



Recast and Metalinguistic Corrective Feedback: Probing the Role of Practice Effect with Error Logs in Iranian EFL Learners' Process Writing Ability

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Abstract

The researchers in the current study aimed to explore the impact of metalinguistic corrective feedback and recasts on learners' process writing ability through virtual learning environment. To this aim, a total of 63 Iranian EFL learners were selected and arranged in four groups (metalinguistic feedback, metalinguistic + error logs, recasts, and recasts + error logs). To conduct the study, an expository writing task selected from IELTS task 1 was administered to all participants as the pretest. The treatment lasted for eight weeks, and then the process writing posttest was administered. The main focus of the writing task was process writing and passive voice was selected as the target structure. The topics for pretest and posttest were selected with a lot of care, so that they could lend themselves to process writing, and would evoke the use of passive structure. The data were analyzed via paired sample t-test, Wilcoxon Signed Rank Test and one-way ANOVA. Based on the findings, though all groups significantly improved from pre- to posttest, no significant difference was found among the four groups as a result of being exposed to four types of corrective feedback. The findings offer implications for university EFL learners, professors, and material developers.

Keywords: *Error Logs; Oral Metalinguistic Feedback; Process Writing; Recast; Virtual Learning Environment*

1. Introduction

The skill of writing professionally in an academic milieu is a requisite ability for all university learners, in general, and English as a Foreign Language (EFL) learners, in particular (e.g., [Alavinia & Hassanlou, 2014](#); [Modirkhameneh, et al. 2018](#); [Pouyan, et al. 2023](#)). Despite the seminal role writing proficiency plays in academic success, as [White and Arndt \(1991\)](#) argue, it has not been given the attention it deserves. One way to ameliorate the individuals' writing skill and help them tackle their writing difficulties, however, as most researchers contend, is the proper use of corrective feedback (CF) (e.g., [Muncie, 2000](#)). Ample and timely provision of CF boosts the learners' awareness of errors and assists them in avoiding similar errors in subsequent occasions (e.g., [Karim & Nassaji, 2020](#); [Xu & Zhang, 2021](#)). Oral corrective feedback (OCF) can take a variety of forms, including recast, elicitation, clarification request, and metalinguistic feedback. Likewise, written corrective feedback (WCF) can be provided in a variety of ways, namely through direct, indirect, metalinguistic, focused, unfocused, and electronic modes or by means of reformulation (e.g., [Ellis, 2008](#); [Ellis, 2009](#); [Lyster & Ranata, 1997](#); [Richards & Schmidt, 2010](#)).

One category of CF, known as metalinguistic feedback, which is one of the variables addressed in the current study, refers to the kind of feedback in which the instructor supplies metalinguistic clues by either providing error codes or grammatical descriptions based on the nature of the error (e.g., [Ferris, 2004](#); [Sheen, 2007](#)). In line with the classification of corrective feedback suggested by [Lyster and Ranata \(1997\)](#), metalinguistic feedback is regarded as the explicit correction.

Recast, as the other type of feedback dealt with in the current study, is regarded as an implicit kind of corrective feedback that extends, spreads or reconstructs an incomplete or poorly constructed sentence ([Brown, 2007](#)). Studies have shown that recasts are offered intermittently in and out of the classroom context, and can have a significant effect on learners' language proficiency development ([Oliver, 1995](#); [Lyster & Ranta, 1997](#); [Nassaji, 2017](#); [Sheen, 2007](#)). [Long \(1996\)](#) in his explanation of the interaction hypothesis points out that recast is very useful in promoting a second language because it occurs in meaning-oriented exercises. In these cases, recasts are preparing comprehensible input and focus on form for the learners ([Leeman, 2003](#); [Schmidt, 2001](#)).

In recent years, thanks to the upsurge of different technological devices and the prevalence of diverse social networks, CF provision has entered a new phase, and electronic and online modes of CF have become more commonplace. Research on the role of technology in boosting CF has indicated that utilizing online materials and electronic tools can assist the learners to monitor their own



learning, reach better uptake, and further develop their writing ability (e.g., [Hewett, 2006](#)).

Though numerous researchers have striven to explore the efficacy of different CF types (metalinguistic feedback and recast included) on various aspects of language proficiency development in individuals, the findings in some cases appear to be inconclusive, and at times contradictory. Particularly, when it comes to the feedback provided through virtual learning environment and online learning, the paucity of research is quite outstanding. The other aspects that might render the current study different from the previous studies are its focus on an underresearched mode of writing known as process writing (informational type), and the use of passive structure, as well as its attention to the role of error logs (as a reinforcing element which might boost uptake).

