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The effect of oral interactive feedback on the accuracy and complexity of EFL learners' writing performance: Uptake and retention

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ABSTRACT

The role of teacher-student interaction and collaboration in solving linguistic problems has recently been in the center of SLA research. Accordingly, this study investigated the effect of Oral Interactive Feedback (OIF) on the accuracy and complexity of Iranian intermediate EFL learners' writing. After ensuring the homogeneity using Preliminary English Test (PET), the researchers randomly assigned 50 sophomores into OIF group and Explicit Feedback (EF) group, with 25 students in each of them. The participants in the OIF group received oral interactive feedback, including elicitation and metalinguistic clues, on their written errors, while those in the EF group received oral explicit correction on their written errors. Data collection was based on immediate revisions of compositions and a post-test. Using ANCOVA, the researchers found that the OIF group outperformed the EF group in terms of both accuracy and complexity in both revised compositions and post-test. The findings from the study may encourage language teachers' further use of OIF, using elicitation and metalinguistic clues, in treating EFL learners' errors in written discourse.

Keywords: accuracy; complexity; elicitation; metalinguistic clues; oral interactive feedback; retention; uptake

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Introduction

The importance of corrective feedback (CF) in EFL, as well as ESL, has been highlighted in research literature; however, there has been some disagreement among EFL and ESL experts about the level of effectiveness of different types of CF.

One major issue that has obsessed the scholars' minds is how to provide students with fruitful feedback, so that it could produce a positive effect on students' writing processes and best contribute to the improvement of the overall, long-term quality of their writing (e.g., Ferris, 2004; Ferris & Roberts, 2001; Long, 1990; Lyster & Saito, 2010b; Swain, 1985).

There are many experts pointing to the positive role of interaction in second or foreign language learning; for example, Nassaji and Swain (2000) and Oliver and Mackey (2003) assert that interaction has a significant effect on interlanguage development. Inspired by the interactionist theories of language learning, Sheen (2010) regards errors as optimally treatable through the feedback which arises naturally in interaction. However, although providing feedback has been proved to be more effective than no feedback, there are different variables which mediate the effectiveness of Interactive Feedback (IF) (Lyster & Saito, 2010a).

In most EFL contexts, language learners are not proficient enough in English, particularly in writing skill. As Soori, Janfaza, and Zamani (2012) state, EFL teachers are responsible for aiding students to cope with writing problems by providing helpful feedback on their writing papers. Traditionally, in Iranian EFL context, one of the most commonly practiced error treatment techniques in writing classes has been giving Explicit Feedback (EF). Some of the prior studies have questioned the effectiveness of EF in improving students' writing (Robb, Ross, & Shortreed, 1986; Williams, 2003); furthermore, there were few studies investigating the role of OIF, especially through using elicitation and providing metalinguistic clues, on EFL learners' writing. In addition, most of these studies have investigated the effect of different types of CF on learners' uptake or immediate repair of errors (Panova & Lyster, 2002) and have not focused on retention, as well (e.g., Nassaji, 2011). Moreover, the majority of the studies have been conducted in ESL settings (e.g., Lyster & Saito, 2010b, Nassaji, 2011). Accordingly, in the present study, the researchers examined the effect of OIF, using elicitation and metalinguistic cues, in an EFL classroom to investigate writing improvement in terms of accuracy and complexity. Another objective of this study was to examine the effect of OIF on learners' writing development in terms of both uptake referring to immediate revisions of compositions after getting feedback and retention indicated by post-test.

Literature Review

During the late 1980s and the early 1990s, L2 writing started to change to an interdisciplinary field of inquiry (Matsuda, 2003). Rao (2007) states that students find composing in English difficult since the process requires utilizing various cognitive and linguistic strategies of which these students are unaware and uncertain. According to Richards and Renandya (2002), the problem exists not only in generating and organizing ideas, but also in translating these ideas into a well-written text. Being aware of this, English language teachers hope to help students write better, develop useful revision strategies, and think more systematically (Alamis, 2010). Alamis (2010) continues that responding to students' written work is a means of achieving these goals; teachers' comments are essential to a student revising and rewriting his/her composition.

