



The Impacts of Direct, Indirect, and Metalinguistic Feedback Strategies on Iraqi Students' Writing Performance in EGP Courses

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Article info	Abstract
Article type: Research article	Recent research has focused on Written Corrective Feedback (WCF) as a viable approach to the instruction of second language writing that enables learners to self-correct their written output. The present study strived to determine the use of various WCF strategies in English for General Purposes (EGP) courses. Accordingly, it used a mixed-methods design to examine the utility of WCF in foreign language context of Iraq. To this end, in the quantitative phase, the researchers selected 104 intermediate-level nursing students in four EGP classes of a public university in Iraq as the participants. Then, they assigned the learners to three experimental groups including direct, indirect, and metalinguistic groups and a control group. In addition, in the qualitative phase, the researchers randomly selected 10 students in each of the experimental groups and probed their perspectives on their relevant treatment using a researcher-developed semi-structured interview protocol. Additionally, the researchers used paired-samples t-test and one-way ANOVA to perform the data analysis in SPSS 25. Lastly, they took advantage of thematic analysis for analyzing the qualitative data of the study. Based on the results, all of the examined WCF strategies ameliorated nursing students' writing performance. However, direct and metalinguistic WCF strategies were more efficacious than the indirect strategy. Moreover, the qualitative findings indicated that the participants had a preference for direct and metalinguistic WCF strategies. The results can have practical implications regarding the use of WCF strategies in Iraqi context.
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1. Introduction

A review of the related literature indicates that researchers have paid considerable attention to Corrective Feedback (CF) as a viable pedagogical intervention in language classrooms. Nassaji and Kartchava (2017) point out that CF is regarded as a main intervention strategy in Focus-on-Form instruction (e.g., Abbaspour et al., 2020; Hashemian & Farhang-Ju, 2022; Khalili et al., 2024a, b; Khanlarzadeh & Nemati, 2016; Mohammadnia & Khalili, 2014 a, b, c; Mapunda & Kyara, 2023; Rezaee et al., 2024; Shirkhani & Omid, 2024; Zohrabi & Khalili, 2024 a, b). Accordingly, they defined CF as language teachers' endeavors to furnish their learners with cues that are likely to help them to correct their erroneous uses of the target language.

The above-mentioned definition of CF mainly pertains to its oral form (Mao & Lee, 2020). Nonetheless, it is similarly compatible with Written Corrective Feedback (WCF) (Storch & Wigglesworth, 2010). According to Sheen (2007), WCF encompasses the CF type that makes learners cognizant of errors in their written work, encourages them to make cognitive comparisons between their output and native-speakers' language uses, helps them to take advantage of more complex structures, and empowers them to cast aside their writing inhibitions. In addition to these features, WCF has been a preferred pedagogical intervention owing to its need-oriented nature (Ferris, 2010). In this regard, Bitchener and Ferris (2012) note that the various strategies of WCF help language teachers to adapt the process of error treatment to the writing conventions of language learners' first language and to expedite the process of their self-correction in writing tasks.

Notwithstanding, the effectiveness of WCF strategies in language classes is still controversial (Bitchener, 2009, 2018; Kashef & Khalili, 2023; Khalili, et al., 2025; Mak, 2019; Merkel, 2018; Saadi & Saadat, 2015; Truscott, 2007, 2010 a, b; Valizadeh & Soltanpour, 2021; Wang & Han, 2022; Yu & Hu, 2017; Zohrabi & Khalili, 2023). The proponents of WCF have supported its use due mainly to its purported positive impact on language learners' comprehension of the writing intricacies and ability to integrate the received form-based corrections into their successive written work (Van Beuningen et al., 2012). On the other hand, the opponents of WCF have criticized it in terms of content and procedure. Regarding the content, a number of researchers (e.g., Truscott, 2007) have argued that WCF strategies are ineffective since they provide learners with negative evidence or information about the impossible uses of the target language that is absent in native speakers' language learning process. Moreover, some researchers (e.g., Truscott & Hsu, 2008) have focused on the implementation difficulties of WCF and have noted that it is a laborious process in most language classes.

The above-mentioned controversy over the usefulness of WCF has encouraged researchers to examine the effectiveness of its strategies in both

second and foreign language contexts. A number of these studies have examined the direct/indirect nature of these strategies. For instance, Almasi and Tabrizi (2016) compared the impacts of both direct and indirect WCF strategies on EFL learners' writing accuracy and reported that direct WCF was more efficacious than indirect WCF in this regard. Likewise, Ekiert and Di Gennaro (2021) examined the extent to which these strategy types ameliorated ESL learners' uses of complicated grammatical structures in their written work. The results of their study indicated that both of these WCF strategies had advantageous effects on the learners' grammar knowledge in their tasks.

