

The Effect of Immediate and Delayed Error Correction on Accuracy of Iranian EFL Learners' Oral Production

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Abstract

The concept of corrective feedback in learning a second language has gained more importance and it has been the subject of many researches during recent years. Therefore, considering some aspects that affect it such as when and how to correct, and also what types of corrective feedback are more preferable and effective is of crucial concern. The aim of this study is to find the most effective type of error correction (especially the best time: whether immediately or delayed) in the case of accuracy of Iranian EFL learners' oral production. Thus, in order to investigate this study, 30 homogenous intermediate EFL learners were selected randomly (female) aged 13 to 30 from Tak English language institute in Dezful, Iran. The participants were divided into 2 groups of 15. For G1 errors were corrected immediately and for G2 with some delay, i.e. after finishing their speech during a term. At the end of the term, each student were asked to discuss one of the topics they have covered during the term, while their voices were recorded and transcribed later. Measures of accuracy were developed to examine the results. Data analysis indicated that both Immediate and Delayed Error Correction had positive effects on the accuracy of learners' oral production. However, it was evident that although both types of CF were beneficial, the effects of Immediate Error Correction were larger than the other. In conclusion, regarding the specific purpose of language learning in a specific situation and classroom, it is recommended that teachers should be familiarized with all types of CF and then cautiously select the most appropriate one.

Keywords: Corrective Feedback, Immediate CF, Delayed CF, Accuracy, Oral Production

1. Introduction

In fact the main purpose of learning a second language is being able to communicate in the target language. Then, since committing errors by learners is a frequent activity in every language learning classrooms, thus considering how and when to correct them, is of crucial concern. Therefore, the acquisition process cannot be accomplished without correction and feedback. According to Swain (1985, cited in Rahimi, & Dasjerdi, 2012), the act of providing corrective feedback during oral production can facilitate the process of learning.

Feedback and error corrections are important parts of the process of acquisition in the context of a second language learning classroom. Doff (1995, cited in AbidDawood, 2013) stated that repetition of erroneous utterances would be harmful for learners. Therefore, teachers should be conscious and provide suitable feedback to learners whenever there is a mismatch or erroneous utterance. There are so many ways to treat an error, however teachers should be aware which types of CF (for instance, whether it should be treated explicitly or implicitly) are more useful in a specific situation or context. In addition, Rahimi, & Dasjerdi (2012) claimed that poor correction may have a negative effect on learners' motivation and confidence. In order to provide a suitable corrective feedback, the provider (whether a teacher or interlocutor) must keep in mind all factors which are related to this issue. Firstly, they should match themselves with that specific situation in the classroom and then decide to select the most effective type of CF in that situation. For instance, they should pay attention to the individuality of that learner such as: whether she/he is an anxious person; whether he/she feels comfortable with the correction; whether after correction he/she is willing to continue his/her speech; whether that learner could understand our implicit correction or we should use explicit types of CF for correcting him/her; whether by using explicit CF we may ruin his/her confidence and motivation. Furthermore, they should consider some other aspects such as: whether the focus of instruction is on improving learners' accuracy or fluency; and specifically whether our correction should be immediately or we should wait until their speech finish and then correct with some delay. Thus, considering the time that teachers should correct learners' errors is also important. Therefore, teachers should know whether a specific error should be corrected immediately or with some delay. Finally, in order to improve the process of acquisition in the field of second language learning, considering all above factors are of crucial concern for choosing an effective and suitable kind of CF.

The methods of communicate language teaching and theories of interactionist hypothesis have been dominated in L2 teaching and learning during recent decades. Therefore, developing the communicative skills of learners' second language is gained through interaction. Although, in the context of traditional classroom instruction, training of oral skills have been neglected; improvement in oral proficiency is a key to learn communicative skills and be acquired in second language successfully.

According to Long (1996, cited in Fang, 2010) one of the factors that serve as a facilitator device for learning a second language is the role of interaction. In addition, Long (1996) mentioned the crucial role of interaction hypothesis in the SLA process for negotiated

interaction. He also claimed that this negotiated interaction may elicit negative feedback and then, induce noticing of some forms.