The value and effectiveness of error correction in second language classroom has been questioned by some second-language acquisition theorists as well as researchers. Several empirical studies have

shown that correction does not significantly decrease the number of student errors (Hendrickson, 1978; Truscott, 1996). Theorists like Krashen (1982) asserted that correction hinders acquisition since it encourages the learners to avoid difficult structures and to focus on form (FonF) rather than on meaning, and that correction inhibits communication in the classroom. Kepner (1991) also remarked that error feedback by the teacher is not effective for developing accuracy in L2 student writing. Furthermore, Fazio (as cited in Storch, 2010) claimed that error correction not only fails to help students improve their written accuracy but also inherently damages students' writing competence. On the other hand, Truscott (1996) argued against teachers' correction of students' written errors. Truscott (1996), claiming that grammar correction is ineffective and harmful and therefore should be abandoned, held a strong view against grammar correction. He further stated that although most L2 students like grammar correction, teachers should not provide it for them since it is discouraging for many students.

On the other hand, some researchers provided empirical evidence supporting the positive effects of error feedback. For instance, Edmondson (1985) claimed that helping learners notice the errors plays an important role in consciousness-raising, which can lead to language acquisition. Furthermore, Long (1990) stated that Corrective Feedback (CF) can promote learning a second language. Ferris (2004) argued that Truscott did not consider some positive research evidence on the effects of grammar correction; he stated that error treatment is an essential component of L2 writing instruction. In the same vein, Ferris (2004) concluded that it was necessary for teachers to correct students' errors, because it had a motivating effect on the students.

One of the decisive factors promoting the efficacy of CF is interaction (Long, 1996, 2007; Lyster, 2004; Mackey, Oliver, & Leeman, 2003; Nassaji, 2007). Long's (1996) Interaction Hypothesis (IH) highlights the role of negotiated interaction in language development. He believes that CF which takes place during negotiation for meaning provides learners with a chance to attend to linguistic forms.

Additionally, "theories of communicative competence emphasize the significance of interaction as human beings use language in various contexts to negotiate meaning to get one idea out of your head and into the head of another person and vice versa" (Brown, 1994, p. 159). According to Ellis (1990), interaction is meaning-focused and is carried out to facilitate the exchange of information and prevent communication breakdowns.

In the field of SLA, substantial theoretical and empirical attention has been given to the significance of negotiation and its impacts on the development of interlanguage (Long, 1996; Lyster & Ranta, 1997; Oliver & Mackey, 2003). According to Lyster and Mori (as cited in Lyster & Saito, 2010b), "teacher-student interaction has a clearly pedagogical focus that relates not only to meaning but also to formal accuracy, quality of expression, and literacy development" (p. 278). According to Van Lier (as cited in Rivera, 2010), communicative language teaching as well as the theories of learning that highlight the social essence of first and second language acquisition have emphasized the prominence of student-student interaction for developing EFL proficiency. Nowadays, it is generally believed that it is possible for the learners to learn from and among themselves. Hence, various ways in which they have the opportunity to interact meaningfully have come to be preferred in classrooms (Rivera, 2010).

Corrective Feedback and its Facilitative Role in L2 Development

CF attempts to deal with linguistic errors. It constitutes an attempt to supply negative evidence (Lyster, 1998). Lightbown and Spada (1999) define CF as follows: "Any indication to the learners that their use of the target language is incorrect; this includes various responses that the learners

receive” (pp. 171-172). According to Lyster and Ranta (1997), major kinds of CF include: 1) Explicit correction (the teacher explicitly provides the correct form), 2) Recasts (the teacher implicitly reformulates the student’s error), 3) Clarification requests (showing the students that their utterance has been misunderstood by the teacher and they should reformulate their utterance), 4) Metalinguistic feedback (showing that there is an error somewhere using implicit comments, information, or questions related to the

well-formedness of the student’s utterance), 5) Elicitation (techniques that teachers use to elicit the correct form from the students such as: a) teachers elicit completion of their own utterance (e.g., ‘it’s a . . .’), b) teachers use questions to elicit correct forms (e.g., ‘how do we say X in Farsi?’), c) sometimes teachers ask students to reformulate their utterance), and 6) Repetition (the teacher repeats the student’s utterance that contains error(s)).

