**Research Paper**

# Impact of Interactive Meta-Linguistic Feedback on Learning and Retention of Grammatical Structures in an Iraqi EFL Context

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**Abstract**

This study compared the impact of interactive meta-linguistic feedback on the learning and retention of grammatical structures among Iraqi EFL learners. The study used a quasi-experimental design with 62 intermediate-level male students separated into three groups: one receiving interactive meta-linguistic feedback, another receiving traditional meta-linguistic feedback, and a control group that received no feedback. Pre-tests, immediate post-tests, and delayed post-tests were used to assess participants' knowledge of the following grammatical structures: present perfect, present perfect continuous, future, and future perfect. The results showed that interactive meta-linguistic feedback greatly improved both grammatical structure learning and retention when compared to other types of input. This study emphasizes the significance of feedback in language acquisition and proposes that interactive approaches may be more effective in promoting grammatical accuracy among EFL learners.

*Keywords:* Corrective Feedback, Grammatical Structures, Interactive Meta-Linguistic, Feedback, Retention

تأثیر بازخورد فرا زبانی تعاملی بر یادگیری و یاد داری ساختارهای دستوری در بافت آموزش زبان انگلیسی در عراق

این پژوهش به مقایسه تأثیر بازخورد فرازبانی تعاملی بر یادگیری و یادداری ساختارهای دستوری در میان زبان‌آموزان عراقی زبان انگلیسی به عنوان زبان خارجی می‌پردازد. پژوهش با طراحی شبه آزمایشی و با مشارکت ۶۲ دانش‌آموز پسر در سطح متوسط انجام شد که به سه گروه تقسیم شدند: گروه اول بازخورد فرادازبانی تعاملی دریافت کرد، گروه دوم بازخورد فرادازبانی سنتی، و گروه سوم (کنترل) هیچ نوع بازخوردی دریافت نکرد. برای سنجش میزان یادگیری و یادداری ساختارهای دستوری (حال کامل، حال کامل استمراری، آینده، و آینده کامل)، پیش‌آزمون، پس‌آزمون بلافاصله و پس‌آزمون با تأخیر اجرا شد. نتایج نشان داد که بازخورد فرادازبانی تعاملی به شکل قابل‌توجهی در مقایسه با سایر روش‌ها باعث بهبود یادگیری و یادداری ساختارهای دستوری شد. این پژوهش بر اهمیت نقش بازخورد در فرایند یادگیری زبان تأکید دارد و پیشنهاد می‌کند که رویکردهای تعاملی می‌توانند در ارتقای دقت دستوری زبان‌آموزان مؤثرتر باشند.

واژگان کلیدی: بازخورد اصلاحی، ساختارهای دستوری، بازخورد فرادازبانی تعاملی، یادداری

## Introduction

With the growing need for international communication in the information age, many language learners seemingly attend language classes to improve their language ability. English is one of the languages which according to Crystal (2000) can be taken as one of the most important languages around the world since in today's world, English is used as a language that people around the world opt to conduct the international trade and diplomacy, publish their scientific and technological works as well as use it as a mediator between different socio-cultural and socio-economic paradigms.

Teaching and learning English language as a second or foreign language has gained a considerable importance regarding its significance in today's communication-based world (Folse, 2006). Learners need to master all four skills of listening, speaking, reading and writing to be considered a successful language learner but it is argued by a series of studies (Zhang, 2012; Effendi, Rokhyati, Rachman, Rakhmawati, & Pertiwi, 2017; Puspitaloka, 2019; Tiana, Jimmi, & Lestari, 2023) that the mastery of these skills requires good knowledge of grammar. According to the above-mentioned studies, although language consists of four major skills (i.e., listening, speaking, reading and writing), in fact, at the onset of learning in English as a foreign language (EFL)/ English as a second language (ESL) classes, learners are exposed to a series of structures or grammar of the language more than listening, speaking; as a result, it can be concluded that learning starts with its grammar which is one of the main components of language learning.

Ellis (2009) claims that grammatical knowledge plays such a vital role in second language (L2) development that a lack of grammatical accuracy in the language produced by EFL/ESL learners may impede their linguistic progress. Learners need robust ways to treat the grammatical errors in order to reach higher stages of language proficiency. Ellis (2009) also mentions that grammatical knowledge and accuracy contributes and correlates with accademic success due to the fact that a great deal of classroom work is conducted through oral and written exchanges that require students to reach a balance between the fluency and accuracy of their production. As a matter of fact, he believes that failing to achieve the required accuracy may lead to errors which can hinder communication.