Based on the studies that have been done in the field of English as a foreign language (EFL), using the approaches of traditional grammar translation has been problematic. In fact, students who achieved high scores on the tests of discrete-point grammar, were not be able to communicate accurately and fluently, and then were not be able to pass and go on to the next stage of communicative level (Hu, 2003). However, studies that have been done in the context of communicatively oriented classrooms revealed that although students were able to achieve high scores on communicative levels, they had serious problems in developing grammatical accuracy levels of production (Harley & Swain, 1984; Lightbown & Spada, 1990, cited in Yang, & Lyster, 2010). An effective solution for improving students' grammatical accuracy in content-based L2 programs within communicative contexts could be the integration of form-focused instruction (Day & Shapson, 2001; and Lyster, 2004b).

According to Spada (1997, cited in Yang, & Lyster, 2010), the instruction of form-focused refers to "any pedagogical effort which is used to draw the learners' attention to language form either implicitly or explicitly". In fact, form-focused instruction differs from GTM (traditional grammar translation method) in many ways. For example, the grammatical points in a traditional decontextualized manner could not be retrieved in a communicative context, they only could be remembered in similar contexts like a test of discrete-point grammar (Lightbown, 2008).

One of the reactive types of form-focused instruction is the notion of corrective feedback (CF). According to many scholars CF has an effective role in helping learners to notice their process of acquisition and therefore it is conducive to second language learning (Mackey & Philp, 1998; Philp, 2003; Sheen, 2007; Trofimovich, Ammar, & Gatbonton, 2007)

A growing number of studies have worked on the effectiveness of different types of corrective feedback in both laboratory and classroom contexts (e.g. Lyster & Ranta, 1997; Ammar & Spada, 2006; Ellis, Loewen, & Erlam, 2006; Lyster, 2004 a; Lyster & Izquierdo, 2009; Yang & Lyster, 2010; Mohammadi Darabad, 2014). However, considering some other important factors related to the best time for having an effective CF process has remain to examine. In addition, although, an increasing amount of research has been conducted to examine the efficacy of CF on accuracy of learners in written production, few works have been done on investigating CF efficacy in oral production. Therefore, the aim of the current study is to examine the efficacy of immediate and delayed CF on accuracy of learners' oral production.

2. Research questions

The study therefore will address the following research questions:

1. Does immediate error correction have any effect on the accuracy of learners' oral production?

2. Does delayed error correction have any effect on the accuracy of learners' oral production?
3. Is there any significant difference between those who received immediate versus delayed error correction in the improvement of accuracy?

3. Methodology

3.1 Introduction

The aim of this study is to examine the effects of immediate and delayed error correction on Iranian EFL learners' oral production. Therefore, in this chapter some issues such as the participants, design, procedure, instrumentation, and data collection and analysis are explained.

3.2 Participants

In this study, there were 100 female EFL learners aged 13 to 30 from an English language institute (Tak institute) in Dezful, Iran. They were chosen after being accepted in the placement test of the institute.

For the sake of homogeneity a placement test (OPT) was conducted to 100 female participants. Results of the tests which were conducted to 100 learners were measured according to the acceptable and reliable key answers and conversion chart of the OPT. Later, results have revealed that out of those 100 learners, 44 students were at intermediate proficient level. Then, out of those 44 intermediate learners, 30 were chosen as the main participants of the study. Then, two groups of 15 were formed randomly. For G1 errors were corrected immediately and for G2 with some delay, i.e. after finishing their speech during a term.

At the time of the research, those 30 students all had already studied English in that institute for 4 to 6 hours weekly for approximately two years. In their current term, they were supposed to review all grammatical structures (that they had already studied in English Corner books) to help them to improve their oral proficiency during a term which contains 12 sessions. The participants attended the classes twice a week that were held in the afternoon.

3.3 Design

For the design of this study, there were a placement test, pre-tests, eight treatment sessions, immediate post-tests, and also the delayed post-test (delayed-post-tests were administered after two weeks).

The pre-test was given in the first week during 2 sessions. Four weeks were devoted to treatments during 8 sessions. In the sixth week the immediate post-tests were conducted. Finally, after two weeks the delayed post-tests were given to the learners. Since, the main purpose of this study is on oral production, all pre-tests, post-tests, and delayed-post-tests were conducted in the form of structured interviews for each participants. All sessions including interviews and also treatments, were recorded. Later, for the sake of data collection and analysis students' voices were transcribed and analyzed. Each interview for each participant was rated by three trained raters. The independent variable was CF with two

levels: a) immediate group, b) delayed group; the dependent variable was the accuracy of learners in oral production.