To date, there have been numerous studies which have pointed to the effectiveness of CF in the process of second and foreign language learning (e.g., Ferris & Roberts, 2001; Lyster & Saito, 2010b; Swain, 1985). Swain’s (1985) study indicated that students can learn better when their errors are treated through explicit or implicit feedback. Ferris and Roberts (2001) concluded that the groups who received feedback outperformed the no-feedback group on the self-editing task. As stated by Lyster and Saito (2010b), a large number of SLA studies indicate that CF has a significant role in L2 learners’ interlanguage development (Bitchener, Young, & Cameron, 2005; Ferris, 2004; Hyland, 2003; Lightbown & Spada, 1990, 1999; Long, 1990). The results of their study showed that, regardless of instructional settings, CF was facilitative of L2 development.

Interactive Feedback (IF) and Language Learning

Vygotskian sociocultural theory of L2 learning refers to the role of teacher-student interaction and collaboration in solving linguistic problems (Mitchell & Myles, 2004). According to Ellis (1994), with the focus on process in the path of language acquisition, it is believed that language emerges through interaction and negotiation of meaning. He defined interaction as when the participants of equal status sharing similar needs make an effort to understand each other. In the same vein, since 1990s, substantial attention has been paid to IF in SLA research (e.g., Long, 1996, 2007; Lyster, 2004; Mackey, Oliver, & Leeman, 2003; Nassaji, 2007). It is extensively believed that IF leads to L2 development (Long, 1996; Lyster, 2004; Swain, 1985). For example, Tsang (2004) maintained that most grammatical repairs are the result of negotiation and that negotiation facilitates grammatical repairs. As the results of the meta-analysis of 28 interaction studies (including 20 oral CF studies) reported by Mackey and Goo (as cited in Lyster & Saito, 2010b) revealed, providing CF in L2 interaction is very effective.

Long (as cited in Tuan & Nhu, 2010) stated that in order for language acquisition to take place, learners should be provided with enough opportunities to negotiate meaning to avoid a communicative breakdown. Long further mentioned that using negotiation, learners receive feedback from interlocutors on their language output in the forms of conversational adjustments; such feedback serves as an indication for learners to modify their production. Accordingly, as Fotos and Nassaji (2007) stated, the role of negotiation and its impacts on the development of interlanguage have received noticeable theoretical attention in the field of SLA.

In a study on the effects of negotiated interaction on EFL learners’ spoken production, Li (2012), focusing on the teacher-learner interaction in a story-telling task, found that interaction had a facilitating role in language development for learners and the quantitative analysis of the data showed that the learners’ language accuracy and fluency improved considerably.

Investigating the effectiveness of negotiation on learners' written errors, Nassaji (2007) concluded that negotiated feedback was more successful than non-negotiated feedback in assisting students to recognize and correct their L2 writing errors. He further concluded that unidirectional feedback was comparatively less effective than negotiated feedback in promoting L2 accuracy in learners' written performance, and that the effectiveness of feedback increased when the learners participated and became engaged in the feedback process. In another study, Nassaji (2011), examining the short-term effects of negotiated feedback on intermediate ESL learners' written errors, concluded that oral feedback with negotiation had significant effects on learners' written accuracy.

It is agreed that IF (provided by either a peer or the tutor), including negotiation and recasts, can promote L2 writing skill development (Lynch, as cited in Motalebzadeh & Amirabadi, 2011). Chuang (2009) noted that student-student interaction and student-teacher conference had a significant effect on improving learners' writing accuracy and could facilitate language learning. Similarly, Nassaji (2011) emphasized the significant role of negotiated feedback in addressing L2 written errors.

One of the effective means of implementing IF in the classroom is conferencing. As Ferris (2002) mentioned, although no considerable empirical studies have compared which feedback mode (written or oral) works better, various writing teachers consider one-on-one teacher-student conferences to be more successful than written CF because they provide opportunities for students to ask questions and for teachers to explain and teach once corrections are made clear. One study by Bitchener, Young, and Cameron (2005) contrasted written feedback with dual-mode written and individual conferencing for grammatical accuracy on writing. They discovered that the combination of written and face-to-face conference feedback was considerably more successful than mere written comments in enhancing the accuracy of simple past tense and definite article.

As the research literature indicates, the role of CF in second language classroom has been one of the major concerns in interlanguage development. While its effectiveness has been questioned by some second language acquisition theorists as well as researchers, some other researchers have refuted their claims and provided empirical evidence supporting the positive effects of CF on correcting errors. Under the influence of interactionist theories of language learning, the role of interaction and, subsequently, negotiation of meaning have been considered as two important features of IF affecting L2 development. In order to investigate the effectiveness of OIF on improving EFL learners' accuracy and complexity of writing, the researchers asked the relevant research questions.