In addition, some researchers have been concerned with computerized WCF. For instance, Hajebi (2018) and Koltovskaia (2020) investigated the effects of computerized WCF on learners' writing skills. The results of these studies showed that this type of WCF significantly ameliorated the learners' writing ability in their settings. Moreover, some studies have compared the efficacy of computer-provided and teacher-provided WCF for improving learners' writing ability. Regarding this line of research, Gharanjik and Ghoorchaei (2020) examined the role of automated and teacher provided WCF in EFL learners' writing accuracy. The results showed that both automated and teacher provided WCF were viable strategies for ameliorating EFL learners' writing accuracy in their context. Likewise, Fahmi and Cahyono (2021) compared the impacts of Grammarly-provided and teacher-furnished WCF on learners' use of prepositions in writing tasks. Based on their results, there was no significant difference between the impacts of Grammarly-provided and teacher-furnished WCF on learners' ability to use second language propositions accurately in their writing tasks.

Furthermore, a number of studies have tried to determine the effect of *WCF focus* on learners' writing performance. For example, Talatifard (2016) compared the effects of focused and unfocused WCF on learners' correct uses of verb tenses in their written work. The results of this study showed that focused WCF was more efficacious than unfocused WCF in this regard. Additionally, a few studies have tried to determine the extent to which electronic and metalinguistic WCF strategies improve learners' writing ability. In this regard, Milton (2006) focused on the effect of web-based electronic WCF on learners' writing accuracy and reported that electronic WCF significantly improved learners' writing accuracy in various writing tasks. Lastly, Khalili et al. (2022a) tried to examine the usefulness of metalinguistic WCF in the process of learners' self-correction. The results of their study highlighted the fact that metalinguistic WCF was an effective strategy that empowered learners to correct their writing errors effectively.

Nonetheless, the pertinent studies of WCF have disregarded certain research lines. First, most of these studies have selected English-major students as their participants and have not dealt with the students of other majors in

EGP courses. Second, these studies have mostly focused on the usefulness of one or two WCF strategies such as direct and indirect strategies and have disregarded the other strategies. Third, a large number of these studies have examined the use of focused WCF owing to its limited scope and have not scrutinized the use of unfocused WCF. Lastly, the above-mentioned studies have generally adopted the quantitative approach to research and have barely used qualitative research methods to provide a better understanding of the efficacy of WCF in language classes.

These inadequacies of research highlight the fact that the present study may contribute significantly to the field of language teaching. That is, this study is likely to make a significant contribution to research on WCF since it compares the use of three WCF strategies in language classes in the EFL context of Iraq. Moreover, the study determines the extent to which WCF may improve nursing students' writing ability in a university setting. In addition, the present study uses the unfocused WCF and tries to deal with all of the participants' error categories in their written work. Lastly, the current study uses a mixed-methods design and corroborates the quantitative results with qualitative findings.

In light of the above-mentioned aims, the present study strived to answer the following research questions (RQs) in the foreign language context of Iraq:

RQ1: Do direct, indirect, and metalinguistic WCF strategies have significant effects on Iraqi students' ability to complete writing tasks in EGP courses?

RQ2: Are there any significant differences between the impacts of direct, indirect, and metalinguistic WCF strategies on Iraqi students' ability to complete writing tasks in EGP courses?

RQ3: What are Iraqi students' perspectives on the usefulness of direct, indirect, and metalinguistic WCF strategies in the process of their writing tasks in EGP courses?

2. Review of the Related Literature

2.1. Theoretical Background

2.1.1. CF

The examination of the underlying characteristics of CF indicates that it is a main concept of *discourse repair* in the use of the target language (Ellis, et al., 2005). Ellis (2008) argued that discourse repair stems from *communication-oriented* or *language-related issues*. As he explained, communication-oriented problems may stem from the language users' lack of intention to engage in communication or the problems that result in communication break-down. Moreover, they may be caused by miscommunication that refers to the speakers' lack of ability to express their

intended meanings that leads to the listeners' incomplete or lack of understanding of the pertinent meanings.

Bitchener (2008) pointed out that both communication-oriented and language-related issues prompt language users to engage in the process of *negotiation*. As Bitchener (2008) explained, negotiation encompasses the *negotiation of meaning* and *negotiation of form* processes during which speakers and listeners collaborate with each other to develop a mutual understanding of the meanings of linguistic messages and the accurate uses of language forms, respectively.

Bitchener and Ferris (2012) pointed out that negotiation of form results in the use of various CF strategies. They defined CF as the linguistic information that is provided to language learners in order to empower them to deal with errors and mistakes in their linguistic output. According to them, CF strategies are likely to furnish learners with either *positive evidence* or *negative evidence* in the process of interaction. Positive and negative evidence, respectively, refer to the information about the possible and impossible uses of the target language (Sachs & Polio, 2007; Santos et al., 2010.) In addition, CF strategies may be *implicit* or *explicit*. According to them, while implicit strategies do not directly make learners cognizant of corrections, explicit strategies directly attract their attention to the corrected forms. Finally, Storch and Wigglesworth (2010) noted that CF strategies are classified into *input-providing* and *output-prompting* strategies. They noted that input-providing CF strategies provide learners with negative or positive evidence regarding the uses of the language forms. On the other hand, output-prompting strategies encourage learners to self-correct their erroneous language uses. According to Storch and Wigglesworth (2010), WCF strategies constitute instances of input-providing strategies.

