

# Effectiveness of Direct and Indirect Corrective Feedback on Iranian EFL Learners' Accuracy and Retention of Conditional Sentences Types I, II & III

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**Abstract**—Corrective feedback and the way of delivering play an important part in learning English in an EFL context. This study aimed at investigating the extent to which different types of feedback on EFL learners' grammatical errors would affect the level of their grammatical accuracy and retention of the structure of conditional sentences (Types I, II, III). 90 intermediate English female students in an EFL context were selected in an English language institute. This population was randomly divided into two experimental groups, one of which received indirect uncoded correction feedback and the other one indirect coded correction and the third group, control group, received direct error correction feedback. In conducting a quasi-experimental design, the present study was designed to investigate the effectiveness of three error correction strategies (Direct, Indirect coded and Indirect uncoded) through pre-test, post-test and Delayed post-test in a time span of 10 weeks. The results obtained by One Way ANOVA indicated that the students who were exposed to indirect coded correction feedback outperformed the students who were provided with direct correction feedback or indirect uncoded feedback. In addition, the findings in delayed post-test also showed that there were significant differences between the performance of the participants who were subject to indirect coded and direct error correction strategies.

**Index Terms**—corrective feedback, error correction, direct feedback, indirect coded feedback, indirect uncoded feedback

## I. INTRODUCTION

Hendrickson (1978) believes that making errors is a necessary and natural process of language learning. Inevitably, learner errors and feedback towards errors have been of great interest to language teachers and researchers. Some researchers (Semke, 1984; Sheppard, 1992; Truscott, 2007, 1996, 1999; Kepner, 1991) do not agree with error correction and consider it harmful for the learning process but some others (Ferris, 1999, 2003, 2004; Lee, 1997, 2004; Rahimi, 2009) believe that error correction is useful and students' errors must be corrected for better learning. Explicit correction has been found to be inconsistent, unclear and overemphasizes the negative answers (Cohen & Cavalcanti, 1990; Fregeau, 1999). A lot of students do not record the mistakes noted in the feedback. Copying teacher corrections into rewrites is a passive action that does not teach students how to recognize or correct errors on their own. Fregeau (1999) discovered that the method of indicating the presence of errors without correction is also ineffective. But there are effective points to some of the common methods of teacher feedback. Fathman and Walley (1990) found that students' grammar scores improved when learners received grammar feedback that indicated the place but not type of the errors. It should be noted that researchers agree that the feedback type which indicates to learners whether an answer is correct or incorrect helps them to improve their learning; therefore, the teachers should try to provide learners with various kinds of feedback strategies to help them understand the steps of the correct problem-solving techniques. All of the researchers agreed on that doing more researches in this area for better knowing is necessary. In this study, two kinds of indirect CF, coded and uncoded corrective feedback, will be examined with two groups of students and direct corrective feedback will be provided for control group to see which method of correction can result in a better gain in

scores in accuracy of conditional types in comparison with pre-test scores.