Although some language experts have developed a positive attitude toward errors as indication of learning and progress and useful tool which teachers could use to find out the amount of information required by the learner and to modify their instructions according to the learners' needs (Van Beuningen, De Jong & Kuiken, 2012; Al-Khresheh, 2016; Metcalfe, 2017), others pointed out the necessity of eliminating errors and the vital role of corrective feedback in developing high language proficiency (Diab, 2015; Kang & Han, 2015; Zheng & Yu, 2018; Benson & DeKeyser, 2019; Karim & Nassaji, 2020).

Hyland and Hyland (2006) have also referred to the necessity of providing feedback because as students have more information about their responses, the better they will understand why they make mistakes. They also believe that such understanding can increase students' achievements by providing them with opportunities to correct their mistakes. The proponents of the interactionist theories of language learning (Oliver and Mackey, 2003; Sheen, 2010) claim that although providing feedback is necessary for eliminating grammatical errors of L2 learners, this feedback can be helpful when it is provided for the errors which occur naturally in interaction; interaction plays a vital role in leading to constructive corrective feedback which will have an enduring effect.

One of the significant benefits of corrective feedback mentioned by Ananda (2023) is its contribution to the prevention of fossilization which is rooted in Skinner's (1957, as cited in Vargas, 2017) behaviorist learning theory. Based on this theory, corrective feedback is necessary for preventing fossilization of ill-formed structures. The importance of providing corrective

feedback becomes even more apparent in meaning-based classes where the focus of communication is on the negotiated meaning between the students and the teacher. Due to placing great emphasis on fluency in these classes, the importance of accuracy is somehow neglected and the interlanguage might be fossilized.

Taking a look at Iraqi schools' educational system, the need to use different types of corrective feedback especially in improving learners' grammatical accuracy and learning becomes more evident, since English language is taught as a foreign language in Iraq. Additionally, we should not overlook the interference of learners' L1 in the target language which contributes to inaccuracy in English and errors making (Nasser, 2018). Using the translation mode as the predominant tool in the teaching and learning process in schools makes the students produce grammatically erroneous structures which necessitate providing corrective feedback to deal with those errors (Hyland and Hyland, 2006).

Although error correction is mostly rejected by the researchers namely Truscott (1996, 2004), there exist other perspectives and theories which make error correction a necessary part of language development. It is believed that two types of evidence (positive evidence and negative evidence) are crucial in second language (L2) development. While positive evidence provides L2 learners with the correct and target-like structures, negative evidence advises learners not to use unacceptable structures and forms (Prawatmuang, 2018). One of the frameworks which investigate the roles of positive and negative evidence is based on the research in the area of the corrective feedback in L2 acquisition. AL-Muslimawi (2019) refer to corrective feedback as an event in which the teacher provides negative or positive evidence on learners' erroneous productions in order to help them repair their errors and motivate them to produce accurate utterances.

Corrective feedback according to Ellis, Loewen, and Erlam (2006) takes the form of one or a combination of the following responses by a teacher when a learner makes an error: (1) an indication that the learner committed an error, (2) the provision of correct form of the error, and (3) the provision of some meta-lingual explanation regarding the error. Lyster and Ranta (1997, as cited in Nhac, 2021) also provide the most comprehensive taxonomy of corrective feedback. They have classified corrective feedback into six categories, which are explicit correction, recast, metalinguistic feedback, elicitation, repetition, and clarification request. Among these categories, metalinguistic feedback was considered in the current study.

Although there is a number of studies about effectiveness of corrective feedback in successfully dealing with some types of linguistic errors (e.g., Bitchener & Knoch, 2008; Chandler, 2003; Ferris, 2002; Sheen, 2007), the question still remains: which type of feedback strategy is more effective? The main problem that exists in the area of corrective feedback is that most teachers are not aware of the effects of different types of feedbacks, which feedback is more suitable for which level? They are not aware that, whether metalinguistic has more beneficial effect on grammatical accuracy or fluency aspect of learners' language or interactive metalinguistic feedback? If there is any effect of interactive metalinguistic feedback and metalinguistic, to which aspect of grammar, these effects are more considerable and outstanding. The researcher in this study tried to give some reasonable answers to these questions and give some possible solutions to these problems. In sum, this study intended to target the existing problems (i.e., the lack of consistent results about the concept of corrective feedback requires more research to be carried out in this field to support or reject mentioned claims about the effectiveness of corrective feedback in improving learners' language skills) and to determine whether it is possible to accurately predict the differential effects of interactive meta-linguistic and metalinguistic corrective feedback on learning grammatical structures. Accordingly, the present study addressed the following research questions:

*RQ1. Is there any statistically significant difference among interactive metalinguistic feedback, metalinguistic feedback and no feedback group in terms of learning the target structures (present perfect, present perfect continuous, future and future perfect)?*

*RQ2. Is there any statistically significant difference among interactive metalinguistic feedback, metalinguistic feedback and no feedback group in terms of retention of the target structures (present perfect, present perfect continuous, future and future perfect)?*

## Literature Review

### The Role of Interactive Feedback in Language Learning

Interactional feedback can be taken as a technique that provides teachers to supply the learners with helpful information about their language production while focusing on meaning. Interactional feedback engages students cognitively and motivates them to use the target language accurately (Lyster & Saito, 2010). Interactional feedback can be taken as a technique that provides teachers to supply the learners with helpful information about their language production while focusing on non- linguistic content that engages students cognitively and motivates them to use the target language (Lyster & Saito, 2010). Lyster and Saito (2010), assert that an increasing number of studies in second language learning dealing with feedback (e.g., Mackey, Oliver, & Leeman, 2003; Lyster, 2004; Long, 2007; Nassaji, 2007) have highlighted the effectiveness of interactional feedback in improving the acquisition of the target language. These researchers discuss in favor of interactional feedback claiming that maybe a focus on language can be most effective when students have something to say rather than postponing a focus on language until a traditional grammar lesson.

Mitchell and Myles (2004) consider the Vygotskian sociocultural theory of second language learning to be very important since it deals with the role played by the interaction in solving the linguistic problems faced by the learners. Similarly, Long (2007) considers having sufficient opportunity to interact and negotiate meaning between learners to be a prerequisite to language learning. He also claims that this interaction and negotiation among learners themselves even negotiating with their teacher can enhance error noticing. It helps to promote learning since Long (2007) claims that it helps learners understand words and structures slightly beyond their present linguistic and communicative competence.

As was mentioned before, several scholars and theorists (e.g., Mackey, Oliver, & Leeman, 2003; Lyster, 2004; Mackey, Long, 2007; Nassaji, 2007) have suggested that positive effects of feedback and, in particular, interactive corrective feedback overshadow its negative impact. Accordingly, it seems essential to be familiarized with various types of feedback. In the following, there comes a brief description of different types of corrective feedback.

### Various Types of Feedback

Different scholars have classified feedback according to different perspectives. Carroll and Swain (1993, as cited in Sheen, 2010) categorize different types of corrective feedback according to their degree of implicitness or explicitness. Implicit feedback refers to the type that does not explicitly notify learners of the existing error and does not hinder the flow of communication. On the other hand, explicit corrective feedback explicitly draws learners' attention to an incorrect feature in their output.

Long (2007) differentiating recast and metalinguistic corrective feedback in terms of positive and negative evidence, claims that recasts are usually considered as implicit corrective feedback since they provide learners mainly with positive evidence while metalinguistic feedback is more explicit indicating learners the nature of the error and providing them mainly with explicit negative evidence.

In another classification, Ellis (2009) categorizes feedback as output-provoking and input-providing.

**Table 1**
*A taxonomy of CF strategies (adapted from Ellis 2009, p.8)*

|  | **Implicit** | **Explicit** |
|---|---|---|
| **Input-providing** | Recast | Explicit correction |
| **Output-prompting** | Repetition Clarification request | Metalinguistic explanation Elicitation |

Since the feedback type applied in the current study is metalinguistic, the following section was devoted to elaborate on this type of feedback a bit more.