Thus, informed by the available literature on CF, particularly as regards recast and metalinguistic feedback, and determined to fill in the gaps referred to above, the researchers in the current study strove to pinpoint the role of recast and metalinguistic feedback via virtual learning platform and social media on Iranian intermediate EFL learners' process writing ability. In so doing, the contribution of practice effect using error logs and grammar journals as a means of reinforcement was also probed. It must be noted that the targeted structure in the study was passive voice.

2. Review of the Related Literature

Apart from the constructive role CF plays in fostering learning, the appropriate provision of feedback in terms of time, manner and degree is a challenging issue over which there is a lot of debate among the scholars (e.g., [Ferris, 2007](#)). Additionally, there is some dispute among investigators concerning the efficacy of CF. While some researchers raise doubts about the usefulness of feedback for language development ([Truscott, 1996](#); [Truscott & Hsu, 2008](#)), others are of the view that CF has a significant effect on the development of students' language skills ([Bitchener, et al. 2005](#); [Ellis, 2009](#); [Ferris, 1999, 2010](#)). Despite this controversy over the efficacy of CF, and debates regarding when, how and to what extent it is to be provided, most researchers today unanimously contend that proper and timely provision of feedback leads to language learning enhancement in terms of both oral and written proficiency. Furthermore, many researchers argue that feedback is an efficacious strategy to develop learners' writing skill (e.g., [Kara & Abdulrahman, 2022](#)).

Though research into corrective feedback has addressed miscellaneous issues and concerns, four major strands are prominent in the literature: 1) the efficacy of different feedback types, as revealed in the studies conducted by [Banaruee, et al. \(2018\)](#), [Sarandi and Çelik \(2019\)](#), and [Seyedebrahimi, et al. \(2022\)](#), among others

(in this regard, the comparison between implicit and explicit feedback types or so to speak, recast and prompt is more ubiquitous); 2) The cognition and perceptions of teachers and learners regarding the efficacy of different feedback modes (e.g., [Bao & Wang, 2023](#); [Ha, 2022](#); [Ha & Nguyen, 2021](#); [Nassaji et al. 2023](#)); 3) The efficacy of current modes of CF provision, particularly electronic feedback and computer-mediated, mobile-assisted or social media-enriched feedback (e.g., [Akbar, 2017](#); [Altamimi & Masood, 2021](#); [Ene & Upton, 2018](#); [Rassaei, 2019](#)); and 4) The role of learner engagement with corrective feedback (e.g., [Liu & Feng, 2023](#); [Shen & Chong, 2023](#); [Tsao, 2021](#)), which is a brand new and quite underresearched area. Each of these distinct strands is reviewed in what follows, and examples from literature are provided.

With regard to the first research strand, i.e. the efficacy of different feedback types, particularly recast vs. prompt, mention can be made of [Banaruee, et al.'s](#) research ([2018](#)) in which the researchers exposed forty high school EFL learners to two kinds of treatment, namely recasts and direct corrective feedback. As the findings indicated, though both groups significantly improved on the writing posttest, the recast group outperformed the direct feedback group in terms of their writing performance.

In a similar vein, [Sarandi and Çelik \(2019\)](#) compared the influence of recasts and prompts on the acquisition of third person -s. To conduct the study, a total of 36 students from the university context in Turkey were selected and assigned to a control and two treatment conditions. To elicit and measure the acquisition of the target structure, oral narration tasks and grammaticality judgment tests were employed. The main finding of their research was the vivid privilege of recast, as opposed to prompt, as revealed by the posttest and delayed posttest results.

In a more recent investigation, [Seyedebrahimi, et al. \(2022\)](#) compared the relative effects of recast and explicit corrective feedback on test takers' speaking anxiety. A total of 90 Iranian learners taking IELTS test were assigned into two experimental groups that went through a 10-session treatment, and a control group. The treatment in the explicit group was done through on-the-spot correction. Also, for measuring speaking anxiety, Chowdhury's (2014) questionnaire was administered prior and successive to treatment. In line with the findings, while for upper-intermediate level learners no significant difference was revealed, for advanced learners, significant differences were observed between the control group and the experimental groups.

Drawing on the findings garnered from the literature, some of which were reported in this section, it can be concluded that among diverse kinds of corrective feedback applied in language classes, research has indicated that recasts are the most recurrently utilized (e.g., [Ellis, 2006](#); [Li, 2010](#); [Loewen & Philp, 2006](#)). Nevertheless, other studies have shown that recasts do not have as much of a



positive effect on learners' accuracy as the other feedback types. Examples of such research include [Jafarigohar and Gharbavi's \(2014\)](#) investigation of the impact of prompts and recasts on learners' grammatical competence, which revealed that recasts are not as effective as prompts.