Therefore, the current study followed the pretest, treatment, immediate posttest, and delayed posttest design.

3.4 Procedures and Data Collection

For this study, 30 homogenous participants out of 100 were pretested by means of interview, then they were divided into two similar groups.

In the pretest and posttest, interviews were rated by three raters. For the ratings of interviews, in order to determine inter-rater reliability, correlation coefficients were have been used.

Regarding the treatment, students were supposed to discuss 4 topics of the book randomly. Then, while they were discussing those topics, for G1 teachers corrected the errors immediately and for G2 they treated them with some delay. At the end of the term, teachers asked each student to discuss one of the topics they have covered during the term while their voices were recorded and transcribed later. Measures of accuracy were developed to examine the effects of these methods of CF (immediately and delayed) on learners' oral production.

3.5 Data Analysis

In order to score the placement test, an appropriate answer key was used. The findings obtained from pre-tests were measured and scored by three experienced raters. In order to score the accuracy of learners in oral production, Ellis and Yuan (2004) accuracy formula was used. In this formula, the number of correct answers was divided by the total number of items and the final scores were considered as the accuracy score for each individual.

Numerical values of accuracy = (number of correct items)/(total number of the items)×100

As there were three accuracy scores for each learner, later for further analysis, the mean scores of each participant was considered.

Therefore, since for each participant there were three scores measured by three different raters, for examining the reliability of these scores **inter-rater reliability** was used. According to, Howell (2002,cited in Larson-Hall, 2010) “the best way to calculate **inter-rater reliability** for cases of judges rating persons is to look at the *intraclass correlation*”. Streiner and Norman (2003) claimed that for Intraclass Correlation Coefficients in the case of Cronbach's alpha, values between 0.7 and 0.9 are considered acceptable and values less than 0.7 indicate that the items do not correlate very well with one another. Therefore, **intra-class correlation coefficient** was applied to calculate the inter-rater reliability of this study.

The obtained results were plugged into the SPSS, for the sake of homogeneity at pre-tests and also examining the differences of two experimental groups, Independent Sample T-tests were applied. In addition, for investigating the effectiveness of each type of CF on accuracy of learners' oral production, Paired Sample T-tests were carried out. The next two chapters are presented for analyzing and describing the data and also providing pedagogical implications.

4. Data Analyses and Results

4.1 Introduction

This study was an attempt to examine the effects of Immediate and Delayed Error Correction on accuracy of learners' oral production. At the same time it has been important to find out which kind of corrective feedback treatments was more beneficial and effective than the other. For the aim of this study, participants were pretested by means of interview, then they were divided into two matched experimental groups. While, students' errors in the first group were treated immediately, instructors in the second group provided corrective feedback to learners with some delay. After twelve sessions of treatment, the learners were post-tested and also delayed-post-tested by means of another structured interview. Measures of accuracy were developed to examine the effects of these methods of CF (immediately and delayed) on learners' oral production. In the pre-test, post-test, and delayed-post-test, interviews were have been rated by three raters. For the ratings of interviews, in order to determine inter-rater reliability, Intra-Class correlation coefficients were used. According to Streiner and Norman (2003), for Intraclass Correlation Coefficients in the case of Cronbach's alpha, values between 0.7 and 0.9 are considered acceptable and values less than 0.7 indicate that the items do not correlate very well with one another. The inter-rater reliability values were calculated through SPSS software. Results of reliability values have indicated that reliability scores of both groups at pre-test, post-test, and delayed-post-test were more than 0.9 .Therefore, all reliability values were assumed as acceptable.

To analyze the obtained data Mean and T-test were applied to compare the results between two groups. For the purpose of these obtained data and analyses, the alpha level was set at $p < .05$.

The analysis of the data is presented below.

4.2 Data analysis

To accomplish the purpose of this study, the first step is to look at the distribution of the data and then decide which test should be used for the further analysis of the study. According to Pallet (2011), we can assess the normality of the distribution of scores by the results of the **Kolmogorov-Smirnov** statistic (in the table labelled **Tests of Normality**). Pallet (2011) argued that a non-significant result (**Sig.** value of more than .05) indicates normality. In this study, the Sig. values are more than .05. Therefore, we can conclude that the data seems to have normal distribution (Table 1).