**Metalinguistic Feedback**
Unlike explicit error correction, metalinguistic feedback, according to Lyster and Ranta (1997, p. 46 as cited in Tamerer, 2019), refers to "either comments, information, or questions related to the well formedness of the student utterance, without explicitly providing the correct answer". Regarding metalinguistic feedback, Ellis (2007) asserts that in this type of feedback, the teacher provides comments or questions related to the well-formedness of the student's utterance and also the very feedback is considered explicit because it diverts the focus of conversation toward rules of features of the target language. The following is an example of metalinguistic feedback provided on the students' erroneous utterance by the teacher.
    S: Men are smart than women.
    T: You need a comparative adjective.
    S: Men are smarter than women.
Similarly, Lyster and Ranra (1997, as cited in AL-Muslimawi, 2019) defined it as comments, information, or question related to the well-formedness of the student's utterance, without explicitly providing the correct form. They also divide meta-linguistic feedback into meta-linguistic comments, meta-linguistic information and meta-linguistic questions. The difference among them according to Rassaei, Moinzadeh and Youhanaee (2012) is that meta-linguistic comments are the least informative ones since they merely highlight existence of an error. Metalinguistic information goes a bit further and indirectly deals with the nature of the error. The last one (i.e., meta-linguistic questions), even moves further and points to the nature of the error but attempts to elicit the information from the student (Lyster & Ranta, 1997, as cited in AL-Muslimawi, 2019).

## Methodology

**Design of the Study**
This study involved a pre-test, immediate and delayed post-test as well as treatment. It was a quasi-experimental study because all 62 students available at intermediate level were selected from intact classes which were randomly assigned into two experimental and one control group, including: a metalinguistic feedback group, an interactive metalinguistic feedback group, a control group with no feedback. In the current study, two types of feedback (metalinguistic feedback and interactive metalinguistic feedback) were considered as the independent variables and the learning and retention of grammatical structures was considered as the dependent variable. The study aimed to investigate the effect of feedback types on learning and retention of four grammatical structures.

**Participants**
The participants of this study consisted of 62 male students within the age range of 18-25 studying at intermediate level in the Nostalgia Institute for Languages in Sulaymaniyah, Iraq. These participants were selected from among three random intact classes including 68 students among which 62 participated in the treatment after taking the proficiency test, Preliminary English Test (PET) which was used for checking the homogeneity of the participants. The classes then were randomly assigned into two experimental and one control group, including: a metalinguistic feedback group, an interactive metalinguistic feedback group, and a control group with no feedback. The selected participants of the study were studying at Level 8 which is considered intermediate level at this institute. All the participants were either in secondary or tertiary educational level.

**Instruments and Materials**
The major purpose of the present study was to find out the differential effect of metalinguistic feedback vs. interactive meta-linguistic feedback on learning and retention of grammatical structures of intermediate Iraqi EFL learners. Accordingly, the following instruments: (1) a consent form, (2) the Preliminary English Test (PET), (3) a pre-test, (4) an immediate post-test, and (5) a delayed post-test were employed in this research.

A consent form: Prior to the beginning of the study, participants of the study were asked to express their consent to participate by filling out the consent form. The procedures of the study were introduced and explained by the researcher.

The Preliminary English Test (PET): PET which is a standardized English test was administered to show that a successful candidate has the ability to use English language skills to deal with everyday written and spoken communications. It is composed of three parts i.e. reading writing, speaking and listening which is conducted through two forms, paper-based and computer-based.

In this study, the paper-based form was given to all of the participants as a test of homogeneity. It included 35 reading and 8 writing questions with 1 hour and 35 five minutes allotted to answer them. The listening part was composed of 25 questions which lasted for about 35 minutes. And finally, the speaking part which was composed of three main parts namely general introduction, specialized explanation and discussion lasted about 15 minutes. Another experienced teacher helped the researcher in the speaking and writing part in order to omit bias and establish inter-rater reliability of the data. For the speaking part, both the researcher and the experienced teacher gave scores to the students. For the writing part, in order to ensure whether scoring procedure was reliable 20 percent of the data was used to establish inter-rater reliability. A correlation coefficient of .88 was found between the two raters, which indicated the reliability of the scoring procedure.

Pre-test, immediate and delayed Post-tests: in order to check the effect of metalinguistic feedback vs. interactive meta-linguistic feedback on learning and retention of grammatical structures of intermediate Iraqi EFL learners Pre-test, immediate and delayed Post-tests were administered. The same test was used for both pre-test, immediate post-test and delayed post-test with small differences; that is, in each test the order of questions and alternatives were shifted. This test included 23 grammar questions in multiple-choice format with the aim of testing four target structures (i.e., present perfect, present perfect continuous, future and future perfect), each structure being tested by 4 questions. The test also included 7 questions other than these structures to distract participants from the main purpose of the test. The questions of the test were gathered from standard tests including *Grammar Booster Test Booklet* by Megan Roderick

(2006), *Longman Complete Course for the TOEFL Test* by Deborah Phillips (2001) and *The Advanced Grammar Book* by Jocelyn M. Steer and Karen A. Carlisi (1998).

