The Integrative Effect of Direct Corrective Feedback and Metalinguistic Explanation on Learners' Accuracy in using English Articles

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Abstract: The present study was conducted to further improve the practice of written corrective feedback by integrating the two known feedback types (i.e. direct corrective feedback and metalinguistic explanation). With this aim, a sample of sixty-nine high-intermediate Iranian EFL learners was assigned into different feedback groups. While the first and second groups received direct and metalinguistic explanation feedback, respectively, the third group received an integration of both. Results showed that all three types of feedback improved the learners' accuracy, though with different degrees of success. However, the results of the delayed post-tests revealed that only the integration of Direct Corrective Feedback (DCF) with Metalinguistic Explanation (ME) had the most sustainable effect on the learners' accurate use of the articles in the long run. It is discussed that the integration of DCF and ME can enhance the corrective effect of the feedback and reduce the defects which have been associated with the practice.

Keywords: Written Corrective Feedback; Direct Corrective Feedback; Metalinguistic Explanation; English Article; EFL Writing.

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Introduction

One of the important goals of learning a second/foreign language is written communication. In fact, producing error-free pieces of writing is vital for ESL/EFL learners who wish to operate in different language contexts. Hence, corrective feedback plays a significant role in writing courses by minimizing the erroneous outputs. The recent controversy over feedback is not about its effectiveness; rather what matters more in most of the current studies is about different ways of providing corrective feedback in the writing classrooms.

In general, written corrective feedback (WCF) is classified into different types. Direct Corrective Feedback (DCF) and Metalinguistic Explanation (ME) are two major types which provide written error correction. In DCF, the learner is provided with the correct form but it is time-consuming and the labor is over the teacher to correct the learners individually. However, it is learner-friendly as it demands little processing. Quite the contrary, providing the learners with the same ME in the form of written handout is less time-consuming since it rules out individual corrections. It also requires great amounts of cognitive processing as the learners should apply ME to their own errors and involve in self-correction task (Shintani, Ellis, & Suzuki, 2014). The effect of DCF and ME has been studied individually in the literature (Bitchener, 2018; Bitchener et al., 2005; Bitchener & Knoch, 2010a; Chandler, 2003), but to the best of the researcher's knowledge, the integrative effect of the two has not been investigated so far. In fact, studying the possible effect of the integration of DCF and ME together as a new feedback type was the driving force to conduct the present study.

Review of Literature

Written Corrective Feedback

WCF originates from some theories such as behaviorism, which advocated correcting errors at all cost. It is also related to innatists, who assert that exposure to samples of the target language is sufficient to trigger internal processing and this exposure is related to Inter-language theory. As an example, in Schmidt's (1990) Noticing Hypothesis, it is assumed that language learning cannot occur without a certain degree of attention to linguistic features. This noticing leads to cognitive comparison, and helps finding the gaps and holes in the inter-language system. Feedback, regardless of its form, is one of the many ways in which such attention can be attained.

As another important function of WCF, grammatical accuracy can be considered. Grammatical errors can block the message that a writer attempts to communicate. Therefore,

it is immensely important that learners' attention be drawn to grammatical errors and WCF can act as the best possible tool in this regard (Celce-Murcia, 1991). As a result, figuring out proper ways to foster grammatical accuracy of the learners is highly valuable.

Regarding the efficacy of WCF in ESL/EFL writing classes, many arguments have been put forward that support its role as a tool for promoting writing consciousness. Therefore, WCF is helpful because it makes learners' errors salient and involves them in the modification process.

Needless to say, the efficacy of WCF is not an unexplored area. As mentioned, the critical question is which type of WCF is more effective. Ferris (2003) stated that direct form of written feedback has been operationally defined as offering a correct structure above the observed errors which may vary from omitting redundant words, phrases, morphemes to insertion or deletion of necessary or unnecessary elements. In this regard, Ellis (2009) reiterates that direct WCF has the benefit of providing explicit guidance on the accurate usage which is more helpful when the learners are not capable to do self-correction, especially low-proficient learners. However, Ellis (2009) claimed that direct WCF requires minimal processing.