Research Questions

The purpose of this study was to investigate the effect of OIF on Iranian EFL learners' written accuracy and complexity in immediate repair of errors on revised compositions, indicating uptake, and on the post-test, indicating retention, using elicitation and metalinguistic clues. To this end, the following research questions were put forth:

1. Is there a significant difference between the accuracy of the writing in the OIF group and EF group in terms of uptake measured through the revised compositions?
2. Is there a significant difference between the accuracy of the writing in the OIF group and EF group in terms of retention measured through the post-test?

3. Is there a significant difference between the complexity of the writing in the OIF group and EF group in terms of uptake measured through the revised compositions?
4. Is there a significant difference between the complexity of the writing in the OIF group and EF group in terms of retention measured through the post-test?

Method

Design

This study used a quasi-experimental design, with pre-test, post-test, control, and experimental groups. OIF, including elicitation and metalinguistic clues, was the independent variable. The accuracy and complexity of participants' writing were the dependent variables, which were measured in terms of uptake, based on revised compositions, and retention, based on the post-test.

Participants

The initial sample consisted of 68 male and female intermediate EFL learners studying English at Islamic Azad University, Tabriz Branch. They were sophomore students in two writing classes (Writing 2) at B.A. level. Their age range was 19-30. Fifty students (25 students in each class) whose proficiency scores, based on Preliminary English Test (PET) test, fell between 2 Standard Deviations (SD) above and below the Mean were selected for the study. To ensure their homogeneity, the researchers ran an independent samples t-test, the results of which indicated that there was no significant difference between the two groups in terms of language proficiency. Then, they were randomly assigned to OIF group and EF group.

Instruments

One of the instruments used in this study was a standard proficiency test, Preliminary English Test (PET), which was administered to ascertain the English proficiency level of the participants in both groups. PET is a second level Cambridge English for Speakers of Other Languages (ESOL) exam for the intermediate level English learners. The first section of the test was a test of reading including 5 parts and 35 items. The second section was a writing test consisting of 3 parts with 8 questions; part 1 was a grammar transformation task; in part 2 the candidates were required to write a short informal letter (about 35-45 words); and in part 3, they were required to write a story or an informal letter of about 100 words. And the third section was a listening test including 4 parts with 25 items. The total score for the mentioned three sections was 85. The speaking section was not administered because of practicality problems.

The topics for the pre-test and post-test and writing tasks were chosen from students' course books, Paragraph Writing by Chaplen (1970) and Refining Composition Skills: Rhetoric and Grammar by Smalley, Ruetten, and Rishel Kozyrev (2001). The decision on the choice of the textbooks was made by the teacher of the writing course, which is based on the regular educational system and syllabus of the university. The following topics were suggested for the pre-test and the post-test, respectively: *Write about a true event that has become a turning point in your life; write about something wrong you did in the past which changed your life.* And the writing tasks, for which students received feedback to revise accordingly, included the following topics: *Write a memory from your childhood; write about your best or worst day during the week.*

Procedure

The study consisted of 11 sessions, including instruction, proficiency test administration, and pre- and post-tests. The sessions were held once a week and each session lasted for 90 minutes.

The participants' compositions were rated by two raters. The first rater was one of the researchers and the second rater was an experienced EFL teacher who was an M.A. graduate in TEFL. In order to ensure the inter-rater reliability between the two raters, the researchers employed the Pearson Correlation test, the results of which indicated that there was a high positive relationship between the scores given by Rater 1 and Rater 2 in pre-test, post-test, first draft of writing tasks, and their revisions, based on the given feedback, for the control and experimental groups. The results of the correlation test for the accuracy were .99 and .98 in the pre-test, and post-test, respectively. The results of the correlation test for the accuracy were .94 for the first draft of writing tasks and their revised versions. The results of the correlation test for the complexity was .99 for the pre-test, post-test, first draft of writing tasks, and their revised versions.

The required data for the present study were collected according to the following procedure: Firstly, in Session 1, the proficiency test was administered. Based on its results, 50 learners whose proficiency scores fell between 2 SD above and below the Mean (25 students in each class) were selected for the study and an Independent-samples t-test was run to test the homogeneity of their scores. The classes were randomly assigned to two groups, termed OIF and EF.