Though the results of studies on different modes of corrective feedback and their efficacy are inconclusive, the findings indicate that when different types of corrective feedback are used and contrasted, explicit types lead to more beneficial outcomes than implicit ones ([Ortega, 2013](#)). For instance, in a study germane to the focus of the current research, [Ellis \(2006\)](#) contrasted the impact of metalinguistic feedback and recasts, and found that metalinguistic feedback is more beneficial than recasts.

The second major avenue of research in the recent years has addressed the perceptions of EFL teachers and learners as regards the efficacy of corrective feedback. As a case in point, [Ha and Nguyen \(2021\)](#) probed learner and teacher beliefs concerning the types and sources of CF. Done in the Vietnamese EFL contexts of learning, their study relied on the data collated via questionnaires and interviews. As the findings indicated, the students voiced their tendency to receive different feedback types, whereas the teachers tended to be more selective in their choice of error types. As regards CF sources, the students revealed a predilection for teacher feedback, as opposed to self- and peer-correction. Likewise, the teachers believed that teachers have a more prominent role in providing corrective feedback for learners.

In the study conducted by [Ha \(2022\)](#) in the Vietnamese EFL context, teachers' beliefs and practices in terms of corrective feedback, and the relationship between them, were probed. In so doing, 10 high school teachers were researched through interviews and classroom observations. As the results indicated, a strong relationship prevailed between the focus of the lesson and the teachers' preferred corrective feedback behavior. In other words, the CF strategies utilized in form-focused lessons and meaning-focused ones were different.

In another study, [Bao and Wang \(2023\)](#) investigated teachers and learners' perceptions and preferences for corrective feedback types in a Chinese context. The study was conducted using a questionnaire and interviews with 328 students and 46 teachers. The results overall revealed a preference on the part of students for explicit correction and metalinguistic feedback. The teachers, on the other hand, opted for recasts as the preferred mode of feedback. The findings also pointed towards the discrepancy between teacher and student beliefs as regards the efficacy of explicit correction, clarification request, and metalinguistic feedback.

In like manner, [Nassaji, et al. \(2023\)](#) explored the relationship between teacher cognition and real class conduct with regard to corrective feedback provision. To gather the data, the researchers made use of the recorded class audios, stimulated recall and a cognition questionnaire. Based on the findings, discrepancies were observed between the teachers' perceptions and their real practices, as regards both feedback type and amount.

It's worth noting that in recent years, a transition toward current modes of feedback provision, for instance via computers and cell phones, is remarkable. In this regard, [AbuSeileek and Rabab'ah \(2013\)](#) investigated the impact of corrective feedback through technology on different aspects of writing, including fragments and run-ons, misused words, capitalization, punctuation, negation, possessives and plurals, relative clauses, verb phrases, questions, subject-verb agreement, and noun phrases. The results of their study depicted that the learners who received feedback through technology performed better on these aspects of writing.

With regard to this strand of research, the paucity of investigations was tangible during the pre-pandemic era. However, in the post-pandemic era, the outstanding growth in such research is quite noteworthy. The studies in this domain were initially more focused on synchronous versus asynchronous modes of feedback provision using computers, but later included mobile-assisted and social media-enriched modes of corrective feedback. As a case in point, [Akbar \(2017\)](#) was interested in comparing the effect of synchronous vis-à-vis asynchronous computer-mediated feedback on learner uptake. In so doing, the researcher made use of four native/nonnative speaker dyads, and uptake was operationalized as the immediate or delayed response provided by learners to corrective feedback. Based on the findings, the feedback given in the synchronous mode was only in the form of recast, whereas in the asynchronous mode clarification request were more eye-catching. Additionally, the delayed effect of feedback and hence uptake was more predominant than its immediate impact.

In the study conducted by [Ene and Upton \(2018\)](#), the efficacy of teacher electronic feedback (TEF) in face-to-face and online modes was compared. Their targeted skill was students' writing proficiency. Their findings revealed that though synchronous and asynchronous electronic feedback were both useful and complemented one another, asynchronous feedback led to better uptake. Furthermore, both students and teachers found electronic feedback to be highly practical in improving their writing proficiency.

In a later investigation, [Rassaei \(2019\)](#) probed the relative effects of audio-based and text-based electronic corrective feedback. In so doing, he also took into account the role of learners' favored perceptual style in acquiring the article system in English. A total of 89 participants were used and assigned to one control



and two experimental groups. Using a written task and an oral production task, the researcher concluded that both treatment conditions led to significant enhancement in learners' L2 development as regards the English article system. His study, accordingly, offered insights for the efficacy of coordinating the type of computer-mediated CF with the learners' perceptual styles.