Written metalinguistic explanation is one type of direct corrective feedback in which the teacher provides learners with explanations about correct or accurate usage of a specific structure along with an example at the end of the students' scripts referring to the observed error. Metalinguistic explanation might be presented in other forms, like mini-lessons in which rules and examples of correct usage are presented, practiced, and discussed with teachers and students. While Ellis (2009) claimed that "Metalinguistic corrective feedback involves providing the learners with some form of explicit comment about the nature of the errors they have made" (p. 100), Lyster and Ranta (1997) defined it as any comment, question and information on the well-formedness of the students' output.

Nevertheless, recent studies have shown different result patterns of DCF and ME. Shintani and Ellis (2013), for example, found that ME in the form of written handout which included grammatical explanation was more beneficial. In fact, they found the significant effect of ME compared with direct WCF in investigating English articles. However, Shintani et al. (2014) proved the significant effect of direct WCF over ME in improving two structures which varied in complexity (i.e. hypothetical conditional and indefinite article).

English Article System and WCF

Acquisition of English articles is one of the most difficult aspects especially for EFL learners (Kamal, 2013). English articles play a significant role in the grammar of English as it is the system of the most frequent function words in the English language. Also, it requires learners to apply different rules repeatedly which sounds difficult in the case of extended discourse. Articles in English have the capability of doing different functions on a single morpheme as well as being unstressed phonologically because they are regarded as function words in sentences (Master, 2002). In addition, English article system is difficult to learn, since, compared with other syntactic structures which have occupied most of the grammar books, they have received less explicit instruction (Master, 2002).

Iranian English learners usually start to learn English articles from the very beginning of their English learning courses. Although they learn how to use articles, there seems to be no severe force to achieve mastery of articles, because in the first place articles are among the function words and do not carry out a significant meaning in a sentence. So, learners do not feel the need to use them properly and consequently it has not been the first priority in any academic English writing classroom. In the second place, accurate usage of English articles is a little complicated and it has a minor effect on the discourse. Furthermore, learners usually show negative attitude toward learning articles in depth (Master, 2002). But, high rate of articles use is a good motivation to find effective ways to help learners achieve target-like accuracy in the use of English article system. It is on these grounds that the present study aimed to examine the efficacy of different types of feedback on English article systems, since, despite their high frequency of occurrence, they have received less attention in the EFL context (Master, 2002).

This study

To the best of the researchers' knowledge, the integrative effect of direct WCF and ME has not been studied yet. In fact, although a growing body of research has been dedicated to investigating different types of WCF, only a few studies have examined metalinguistic form of feedback. Moreover, it seems that finding the best type of feedback is still in progress and research in this regard is still inconclusive. Further, due to the importance of learning English articles for the EFL learners, the present study attempted to find if an integrative type of feedback can foster accuracy in the use of English definite/indefinite articles in the Iranian EFL context. To achieve this goal, the following research questions were posed in this study:

RQ1: Does accuracy in the use of English articles vary over time as a result of providing WCF?

RQ2: Does accuracy in the use of English articles vary over time by providing DCF?

RQ3: Does accuracy in the use of English articles vary over time by providing ME?

RQ4: Does accuracy in the use of English articles vary over time by providing the integration of ME and direct WCF?

RQ5: Which types of feedback is the most beneficial in improving the accurate use of English articles?

Method

Design

Having no randomization, the present study was a quasi-experimental one. The study used pre-tests, post-tests and delayed post-tests to prove the efficiency of different kinds of WCF in the long run. In fact, there was one independent variable (i.e. WCF) with three different levels (i.e. DCF, ME, and DCF+ME feedback), whereas the dependent variable was accuracy of using English definite/indefinite articles.

Participants

The participants in this study were four intact classes of adult advanced learners of English who had enrolled in an IELTS writing course in Bahar Language Institute in Shiraz, Iran. A total of 76 IELTS advanced learners participated in this study. There were 46 male and 30 female learners in this study. The age range of the participants was between 18 and 31 years old.

Writing task

The learners were given one argumentative topic to write an essay each session. On the whole, they wrote nine essays during the nine treatment sessions. As an example, one of the assigned topics was: What factors contribute to job satisfaction? Students were given 30 minutes to write an essay including 250 words. The topics were selected by considering the teachers' experience with practicing IELTS in the EFL context of Iran for several years. In addition, two other experienced IELTS instructors also helped.