In Session 2, during 90 minutes, the participants in both OIF and EF groups wrote a past narration composition as pre-test. Sessions 3 and 4 were devoted to instructing paragraph writing, identifying and writing a topic sentence and narrowing it down, explaining some general rules of composition writing, and genre based writing. It is worth mentioning that these two sessions were not exclusively devoted to narrative writing since the explanation was useful for descriptive writing, which was part of the syllabus to be covered, as well. Narrative writing was the focus of this study.

The treatment started in Session 5 and continued to Session 10. Sessions 5, 6, and 7 included reading composition (past narration), getting feedback, and immediately revising the compositions based on the received feedback. Sessions 8, 9, and 10, similarly, followed the same procedure for present narration. All the students were involved in this process; in each session, eight participants in both control and experimental groups had a chance to read compositions aloud to get feedback and revise accordingly, afterwards. Thus, during three sessions, all 25 participants in both groups could read their compositions and received feedback. The learners received OIF in the experimental group (i.e., the OIF was provided through interaction and discussion among the students and the teacher, using elicitation and metalinguistic clues); however, in EF group, the students were provided just with explicit correction on the part of the teacher, with no discussion or interaction in the class (see Appendix A). In both groups, feedback was provided on the learners' grammatical and lexical errors (mainly, verb tenses, parts of speech, prepositions, articles, and clauses such as, noun clauses, adjective clauses, and relative clauses).

After a six session treatment, in Session 11, the students had their post-test in which they were supposed to write a past narration composition similar to their pre-test (to measure retention).

In order to calculate the accuracy and complexity, first, the data were coded for T-Units. According to Bygate (as cited in Birjandi & Ahangari, 2008), a T-Unit is defined as "a finite clause together with any subordinate clauses dependent on it" (p. 37). Accordingly, complexity was measured in terms of the incidence of words per T-Unit: The higher the number, the more complex the language. For counting the words, only content words (nouns, verbs, adjectives, and adverbs) were

considered. On the other hand, accuracy was measured by calculating the number of errors per T-Unit: The higher the number, the less accurate the language (Bygate, as cited in Birjandi & Ahangari, 2008) (see Appendix B for accuracy and complexity measurement). Furthermore, to ensure the reliability of the obtained scores, 40% of the whole compositions were rated by a second rater and a high degree of correlation was obtained after using Pearson Correlation test.

Results

This section, first, describes the results of the statistical analyses on PET scores of the participants; second, the prerequisite statistical analyses; finally, statistical analyses conducted to test the hypotheses of the study.

The Language Proficiency Test (PET)

An Independent-Samples t-test was run to determine the degree of homogeneity of the participants' proficiency scores. As Table 1 shows, there was no statistically significant difference between the EF group ($M = 45.8, SD = 12.46$) and the OIF group ($M = 46.04, SD = 11.50$), $t(48) = .07, p > .05$.

Table 1

Independent samples t-test for proficiency test scores (PET)

		Levene's Test for equality of Variances			t-test for Equality of Means			
	F	Sig.	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Scores	Group1	.21	25	46.04	11.50	.07	48	.94
	Group2		25	45.80	12.46	.07	47.69	.94

Data Analysis for Null Hypothesis One

To statistically analyze the data related to the first null hypothesis, saying that there is no significant difference between the accuracy of the writing in the OIF group and EF group in terms of uptake measured through the revised compositions, the researchers used the ANCOVA, in which the pre-test was functioning as covariate. One of the pre-requisites of ANCOVA was One-sample Kolmogorov-Smirnov test, which was conducted to indicate whether the data had normal distribution or not. Regarding the ANCOVA test, Table 2 shows the descriptive statistics.

Table 2

Descriptive statistics of ANCOVA analysis on the accuracy scores of the revised compositions (uptake)

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
experimental	.26(a)	.06	.13	.39
control	1.08(a)	.06	.95	1.20

A Covariates appearing in the model are evaluated at the following values: pre-test = 1.6608.

The results of the comparison of the revised compositions based on ANCOVA statistical test indicated that there was a significant difference between the scores in the OIF group ($M = .26$, $SD = .06$) and EF group ($M = 1.08$, $SD = .06$), $F = 80.67$, $p < .05$. Thus, the first null hypothesis was rejected. The magnitude of the difference (i.e., the effect size) is .63, which indicates the effectiveness of the oral interactive feedback.