Table 1. Tests of Normality

Groups		Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
PreT	IEC	.200	15	.108	.899	15	.091
	DEC	.136	15	.200*	.965	15	.775
PostT	IEC	.111	15	.200*	.973	15	.905
	DEC	.207	15	.083	.900	15	.095
DelayedPo T	IEC	.111	15	.200*	.955	15	.603
	DEC	.141	15	.200*	.951	15	.541

In the next section, after collecting the data which contained the learners' oral tasks and instructors' CF techniques (Immediate and Delayed CF types), the treatments and tests (which were in the form of interviews) were transcribed, scored and analyzed. In the next step, the coding and scoring procedures were applied. Finally, the obtained data were plugged into SPSS and the descriptive and inferential statistics were carried out.

In order to consider homogeneity of the experimental and comparison groups in the pre-test, an **independent sample t-test** was run. The independent sample t-test showed whether the difference between the two groups' variance in the pre-test was equal or not. The results shown in Tables 2.1., 2.2., and 2.3. indicate the fact that the participants' variances were equal (Table 2.2.).

Table 2.1. Group Statistics

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pre-Test	Immediate Error Correction	15	.2600	.11898	.03072
	Delayed Error Correction	15	.3267	.15669	.04046

Table 2.2. Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interval of the	
									Lower	Upper
Pre-Test	Equal variances assumed	1.758	.196	-1.312	28	.200	-.06667	.05080	-.17073	.03739
	Equal variances not assumed			-1.312	26.117	.201	-.06667	.05080	-.17106	.03773

In the current study in the output above, the **Sig. (2-tailed)** value is .200. As this value is *above* the required cut-off of .05, results indicate that there is *not* a statistically significant difference in the mean accuracy scores in the pre-test of Immediate Error Correction and Delayed Error Correction. The **Mean Difference** between the two groups is also shown in this table, along with the **95% Confidence Interval of the Difference** showing the **Lower** value and the **Upper** value.

The result of eta square for pre-tests shows that the effect size is 0.05 and it indicates that there is a small effect. Expressed as a percentage (multiply the eta square value by 100), only 5 per cent of the variance in pre-tests are explained by groups (Immediate and Delayed Error Correction).

The results of the analysis could be presented as follows:

As Table 2 demonstrates, an independent-samples t-test was conducted to compare the accuracy scores for G 1 and G 2. There was no significant difference in accuracy pre-test scores for Immediate Error Correction ($M = .2600$, $SD = .1189$) and Delayed Error Correction ($M = .3267$, $SD = .1566$; $t(28) = -1.31$, $p = .20$, two-tailed). The magnitude of the differences in the means (mean difference = $-.066$, 95% $CI: -.170$ to $.037$) was small (eta squared = $.05$).

4.3. Investigation of Research Questions

In order to accomplish the purpose of this study, after confirming that there was no significant difference in accuracy pre-test scores for both groups, to find the efficacy of Immediate and Delayed Error Correction on accuracy of learners' oral production, **paired sample t-tests** were applied. In addition, for determining and finding any significant difference between two groups, **independent sample t-tests** were applied.

4.3.1. Research Question 1

Does Immediate Error Correction have any effect on the accuracy of learners' oral production?

The paired sample t-test, the mean scores of pre-test and delayed post-test for G 1 indicated that there was a significant difference between the scores from pre-test to delayed-post-test. The mean score of the IEC group in the delayed post-test (after receiving CF during a term) increased greatly.

A paired-samples t-test was conducted to evaluate the impact of the intervention on students' scores in the first group (IEC) from pre-test to post-test (Tables 3.1., 3.2., and 3.3.).

Table 3.1. Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre-Test, G1	.2600	15	.11898	.03072
Post-Test, G1	.5887	15	.11975	.03092

Table 3.2. Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Pre-Test, G1 & Post-Test, G1	15	.601	.018

Table 3.3. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Interval of the				
					Lower	Upper			
Pair 1	Pre-Test, G1 - Post-Test, G1	-.32867	.10669	.02755	-.38775	-.26958	-11.930	14	.000

There was a statistically significant increase in IEC scores from pre-test ($M = 0.2600$, $SD = 0.118$) to post-test ($M = 0.5887$, $SD = 0.119$), $t(14) = -11.930$, $p < .0005$ (two-tailed). The mean increase in IEC scores with a 95% confidence interval ranging from -0.3875 to -0.2695. The eta squared statistic (0.83) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the intervention on students' scores in the first group (IEC) from pre-test to delayed-post-test (Tables 4.1., 4.2., and 4.3.).