2.1.2. WCF

Ellis (2009a) defined WCF as EFL teachers' reactions to language learners' written work. According to him, language learners' uses of provided WCF may depend on teachers' expectations from them. More specifically, teachers may either require students to reformulate their output based on the provided WCF or may ask them to pay attention to the provided WCF. Learners' attention may be directed and attracted to WCF by asking them to determine the various types and categories of WCF and by prompting them to skim the WCF instances, respectively (Ferris, 2010). Considering these discussions, Ellis (2009a) endeavored to develop a framework of different WCF strategies. His framework makes a general distinction between *unfocused WCF* and *focused WCF* based on their scope. As he explained, teachers who provide their learners with unfocused WCF make an attempt to extensively correct all their errors. On the other hand, their use of focused feedback indicates that they aim to intensively correct certain categories of

errors such as tense-related errors or preposition-related errors among the others.

In addition, Ellis's (2009a) framework itemizes five main categories of WCF strategies including *direct*, *indirect*, *metalinguistic*, *electronic*, and *reformulation-based* WCF strategies. As Ellis (2009) explained, in direct WCF, teachers furnish their learners with the correct forms of their erroneous uses of the target language. Moreover, in indirect WCF, teachers raise the learners' awareness of the existence of errors without providing their correct forms. In this regard, they may either indicate the errors using underlining or may use the margin of the learners' written task papers to show that they have to deal with their errors. In addition, in metalinguistic WCF, teachers use metalinguistic explanations in the form of the explanation of grammar rules to make learners aware of their errors and to prompt them to correct the errors in an acceptable way. Furthermore, teachers take advantage of concordance hyperlinks to furnish their learners with electronic feedback. More specifically, they use the concordance files as the source that helps learners to make cognitive comparisons between their own output and the native-like uses of the target language. Finally, in reformulation-based WCF, teachers ask native speakers to rework the learners' written works to make them aware of their errors.

2.2. Empirical Background

This section reviews a number of the studies that have focused on WCF strategies in different contexts:

Shaqaqi and Soliemani (2018) carried out a study to determine the extent to which computerized and in-person metalinguistic WCF influenced EFL learners' uses of verb tenses in their writing tasks. Accordingly, the researchers selected their participants from among language institute learners and used a quasi-experimental design to gather the data of the study. Based on the results, these types of metalinguistic WCF had an advantageous effect on the participants' ability to use various verb tenses in their tasks. Nonetheless, computerized WCF proved to be more effective than the in-person type of this WCF strategy.

Abbaspour et al. (2020) examined the impact of scaffolded WCF on EFL learners' writing ability. To this end, they took advantage of convenience sampling to select their participants at a university setting. Moreover, they used a quasi-experimental design to conduct their study. Based on the obtained results, this WCF strategy significantly improved the participants' writing ability in their relevant academic setting.

Hashemian and Farhang-Ju (2022) made an effort to determine the degree to which computerized direct and metalinguistic WCF influenced EFL learners' writing ability and willingness to communicate. Considering this objective, the researchers used a mixed-methods design to conduct their study.

The results of the quantitative phase of the study showed that both computerized direct and metalinguistic WCF significantly improved the participants' writing ability and willingness to communicate. Moreover, the findings of the qualitative phase supported the quantitative results and indicated that both of these WCF strategies could be used in the examined academic setting.

Shirkhani and Omid (2024) conducted a quantitative study in order to determine Iranian EFL teachers' uses of various WCF strategies. Accordingly, the researchers used convenience sampling to select eight EFL teachers at various language institutes as the participants. Moreover, they compared these teachers' uses of the WCF strategies prior and subsequent to an awareness-raising program. The results of the study showed that the participants used direct WCF more frequently compared to the other strategy types. In addition, the awareness-raising treatment of the study enabled the teachers to pay attention to learners' formulaic errors in a more systematic way.

3. Method

3.1. Participants

In light of the objectives of the study, the researchers used convenience sampling to select 104 intermediate-level nursing students including 49 male and 55 female students in four classes of a public university in Iraq as the participants. There were 26 students in each of the classes. A proficiency test was used to examine the students' proficiency level and to ensure their homogeneity. These participants were in the age range of 19 to 25 and spoke Arabic, Kurdish, or Turkish as their first language. The researchers obtained written informed consent from all of the participants prior to the onset of the study.

3.2. Materials and Instruments

The researchers used the following materials and instruments to gather the data of the present study:

3.2.1. Proficiency Test

In this study, the researchers utilized Oxford Quick Placement Test (OQPT) (Allan, 2004) in order to ensure the homogeneity of the nursing students in terms of their language proficiency. This test involved three sections including the *vocabulary*, *grammar*, and *cloze test* sections. There were 20 items in each section. In order to ensure the reliability of this instrument in Iraqi context, the researchers took advantage of Cronbach's Alpha (CA) measure in a pilot study before the beginning of the main study. The pilot study involved 30 nursing students including 15 male and 15 female students who were similar to the participants of the main study in terms of their

characteristics. Based on the results of CA analysis, the reliability index of this test was 0.87, and it could be used in the EFL context of Iraq.