Table 3

ANCOVA analysis: Tests of between-subjects effects

Dependent variable: Accuracy scores on revised compositions

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	30.50(a)	2	15.25	147.95	.00	.86
Intercept	1.86	1	1.86	18.04	.00	.28
PRE-ERROR	20.38	1	20.38	197.69	.00	.81
GROUP	8.32	1	8.32	80.67	.00	.63
Error	4.85	47	.10			
Total	57.58	50				
Corrected Total	35.35	49				

A R Squared = .863 (Adjusted R Squared = .857)

Data Analysis for Null Hypothesis Two

In order to test the second null hypothesis (i.e., there is no significant difference between the OIF and EF groups' written accuracy on the post-test), the ANCOVA statistical analysis was used after conducting the prerequisite test of one-sample Kolmogorov-Smirnov test to know whether the data had a normal distribution or not. Table 4 shows the descriptive statistics for the ANCOVA analysis.

Table 4

Descriptive statistics of ANCOVA analysis on the accuracy scores of the post-test (retention)

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
experimental	1.34(a)	.19	.96	1.71
control	2.09(a)	.19	1.71	2.46

A Covariates appearing in the model are evaluated at the following values: pre-test = 1.8938.

The results of the comparison of the scores on the post-test indicated that there was a significant difference between the OIF group ($M = 1.34$, $SD = .19$) and EF group ($M = 2.09$, $SD = .19$), $F = 8.19$, $p < .05$ (Table 5). Thus, the second null hypothesis was rejected. The effect size is .15, indicating the effectiveness of the oral interactive feedback.

Table 5

ANCOVA analysis: Tests of between-subjects effects

Dependent variable: Accuracy scores on the post-test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	62.16(a)	2	31.08	35.93	.00	.61
Intercept	2.07	1	2.07	2.39	.13	.05
PRE-ERROR	56.23	1	56.23	65.00	.00	.58
GROUP	7.08	1	7.08	8.19	.01	.15
Error	40.65	47	.87			
Total	249.22	50				
Corrected Total	102.81	49				

A R Squared = .605 (Adjusted R Squared = .588)

Data Analysis for Null Hypothesis Three

Testing the third null hypothesis, which was about the difference between the OIF and EF groups' written complexity on the revised compositions, the researchers first used the pre-requisite test of one-sample Kolmogorov-Smirnov test, after which ANCOVA was run on the scores of the complexity in the OIF and EF groups' revised compositions (Table 6).

Table 6

Descriptive statistics of ANCOVA analysis on the complexity scores of the revised compositions (uptake)

group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
experimental	7.13(a)	.15	6.83	7.43
control	5.99(a)	.15	5.69	6.29

A Covariates appearing in the model are evaluated at the following values: pre-test complexity = 5.9094.

There is a significant difference on complexity scores between the OIF group ($M = 7.13$ and $SD = .15$) and EF group ($M = 5.99$ and $SD = .15$), $F = 28.75$, $p < .05$, as Table 7 indicates. Thus, the third null hypothesis was rejected. The magnitude of the difference, the effect size, is .38. This amount of effect size can refer to the efficacy of OIF.

Table 7

ANCOVA analysis of between-subjects effects

Dependent variable: Complexity scores on revised compositions

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	118.81(a)	2	59.41	106.65	.00	.82
Intercept	2.97	1	2.97	5.32	.03	.10
PRE-COMPL	112.22	1	112.22	201.47	.00	.81
GROUP	16.02	1	16.02	28.75	.00	.38
Error	26.18	47	.56			
Total	2295.23	50				
Corrected Total	144.99	49				

A R Squared = .819 (Adjusted R Squared = .812)

Data Analysis for Null Hypothesis Four

The fourth null hypothesis, stating that there is no significant difference between the OIF and EF groups' written complexity on the post-test, required another ANCOVA analysis. After running one-sample Kolmogorov-Smirnov test on the complexity scores of the post-test in the OIF and

EF groups, the ANCOVA test was conducted. Table 8 shows the descriptive statistics of the analysis.

Table 8

Descriptive statistics of ANCOVA analysis on the complexity scores of the post-test (retention)

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
experimental	9.41(a)	.57	8.26	10.56
control	7.76(a)	.57	6.62	8.91

A Covariates appearing in the model are evaluated at the following values: pre-test complexity = 8.1170.