Handouts

In general, three handouts were distributed among the learners. Each was the focus of two sessions. They consisted of explanation on accurate usage of some functions of English definite/indefinite articles along with examples of their correct usage. The handouts were prepared by using Oxford Practice Grammar (Yule, 2006), A Practical English Grammar (Thomson & Martinet, 1986), and Practical English Usage (Swan, 2005). Examples of the handouts have been provided in the appendix.

Data collection procedure

Early in the study, Oxford Placement Test (OPT) was administered to homogenize the participants with regard to their English language proficiency. Upon the administration of the test and based on the language proficiency guidelines set forth by OPT, 69 of the students were considered as the intermediate learners required in the study. Next, they were assigned to either experimental or control groups. Figure 1 shows the internal structure of the experimental and control groups in detail. In week 1, the participants in the experimental and control groups produced their first essays in 30 minutes. In week 2, DCF group received their texts with individual feedback. Furthermore, ME group received handouts with grammatical rules and examples without any individual correction. Each handout consisted of two functions which covered both definite and indefinite articles. Moreover, each handout was administered for two sessions but with different examples.

In general, six functions were covered. The handout was to be read by the teacher to the whole class in 5 minutes. Then, they had 10 minutes to reflect and find their errors. The third group received the integration of direct error correction along with written metalinguistic explanation during the experiment. The control group received no feedback except for very general and summative comments. Then, their writings plus all the feedbacks provided were collected by the teacher and the students had 30 minutes to produce their second draft. The participants were required to do all the writings in the class to make sure that they produced them without the help of others.

The first writing of the participants acted as the pre-test. It was rated by Picas' formula which only the predetermined target structures were offered feedback in the next session, and this process continued for the next seven sessions. At the end of session eight, in which the learners received the final feedback on their previous writing task, they were required to produce an immediate post-test. The immediate post-test was aimed to evaluate the extent to which the learners in different groups made progress upon receiving feedback.

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Finally, to examine the sustained effect of different types of feedback, the delayed post-test was given two months later. The learners were not required to produce any writing and were not exposed to any feedback during this period. In order to estimate the reliability of scoring, 20 essays from the pre-test and 20 essays from the post-test of the four groups were randomly selected and rescored by the second researcher who was an experienced IELTS examiner. The agreement rate of the two researchers was 98% for the English articles.
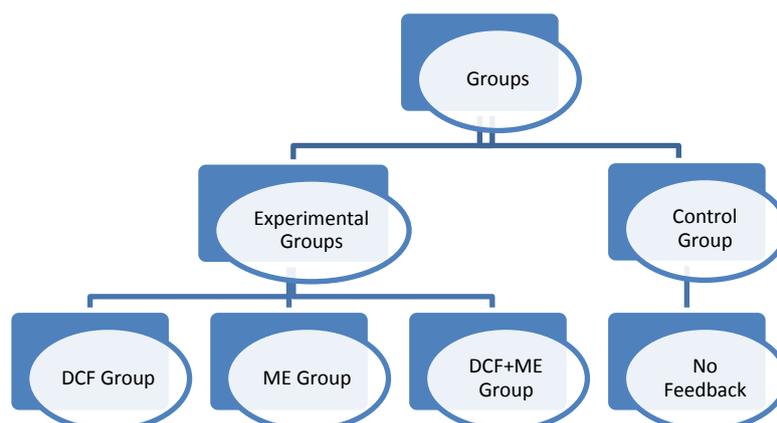

Figure 1. *Structure of the Groups in the Study*

Data analysis

In the present study, we followed Ellis and Barkhuizen (2005) to measure the participants' accuracy rate in improving the specific language items. Obligatory occasions for the use of the target structure were counted. Furthermore, the percentage of the correct usage relative to the obligatory cases was taken into account. To put it simply, the percentage of the correct uses of a specific target structure relative to the obligatory cases in which the target feature is used is defined as a specific accuracy. Therefore, accuracy for target-like use was calculated using Pica's (1994) formula:

$$\frac{\text{Number of grammatical morphemes supplied accurately}}{\text{Number of obligatory contexts } + \text{ Number of overused forms}} \times 100$$

In addition, SPSS (version 17.0, SPSS, Inc., Chicago, IL, USA) software package was used to analyze the data. So, to test the sustained effects of the feedback across the groups, one-way repeated-measures ANOVA tests were used. Also, in order to find out which types of feedback was the most beneficial in improving the accurate use of English articles, a between-within groups ANOVA was used.