3.2.2. Writing Pretest and Posttest

In this study, the researchers utilized two writing tasks as the writing pretest and posttest of the study. The researchers developed these tasks using the EGP textbook entitled *Intermediate Select Reading* (Gundersen & Lee, 2011) that involves different reading comprehension texts and writing tasks for intermediate-level language learners. In each of these tasks, the students were asked to write a 550-word essay on an academic topic in a one-hour time period.

3.2.3. EGP Textbook

Considering the aims, the researchers took advantage of the general English textbook entitled *Intermediate Select Reading* (Gundersen & Lee, 2011) in order to develop the writing pretest and posttest for the nursing students in the EGP course. Moreover, the researchers used this textbook in order to select the writing topics for these students' treatment sessions.

3.2.4. Writing Assessment Framework

The researchers utilized Brown and Bailey's (1984) writing assessment framework for evaluating the nursing students' writing performance on the writing preset and posttest in the EGP course of the present study. This framework enabled the researchers to examine the language learners' writing ability based on three main criteria including *style*, *mechanics*, and *structure* on a 60-point scale (i.e. each criteria on a 20-point scale). In order to ensure the reliability of the writing assessment procedure, the researchers used *inter-rater correlation coefficient*. Based on the results of analysis, the inter-rater reliability index of the study (0.85) was acceptable.

3.2.5. Semi-Structured Interview Protocol

Given the aims, the researchers developed a three-item semi-structured interview protocol in order to examine nursing students' perspectives on the impacts of direct, indirect, and metalinguistic WCF strategies on their ability to complete writing tasks in their EGP courses. In order to develop this protocol, first, the researchers invited four Applied Linguistics professors at two public universities in Iraq to attend a 20-minute focus-group interview session and to discuss different aspects of WCF strategies and their effects on students' writing performance. The interview session was recorded. Second, the researchers transcribed the recorded interview file and extracted its underlying codes and themes using *thematic analysis* (Braun & Clarke, 2021). Lastly, they developed the protocol based on the relevant themes. In addition, to examine the content validity of this interview protocol, the researchers used *member-checking* (Braun & Clarke, 2021). That is, they sent it to the above-mentioned Applied Linguistics professors and asked them to provide them

with feedback on the content of the relevant items. Moreover, they made certain modifications to the relevant items and developed the final version of the interview protocol.

3.2.6. The WCF Treatment

Considering the aims of the study, the researchers used Ellis's (2009a) WCF typology to provide each of the experimental groups with their treatment. In this typology, Ellis (2009a) distinguished unfocused WCF from focused WCF. According to him, while unfocused WCF targets all of the aspects of the learners' written output, focused WCF focuses on specific aspects of their output such as verbs and prepositions among others. In the present study, the researchers adopted the unfocused approach to WCF and targeted all of the aspects of the participants' writing tasks.

In addition, Ellis (2009a) itemized direct, indirect, and metalinguistic WCF strategies as three main WCF strategies. As he explained, in direct WCF, the instructor provides learners with the correct forms of the erroneous parts of their writing tasks. Moreover, in indirect WCF, the instructor uses implicit strategies such as underlining to make learners aware of the existence of errors in their written output. Lastly, Ellis (2009a) noted that in metalinguistic WCF, the teacher makes learners aware of their errors and uses arrows to provide them with a metalinguistic explanation of the correct language uses in the margins of the sheets of the learners' completed written tasks. Likewise, in the present study, the researchers provided the learners with the correct forms of their errors in the direct experimental group. In addition, they used underlining for highlighting the learners' errors in the indirect group. Additionally, they used arrows to provide the learners with metalinguistic explanations of correct language uses in the writing tasks of the learners in the metalinguistic group.

The researchers used the Intermediate Select Readings (Gundersen & Lee, 2011) to select 16 writing tasks. One of these tasks constituted the writing pretest and one of them was the writing posttest. The remaining 14 tasks were used as the writing tasks of the treatment sessions. The topics of these tasks were mainly related to various issues in the learners' academic settings such as their preferences for study-abroad programs. Based on the purpose, the researchers provided all groups with WCF treatment in 14 sessions. Lastly, they used Brown and Bailey's (1984) writing assessment framework in order to assess the learners' writing ability on the writing pretest and posttest.