## II. REVIEW OF RELATED STUDIES

There is some research evidence in favor of indirect error feedback in enhancing students' accuracy and long-term retention in comparison with direct error feedback (Ferris, 2003; Frantzen, 1995). Chandler (2003), for example, studied the impact of direct and indirect error feedback on two ESL undergraduate groups for a 14-week semester. The results indicated that students who received indirect error feedback and were required to self-edit themselves gained more accuracy than those who were provided with direct error feedback. In a similar study, Lalande (1982) compared a group of learners with direct feedback treatment with another group that received indirect coded feedback over a semester. Results revealed that the coded error feedback group was more accurate in writing by the end of the treatment. Studies that made use of coded and uncoded feedback (Greenslade & Felix Brasdefer 2006) showed that coded feedback led to more improvement in students' writing compared to uncoded feedback. Even though the type of writing and methodology differed in the above mentioned studies, the findings are similar. These studies are however short-term ones, and so they say nothing about whether the same results would apply in the long term. The studies that follow were done in the long term and are those that reveal that feedback showed positive results. Lalande (1982) carried out a study amongst 60 intermediate students for one semester. The study made use of a pretest essay and two draft essays. Two treatments were used and these were direct and indirect feedback. The direct group had their errors corrected directly and rewrote their work while the indirect group had correction codes, rewrote their work and had an error awareness sheet. The study found that the students who received indirect correction made significantly fewer errors compared to the direct correction. Guenette (2007) criticizes Lalande's pretest results that showed significant differences in the students' writing abilities in that it is not clear how these results were arrived at. Lalande 'study also lacked a true control group that did not receive any feedback at all. This could have made comparison easier as to whether some feedback was superior to no feedback. In this study the control group received direct error correction since this is the most commonly adopted strategy in Iranian ELT practices. Aliakbari and Toni (2009) implemented a study that was similar to this study in choosing their experimental groups and also control group in which that the two experimental groups received indirect coded and uncoded CF and the control group received direct CF. The study was conducted through a pre-test, post-test design and didn't include delayed post-test. The findings of the study by Aliakbari and Toni like this study revealed that the participants who were exposed to indirect coded feedback achieved better gains in comparison with the students who were exposed to direct feedback or indirect uncoded or feedback. A number of studies show that indirect feedback results in either greater or similar levels of accuracy over time (Ferris et al., 2000; Frantzen, 1995; Lalande, 1982; Lee, 1997; Robb et al., 1986). However, some of these studies failed to include control groups and some of them could not find any significant differences between the treatment conditions. Regardless of the possible impact of latent and non-controlled variables, it can be argued that the findings of these studies support the often-made observation that different types of error correction help students improve their accuracy in writing (Ashwell, 2000; Chandler, 2003) even though some research findings claim the opposite (Kepner, 1991; Truscott, 1996).

## III. METHODOLOGY

### A. Design

This study, assuming a quasi-experimental design of pre-test, post-test, was intended to investigate the development of accuracy in the use of conditional sentences types I, II and III through repeated measures. Based on pretest performance, three groups were determined, i.e. two experimental groups and one control group. The first experimental group was provided with an indirect coded feedback by the instructor. The second experimental group, on the other hand, was provided with indirect uncoded feedback. Finally, the control group received direct feedback on their grammatical errors simply because the most common form error correction strategy in Iranian ELT classes is direct. Therefore, the instructor managed to provide the correct form of the errors the students committed directly.

### B. Participants

This study was conducted with 90 intermediate English students. The subjects had already passed *Connect One*, a four-skill American English course, and had an almost equal command of grammar knowledge. The participants were almost the same age ranging from 14 to 16. Based on their pretest scores, the intended participants were divided into three homogeneous groups, that is two experimental groups and one control group.

### C. Instrumentation

For this study, the target grammatical structure was conditional sentences types I, II and III. A pre-test and a post-test each included 30 items of different forms such as multiple question, blank space, complete answer, etc. were designed to investigate the effects of corrective feedback on level of accuracy of the use of conditional sentence types among the three groups in two stages of the study.

### D. Procedure

The first two weeks, time allotted to introducing Conditional sentences (Types I, II and III) then a pre-test was

administered to obtain the students' level of knowledge of the structure of conditional types before they received grammar correction feedback as treatment. Three groups were determined, i.e. two experimental groups and one control group. Based on the pre-test and also for having homogenous groups, 90 out of 100 students were chosen. The subjects had passed Connect One, a four-skill American English course and had the same level of grammar knowledge. The subjects in the first experimental group received an indirect coded error correction by the instructor. Some codes were introduced for the students and based on those codes, their papers were corrected. For the second experimental group, the error correction strategy was indirect uncoded feedback. The applied procedure for this group was that the instructor just put a mark (×) next to the sentence indicating that there was an error in the sentence without mentioning which item was incorrect and where exactly it was. As it was already mentioned, in line with the common practice in Iranian EFL classes, the control group received a direct feedback on their grammatical errors. The students in each group wrote some sentences in conditional sentences and handed them out to the teacher at the end of the class. The next session, the teacher returned their papers with indicating and/or correcting the errors based on the technique appropriate to each group. After seven sessions of treatment which continued for seven weeks, a post-test was run to determine the extent of subjects' post-treatment accuracy in grammar. Finally, two weeks after conducting post-test, a delayed post-test was administered to identify the groups with the highest rate of retention of conditional sentences. No negative scores were assigned to any of the tests and the students were, therefore, free to answer the questions. The students' final scores were counted as the number of the correct answers they provided. As such, the maximum score that each participant could gain on the test was 30. It is perhaps interesting to point out that most of the previous studies in this area examined the impact of corrective feedback on all the grammatical structures that the subjects had been exposed to, but the current study dealt with only one type of grammatical structure, namely Conditional sentences types I, II & III.