Results

First Research Question

As mentioned, the first research question aimed to study the general effect of WCF on the use of English articles over time. Table 1 shows that the mean accuracy score of the treatment group was 56.70 prior to the intervention, whereas that of the control group was 55.80. However, after the treatment and exposing the learners to the teachers' written comments, the mean score of the treatment group increased to 58.13 in the post-test while the control group did not show progress and their mean score and decreased to 52.20. The results show that although there was a small difference between the control and feedback groups at the start of the study, their difference was not statistically significant *(p >.05).* This implies that (Table 3) the two groups were at the same level of accuracy in the use of articles at the onset, but by exposure to treatment, their difference changed into *p<.05* (t(67)= 2.09) in the post-test and finally to *p<.05* (t(67)= 2.54) in delayed post-test which explains the significant difference between the two groups.

These findings clearly illustrate the significant effect of feedback as a facilitative pedagogical tool. The mean score of the delayed post-test which was administered two months after the intervention was 58.46 for the treatment group while that of the control group was 51.40. As indicated by Cohen (1988), effect sizes for the independent samples *t*-test were calculated as eta-squared ($\eta2$) with values of .01, .06, and .14 indicating small, moderate, and large effects, respectively. Furthermore, the effect sizes for the pairwise comparisons were estimated using the correlation coefficient *r* with values of .001, .06, and .08 indicating small, moderate, and large effects, respectively. It can be inferred from the findings that not only was feedback beneficial in the short term, but also this progress was sustainable as it did not fade rapidly. As implied from the mean scores of the control group, they showed backsliding and a decrease in their level of achievement. These findings provided evidence for the efficacy of feedback both in short and long term.

Table 1. *Descriptive Statistics of Feedback Groups and Control Groups in the Study*

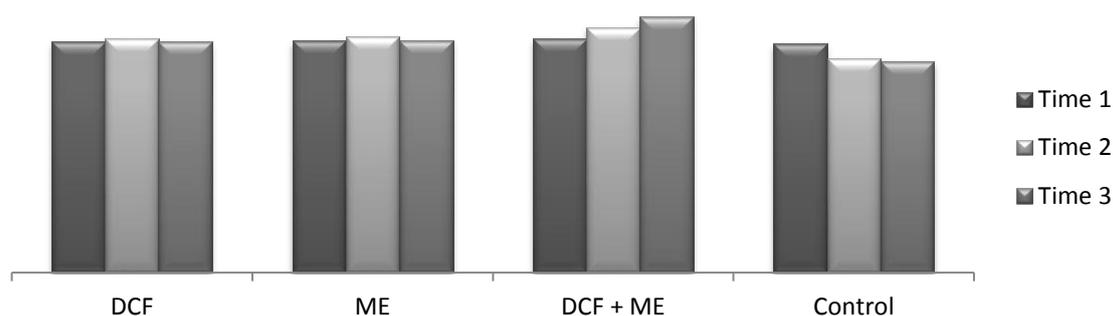|	**Groups**	**N**	**Mean**	**SD**
Time 1	feedback	54	56.70	9.956
	control	15	55.80	10.564
Time 2	feedback	54	58.13	9.423
	control	15	52.20	10.631
Time 3	Feedback	54	58.46	9.210
	control	15	51.40	10.642

Figure 2. *Mean Accuracy Scores of Experimental and Control Groups*

Table 2. *Descriptive Statistics of Three Feedback Groups and Control Croups in the Study*

		Time 1		Time 2		Time 3	
	N	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
DCF	18	56.28	9.20	57.06	9.39	56.22	8.82
ME	17	56.59	9.03	57.47	9.24	56.59	8.63
DCF+ME	19	56.95	10.53	59.74	9.89	62.26	9.29
Control	15	55.80	10.56	52.20	10.63	51.40	10.64

Note: DCF = Direct corrective feedback, ME = Metalinguistic explanation, DCF + ME = Direct corrective feedback integrated with Metalinguistic explanation.