3.3. Procedure

In this study, first, the researchers contacted the nursing department of a public university in Iraq, informed the head of this department about aims and scope of the study, and obtained his consent to it. Second, the researchers visited four classes of nursing students in their EGP course. In these classes, the researchers apprised the learners of the aims, invited them to participate in

the study, and obtained their consent to take part in it before the beginning of the study. Third, the researchers administered OQPT (Allan, 2004) to the learners in the EGP course to ensure their homogeneity and to ascertain that they are at the intermediate proficiency-level. Fourth, the researchers randomly assigned the classes to three experimental groups including Direct Feedback Group (DFG), Indirect Feedback Group (IFG), and Metalinguistic Feedback Group (MFG) and a Control Group (CG). There were 26 nursing students in each of these groups. Fifth, the researchers administered the writing pretest to all of the groups of the EGP course to ensure their homogeneity in terms of their writing ability. Sixth, the researchers provided all of the groups of the EGP course with their relevant WCF instruction based on Ellis's (2009a) WCF framework in 14 sessions in a seven-week period (i.e. two sessions per week). That is, the experimental groups of the EGP course were, respectively, provided with their general English writing instruction using the direct, indirect, and metalinguistic WCF strategies. However, the CG in the EGP course was not provided with WCF treatment. More specifically, in the CG, the researchers provided the nursing students with wiring task topics and asked them to complete their tasks by taking advantage of a number of samples that involved completed tasks.

Meanwhile, the researchers administered the writing posttest to all of the groups of the EGP course to examine the impact of the treatment on their general English writing performance. Moreover, the researchers conducted 30-minute Arabic interviews with 10 randomly-selected students (i.e. five male & five female) in each of the experimental groups of the EGP course. The interviews aimed to determine these participants' perspectives on the utility of the direct, indirect, and metalinguistic WCF strategies for improving their general English writing ability in the EGP courses. Then, the researchers performed the quantitative and qualitative data analyses in order to answer the raised questions.

3.4. Data Analysis

The researchers used an *explanatory mixed-methods design* to carry out the study. Creswell and Creswell (2017) noted that, in this design, researchers carry out their studies in two main phases including the quantitative phase and the qualitative phase. According to them, the qualitative results aim to corroborate and explain the quantitative results. Accordingly, in the quantitative phase of this study, the researchers used descriptive statistics including Mean and Standard Deviation (SD) values along with inferential statistics including paired-samples t-test and one-way ANOVA test to perform the data analysis in SPSS 25. In addition, they took advantage of thematic analysis (Braun & Clarke, 2021) to analyze the obtained interview data by extracting their pertinent codes and themes.

4. Results and Discussion

4.1. Results

4.1.1. Quantitative Results

The researchers examined the characteristics of the data on the writing pretest and posttest to determine their compatibility with the requirements of parametric tests. The analysis indicated that the data were congruent with these requirements owing to the fact that they were interval and their collection procedures were independent from each other (Creswell & Creswell, 2017). In addition, they were normally distributed based on the results of Kolmogorov-Smirnov and Shapiro-Wilk normality tests ($p > .05$). Table 1 and Table 2, respectively, provide the results of these tests for the pretest and posttest performances:

Table 1

Tests of Normality of Pretest Performances

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DFG	.155	26	.351	.966	26	.574
IFG	.178	26	.342	.951	26	.427
MFG	.123	26	.391	.984	26	.571
CG	.185	26	.344	.947	26	.451

Table 2

Tests of Normality of Posttest Performances

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DFG	.172	26	.351	.966	26	.574
IFG	.187	26	.342	.951	26	.427
MFG	.196	26	.391	.984	26	.571
CG	.192	26	.382	.964	26	.422

Consequently, the researchers used paired-samples t-test and one-way ANOVA. Prior to the analysis process, there was a need to ensure the homogeneity of groups in terms of their writing ability. Therefore, a one-way ANOVA was run to achieve this purpose. Table 3 shows the pertinent descriptive statistics:

Table 3*Descriptive Statistics on Pretest Performances*

	N	M	SD
DFG	26	22.31	3.017
IFG	26	22.15	2.752
MFG	26	21.62	2.940
CG	26	21.96	2.522

The results of Levene's test indicated that the group variances were homogeneous (Table 4).

Table 4*Levene's Test of Homogeneity of Variances of Pretest Performances*

	Levene Statistic	df1	df2	Sig.
Based on Mean	.946	3	100	.421

Therefore, the researchers checked the ANOVA results. Table 5 shows the results:

Table 5*ANOVA Test of Pretest Performances*

	Sum of Squares	df	MS	F	Sig.
Between Groups	6.952	3	2.317	.293	.831
Within Groups	792.038	100	7.920		
Total	798.990	103			

As shown in Table 5, there were no significant differences between the pretest performances of the groups ($p > .05$) and the groups were homogenous in terms of their writing ability. Therefore, the researchers proceeded to perform the analysis. The following section answers the raised questions based on the results of the analysis:

RQ1: Do direct, indirect, and metalinguistic WCF strategies have significant effects on Iraqi students' ability to complete writing tasks in EGP courses?