More recently, [Altamimi and Masood \(2021\)](#) probed the efficacy of electronic feedback. The results of their study displayed that electronic feedback can prove to be highly efficacious and at the same time motivating. Likewise, as [Pamungkas and Amroni \(2021\)](#) argued, preparing electronic corrective feedback to improve learners' writing skill is an important tool that teachers can properly apply in their classes.

Finally, turning to the last strand of research on corrective feedback, i.e. learner engagement with feedback, it is found that scant research has been conducted on this novel aspect of CF. However, in what follows three seminal studies in this regard are reported. [Tsao \(2021\)](#), for instance, was interested in finding the role of self-efficacy in second language writing on learners' engagement with feedback. To this aim, 227 high school students from Taiwan were asked to fill out two questionnaires, namely L2 writing self-efficacy measure and engagement with CF scale. The major subcategory of L2 self-efficacy which was found to have the greatest predictive power for the degree of learner engagement with feedback was self-regulation.

In a later study, [Shen and Chong \(2023\)](#) probed learners' engagement with CF from the perspective of the perception-based framework. Using grounded theory, the researchers attempted to pinpoint the feedback engagement patterns and specify the association between the factors underlying learner engagement with feedback. The results pointed toward the individualized, contextualized, multifaceted and dynamic nature of learner engagement with CF. In much the same way, [Liu and Feng \(2023\)](#) highlighted the importance of learner engagement with feedback as a key determiner of feedback efficacy, and advocated the use of proper strategies for heightened levels of learner engagement with CF.

Although various investigations have been conducted regarding the efficacy of different modes of corrective feedback, the obtained outcomes are still inconclusive. Furthermore, despite the plethora of studies conducted on different CF types, scant research seems to have focused on the social-media-based and online modes of offering corrective feedback. In an attempt to bridge the gap in this regard, the current study focused on the effects of metalinguistic feedback versus recasts through virtual learning platform and social media on process writing ability of learners. Moreover, the inclusion of error logs and grammar journals as a follow-up and reinforcement can be regarded as another novelty aspect of the current research. It's worth noting that the targeted grammatical

structure in the study was passive voice. In accordance with the objectives of research, the researchers sought to address the following research questions:

RQ1: To what extent does providing metalinguistic feedback via virtual learning platform and social media affect Iranian intermediate EFL learners' process writing ability?

RQ2: To what extent does providing metalinguistic feedback through virtual learning platform and social media, followed by keeping error logs and grammar journals, affect Iranian intermediate EFL learners' process writing ability?

RQ3: To what extent does providing recasts through virtual learning platform and social media affect Iranian intermediate EFL learners' process writing ability?

RQ4: To what extent does providing recasts through virtual learning platform and social media, followed by keeping error logs and grammar journals, affect Iranian intermediate EFL learners' process writing ability?

RQ5: Is there any significant difference among the four types of corrective feedback (metalinguistic, metalinguistic + error log, recast, recast + error log) as regards Iranian intermediate EFL learners' process writing ability?

3. Method

3.1 Design

This study was based on a quasi-experimental pretest-posttest design. Process writing ability of the participants was identified as dependent variable and different corrective feedback types (metalinguistic, metalinguistic + error logs, recasts, and recasts + error logs) constituted the independent variables.

3.2 Participants

A total of 63 Iranian intermediate EFL students from Shahrekord University took part in the study. The learners were in two intact classes, and hence convenience sampling procedure was followed. The participants were from both genders, and their age ranged from 19 to 25, with their average age being 20. They were sophomores and had Persian as their mother tongue. In assigning the participants into groups, each of the two classes was divided into two parts, and each was randomly assigned to one of the four comparison groups (metalinguistic, metalinguistic + error logs, recasts, and recasts + error logs). Thus, as stated, the sampling method was mainly based on convenience and availability of the participants. However, in assigning the two intact group participants into one of



the four groups, the participants in each class were initially split into two separate parts, and then they were randomly assigned to one of the four groups.

3.3 Instruments

The instruments used in this study comprised 1) IELTS expository task 1 ([Cambridge English IELTS book 9](#)) as the proficiency test that intended to homogenize the learners prior to instruction; 2) a pretest of process writing that was adopted from IELTS expository task 1 ([Cambridge English IELTS](#)), and 3) a posttest of process writing taken from IELTS expository task 1. It's worth noting that both the pretest and posttest were developed in order to measure learners' performance on process writing ability with a focus on passive voice as a target structure. Indeed, process writing was selected as opposed to other modes of writing like narration, cause/effect, and comparison/contrast due to its reliance on passive voice. In so doing, the topics for pretest and posttest were selected with a lot of care, so that they could lend themselves to process writing, and would evoke the use of passive structure.