#### IV. FINDINGS

To ensure the homogeneity of the groups, after teaching the conditional types and before instruction began, the students took a pre-test so that the researchers could have a clear picture of their grammar knowledge at the beginning of the study. Table 1 presents the obtained results.

TABLE 1.  
RESULT OF PRE-TEST FOR THREE GROUPS

Groups	Number of students	Mean	Std. Deviation
Indirect Coded	30	13.3667	4.25468
Indirect uncoded	31	13.0968	4.07721
Direct	30	13.3333	3.34595

The obtained mean scores from pre-test showed that all groups were approximately homogenous. Also, analysis of variance of the data from the three groups didn't show any significant difference ( $p > 0.05$ ). After the treatments, a post-test was administered in order to investigate the effects of different types of feedback on the learners' accuracy and progress in the language. Mean scores for coded, uncoded and direct groups were respectively 19.93, 18.03, and 14.76. The following table presents the results of this test.

TABLE 2.  
RESULT OF POST-TEST FOR THREE GROUPS

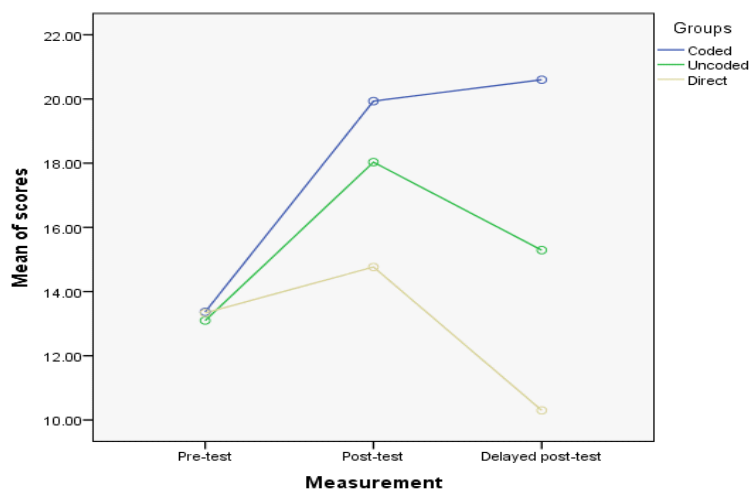
Groups	Number of students	Mean	Std. Deviation
Indirect Coded	30	19.9333	4.71924
Indirect uncoded	31	18.0323	4.15920
Direct	30	14.7667	3.66421

As Table 2 shows, the treatments resulted in a change in all the three groups' scores. The post-test showed improvement in the mean score of all the groups, so all the three methods of corrective feedback increased the level of accuracy among students. But the most effective one in this stage was indirect coded corrective feedback ( $p < 0.0001$ ). Based on Post Hoc test (**Scheffe**), the observed difference between Direct and Coded groups and also between Direct and Uncoded groups was significant ( $p < 0.0001$ ), but the difference between Coded and Uncoded groups was not significant statistically. The mean scores showed that indirect coded group outperformed the other groups but all the groups showed increase in their scores in comparison with their mean scores in pre-test.

For obtaining the level of conditional types' retention, a Delayed post-test was designed and the result is shown in Table 3. The indirect uncoded group outperformed the other two groups.

TABLE 2.  
RESULT OF DELAYED POST-TEST FOR THREE GROUPS

Groups	Number of students	Mean	Std. Deviation
Indirect Coded	30	20.6000	3.03542
Indirect uncoded	31	15.2903	3.42728
Direct	30	10.3000	3.31298



Based on the findings, direct CF and indirect uncoded CF groups showed a decline in their mean scores at delayed post-test. As Fig.4.1 indicates, indirect coded CF group had significantly higher performance average than the other two groups in both post-test and delayed post-test. Therefore, it can be argued that among the error correction techniques, the indirect coded feedback is more likely to positively affect learners' performance in grammatical accuracy. One possible reason for the greater effect of indirect coded feedback might be attributed to level of involvement of the learners in the process of practicing and learning grammatical points under the study. They were required to think about their errors and guess the correct answers by themselves or through guidance of others such as friends or parents. This searching for correct answer process tends to stick the information in their minds even for a long time. Accordingly, it is recommended for English teachers to get familiar with and adopt and employ this strategy in error correction with EFL learners.