In light of the objectives, the researchers used three paired samples t-tests to analyze the obtained data. Table 6 shows the descriptive statistics on pretest and posttest performances of the experimental groups:

Table 6*Descriptive Statistics on Pretest and Posttest Performances*

		M	N	SD
Pair 1	DFG Pretest	22.31	26	3.017
	DFG Posttest	34.23	26	2.776
Pair 2	IFG Pretest	22.15	26	2.752
	IFG Posttest	28.50	26	1.749
Pair 3	MFG Pretest	21.62	26	2.940
	MFG Posttest	40.42	26	2.774

To determine the statistical significance of the results, the researchers used the paired-samples t-test. Table 7 provides the results:

Table 7*The t-test of Pretest and Posttest Performances*

		95% Confidence Interval of the Difference							
		M	SD	SEM	Lower	Upper	t	df	Sig.
Pair 1	DFG Pretest	-	4.078	.800	-13.570	-10.276	-14.907	25	.000
	DFG Posttest	11.923							
Pair 2	IFG Pretest	-6.346	3.136	.615	-7.613	-5.079	-10.318	25	.000
	IFG Posttest								
Pair 3	MFG Pretest	-	4.327	.849	-20.555	-17.060	-22.164	25	.000
	MFG Posttest	18.808							

As shown in Table 7, there were significant differences between the pretest and posttest performances of all three groups ($p < .05$). In other words, direct, indirect, and metalinguistic WCF strategies had significant positive impacts on nursing students' writing ability in EGP courses.

RQ2: Are there any significant differences between the impacts of direct, indirect, and metalinguistic WCF strategies on Iraqi students' ability to complete writing tasks in EGP courses?

To address this question, the researchers ran a one-way ANOVA to examine the differences between the posttest performances of the groups. Table 8 provides the descriptive statistics on posttest performances:

Table 8*Descriptive Statistics on Posttest Performances*

	N	M	SD
DFG	26	34.23	2.776
IFG	26	28.50	1.749
MFG	26	40.42	2.774
CG	26	23.19	2.263

According to Table 8, there were significant differences among the performances of the groups ($p < .05$). More specifically, MFG, DFG, IFG, and CG had the first, the second, the third, and the fourth best performances, respectively.

Based on the results of Levene's test (Table 9), group variances were homogeneous ($p = .381$).

Table 9*Levene's Test of Homogeneity of Variances of Posttest Performances*

	Levene Statistic	df1	df2	Sig.
Based on Mean	.922	3	100	.381

Consequently, the researchers checked ANOVA results. Table 10 provides these results

Table 10*ANOVA Test of Posttest Performances*

	Sum of Squares	df	MS	F	Sig.
Between Groups	4291.721	3	1430.574	242.676	.000
Within Groups	589.500	100	5.895		
Total	4881.221	103			

As shown in Table 10, there were significant differences among the posttest performances of the groups ($p < .05$). However, there was a need to examine the results of the Tukey post hoc test to determine the places of these differences. Table 11 shows the relevant results:

Table 11
Tukey Post Hoc Test of Posttest Performances

(I) Groups	(J) Groups	Mean Difference		Sig.
		(I-J)	SE	
DFG	IFG	5.731*	.673	.000
	MFG	-6.192*	.673	.000
	CG	11.038*	.673	.000
IFG	DFG	-5.731*	.673	.000
	MFG	-11.923*	.673	.000
	CG	5.308*	.673	.000
MFG	DFG	6.192*	.673	.000
	IFG	11.923*	.673	.000
	CG	17.231*	.673	.000
CG	DFG	-11.038*	.673	.000
	IFG	-5.308*	.673	.000
	MFG	-17.231*	.673	.000

*. *The mean difference is significant at the 0.05 level.*

4.1.2. Qualitative Results

In addition to the above-mentioned quantitative research questions, the researchers answered the following qualitative question:

RQ3: What are Iraqi students' perspectives on the usefulness of direct, indirect, and metalinguistic WCF strategies in the process of their writing tasks in EGP courses?

In line with the aims of this question, the researchers used thematic analysis (Braun & Clarke, 2021) to perform the qualitative data analysis and to extract the underling codes and themes in the obtained interview data of the present study:

The first theme in the data on DFG was *advantageous impact of direct WCF on writing ability*. Eight of the participants stated that direct WCF helped them to ameliorate their writing performance. For instance, participant 2 noted that:

"I paid close attention to my teacher's feedback. I knew that I had to modify my performance based on her corrections".

Moreover, the second theme in the data on this group was *temporary efficacy of direct WCF*. Seven of the participants pointed out that they forgot the teacher's direct WCF. In this regard, participant 6 stated that:

"Although my teacher's corrections helped me to improve my writing performance, I forgot most of them and asked the teacher to provide me with similar feedback almost every session".

Table 12 provides the codes and themes in the data on DFG

Table 12*Codes and Themes in the Data on DFG*

Codes	Themes
Focusing on teacher's direct corrections Comparing one's output with native-like language use Correcting one's output based on feedback	Advantageous impact of direct WCF on writing ability
Not remembering the corrections in the following sessions Needing the corrections in all of the sessions	Temporary efficacy of direct WCF

The first major theme in the data on IFG was *confusing structure of indirect feedback*. Nine of the participants stated that they were confused in the process of feedback provision. Regarding this theme, participant 1 pointed out that:

"I did not know what was the aim of the teacher's feedback. Did she want to express her opinion? Did she correct me? If so, what did she correct?"