The material used in the study included *Top Notch* series *(Summit, 1A)* by Saslow and Ascher (2012): according to the authors of the book, "*Summit* is a two level, intermediate to advanced communicative course for adults and young adults that can follow any intermediate course book" (p. xii). The book aims to help second EFL or ESL learners understand, speak, read and write English accurately and fluently by providing multiple exposures to new language, myriad opportunities to practice and ample and intensive recycling of the forms and functions of English language. In this book,

"Grammar is tightly integrated with the speaking syllabus foe memorability. Grammar charts include clear rules, examples, and explanations of the meaning and the use. Authentic readings further reinforce target grammar in natural contexts (Saslow & Ascher, 2012, p. xii)".

In the present study, the grammar exercises placed after the grammar charts and in the workbook were employed by the teacher as the materials used in treatment to provide both interactive metalinguistic and metalinguistic feedback in experimental group. These exercises were in various formats; multiple choice, true/false, gap-filling and sometimes in the form of open-ended questions used for the purpose of recycling and rehearsing grammatical points introduced in the book.

**Procedure**

To investigate the impact of metalinguistic feedback versus interactive metalinguistic feedback on the learning and retention of grammatical structures among intermediate Iraqi EFL learners, the following procedure was implemented:

Before the study commenced, all participants were fully informed and asked for their consent to participate. Three intact classes, comprising a total of 68 students, were selected. The Preliminary English Test (PET) was administered to ensure that all participants had similar proficiency levels. Six outliers were excluded, and participants scoring within one standard deviation above the mean were selected, resulting in a homogeneous group for the study. These participants were then randomly assigned to one of three groups: a metalinguistic feedback group, an interactive metalinguistic feedback group, and a control group that received no feedback. A pre-test was administered to all participants four weeks before the treatment began.

To validate the pre-test, it was initially piloted with a similar group of students studying at the L8 level. The test included 30 multiple-choice questions, which students had 30 minutes to complete. After the pilot, seven questions were removed due to poor performance, leaving 23 questions for the actual pre-test. The test-retest process confirmed a reliability coefficient of 0.81. The face and content validity of the test was verified by the supervisor of the Nostalgia Institute for Languages and two experienced teachers.

Before the treatment began, the researcher met with the teachers of the treatment groups to provide instructions on how to administer the treatments. The researcher observed all treatment sessions. The instructional material used was two chapters from "Summit 1A" by Ashter and Saslow (2012), covering present perfect, present perfect continuous, future, and future perfect tenses. These structures were introduced inductively through various means, such as conversations and photo stories, followed by deductive, explicit instruction in grammar charts and exercises. The exercises varied in format, including multiple-choice, true/false, gap-filling, and open-ended questions. The instruction adhered strictly to the teacher's guidebook.

During the treatment sessions, the experimental groups received feedback on their grammar practice. In the metalinguistic feedback group, the teacher provided linguistic clues to guide students to the correct forms, supplying the correct form if the students failed. In the interactive metalinguistic feedback group, feedback was provided through interaction and discussion, with

students working in pairs or small groups to discuss and correct errors. The control group, however, received corrections without any specific feedback approach, excluding metalinguistic and interactive metalinguistic methods. The experimental groups received four sessions of instruction on the target structures, with immediate feedback provided during class and additional feedback given for homework in subsequent sessions. Overall, the experimental groups received eight sessions of feedback (two for each grammatical structure). In contrast, the control group also received four sessions of instruction and completed similar exercises but without receiving specific feedback.

After the completion of eight feedback sessions, an immediate post-test was administered to evaluate the impact of feedback on the learning of grammatical structures. A delayed post-test followed four weeks later to assess the retention of these structures.

## Results

Regarding the nature of the gathered data and getting assured of the distribution normality of the data confirmed using Kolmogorov-Smirnov, to test whether there is any statistically significant difference among two experimental groups, receiving Interactive Metalinguistic feedback and Metalinguistic feedback and the control group in terms of learning the target structures (present perfect, present perfect continuous, future and future perfect), the researcher ran ANCOVA to control for the initial difference between the groups prior to the treatment.