Table 4.1. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test, G1	.2600	15	.11898	.03072
	Delayed-Post-Test, G1	.6313	15	.09242	.02386

Table 4.2. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre-Test, G1 & Delayed-Post-Test, G1	15	.260	.350

Table 4.3. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Interval of the				
					Lower	Upper			
Pair 1	Pre-Test, G1 - Delayed-Post-Test, G1	-.37133	.13032	.03365	-.44350	-.29916	-11.035	14	.000

There was a statistically significant increase in IEC scores from pre-test ($M = 0.2600$, $SD = 0.118$) to delayed-post-test ($M = 0.6313$, $SD = 0.924$), $t(14) = -11.035$, $p < .0005$ (two-tailed). The mean increase in IEC scores with a 95% confidence interval ranging from -0.4435 to -0.2991. The eta squared statistic (0.81) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the intervention on students' scores in the first group (IEC) from post-test to delayed-post-test (Tables 5.1., 5.2., and 5.3.).

Table 5.1. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post-Test, G1	.5887	15	.11975	.03092
	Delayed-Post-Test, G1	.6313	15	.09242	.02386

		N	Correlation	Sig.
Pair 1	Post-Test, G1 & Delayed-Post-Test, G1	15	.476	.073

Table 5.2. Paired Samples Correlations

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Post-Test, G1 - Delayed-Post-Test, G1	-.04267	.11106	.02868	-.10417	.01884	-1.488	14	.159

There was a statistically significant increase in IEC scores from post-test ($M = 0.5887$, $SD = 0.119$) to delayed-post-test ($M = 0.6313$, $SD = 0.924$), $t(14) = -1.488$, $p(0.159) > .0005$ (two-tailed). The mean increase in IEC scores with a 95% confidence interval ranging from -0.1041 to 0.0188 . The eta squared statistic (0.07) indicated a large effect size.

4.3.2. Research Question 2

Does Delayed Error Correction have any effect on the accuracy of learners' oral production?

The paired sample t-test, the mean scores of pre-test and delayed post-test for G 2 indicated that there was a significant difference between the scores from pre-test to delayed-post-test. The mean score of the DEC group in the delayed post-test (after receiving CF during a term) increased greatly.

A paired-samples t-test was conducted to evaluate the impact of the intervention on students' scores in the second group (DEC) from pre-test to post-test (Tables 6.1, 6.2., and 6.3.).

Table 6.1. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test, G2	.3267	15	.15669	.04046
	Post-Test, G2	.4920	15	.12712	.03282

Table 6.2. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre-Test, G2 & Post-Test, G2	15	.248	.373

Table 6.3. Paired Samples

Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-Test, G2 - Post-Test, G2	-.16533	.17562	.04534	-.26259	-.06808	-3.646	14	.003

There was a statistically significant increase in DEC scores from pre-test ($M = 0.3267$, $SD = 0.1566$) to post-test ($M = 0.4920$, $SD = 0.1271$), $t(14) = -3.646$, $p(0.003) < .0005$ (two-tailed). The mean increase in DEC scores with a 95% confidence interval ranging from -0.2625 to -0.0680. The eta squared statistic (.32) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the intervention on students' scores in the second group (DEC) from pre-test to delayed-post-test (Tables 7.1., 7.2., and 7.3.).

Table 7.1. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test, G2	.3267	15	.15669	.04046
	Delayed-Post-Test, G2	.5653	15	.10875	.02808

Table 7.2. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre-Test, G2 & Delayed-Post-Test, G2	15	-.358	.190

Table 7.3. Paired Samples
Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Interval of the				
					Lower	Upper			
Pair 1	Pre-Test, G2 - Delayed-Post-Test, G2	-.23867	.22042	.05691	-.36073	-.11660	-4.194	14	.001

There was a statistically significant increase in DEC scores from pre-test ($M = 0.3267$, $SD = 0.1566$) to delayed-post-test ($M = 0.5653$, $SD = 0.1087$), $t(14) = -4.194$, $p(0.001) < .0005$ (two-tailed). The mean increase in DEC scores with a 95% confidence interval ranging from -0.3607 to -0.1166 . The eta squared statistic (.38) indicated a large effect size.