Prior to implementing the study, some guidelines were provided for learners regarding the procedure for writing an *informational process paragraph* in which passive structure must be used as the dominant structure. To this aim, one or two sample informational process paragraphs were presented for learners. In selecting the topics for pre-and post-test, an attempt was made to choose them from among IELTS samples of task 1 which were expository and so process type in nature. Both tests had a 150-word limit and were administered in 20 minutes based on IELTS regulations. Furthermore, the treatment included practice with process writing (informational mode) and the feedback was focused on passive structure.

3.4 Procedure

At the outset, a sample of IELTS expository writing task 1 ([Cambridge English IELTS book 9](#)) was administered to all participants to ensure homogeneity. In line with the guidelines for IELTS writing task 1, the students were required to write a paragraph of at least 150 words within 20 minutes. Two PhD candidates in TEFL (each with approximately 6 years of English language teaching experience) rated the participants' written paragraphs. Learners' writings were then scored based on IELTS scoring rubrics and band descriptors between 0 and 9. After homogenizing the learners, they were randomly assigned to one of the four comparison groups (metalinguistic, metalinguistic + error logs, recasts, and recasts + error logs).

Next, the pretest containing a process writing task was given to all participants before going through instruction. The pretest likewise consisted of IELTS expository writing task 1, but the topic was selected with a lot of care, so

that it could lend itself to process writing, and would evoke the use of passive structure. Again the learners were given 20 minutes to write a paragraph of at least 100 words in line with IELTS guidelines for task 1. It must be noted that the learners' writings were scored in two ways: once based on band descriptors (between 0 and 9), and the second time based on the ratio of the instances of correct use of passive structure to the total number of passive structures utilized in the text.

Subsequently, the treatment was applied for all four groups in line with the focus of CF in each group. Every treatment session lasted for about forty minutes through virtual learning environment. During the treatment sessions, a variety of topics from IELTS writing task one were selected and given to learners to write about. Afterwards, the feedback was provided on the learners' errors in each group based on the focus of CF in that specific group. In so doing, an attempt was made to mainly focus on the correct use of passive voice in informational process writing paragraphs. In metalinguistic feedback groups, as noted earlier, two major approaches for feedback provision were pursued: 1) Applying error codes, using abbreviated labels or writing codes for different kinds of error, and 2) Providing grammatical descriptions below the text. In recast groups, however, following [Lyster and Ranta's \(1997\)](#) lead, the feedback was provided through indirect indication of the learners' erroneous productions again using the virtual learning platform and social media. In so doing, an attempt was made by the instructor to implicitly reformulate the learners' wrong utterances. In two groups out of four, CF was followed by keeping error logs and grammar journals intended to reinforce and consolidate the given feedback. It must also be noted that since the study took place at the time of the pandemic, the feedback was given to learners via virtual learning platform (Adobe Connect) as well as social media (Telegram application). Eight treatment sessions were held for the participants in each group. Participants were required to write a 150-word paragraph per session. One week after the last session, the posttest was administered in a manner akin to pretest.

3.5 Data Analysis

To analyze the data, SPSS 22 was used. Research questions 1 through 4 were investigated via paired samples t-test or its nonparametric equivalent, Wilcoxon Signed Rank Test, based on the normality of distribution for different score sets. However, research question five was analyzed through running one-way ANOVA.

4. Results

4.1 Findings Obtained for Research Question One

The first research question of the study explored the potential effect of teacher's metalinguistic feedback via virtual learning platform and social media on Iranian



intermediate EFL learners’ process writing ability. In dealing with this research question, initially test of normality was run to find out whether the scores enjoyed normal distribution. This was done to guide the researchers as to their choice of parametric/non-parametric statistics. Table 1 summarizes the results of normality tests for pretest and posttest results ensuing from metalinguistic corrective feedback.

Table 1
Normality Test Results for Pretest and Posttest of Writing for Metalinguistic Group

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PreMeta	.143	14	.200*	.969	14	.868
PostMeta	.177	14	.200*	.882	14	.062

*. This is a lower bound of the true significance.
 a. Lilliefors Significance Correction

As is evident from the table, based on both Kolmogorov-Smirnov and Shapiro-Wilk tests, the pretest and posttest scores enjoy normal distribution ($p > .05$), and hence to compare learners’ pretest and posttest results in metalinguistic corrective feedback group, paired samples t-test is used. Table 2 illustrates the results thus obtained.

Table 2
Paired Samples t-test for Metalinguistic Corrective Feedback Group

	Paired Differences							Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference		t	df	
				Lower	Upper			
Pair 1 PreMeta - PostMeta	-1.85714	.79490	.21245	-2.31611	-1.39818	-8.742	13	.000

As is seen in Table 2, there is a significant improvement from pretest to posttest for metalinguistic corrective feedback group, and hence the first null hypothesis of the study is rejected.