Table 3. *Results of Independent Samples T-test for the Feedback and Control Groups*

	Groups	**t**	**df**	**Sig. (2-tailed)**
Pre-test	Feedback control	0.307	67	0.76
Post-test	Feedback control	2.09	67	0.04
Delayed post-test	Feedback control	2.54	67	0.01

Second Research Question

According to Table 2, the students' mean scores increased from pre-test (56.28) to post-test (57.06), though the mean accuracy score of DCF decreased from post-test (57.06) to the delayed post-test (56.22). As Table 4 shows to compare the performance of the DCF group, a one-way repeated measures of ANOVA was conducted to compare the accuracy scores at Time 1 (prior to the intervention), Time 2 (following the intervention), and Time 3 (follow-up). The results showed that there was not a significant effect over time (Wilks' Lambda = .73, F (2, 16) = 2.85, $p > .0005$, multivariate partial eta squared = .26).

Table 4. *Results of One-way Repeated-measures ANOVA for DCF Group*

	Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
	Pillai's Trace	.263	2.858[a]	2.000	16.000	.087	.263
	Wilks' Lambda	.737	2.858[a]	2.000	16.000	.087	.263
Time	Hotelling's Trace	.357	2.858[a]	2.000	16.000	.087	.263
	Roy's Largest Root	.357	2.858[a]	2.000	16.000	.087	.263

However, to locate the differences among accuracy scores at the three time intervals, results of a Bonferroni post-hoc test showed that there was a significant difference between Time 1 and Time 2 (though it hardly met the significance level). There was not also a difference between time 2 and 3.

Table 5. *Results of Bonferroni Post-hoc Test for DCF Group*

(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.778	.319	.048	-1.624	.069
	3	.056	.286	1.000	-.702	.814
2	1	.778	.319	.048	-.069	1.624
	3	.833	.414	.181	-.266	1.933
3	1	-.056	.286	1.000	-.814	.702
	2	-.833	.414	.181	-1.933	.266

Measure:MEASURE_1

Third Research Question

Regarding the ME group, as Table 2 shows the mean accuracy score of the learners increased from pre-test (56.59) to post-test (57.47). This can be a shred of evidence that this type of feedback caused an increase in the accuracy score of the learners in the short time. However, the obtained results using a one-way repeated measures ANOVA showed that, generally, there was not a significant effect for time, Wilks' Lambda = .70, $F(2, 15) = 3.12$, $p > .05$, multivariate partial eta squared = .29. Also, to find any probable difference between the three time intervals, results of the Bonferroni test (Table 7) showed that, similar to DCF group, ME group's pre-test and post-test differed significantly.

Table 6. *Results of One-way Repeated-measures ANOVA for ME Group*

	Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
	Pillai's Trace	.294	3.129[a]	2.000	15.000	.073	.294
	Wilks' Lambda	.706	3.129[a]	2.000	15.000	.073	.294
Time	Hotelling's Trace	.417	3.129[a]	2.000	15.000	.073	.294
	Roy's Largest Root	.417	3.129[a]	2.000	15.000	.073	.294

Table 7. *Results of Bonferroni Post-hoc Test for ME Group*

Measure:MEASURE_1						
(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	-.882	.342	.049	-1.796	.031
	3	.000	.297	1.000	-.794	.794
2	1	.882	.342	.049	-.031	1.796
	3	.882	.445	.194	-.306	2.071
3	1	.000	.297	1.000	-.794	.794
	2	-.882	.445	.194	-2.071	.306

Fourth Research Question

The descriptive statistics of this group showed improvement from pre-test (56.95) to post-test (59.74). It seems that such integrative form of feedback can be significantly helpful in the learners' progress in a short period of time. The descriptive statistics (Table 2) shows significant improvement in the students' mean score from post-test (59.74) to delayed post-test (62.26). In fact, it was only this group that showed such a change of mean scores from post-test to the delayed post-test. Results of the one-way ANOVA (Wilks' Lambda = .50, F (2, 15) = 8.18, $p < .05$, multivariate partial eta squared = .49) showed that there was a statistically significant difference between the students' accuracy scores over the three time conditions.

Table 8. *Results of One-way Repeated-measures ANOVA for DCF+ME Group*

	Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
	Pillai's Trace	.491	8.186[a]	2.000	17.000	.003	.491
	Wilks' Lambda	.509	8.186[a]	2.000	17.000	.003	.491
Time	Hotelling's Trace	.963	8.186[a]	2.000	17.000	.003	.491
	Roy's Largest Root	.963	8.186[a]	2.000	17.000	.003	.491

Further, as Table 9 shows there was a statistical difference between the learners' pre-test and post-test scores. Also, there existed a significant difference between the learners' post-test and delayed post-test.