In addition, the second theme in the data on IFG was *unsatisfactory impact of indirect feedback on writing performance*. Six of the participants noted that they tended to disregard the feedback when they did not understand it. For instance, participant 5 pointed out that:

"I could not use the teacher's feedback to correct my mistakes and did not pay attention to the feedback that confused me in the process of interaction".

Table 13 shows the codes and themes on the data on IFG:

Table 13*Codes and Themes in the Data on IFG*

Codes	Themes
Not being able to determine the target of indirect feedback Being puzzled about the nature of indirect feedback	Confusing structure of indirect feedback
Not paying adequate attention to indirect feedback Ignoring some of the corrections	Unsatisfactory impact of indirect feedback on writing performance

The first underlying theme in the data on MFG was *positive effect of metalinguistic WCF on cognitive gap noticing*. Eight of the participants stated that metalinguistic WCF helped them to determine the causes of their errors. In this regard, participant four pointed out that:

“In the process of writing, the feedback enabled me to determine the differences between my language use and correct language use. As a result, I revised my output in light of my teacher’s explanations”.

Finally, the second theme in the data was *long-lasting utility of metalinguistic WCF*. Nine of the participants stated that the metalinguistic explanations helped them to improve their writing performance during the treatment sessions. Regarding this theme, participant 6 remarked that:

“I developed a number of model sentences based on the explanations. These sentences reminded me of the correct uses of various structures and enabled me to use them accurately in my writing tasks”.

Table 14 shows the codes and themes in the data on MFG:

Table 14

Codes and Themes in the Data on MFG

Codes	Themes
Using the explanations to understand the causes of mistakes and errors	Positive effect of metalinguistic WCF on cognitive gap noticing
Developing models of correct language usage based on explanations	
Integrating corrections into writing performance	
Being able to use the explanations over the following sessions	Long-lasting utility of metalinguistic WCF
Searching for accurate uses of different structures	

4.2. Discussion

The first question of the study made an effort to determine the impacts of different WCF strategies on Iraqi nursing students’ writing performance. Based on the obtained results, direct, indirect, and metalinguistic strategies significantly improved the students’ writing task performance. In general, these results corroborate the results of a number of previous studies including the studies that were carried out by Mohammadnia and Khalili (2014 a, b, c), Khanlarzadeh and Nemati (2016), Khalili et al. (2017), Karim and Nassaji (2020 a, b), Ekiert and Di Gennaro (2021), and Zohrabi and Khalili (2024 a, b). These studies reported that WCF strategies had beneficial impacts on EFL learners’ writing accuracy and complexity.

These results may be explained in light of Ellis’s (2009b) view on *cognitive facilitation* and Schmidt’s (2001) *noticing hypothesis*. Ellis (2009b) ascribed the effectiveness of WCF to the fact that its strategies expedite learners’ cognitive processing of information and result in their long-term language acquisition. Furthermore, Schmidt (2001) stated that the pedagogical interventions that enable learners to pay conscious attention to language forms such as vocabulary items and grammatical structures are likely to empower

them to transmogrify the provided input to intake and to internalize second language knowledge. Therefore, the usefulness of the above-mentioned strategies in this study may be ascribed to their role in facilitation of language information processing and their capability to direct learners' attention to the correct uses of second language.

In addition to these discussions, it is possible to interpret these results in view of the socio-cultural theory of language acquisition that relates learning to the mediatory role of expert support that may take the form of provision of instructional interventions including WCF strategies (Nassaji & Swain, 2000). As Lantolf and Thorne (2006) stated, teachers constitute the experts in the context of the classroom whose support takes the form of feedback and empowers learners to develop a Zone of Proximal Development (ZPD). As they explained, ZPD determines the gap between learners' actual language ability level and their potential ability level when they receive the support of experts including native speakers and teachers among others. Consequently, the effectiveness of the WCF strategies in this study may be associated with their role in the facilitation of learners' ZPD development.

The second question of the study endeavored to specify the differences between the impacts of WCF strategies on Iraqi nursing students' writing ability. Based on the results, metalinguistic, direct, and indirect WCF strategies constituted the first, the second, and the third most efficacious strategies for honing the students' writing skill. Generally, these results are in line with the results of certain studies including the studies that were carried out by Saadi and Saadat (2015), Mak (2019), Valizadeh and Soltanpour (2021), Wang and Han (2022), Zohrabi and Khalili (2023), and Khalili, et al. (2025). These studies reported that explicit WCF strategies were more effective in improving learners' writing ability compared to implicit strategies.