**Table 2**
*Tests of Between-Subjects Effects*

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Corrected Model | 369.601[a] | 3 | 123.200 | 31.239 | .000 | .618 |
| Intercept | 341.399 | 1 | 341.399 | 86.567 | .000 | .599 |
| pre-test | 18.136 | 1 | 18.136 | 4.599 | .036 | .073 |
| group | 349.749 | 2 | 174.874 | 44.342 | .000 | .605 |
| Error | 228.738 | 58 | 3.944 | | | |
| Total | 22339.000 | 62 | | | | |
| Corrected Total | 598.339 | 61 | | | | |

Based on Table 2, the significance value corresponding to feedback grouping variable turned out to be less than .05 (F=44.34, p=.00<.05). Therefore, the difference among the three groups was significant after controlling for the pre-test scores of the groups, with effect size as big as .605 implying that 60.5 percent of the variation in the dependent variable is explained by the independent variable, which is a large size according to the Cohen's (1988) guidelines (.10=small, .25=medium, .40=large). In Table 2, the influence of the covariate is assessed as well. The corresponding significance value came out to be .036<.05, with the effect size .07 which is a small effect. It means that 7.3 percent of the variance in the dependent variable is explained by the covariate.

Later, in order to check the difference between groups in pre, post and delayed post-test, the researcher first used the descriptive statistics of the group to check the existence of any difference.

**Table 3**

*Descriptive statistics of the groups in pre-test, post-test and delayed post-test*

|  | Group | Mean | Std. Deviation | N |
|---|---|---|---|---|
| **pre-test** | Control | 11.68 | 2.162 | 19 |
|  | Metalinguistic | 11.57 | 1.912 | 21 |
|  | interactive metalinguistic | 11.73 | 1.549 | 22 |
|  | Total | 11.66 | 1.846 | 62 |
| **post-test** | Control | 15.63 | 2.477 | 19 |
|  | Metalinguistic | 18.62 | 1.936 | 21 |
|  | interactive metalinguistic | 21.50 | 1.711 | 22 |
|  | Total | 18.73 | 3.132 | 62 |
| **delayed post-test** | Control | 13.74 | 2.903 | 19 |
|  | Metalinguistic | 17.71 | 2.493 | 21 |
|  | interactive metalinguistic | 21.00 | 1.604 | 22 |
|  | Total | 17.66 | 3.772 | 62 |

According to the descriptive data of Table 3, there has been an increase in the mean scores of groups from pre-test to post-test but a minor decrease from post-test to delayed post-test was perceived indicating that in all the groups the participants experienced some loss of learned materials.

Comparing the results of the mean scores, it was clear that all the groups had improvement in the delayed post-test in comparison to pre-test but there was a minor decrease from post-test to delayed post-test. Comparing the delayed post-test mean scores of the groups, it was revealed that the performance of the interactive metalinguistic group (M= 21.00, SD= 1.60) was better than metalinguistic (M= 17.71, SD= 2.49) and control groups ( M= 13.74, SD= 2.90) in terms of retention of target grammatical structures (present perfect, present perfect continuous, future and future perfect). The results also showed that the performance of metalinguistic group was better than the control group in delayed post-test. In order to check whether the difference among the groups is statistically significant, the researcher ran a Repeated Measure ANOVA.

**Table 4**

*Multivariate Tests used to Check the Effect of Treatments*

| Effect |  | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| **Tests** | Pillai's Trace | .910 | 291.658[a] | 2.000 | 58.000 | .000 | .910 |
|  | Wilks' Lambda | .090 | 291.658[a] | 2.000 | 58.000 | .000 | .910 |
|  | Hotelling's Trace | 10.057 | 291.658[a] | 2.000 | 58.000 | .000 | .910 |
|  | Roy's Largest Root | 10.057 | 291.658[a] | 2.000 | 58.000 | .000 | .910 |

All of the multivariate tests yield the same results but the most commonly reported statistic according to Pallant (2007), is Wilks' Lambda. As it is shown in Table 4., the value for Wilks' Lambda was .09 and probability value of .000 which was less than .05; accordingly, it can be concluded that there was a statistically significant change in the scores of three groups in three tests in different time periods.

Although a statistically significant difference among three sets of scores was found, there was a need to assess the effect size of these results. According to the value of the Partial Eta Squared .91, this value according to the guidelines proposed by Cohen (1988) is a very large effect size. Therefore, we can conclude that the independent variables of this study (interactive metalinguistic and metalinguistic feedback) had large effect on the dependent variable (the retention of grammatical structures).