The Mean and SD of the participants' scores on the post-test in the OIF group ($M = 9.41$ and $SD = .57$) and EF group ($M = 7.76$ and $SD = .57$) with $F = 4.17$, $p < .05$ indicate a significant difference between the groups in terms of complexity scores (Table 9). Thus, the fourth null hypothesis was rejected. The effect size is .08, indicating the effectiveness of OIF.

Table 9

ANCOVA analysis or tests of between-subjects effects

Dependent variable: Complexity scores on the post-test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	67.46(a)	2	33.73	4.17	.02	.15
Intercept	88.26	1	88.26	10.91	.00	.19
PRE-COMPL	38.29	1	38.29	4.73	.04	.09
GROUP	33.75	1	33.75	4.17	.04	.08
Error	380.34	47	8.09			
Total	4133.94	50				
Corrected Total	447.80	49				

A R Squared = .151 (Adjusted R Squared = .115)

Discussion

The results of the study, regarding the first research question, revealed that the participants' written accuracy in revised compositions was significantly affected by OIF. This finding is in line with the findings of the study conducted by Nassaji (2011), who explored the role of oral negotiation in response to written errors in L2 classrooms. In his study, three types of feedback were compared: non-negotiated direct reformulation, feedback with limited negotiation (i.e., prompt + reformulation) and feedback with negotiation. The results of his study revealed that oral feedback with negotiation had significant effects on learners' accuracy. Similarly, Lyster (1998) concluded that negotiation of form including elicitation, metalinguistic clues, clarification requests, or repetition of error led to larger numbers of grammatical repairs and lexical repairs in comparison to recast. The results of his study further indicated that more repairs resulted from the negotiation of form than from recasts, which are in line with the findings of the present study. In terms of the effectiveness of elicitation, the results of the current study further support those of Panova and Lyster (2002) with respect to the effectiveness of oral CF on learners' uptake in an ESL classroom, and also those of Suzuki (2004), who investigated the relationship between CF and uptake in an ESL context on learners' grammatical, lexical, and phonological errors.

Given the findings of the second research question, the results of the study indicated that OIF had a significant effect on the written accuracy of the participants on the post-test in the OIF group in comparison with the EF group. With respect to OIF and retention, this finding supports the results of the study by Lyster and Saito (2010b), who investigated the impact of different kinds of oral CF on learners' oral errors and found that CF plays a facilitative role for L2 development and that its impact is sustained at least until delayed posttests. The results further are in line with the findings of Nassaji's (2007) study which indicated that unidirectional feedback may not be very effective in promoting L2 accuracy in learners' written work in comparison to negotiated feedback.

The findings, regarding the complexity of writing, revealed that there was a significant difference between OIF and EF groups on revised compositions and the post-test. These results support the findings of Robb, Ross, and Shortreed's study (1986), in which, after being provided with various types of error feedback, which differed in terms of the degree of salience, all four treatment groups of Japanese college students, learning English, improved their writing in terms of accuracy, fluency, and complexity. Regarding the efficacy of CF for the complexity of written discourse, Van Beuningen, Jong, and Kuiken (2012), who investigated the effect of error correction on both lexical and structural complexity of learners' writing, found that the writing produced by pupils who received CF "did not result in simplified writing when structural complexity and lexical diversity in students' new writing were measured and they did not avoid more complex constructions due to error correction" (p. 1). The findings of the present study contribute to the research literature by highlighting the significant role OIF plays in improving EFL learners' written complexity.

Conclusion

The focus of the present study was on investigating the effect of OIF on the accuracy and complexity of learners' written discourse in Iranian EFL context. In order to meet the purpose of this study, four research questions were asked. As the findings indicate, OIF group outperformed the EF group in both accuracy and complexity in both revised compositions and the post-test. Accordingly, it may be concluded that providing oral feedback (including elicitation and metalinguistic clue) through interaction has a significant effect on the learners' writing in terms of accuracy and complexity. In other words, the results of this study showed that dealing with the

students' errors through negotiation and interaction made them notice and correct their errors both in revised compositions and the post-test.

Pedagogical Implications

The findings of the present study would be of great help for writing teachers in making them aware of the importance of CF through interaction and encouraging them to use it in their classes as much as possible to help learners overcome their errors and increase their writing proficiency. More specifically, in writing classes, the students should be involved in the writing process by getting feedback interactively through elicitation and metalinguistic clues and revising their compositions immediately. Also, the results of this study can have helpful implications for teacher trainers to make teachers conscious of the significance of providing learners with proper CF, providing training courses for them, and familiarizing them with different types of feedback, especially elicitation and metalinguistic clues, through interaction.