Table 9. *Results of Bonferroni Post-hoc Test for DCF+ME Group*

Measure:MEASURE_1

(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Lower Bound
1	2	-2.789[*]	1.030	.033	-5.509	-.070
	3	-5.316[*]	1.327	.002	-8.818	-1.814
2	1	2.789[*]	1.030	.033	.070	5.509
	3	-2.526[*]	.739	.009	-4.476	-.576
3	1	5.316[*]	1.327	.002	1.814	8.818
	2	2.526[*]	.739	.009	.576	4.476

Based on the descriptive statistics of Table 2, each of DCF and ME groups showed improvement on the post-test while they lost their success in the delayed post-test. The only group which showed improvement in the mean accuracy score in both post-test and delayed post-test was the third group (i.e. DCF+ME). These findings are indicative of the significant effect of DF+ME in the long run.

Fifth Research Question

Finally to investigate the fifth research question, a between-groups analysis of variance (ANOVA) (Table 10) was conducted to see if there were any statistically significant differences among the three different types of feedback across the three testing periods. The mean scores of all the groups were compared at the $p<.05$ level in pre-test ($F (3, 65) = .04$; $p= .98$). The probability value obtained from the pre-test clarified that there were no statistically significant difference among the groups at the beginning of the experiment, proving the homogeneity of the groups. The groups' mean scores from post-test were also compared. In spite of the slight variation of the groups' mean scores, no statistically significant difference was detected among the groups.

Table 10. *Results of Between-within Groups ANOVA for Different Feedback Groups*

		Sum of Squares	df	Mean Square	F	Sig.
Pre-test	Between Groups	11.880	3	3.960	.041	.989
	Within Groups	6309.076	65	97.063		
	Total	6320.957	68			
Post-test	Between Groups	489.982	3	163.327	1.709	.174
	Within Groups	6211.264	65	95.558		
	Total	6701.246	68			
Delayed post-test	Between Groups	1010.125	3	336.708	3.869	.013
	Within Groups	5656.513	65	87.023		
	Total	6666.638	68			

The probability value obtained $(F_{(3, 65)} = 1.70; p=.17)$ from ANOVA revealed lack of a significant difference among the different types of feedback in the post-test. In the same vein, the groups' mean scores were compared across the delayed post-test. The p-value obtained $(F_{(3.65)} = 3.86; p= .01)$ was clearly illustrative of the fact that groups differences were statistically significant. A post-hoc Bonferroni adjustment test was used to locate those differences between pairs of groups. The test showed a significant effect of metalinguistic explanation integrated with direct error correction at the $p<.05$ level *(p =.008)* for DCF+ME group. The eta squared statistics (i.e. 0.001, 0.07 and 0.15) of the three testing periods indicated a small, moderate, and large effect sizes, respectively.

Discussion

The study found that the employment of WCF can be a helpful pedagogical tool in improving accuracy in the use of English articles. These findings are not only in contrast with those theoretical problems posed by Truscott (1996) regarding pseudo-learning, but also proved to be a successful intervention in the learners' writings regarding English article usage. The findings of the study, however, are in line with Bitchener (2008), Ferris (1999) and Ellis, Sheen, Murakami, and Takashima, (2008). Generally, the findings showed that learners would take WCF into consideration and make use of it appropriately when using English articles. Therefore, not only does the idea of pseudo-learning diminishes, but also it finds a facilitative role longitudinally. Pseudo-learning refers to superficial learning in which no real learning has actually occurred and this superficial learning would rapidly fade (Lightbown, 1985). Truscott (1996) was of the view that WCF is in line with pseudo-learning, and

although it may help learners to produce the correct form. In fact, they have not acquired underlying rules and produce the correct form superficially. So, this knowledge would not last long. Due to this, Truscott did not predict any long-lasting effect brought about by WCF.

The direct form of corrective feedback has been found to be useful in the literature. Many studies have shown that this type of feedback can improve the learners' accuracy in different contexts (Bitchener, Young, & Cameron, 2005; Chandler, 2003; Shintani, et al., 2014). In their study, Shintani et al. (2014) showed a tendency towards direct error correction and did not support metalinguistic explanation feedback. They may have come to this conclusion due to the fact that the two types of feedback were directed at two structures which varied in saliency and complexity. It can be inferred from their study that when learners face two structures which are different in terms of difficulty, they are more likely to attend the structure which contributes more to the global meaning. In addition, drawing the learners' attention to the errors directly is more effective than simply offering general metalinguistic explanations.