Since a statistically significant result was obtained from the above analyses, it can be inferred that there was a difference among groups. To understand which group(s) or set of score(s) in this case (interactive metalinguistic, metalinguistic and control) have outperformed the others significantly, the information in the Pairwise Comparison Table 5. was presented as following.

**Table 5**
*Pairwise Comparisons*

| (I) group | (J) group | Mean Difference (I-J) | Std. Error | Sig.[a] | 95% Confidence Interval for Difference[a] | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| **Control** | metalinguistic | -3.971[*] | .531 | .000 | -3.593 | -.975 |
| | interactive metalinguistic | -7.262[*] | .525 | .000 | -5.686 | -3.097 |
| **Metalinguistic** | Control | 3.971[*] | .531 | .000 | .975 | 3.593 |
| | interactive metalinguistic | -3.295[*] | .512 | .000 | -3.369 | -.846 |
| **interactive metalinguistic** | Control | 7.262[*] | .525 | .000 | 3.097 | 5.686 |
| | metalinguistic | 3.295[*] | .512 | .000 | .846 | 3.369 |

As it is clear from the above, although the difference among all the groups is statistically significant, comparing the groups mean scores in pairs revealed that both feedback groups (interactive metalinguistic and metalinguistic) outperformed the control group in the delayed post-test. Comparing mean scores of the feedback groups was indicator of the superiority of the interactive metalinguistic group in terms of retention of the target grammatical structures.

**Discussion**

The present study's results emphasize the vital role that feedback plays in the learning process, especially when it comes to teaching English as a foreign language grammar structure. The noteworthy enhancement noted in the cohort that was provided with interactive meta-linguistic feedback implies that this kind of feedback facilitates not just short-term acquisition but also long-term retention of grammatical information. This is consistent with the ideas of interactionist language acquisition, which hold that meaningful interaction improves learners' cognitive engagement and helps them comprehend language rules at a deeper level. Furthermore, the findings support earlier studies that showed feedback, especially interactive feedback, can stop mistakes from fossilizing, which is a major problem in language learning. Because the feedback was interactive, students were probably more willing to actively interact with the language and consider their mistakes, which improved their understanding of grammatical ideas. While still helpful, the standard meta-linguistic feedback did not provide the same degree of improvement, indicating that the interactive element is crucial to maximizing the efficacy of feedback.

The study also emphasizes how important it is for teachers to understand the various forms of feedback that are out there and how each one affects students' language acquisition. Considering the difficulties Iraqi EFL learners encounter, especially with regard to the interference of their native tongue, putting interactive feedback techniques into practice may prove to be a beneficial method for improving grammatical accuracy and general language competency. Future studies should investigate the subtleties of different types of feedback.

Further investigation into the subtleties of feedback kinds and their impacts in different learner demographics and circumstances is necessary to get a more thorough understanding of effective language teaching approaches.

**Conclusion**

Based on the above mentioned results, it can be concluded that unlike what was claimed by Truscott (1996 as cited in Mohebbi, 2021) about the uselessness of corrective feedback, feedback can be very useful in helping learners learn and retain grammatical structures; moreover, it can be concluded that interactive metalinguistic feedback which connects focus on the form and focus on the meaning, is one of the best feedback techniques for eliminating the errors which occur naturally in interaction. On a theoretical basis, the findings of current study can be justified considering Vygotskian sociocultural theory of second language learning. In this vein, Pathan, Memon, Memon, Khoso, & Bux (2018) consider the Vygotskian sociocultural theory of second language learning to be very important since it deals with the role played by the interaction in solving the linguistic problems faced by the learners.  In a similar perspective, Long (2007) considers having sufficient opportunity to interact and negotiate meaning between learners to be a prerequisite to language learning. He also claims that this interaction and negotiation among learners themselves even negotiating with their teacher can enhance error noticing. It helps to promote learning since Long (2007) claims that it helps learners understand words and structures slightly beyond their present linguistic and communicative competence. Accordingly, the outperformance of the interactive metalinguistic group over the two others may be based on the educational effect of interaction that helped students communicate, notice their errors, and solve the problems through negotiation. The results of the current study are in line with the study carried out by Rezayei (2011); Farrokhi (2012); Rashidi and Babaie (2013); Haifaa and Emma (2014); Faridfar, Alavinia and Bonyadi (2014); like these studies, the findings of the current study also demonstrated that corrective feedback had a constructive and positive effect on grammatical learning, and retention.

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