4.2 Findings Obtained for Research Question Two

The second research question of the study explored the potential effect of teacher’s metalinguistic corrective feedback via virtual learning platform and social media followed by keeping error logs and grammar journals on Iranian

intermediate EFL learners' process writing ability. In dealing with this research question, initially test of normality was run to find out whether the scores enjoyed normal distribution. This was done to guide the researchers as to their choice of parametric/non-parametric statistics. Table 3 summarizes the results of normality tests for pretest and posttest results ensuing from metalinguistic corrective feedback followed by keeping error logs and grammar journals.

Table 3

Normality Test Results for Pretest and Posttest of Writing for Metalinguistic Group Followed by Keeping Error Logs and grammar journals

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PreMetaErrorLog	.163	19	.200*	.931	19	.183
PostMetaErrorLog	.181	19	.100	.920	19	.113

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

As is evident from the table, based on both Kolmogorov-Smirnov and Shapiro-Wilk tests, the pretest and posttest scores enjoy normal distribution ($p > .05$), and hence to compare learners' pretest and posttest results for metalinguistic corrective feedback followed by keeping error logs and grammar journals, paired samples t-test is used. Table 4 illustrates the results thus obtained.

Table 4

Paired Samples t-test for Metalinguistic Corrective Feedback Group Followed by Error Logs and Grammar Journals

	Paired Differences						t	Sig. (2- df tailed)
	Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PreMeta + ErrorLog - PostMeta + Error Log	-2.94737	1.21215	.27809	-3.53160	-2.36313	-10.599	18	.000

As is seen in Table 4, there is a significant improvement from pretest to posttest for metalinguistic corrective feedback group followed by error log and grammar journals, and hence the second null hypothesis of the study is rejected.

4.3 Findings Obtained for Research Question Three



The third research question of the study explored the potential effect of teacher’s recasts via virtual learning platform and social media on Iranian intermediate EFL learners’ process writing ability. In dealing with this research question, initially test of normality was run to find out whether the scores enjoyed normal distribution. Table 5 summarizes the results of normality tests for pretest and posttest scores ensuing from recasts.

Table 5
Normality Test Results for Pretest and Posttest of Writing for Recast Group

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PreRecast	.219	14	.066	.903	14	.125
PostRecast	.234	14	.056	.897	14	.103

a. Lilliefors Significance Correction

As is evident from the table, based on both Kolmogorov-Smirnov and Shapiro-Wilk tests, the pretest and posttest scores enjoy normal distribution ($p > .05$), and hence to compare learners’ pretest and posttest results in recast group, paired samples t-test is used. Table 6 illustrates the results thus obtained.

Table 6
Paired Samples t-test for Recast Group

	Paired Differences						Sig. (2- tailed)
	Std.		Std. Error	95% Confidence Interval of the Difference		t	
	Mean	Deviation		Lower	Upper		
Pair 1 PreWritingRecast - PostWritingRecast	-.78571	.37796	.10102	-1.00394	-.56748	-7.778	13 .000

As is seen in Table 6, there is a significant improvement from pretest to posttest for recast group, and hence the third null hypothesis of the study is rejected.

4.4 Findings Obtained for Research Question Four

The fourth research question of the study explored the potential effect of teacher’s recasts via virtual learning platform and social media followed by keeping error logs and grammar journals on Iranian intermediate EFL learners’ process writing ability. Table 7 summarizes the results of normality tests for pretest and posttest scores ensuing from recasts followed by error logs and grammar journals.

Table 7

Normality Test Results for Pretest and Posttest of Writing for Recast Group Followed by Error Logs and Grammar Journals

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PreRecastErrorLog	.226	16	.028	.886	16	.048
PostRecastErrorLog	.263	16	.004	.868	16	.026

a. Lilliefors Significance Correction

As is evident from the table, based on both Kolmogorov-Smirnov and Shapiro-Wilk tests, the pretest and posttest scores violate the conditions for normality ($p < .05$), and hence to compare learners' pretest and posttest results in recast group followed b error logs and grammar journals, the non-parametric equivalent of paired samples t-test (i.e., Wilcoxon signed rank test) is used. Table 8 illustrates the results thus obtained.

Table 8

Wilcoxon Signed Rank Test for Comparing the Mean Writing Scores Obtained by Recast Group Followed by Error Log and Grammar Journal

	PostRecastErrorLog - PreRecastErrorLog
Z	-3.432 ^b
Asymp. Sig. (2-tailed)	.001

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

As is seen in Table 8, there is a significant enhancement from pretest to posttest for recast group followed by error log, and hence the fourth null hypothesis of the study is rejected.