In the present study, DCF was found to be useful in the post-test and the students' accuracy scores increased significantly. However, this improvement did not sustain in the delayed post-test which was administered two months later. This might be due to the fact that learners should have been aware of the underlying rules behind the target structure rather than simply being provided with the correct form. In this regard, simply providing the correct form without mentioning any rules might not be pedagogically influential because it appears not to be very influential and does not add to the learners' deep structure.

Unlike Shintani et al. (2014), the study by Shintani and Ellis (2013) showed that an alternative to DCF is ME in the form of written handouts. In their study, DCF group was not successful in addressing English article errors, but ME proved to be successful in the immediate post-test, though it could not sustain its effect for a long time (ibid.). Similarly, the results of this study showed that ME is successful in improving the learners' explicit knowledge but not their implicit knowledge. Although it was found that the learners who received DCF did not develop the target language rules, those who were exposed to ME gained more rules and applied them in their revision. Nevertheless, despite the progress that the learners who received ME made from the pre-test to the post-test, their success did not last long. Similar to DCF group, ME group also lost their success in the delayed post-test. In conclusion, even providing linguistic rules in the form of mini-lessons did not help the learners in the long run. It might be due to the fact that they could not infer the correct form

from the input provided to them. In other words, they were not able to reformulate the sound structure out of the rules provided in a test administered two months later.

The failure of DCF and ME in isolation (Shintani & Ellis, 2013; Shintani et al., 2014) motivated the researcher to integrate the two types of feedback to form a new one in order to see if it can have a long-lasting effect. As Shintani and Ellis (2013) mentioned, DCF and ME involve two different types of cognitive processing, in that the former provides the learners with a kind of comparison of correct and incorrect forms, but the latter offers them deep impression of the underlying rules and is a kind of guided learning which leads to the problem-solving task. In this study, the two types of feedback were theoretically different and their integration would be of interest in the acquisition of the English article system. DCF is input-providing and involves learners in comparison while ME makes them locate their own error and is output-prompting, so their integration was expected to foster accuracy in the acquisition of English article system.

The outcome of the present study proved that the integration of these two types of feedback, which are theoretically different, but at the same time in full complement would be promising in the long run. ME helped learners to figure out the underlying rules. They were aware of the reason behind the incorrectness, while correct form was provided for them simultaneously. They did not need to infer the correct form by themselves and this could save them from making wrong hypothesis regarding the well-formedness of the structures. In fact, when learners are aware of the underling rules of the correct structures then are provided with the correct from, they are protected from both superficial learning and making wrong hypothesis. In other words, the learners' accurate use of English articles improved significantly after the treatment and it was mostly due to the type of received feedback. The salient feature of this integration was the sustainability of this success in the long run.

The findings are also in line with Slobin's (1973) who underscored the necessity of providing saliency in the second language acquisition. Saliency is of significant importance in helping learners to notice accuracy. In this study, saliency was achieved by offering ME corrective feedback. Providing corrective feedback made errors salient enough to draw the learner's attention. Thus, this study is in support of the view that perceptual saliency is valuable in language acquisition. The results are also compatible with Long's (1996) interaction hypothesis. He claimed that environmental contributions such as error feedback can foster language acquisition process. He claimed that error correction through providing

selective attention can develop second language acquisition. Finally, findings from this research endorse certain directions to Schmidt and Frota's (1986) noticing hypothesis. Through noticing, learners are able to recognize errors and repair their inter-language. Thus, noticing helps them to process feedback.

Conclusions

The findings of the present study provided evidence that those learners who received both DCF and ME significantly outperformed the other groups. They not only improved in the accurate use of the English articles in the new pieces of writing, but also were able to maintain this effect for a longer time. This made integration of DCF and ME to be the most effective one compared with the other two feedback types.