## V. DISCUSSIONS AND CONCLUSION

This study aimed at determining the impact of employing direct and indirect corrective feedback on accuracy and retention of structure of conditional sentences (Types I, II & III) with EFL learners. In fact, the study purported to answer the following questions:

1. Do indirect (coded / uncoded) grammar correction strategies leave better impact on learners' grammatical accuracy than direct correction?
2. Do indirect (coded / uncoded) grammar correction strategies result in better retention of grammatical accuracy than direct correction?

Regarding the first research question, the results showed that indirect coded grammar correction strategy group performed better than the other two groups in post-test and also delayed post-test by attention to their level of accuracy based on gained scores. Although the post-test revealed progress in the mean score of all groups, the most effective one in this stage was indirect coded corrective feedback ( $p < 0.0001$ ). The results for the second research question revealed that the rate of retention measured by delayed post-test was also high for the indirect coded correction group in comparison to the other groups. The difference between coded and uncoded groups and also between coded and direct groups was significant because the obtained value is lower than the acceptable value ( $p < 0.05$ ).

Despite the shortcomings associated with small-scale studies like this, the findings encourage us to suggest that both coded and uncoded error correction strategies are likely to improve learners' knowledge to figure out and correct their grammatical errors, and also make correct forms in subsequent pieces of writing. Coded correction appear to be more helpful and successful at this and it could be due to learners involving in problem solving which caused long time retention of the target structures or information. If learners pay more attention to their errors and find the correct answers by studying or taking a look at their notes, then retention of thought materials can be reached. However, the process of getting familiar of the correct forms is non-linear, and factors such as teaching input, natural orders of acquisition and individual differences can be effective.

## VI. PEDAGOGICAL IMPLICATIONS OF THE STUDY

The purpose of this study was to examine the effect of indirect/direct error feedback on students' performance with regard to accuracy and retention of conditional sentence types. The results showed that the traditional methods of error correction such as Direct one can be replaced by the methods that challenged the learners' minds and not only dealing with passive note-taker learners that most of them didn't care about their learning. Self-correction approach would enable students to make guesses the target language, and would help them retain the acquired knowledge in their long-

term memory. Direct method of correction does not usually result in long-term learning since students forget the grammatical rules after the examination.

It is hoped that a lot of problems related to the area of grammar in TEFL, as it is a kind of issue for Iranian students, can be solved by doing more researches in the early future. The beneficial role of Corrective Feedback cannot be ignored since it encourages language learners to identify their errors and bridge gap between their error forms and the standard forms. Therefore, English teachers should be aware of the potentials of the different types of corrective feedback, employ them appropriately, and take advantage of the benefits of these strategies in enhancing the learners' language knowledge.

Additionally, the results of this study can be practical in using Correction Feedback, specially the one which encourage learners to problem solving and thinking and not traditional way of Direct error correction that unfortunately a lot of teachers use this old and ineffective way of correction and don't allow students to be responsible and autonomous for their learning. So, it's the time for changing our point of view toward effective methods of error correction in teaching and learning English.

#### VII. LIMITATION OF THE STUDY

Like any other research, the present study was not without any limitation. The main limitation of this study among others was its scope which dealt only a few of the techniques of CF, namely direct and indirect (coded & uncoded) corrective feedback. Another major limitation of the study was that it only investigated the impact of these CF techniques on the accuracy of use and retention of a limited number of grammatical structures, that is conditional sentences types I, II, III. This study investigated effect of the utilization of some corrective feedback techniques on the use and retention of conditional types in students' writing; the findings, therefore, could not be generalized to the use of these structures in other language skills such as reading, listening and speaking. In addition, because of some other problems like small-sized classrooms with more than 35 students, there was a possibility of cheating among students. This issue was beyond the control of the researcher and could perhaps affect the findings of the study.

#### VIII. SUGGESTIONS FOR FURTHER RESEARCH

Some suggestions for further study are as follows:

1- The present study explored the impact of coded and uncoded corrective feedback on the rate of accuracy and retention of conditional sentences. Further research can be done to examine the effect of these corrective feedback techniques on other grammar structures.