4.5 Findings Obtained for Research Question Five

The last research question of the study explored the potential difference among the four types of oral corrective feedback (recast, metalinguistic, recast + error log, metalinguistic + error log) as regards Iranian intermediate EFL learners' process writing ability. In dealing with this research question, one-way ANOVA was run the results of which are indicated in Tables 9 for pretest scores and 10 for posttest scores.

Table 9

One-way ANOVA Results for Pretest Writing Scores regarding Different Types of Oral Corrective Feedback



		Sum of Squares	df	Mean Square	F	Sig.
PreMetaErrorLog	Between Groups	1.617	1	1.617	3.269	.088
	Within Groups	8.409	17	.495		
	Total	10.026	18			
PreMeta	Between Groups	.292	1	.292	.380	.549
	Within Groups	9.208	12	.767		
	Total	9.500	13			
PreRecast	Between Groups	.720	1	.720	1.007	.335
	Within Groups	8.583	12	.715		
	Total	9.304	13			
PreRecastErrorLog	Between Groups	.953	1	.953	1.911	.189
	Within Groups	6.984	14	.499		
	Total	7.938	15			

As is seen in the table, there is no significant difference among the performances of four groups on writing posttest. Table 10 illustrates the result of one-way ANOVA for writing posttest.

Table 10
One-way ANOVA Results for Posttest Writing Scores regarding Different Types of Oral Corrective Feedback

		Sum of Squares	df	Mean Square	F	Sig.
PostMetaErrorLog	Between Groups	.733	1	.733	1.303	.269
	Within Groups	9.557	17	.562		
	Total	10.289	18			
PostMeta	Between Groups	.121	1	.121	.402	.538
	Within Groups	3.594	12	.299		
	Total	3.714	13			
PostRecast	Between Groups	.180	1	.180	.330	.576
	Within Groups	6.552	12	.546		
	Total	6.732	13			
PostRecastErrorLog	Between Groups	.181	1	.181	.738	.405
	Within Groups	3.429	14	.245		
	Total	3.609	15			

As is seen in Table 10, there is no significant difference among the performances of four groups on writing posttest ensuing from four kinds of corrective feedback, and hence the last null hypothesis of the study is confirmed.

5. Discussion

The major goal of the present study was to determine the effect of metalinguistic CF and recasts on Iranian EFL learners' process writing ability through virtual learning environment (VLE). The first research question of the study explored the

potential effect of teachers' metalinguistic feedback via VLE and social media on Iranian EFL learners' process writing ability using passive voice structure. Results showed that there was a significant improvement from pretest to posttest for this group.

There is related research that investigated the effect of different types of feedback on diverse aspects of language. This finding resonates with the one obtained by [Hashemian and Farhang-Ju \(2018\)](#), since their study also indicated that the experimental group that received metalinguistic feedback had more improvement in their writing accuracy than control group that received no feedback. This finding also corroborates the one reported by [Khodi and Abbasi Sardari \(2015\)](#), which highlighted the effectiveness of metalinguistic CF, particularly the focused type. Further support for the current finding is provided from the study conducted by [Duong and Nguyen \(2022\)](#) where the practicality of direct and explicit feedback types, including metalinguistic feedback, was confirmed. This finding is also in line with the ones obtained in [Gao and Ma \(2020\)](#) and [Kocaman and Maral's \(2022\)](#) studies, both of which highlighted the efficacy of explicit, and particularly metalinguistic, feedback for learners' writing enhancement.

The results for the second research question depicted that there was a meaningful development from pretest to posttest for metalinguistic CF group followed by error log. Though direct evidence for this finding and the claim that reinforced metalinguistic feedback and practice effect with error logs and grammar journals can lead to better uptake could not be gathered from the literature, the researchers in the current study are of the view that this finding pertains to the degree of learner engagement with feedback. To put it differently, reinforced metalinguistic feedback and practice effect with error logs is likely to augment the degree of learner involvement with feedback. Support for this finding, hence, can be gleaned from the recent studies reported in the literature regarding learner engagement with CF, and mainly from the research conducted by [Tsao \(2021\)](#), [Liu and Feng \(2023\)](#) and [Shen and Chong \(2023\)](#). [Liu and Feng \(2023\)](#), for instance, refer to learner engagement as the key factor underpinning feedback efficacy, and [Shen and Chong \(2023\)](#) claimed that there is a plethora of individual and contextual factors that underlie learner engagement with feedback, and it is not enough to only rely on the uptake.