The findings of this study add to the bulk of knowledge regarding corrective feedback theories. The main theoretical implication of the study is that focusing on form is beneficiary in second language acquisition. Therefore, it has much in common with what is claimed by Vygotskyan approach to learning through intervention and mediation. With reference to the types of feedback, the integration of direct WCF and ME could have dramatic effect. Because learners are not able to infer basic rules from the correction provided, they even could not make accurate hypothesis based on the rules provided in most of the cases. Therefore, using these two types of feedback which are complimentary can be of great help in improving the learners' accuracy in form-focused studies. Moreover, the results of the study showed that providing short mini-lessons in the form of written handouts could be a significant factor as these mini-lessons can be informative and give learners a broad overview of the reasons behind their corrections. The learners found mini-lessons useful for having close access to knowledge of the articles.

Another practical implication of the study was providing ME in the form of handouts distributed among students. Such handouts, once developed, can be used repeatedly when needed and ease the time-consuming nature of the correction.

The study also suffered from some limitations. The study was conducted using an intact design and with a relatively small sample size (n=69) in the particular EFL context of Iran. As a remedy, the study can be conducted with a larger sample in the future. Further, it can be replicated in different ESL/EFL contexts to further validate the findings. In addition, when it came to counting the instances of article occurrence, strategic behavior of the participants should be taken into account. For example, it is quite possible that the learners draw on

avoidance strategy. So, this can be a limitation of the study. Moreover, in this study, no attempt was made to investigate other structures which are less rule-based and hence less treatable. It would be also illuminating for future researchers to evaluate the impact of feedback on two structures which vary in saliency and have varying levels of difficulty to see whether feedback would have equal effects on them or not. Furthermore, variety in the way of presenting feedback (e.g. oral presentation or having a one-to-one conference with the learners) might enhance the effectiveness of WCF. Another interesting point worth mentioning is that many of the previous studies have investigated both *a/an* for first mention and *the* for anaphoric mention (Bitchener & Knoch, 2010b; Sheen, 2007). While most learners tend to overgeneralize the use of definite article *the,* thus it is hard to know if they have learnt it. Therefore, future studies can be designed to focus only on *a/an* for more accurate and reliable outcomes.

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Appendix A

English Articles 1

- Yesterday, ...unarmed man stole $3,000 from the bank. … thief hasn't been caught yet.
- His car struck ….. tree, you can still see the mark on …. tree.
- There's … position available in my team. … job will involve some international travel.

The definite/indefinite article
General rules

Singular nouns in English are preceded by the indefinite article *"a/an"* to refer to something for the first time while plural nouns which are mentioned for the first time do not need any article. The definite article *"the"* is used when the speaker believes that the listener already knows what he is referring to.

- ✓ On Monday, **an unarmed** man stole $3,000 from the bank. **The thief** hasn't been caught yet.
- ✓ His car struck **a tree**, you can still see the mark on **the tree**.
- ✓ There's **a position** available in my team. **The job** will involve some international travel.

Summary:

First time	Singular noun *a/an*	Plural noun *no article*
Again	*The*	

Now please check error in your writing.

Appendix B

English Articles 2

- It is ….. *good* car.   It is ….. good.
- It was …… very strange car.   It was …… very strange.
- It was …. expensive car.   This car was ….. expensive.

The definite/indefinite article
General rules

"A/an" cannot be used with an adjective alone without a noun. If the adjective precedes a noun it needs indefinite articles.

- ✓ It is **a *good*** car.   It is **good**.
- ✓ It was **a very strange** car.   It was very **strange**.
- ✓ It was **an expensive** car.   This car was **expensive**.

Use *"the"* before superlative adjectives. Because it is clear which one we are talking about.

- ✓ I am **the oldest** child in my family.
- ✓ She is **the tallest** girl in the class.
- ✓ It was **the most expensive** car we saw.

Summary

a/an	Adjective + noun	Adjective alone **no article**
the	Superlatives	

Now please check error in your writing.

Appendix C

English Articles 3

- She will be …. dancer.
- She is …… doctor.
- He is …… actor.

The definite/indefinite article
General rules
We use *"a/an"* with names of professions.
- ✓ She is **a doctor**.
- ✓ She will be **a dancer**.
- ✓ He is **an actor**.

We use "*the + adjective*" to represent a class of persons.
The old = old people in general
- ✓ **The old** are physically tired.
- ✓ **The youth** are less tolerant of their parents.
- ✓ **The educated** have better grown up children.

Summary

A/an	Names of a professions
The +adj	Class of persons

Now please check error in your writing.