A paired-samples t-test was conducted to evaluate the impact of the intervention on students' scores in the second group (DEC) from post-test to delayed-post-test (Tables 8.1., 8.2., and 8.3.).

Table 8.1. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post-Test, G2	.4920	15	.12712	.03282
	Delayed-Post-Test, G2	.5653	15	.10875	.02808

Table 8.1. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Post-Test, G2 & Delayed-Post-Test, G2	15	-.179	.523

 Table 8.3. Paired Samples
Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Interval of the				
					Lower	Upper			
Pair 1	Post-Test, G2 - Delayed-Post-Test, G2	-.07333	.18149	.04686	-.17384	.02717	-1.565	14	.140

There was a statistically significant increase in DEC scores from post-test ($M = 0.4920$, $SD = 0.1271$) to delayed-post-test ($M = 0.5653$, $SD = 0.1087$), $t(14) = -1.565$, $p(0.140) > .0005$ (two-tailed). The mean increase in DEC scores with a 95% confidence interval ranging from -0.1738 to 0.02717 . The eta squared statistic (0.08) indicated a large effect size.

4.3.3. Research Question 3

Is there any significant difference between those who received immediate versus delayed error correction in the improvement of accuracy?

The independent sample t-test and the mean scores of both Immediate and Delayed Error Correction groups at post-tests and delayed post-tests indicated that although, there was a significant difference between the scores at post-tests; the results of mean scores at delayed-post-test was not significant. However, the results obtained from the effect sizes (calculated by eta squared) of both groups at post-test and delayed-post-test indicated large effects. Furthermore, while, the eta squared of both groups at post-test was 0.14, this score at delayed-posttest was 0.10. Therefore, the effect of G1 (IEC) was larger than the second group. In addition, according to the results obtained from Mean scores of both groups and their Mean Differences, we can conclude that the Immediate type of error correction was more effective in improving learners' accuracy on their oral production.

An independent-samples t-test was conducted to compare the accuracy scores of both groups at posttests (Tables 9.1., and 9.2.).

Table 9.1. Group Statistics

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Post-Test	Immediate Error Correction	15	.5887	.11975	.03092
	Delayed Error Correction	15	.4920	.12712	.03282

Table 9.2. Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interval of the	
									Lower	Upper
Post-Test	Equal variances assumed	.125	.726	2.144	28	.041	.09667	.04509	.00430	.18904
	Equal variances not assumed			2.144	27.901	.041	.09667	.04509	.00428	.18905

There was a significant difference in accuracy post-test scores for Immediate Error Correction ($M = .5887$, $SD = .1197$) and Delayed Error Correction ($M = .4920$, $SD = .1271$; $t(28) = 2.14$, $p = .041$, two-tailed). The magnitude of the differences in the means (mean difference = .096, 95% CI: .0043 to .1890) was large (eta squared = .14).

An independent-samples t-test was conducted to compare the accuracy scores of both groups at posttests (Tables 10.1., and 10.2.).

Table 10.1. Group Statistics

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Delayed-Post-Test	Immediate Error Correction	15	.6313	.09242	.02386
	Delayed Error Correction	15	.5653	.10875	.02808

Table 10.2. Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interval of the	
									Lower	Upper
Delayed-Post-Test	Equal variances assumed	.327	.572	1.791	28	.084	.06600	.03685	-.00948	.14148
	Equal variances not assumed			1.791	27.290	.084	.06600	.03685	-.00957	.14157

In addition, according to the results obtained from independent-samples t-test of accuracy delayed-post-test scores for both groups, there was no significant difference in accuracy scores for Immediate Error Correction ($M = .6313$, $SD = .0924$) and Delayed Error Correction ($M = .5653$, $SD = .1087$; $t(28) = 1.791$, $p = .084$, two-tailed). However, the magnitude of the differences in the means (mean difference = $.066$, 95% CI : $-.0094$ to $.1414$) was large (eta squared = $.10$).

5. Discussions, Conclusions, Pedagogical Implications, and Suggestions for Further Research

5.1. Discussion

For the purpose of this study which is examining the effect of two types of CF (Immediate and Delayed Error Correction) on accuracy of learners' oral production, three research questions were formed to investigate whether any of these types of corrective feedback have any effect on the improvement of accuracy learners' speaking. Therefore, the findings of this study which investigated the effectiveness of CF types and strategies (especially IEC and DEC) are in line with a huge number of studies. For instance, Allwright (1975, cited in Ellis, 2009) and Ferreira (2006), in considering to the fact that teachers should not ignore the errors, concluded the overall effectiveness of different types and strategies of CF. Furthermore, a large number of scholars such as Dabbaghi (2006); Rahimi and Dastjerdi (2012); Abid Dawood (2013); and Gharaghanipour, Zareian, and Behjat, (2015) have investigated the effectiveness of corrective feedback on oral production in L2 acquisition.