As regards the third research question, it was demonstrated that there was a significant enhancement from writing pretest to posttest for recast group. The relative efficacy of recast, as an implicit type of feedback, over prompts and other explicit modes such as metalinguistic feedback, has long been established in accordance with research findings. Hence, the current finding regarding the usefulness of recast for enhancing learners' writing performance can be substantiated by the finding obtained by [Banaruee, et al. \(2018\)](#) who claimed that



recast led to better writing performance compared to direct feedback. This finding is also in compliance with [Sarandi and Çelik's \(2019\)](#) conclusion regarding the superior effect of recast, compared to prompt, on learners' inflectional knowledge acquisition in L2. It also lends support to [Seyedebrahimi, et al.'s \(2022\)](#) finding where they claimed that advanced level learners benefited more from recasts than explicit corrective feedback in lowering their speaking anxiety.

The finding, nevertheless, runs contrary to the one obtained by [Jafarigohar and Gharbavi \(2014\)](#), for they found that prompts were more beneficial in enhancing the learners' grammatical competence. The finding is also in contrast to [Ellis's \(2006\)](#) claim that metalinguistic feedback is more beneficial than recasts. To put it in a nutshell, it can be argued that such differences in findings regarding the efficacy of recasts and prompts or implicit and explicit modes of correct can be context-bound or be influenced by the targeted structure, language component or skill. Other factors such as sample size and the degree of learner engagement with the corrective feedback ([Liu & Feng, 2023](#); [Shen & Chong, 2023](#); [Tsao, 2021](#)), as stated earlier, can also tamper with the findings.

The fourth research question of the study found the potential effect of teacher's recasts via VLE and social media followed by keeping error logs on Iranian intermediate EFL learners' process writing ability. Though direct evidence in support of this finding is, to the best of the researchers' knowledge, non-existent, the research findings listed in support of the efficacy of recast presented earlier (e.g., [Banaruee, et al. 2018](#); [Sarandi & Çelik, 2019](#); [Seyedebrahimi, et al. 2022](#)) also apply here. Furthermore, raising the learner engagement argument (e.g., [Liu & Feng, 2023](#); [Shen & Chong, 2023](#); [Tsao, 2021](#)) in a matter akin to what was previously uttered for reinforced metalinguistic feedback via error logs and grammar journals can be reiterated at this juncture.

Finally, in regard to the last research question exploring the potential difference among the four types of oral corrective feedback (recast, metalinguistic, recast + error log, metalinguistic + error log), findings displayed no significant difference among the performances of four groups on writing posttest. This might be indicative of the fact that all four treatment procedures with different CF types were equally practical in helping the learners perform better on the posttest

6. Conclusion

The researchers in the current study embarked on pinpointing the effect of different types of corrective feedback on learners' writing enhancement. As the results revealed all four types of feedback (metalinguistic, metalinguistic + error logs, recasts, and recasts + error logs) led to noticeable improvement in learners' performance on writing from pretest to posttest. However, no significant difference was identified among the four types of corrective feedback.

Based on the findings, a number of implications can be drawn as regards all stakeholders in the context of higher education, including university students, professors, syllabus designers, researchers, material developers, and policy makers. Particularly, academic writing course instructors might consider integrating metalinguistic feedback and recast into their syllabus. Regarding the significant and positive influence of metalinguistic feedback and recast on learners' process writing through social network and virtual learning environment, these corrective feedback strategies can be utilized more extensively in educational centers where English is applied as the medium of instruction. Moreover, practice effect might be regarded as a key factor in augmenting the efficacy of feedback and achieving appropriate uptake. The new modes of metalinguistic feedback and recast followed by error logs and grammar journals used in the current study can be regarded as a practical technique for increasing the effectiveness of such feedback types.

Ultimately, like all other research studies, the research reported in the current study also suffered from a number of limitations. One notable limitation was insufficiency of prior research on the topic, particularly as regards the use of the new modes of feedback, i.e. metalinguistic feedback and recast reinforced through error logs and grammar journals. In addition, the comparatively low number of learners can be regarded as another limitation in the study, and this was naturally due to the pandemic era during which the research was conducted. Hence, future researchers are recommended to replicate the study with a larger and more representative sample to increase the generalizability of results.

The other constraint was time. Actually, time for giving feedback to all learners' process writing is a crucial factor. Another limitation was that the present study focused on just one pattern of paragraph development, i.e. process writing. Thus, the future investigators who are interested in the topic might choose to work on other types of writing and modes of paragraph development. The use of comparison groups instead of having control group can be referred to as the other major limitation of the study, which is to be taken into account by the future researchers interested in the topic. Lastly, it goes without saying that one of the most critical limitations of online teaching is the challenges of managing virtual classes. Learners are often late for class and leave class in the middle of the lesson or get disconnected. Moreover, the majority of the learners do not want to turn on their webcams in virtual classrooms and this makes the communication between the teacher and the learners even more difficult. Therefore, now that we are beyond the pandemic era and on-site classes have been made possible, it is recommended that the future researchers replicate the current study in face-to-face classes to see if the same or partly different results are obtained.

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