Limitations

There are a number of limitations in this study. First, due to administrative constraints, random sampling was not possible, and the study was conducted with intact groups, which restricted the generalizability of the findings. Second, as the writing classes at university level are conducted through giving feedback in the Iranian EFL context, it was not practical to have a no feedback group as the control group. Third, as a result of homogenizing in terms of language proficiency, the number of participants in each group did not exceed 25; thus, great caution is required for generalizing the results of the study.

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Appendices

Appendix A

Error Correction in the OIF group and EF Group

1. OIF Group (receiving elicitation and metalinguistic clue)

T: "Write sentence two on the board"

(The student writes: "One of the most easiest and attractive one for me...")

T: "Can you find your error?"

T (to other SS): "Give your comments on this sentence."

S1: "One of the *easiest* and *attractive ones*..."

T: "Yes, and what about the '*most*'?"

S: "One of the *easiest* and *most attractive ones*."

T: "Super Mario, *which* was a handsome man?!" "Do we say it like that?!"

S: "No, no... *who!*"

T: "Write the next sentence on the board."

(The student writes: "There was a key which Super Mario...")

T: "What is missing here?"

S: "*With* which..."

(Student writes the next sentence on the board "Super Mario jump and pass strangers, which has amazing sound...")

T: "Look at the verbs in this sentence."

SS: "They should be past tense."

T: "Yes, thanks! Simple past"

T: "Read the next sentence."

S: (The student reads) "I play it with pleasure."

T: "Say that again..."

S: "*Played* it, yes..., played"

(Student writes the next sentence on the board: "I frightened her until I could play her turn")

T: "Can you find your error?"

S: (No response)

S1: "...*So* I could play..."

S2: "Because I wanted to play"

T: "Maryam's (S1's) answer was somehow correct."

S: "So that...?!"

T: "Excellent!"

T: "Wearing *moustache*? What about the article?"

S: "Oh, yes! A moustache!"

2. EF Group (receiving explicit correction):

T: "In your first sentence I think you mean Friday, not 'the Friday'."

S: "Oh, yes!"

T: "So, please apply it for the similar errors in your composition."

S: "Sure!"

T: "It's better to write the best day for me, not my best day."

S: "Oh, OK!"

T: "Instead of got up, you must write get up."

S: (No response)

T: "It's better to write without my mother insisting on going to class."

S: "Yes, of course."

T: "By reading a book I think you mean studying."

S: "Yes, studying."

T: "Instead of I should help, use I have to help."

S: "OK, I will."

T: "and... write my mother and I.

S: "Oh, yes! I have a typing mistake!"

T: "It's better to write events during the week."

S: "Yes."

T: "We use in the evening, not at the evening, OK?"

S: "OK!"

T: "With shopping we don't use to"

S: "Uhum!"

T: "a movie or movies, not movie."

S: "Yes!"

Appendix B

Measuring the Accuracy and Complexity

Write a memory from your childhood.

[When I was younger, I used to play games.][One of the -easiest and **most** attractive *ones* for me was Super Mario, *who* was a short man in red T-shirt and white *shorts* wearing thick black moustache **who was** following some creatures, in order to gain coins by passing a lot of obstacles so that he could save princess' life against Dragon.]

[There was a key **with** which Super Mario *jumped* and *passed* strangers, which *had* **an** amazing sound.][I *played* it with pleasure.]

[But my younger sister was very timid and afraid of him, because he did some extraordinary activities.][I frightened her *so that* I could play her turn.][I don't know why, but since that time she fears the men wearing moustaches.] [So I abused of her fear and when it was worth it I used the word Super Mario in order to not let her do something.]

[Now, when we see a man wearing () moustache, we both giggle and whisper Super Mario!]

[T-Unit]

Content word

Error

() Missing word

-The formula for measuring complexity:

$$\text{Complexity} = \frac{\text{Total number of content words}}{\text{Total number of T - Units}}$$

- The formula for measuring accuracy:

$$\text{Accuracy} = \frac{\text{Total number of errors}}{\text{Total number of T - Units}}$$

$$\text{Complexity} = \frac{67}{9} = 7.44$$

$$\text{Accuracy} = \frac{2}{9} = 0.22$$