The results of data analysis of the first and second research questions indicated the efficacy of providing both Immediate and Delayed types of corrective feedback during treatment sessions. The first research question aimed at examining the effectiveness of Immediate Error Correction. Results have revealed that this type of CF had a positive effect on the accuracy of learners in oral production. These findings are in line with the work of Abid Dawood (2013) who examined the effects of grammatical error correction on accuracy of EFL learners.

Results of that study revealed that immediate error correction had a positive effect on learners' accuracy. On the other side, the second research question aimed at examining the effectiveness of Delayed Error Correction. Results have indicated that this type of CF had also a positive effect on the accuracy of learners in oral production. These findings are in line with the work of Dabbaghi (2006) who has run a study on the effects of immediate and delayed error correction with the variable of students' oral production. In conclusion, he stated that selecting delayed correction type is more preferable and effective than immediate one. For the third research question, the results of comparing mean scores of both groups at post-tests and delayed post-tests indicated that although, there was a significant difference between the scores at post-tests; the results of mean scores at delayed-post-test was not significant. However, the results obtained from the effect sizes (calculated by eta squared) of both groups at post-test and delayed-post-test indicated large effects. Furthermore, while, the eta squared of both groups at post-test was 0.14, this score at delayed-posttest was 0.10. Therefore, the effect of G1 (IEC) was larger than the second group. In addition, according to the results obtained from Mean scores of both groups and their Mean Differences, we can conclude that the Immediate type of error correction was more effective in improving learners' accuracy on their oral production. Regarding the efficacy of both Immediate and Delayed types of CF, the findings of the current study are in line with the work of Rahimi and Dastjerdi (2012) who mentioned the overall effectiveness of these two types of corrective feedback on learners' oral production. However, in some other studies researchers such as Dabbaghi (2006); AbidDawood (2013); and Gharaghanipour, Zareian, and Behjat, (2015) argued that the Delayed type of CF was more preferable and effective in the improvement of learners' oral production.

5.2. Conclusions

Since the main purpose of second language learning is being able to communicate in the target language, there have been a lot of research studies in the literature regarding improvement in communication and oral production. One important and affective part of this field is how to correct and treat non-target-like utterances. Therefore, considering some aspects that affect the notion of corrective feedback such as when and how to correct, and also what types of corrective feedback is more preferable and effective, is of crucial concern. Although, many studies have been done on the efficacy of different types and strategies of CF especially in written production, few scholars have worked on the effect of time (for example, whether errors should be treated immediately or with some delay) on learners oral production and specifically their improvement in accuracy. In this study, there was an attempt to determine whether Immediate and Delayed Error Correction had a positive effect on improvement of accuracy of Iranian EFL learners' oral production.

Considering the review of the literature in the field of L 2 acquisition (specifically the concept of Corrective Feedback and its effectiveness), and what happens in the context of language classes, contradictory findings and results were obtained. As a result, the following research questions and null hypotheses were carried out. The research questions, null hypotheses, and the results are as follows:

- 1) Does immediate error correction have any effect on the accuracy of learners' oral production?
- 2) Does delayed error correction have any effect on the accuracy of learners' oral production?
- 3) Is there any significant difference between those who received immediate versus delayed error correction in the improvement of accuracy?

In order to investigate this null hypothesis, 30 learners from Tak Language Institute, were selected through a homogeneity test. These learners were pretested through a structured interview, and were assigned into two similar experimental groups. During the term, while, learners' errors in the first group were treated immediately, for G 1 they were corrected with some delay. After twelve sessions of treatment, the learners were post-tested and also delayed-post-tested by means of another structured interview. Accuracy scores were carried out to investigate the effects of these two of CF (immediately and delayed) on learners' oral production. Finally, data analysis was carried out to examine the main purposes of this study.