2- The participants of this study included only intermediate learners. Subsequent research can be done with learners of different proficiency levels.

#### REFERENCES

- [1] Aliakbari, M., & Toni, A. (2009). On the effects of error correction strategies on the grammatical accuracy of the Iranian English learners. *Journal of Pan-Pacific Association of Applied Linguistics*, 13(1), 99-112.
- [2] Ashwell, T. (2000). Patterns of teachers' response to student writing in a multiple-draft composition classroom: Is content feedback followed by form feedback the best method? *Journal of Second Language Writing* 9, 227-258.
- [3] Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in accuracy and fluency in L2 student writing. *Journal of Second Language Writing* 12, 267-296.
- [4] Cohen, A. D., & Cavalcanti, M. C. (1990). Feedback on compositions: Teacher and student verbal reports. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 155-177). Cambridge: Cambridge University Press.
- [5] Fathman, A. K. and Whalley, E. (1990). Teacher response to student writing: Focus on form versus focus on content. In B. Kroll (ed.). *Second Language Writing: Research insights for the classroom*. Cambridge: Cambridge University Press, 178-190.
- [6] Ferris, D. (1999). The case of grammar correction in L2 writing classes: A response to Truscott (1996). *Journal of Second Language Writing*, 8, 1-11.
- [7] Ferris, D. (2003). Respond to student writing: implications for second language students. ahwah, NJ: Lawrence Erlbaum.
- [8] Ferris, D. (2004). The "grammar correction" debate in L2 writing: Where are we, and where do we go from here? (and what do we do in the meantime...?). *Journal of Second Language Writing*, 13, 49-62.
- [9] Ferris, D. R. & Roberts, B. (2000). Error feedback in L2 writing classes. How explicit does it need to be? *Journal of Second Language Writing* 10, 161-184.
- [10] Fratzen, D. (1995). The effect of grammar supplementation on written accuracy in an intermediate Spanish content course. *Modern Language Journal*, 79(3), 329-344.
- [11] Fregeau, L. A. (1999). Preparing ESL students for college writing: Two case studies. *The Internet TESL Journal* [On-line], 5(10)
- [12] Greenslade, T. A. & Felix-Brasdefer, J. S. (2006). Error correction and learner perceptions in L2 Spanish writing. In *Selected Proceedings of the 7th Conference on the Acquisition of Spanish and Portuguese as First and Second Languages*, Eds. C. A. Klee & T. L. Face. 185-194.
- [13] Guenette, D. (2007). Research design issues in studies of feedback on writing. *Journal of Second Language Writing* 16, 40-53.
- [14] Hendrickson, J. (1978). Error correction in foreign language teaching: Recent theory, research, and practice. *Modern Language Journal*, 62, 387-398.
- [15] Kepner, C. (1991). An experiment in the relationship of types of written feedback to the development of second language

writing skills. *Modern Language Journal*, 75, 305-313.

- [16] Lee, I. (1997). ESL learner's performance in error correction in writing: Some implications for college level teaching. *System* 25, 465-477.
- [17] Lee, I. (2004). Error correction in L2 secondary writing classrooms: The case of Hong Kong. Department of Education studies, Hong Kong Baptist University. Hong Kong, China.
- [18] Rahimi, M. (2009). The role of teacher's corrective feedback in improving Iranian EFL learners' writing accuracy over time: Is learner's mother tongue relevant? *Reading and Writing* 22.2, 219-243.
- [19] Robb, T., Ross, S., & Shortreed, I. (1986). Salience of feedback on error and its effect on EFL writing quality. *Tesol Quarterly*, 20(1), 83-96.
- [20] Semke, H. (1984). The effects of the red pen. *Foreign Language Annals*, 17, 194-202.
- [21] Sheppard, K. (1992). Two feedback types: Do they make a difference? *RELC Journal*, 23, 103-110.
- [22] Truscott, J. (1996). The case against grammar correction in writing classes. *Language Learning*, 46, 327-369.
- [23] Truscott, J. (1999). The case for "The case against grammar correction in L2 writing classes". A response to Ferris. *Journal of Second Language Writing*, 8, 111-122.
- [24] Truscott, J. (2007). The effect of error correction on learners' ability to write accurately. *Journal of second language Writing*, 16, 255-272.



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