, he has left)

: Change the word order

Vocab.: Wrong choice of word (remind for remember)

Form: wrong word form (efficient for efficiency)

 Missing letter or word

Gr.: Grammar error (*he have gone; *I am agree with you; *they married with each other)

SB: Problem with sentence boundary: fragment (“Because it was raining.”)

SS: Error in sentence structure (“He wants that I go.”)

SP: spelling mistake

Appendix B: Preference Questionnaire

Dear students we would like to know your views about how your writing in English should be corrected in your classroom. Please answer the questions honestly and rest assured all information you provide here will be treated in the strictest confidence. Thank you so much for your valuable time.

1. Which one of the following ways of feedback do you like most?
 - a. Correction
 - b. Underline and describe
 - c. Describe
 - d. Underline
2. Which one of the following **ways** do you like best?
 - a. My teacher makes a list of **common errors** of all students and puts them on the board each session to be discussed by the class.
 - b. My teacher puts **each individual student’s error** on the board to be discussed by the class.
 - c. My teacher makes **a list of common errors** of all students and gives it to **each student** to comment on.
 - d. My teacher corrects **each students paper** and gives it back to **that student** for revision.
3. Which way helped you most to progress in **grammatical** writing accuracy?
 - a. Correction
 - b. Underline and describe
 - c. Describe
 - d. Underline
4. Which way helped you most to progress in **lexical** writing accuracy?
 - a. Correction
 - b. Underline and describe
 - c. Describe
 - d. Underline