The hypothetical answer to the first research question is: "Immediate error correction does not have any effect on the accuracy of learners' oral production". As the results have revealed, this type of CF had a positive impact on the accuracy of learners in oral production. Therefore, the first research question was rejected. The next hypothetical answer to the second research question is: "Delayed error correction does not have any effect on the accuracy of learners' oral production". As the results have shown, this type of CF had a positive impact on the accuracy of learners in oral production. Therefore, similar to the first research question, the second one was also rejected. Finally, the hypothetical answer to the third research question is: "There is not any significant difference between those who received immediate versus delayed error correction in the improvement of accuracy". According to the results of data analysis, eta squared, mean, and mean differences scores, the effects of Immediate type of error correction in improving learners' accuracy on their oral production was larger than Delayed CF. Therefore, since there is a difference between the efficacies of these methods of CF, the third research question was rejected too.

Since the main purposes of this research study were to examine the effectiveness of interactional feedback in L2 acquisition, to investigate the effectiveness of different types of corrective feedback during interaction, and to find out the most effective type and the best time of interactional feedback in order to be more accurate, the findings of this study are in line with the theories of Interaction Hypothesis. In this regard, Ellis, Long claimed that "Interactional features refer to communicative aspects of foreigner talk such as temporal markings and various discourse and topic-incorporation functions".

Moreover, the current study might provide evidence in line with the Schmidt's Noticing Hypothesis and also Swain's Output Hypothesis. As the main purpose of these hypotheses are to help learners to notice their mismatches and errors and then reformulate their utterances and try to correct themselves in order to be closer to the target language forms, thus, considering these hypothesis in the light of corrective feedback is of crucial concern. In addition, results which revealed the larger effects of IEC than DEC on learners' accuracy,

may confirm that through Immediate CF there are opportunities in which learners notice their mismatch utterances and instructors feedback and then try to be more accurate.

5.3. Pedagogical Implications

5.3.1. Implications for Teaching and Teacher Training

The current study, examined the efficacy of two types of corrective feedback. Based on the results, although, for the improvement of accuracy in oral production both IEC and DEC were effective, larger effects were obtained through providing Immediate Error Correction.

Therefore, this study implies some support for considering IEC and DEC as effective types of CF in the field of second language learning. It also indicates some support for the use of Immediate Error Correction in improving oral proficiency more than Delayed type. In addition, in order to select the most effective type of CF, depending on the specific purpose of the acquisition of a language learning classroom, teachers should consider different factors for each specific situation. They should be familiarized with the various types, techniques, and strategies of CF. Furthermore, they should be trained to use each of them in an appropriate context. For instance, whether the purpose of acquisition is on improving in accuracy or fluency. In this regard, results of this study for accuracy improvement in oral production, suggest teachers to provide Immediate type of error correction to learners' erroneous utterances.

5.3.2. Implications for Materials Development

In fact, one of the responsibilities of materials developers is providing the content of teaching materials. Therefore, this study suggests material developers to design appropriate communicative tasks which provide opportunities for learners to be more proficient in oral production. In addition, they should develop communicative tasks in which help students to be more accurate during their speaking.

5.4. Suggestions for Further Research

As the current study was narrowed down in terms of its types and strategies of CF, language proficiency of learners, gender and number of participants, one skill of language learning (speaking), etc., some further research which can cover these issues, is needed.

1. Since the main purpose of this study was examining two types of CF (IEC and DEC), it is suggested that similar studies should be conducted with examining the efficacy of other types of CF on accuracy of learners.
2. This study examined the language proficiency of just female participants, thus, this study could be replicated with both male and female learners.
3. Considering the fact that this study was limited to only Intermediate learners, similar studies should be conducted with participants at lower or higher levels of language proficiency.

4. Since this study focused on only one aspect of oral production (accuracy), similar studies are needed to investigate the other aspects of oral production (such as fluency and complexity) as well.

5. The present study was limited to investigate only one of the skills of L2 learning (oral production). Therefore, it could be replicated with examining the other aspects and skills of language learning (such as reading, listening, and writing). It is suggested that similar studies should be conducted with examining the efficacy of other types of CF on accuracy of learners.

5.5. Final Remark

The main purpose of this study was to affect the improvement of oral production in the field of both language teaching and learning. By conducting this study, the purpose of researcher was to help the development of language learning and teaching in the light of the effectiveness of IEC and DEC. since these types of CF are only some parts of the concept of corrective feedback in the field of language learning, it is recommended that other researchers carry out and cover the other parts of this issue.

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