These results can be interpreted in light of Tomlin and Villa's (1994) construct of *detection* in the process of language learning. Tomlin and Villa (1994) defined detection as a process in which input is cognitively registered in learners' short-term memory and results in their internalization of language knowledge. According to them, detection stems from systematic attention to formal aspects of language. Moreover, they differentiated detection from awareness and noted that awareness is the surface-level cognizance of language knowledge that may or may not result in language learning. Therefore, it can be argued that in this study metalinguistic and direct WCF strategies, which were more explicit than the indirect WCF strategy, facilitated the learners' attention to language forms, and helped them to detect the forms more effectively than the indirect WCF strategy. In addition to the discussion of detection, it is possible to explain these results in light of Ellis et al.'s (2005) notion of *cognitive comparison*. Ellis et al. (2005) pointed out that explicit WCF strategies, especially metalinguistic WCF strategy, prompt learners to

compare their language output with native speakers' language use to determine their differences and empower them to self-correct based on their understanding of the uses of the relevant language forms. As a result, the effectiveness of metalinguistic and direct WCF strategies in this study may stem from the fact that they expedited the participants' process of cognitive comparison in their tasks.

Lastly, the third research question strived to delve into the participants' perspectives on the effects of WCF strategies on their writing skill development. The findings showed that, in general, the participants considered explicit WCF strategies including the direct and metalinguistic strategies to be more effective than the indirect WCF strategy (i.e. an implicit strategy). More specifically, the participants believed that the explicit strategies improved their temporary and long-lasting language acquisition, expedited their cognitive comparisons, and helped them to monitor their language use in writing tasks. On the other hand, they regarded indirect WCF to be confusing and vague. Generally, these results support the results of the studies that were conducted by Yu and Hu (2017), Merkel (2018), Abbaspour et al. (2020), Koltovskaia (2020), Guo et al. (2021), Khalili et al. (2022a), Dobakhti and Khalili (2024), and Khalili, and Zohrabi (2024). These studies showed that EFL learners preferred explicit WCF strategies to the implicit ones in their classes.

The findings can be attributed to the notion of negative evidence in the cognitive view of language acquisition (Sheen, 2007). Negative evidence encompasses the feedback that makes learners cognizant of the impossible uses of the second language (Long, 1996). This kind of evidence facilitates the process of cognitive comparison and self-correction (Luquin & García Mayo, 2021). Therefore, the effectiveness of direct and metalinguistic WCF strategies in this study may be ascribed to the fact that they provided the participants with negative evidence that facilitated their cognitive comparison processes in their writing tasks. In addition, it is possible to interpret the findings in light of the *self-regulation* notion of socio-cultural theory. According to Ohta (2001), self-regulation refers to the process during which learners use artifacts to gain control over their thought process and to manage their language learning. Ohta (2001) stated that these artifacts may range from concrete objects to abstract notions. Therefore, the efficacy of the direct and metalinguistic WCF strategies may be attributed to the fact that they constituted the artifacts that helped the learners to exert control over their language learning and to internalize second language knowledge.

5. Conclusion and Implications

This study endeavored to determine the extent to which direct, indirect, and metalinguistic WCF strategies influenced Iraqi nursing students' writing task performance in EGP courses. In addition, it sought to expound on these students' perspectives on the usefulness of the relevant strategies in their writing classes. The findings indicated that although all of the examined WCF strategies improved the participants' writing ability, direct and metalinguistic WCF strategies proved to be more efficacious than the indirect strategy in this regard. Furthermore, qualitative findings supported the above-mentioned results and showed that the students had a preference for these explicit WCF strategies.

The results may have a number of practical implications in the EFL context of Iraq. First, they show that there is a need to redress Iraqi EFL teacher education courses in terms of content and educators. More specifically, it is essential to include a certain module in the relevant courses that apprises these teachers of the various WCF strategies and empowers them to use them in their classes. In addition, there is a need to provide educators of these courses with tailor-made education on WCF strategies to prompt them to discuss the relevant strategies in their courses. Second, it is necessary to revise the EFL instructional materials and teacher manuals. To this end, syllabus designers need to include writing tasks in the EFL materials in which learners are provided with direct, indirect, and metalinguistic feedback or combinations of them.

Based on the results of this study, it can be argued that direct and metalinguistic WCF strategies may be used at lower proficiency levels since the learners at these levels struggle to use the target language grammar accurately and need to make more cognitive comparisons. On the other hand, indirect WF strategy may be more appropriate for higher proficiency levels whose learners are able to take advantage of indirect hints about correct language use. In addition, it is necessary to include detailed information on the WCF strategies in teacher manuals to inform teachers about their impacts on the writing performance and to help them to use these strategies effectively in the process of writing instruction. Finally, EFL teachers have to develop effective writing tasks in their classes that enable them to provide their learners with appropriate WCF based on their language proficiency level.

The present study suffered from a number of limitations owing to the fact that it was not able to use random sampling and could not control the impacts of the participants' gender, age, and language background on the results. Future studies should deal with these issues. In addition, they have to focus on the other WCF strategies (e.g., reformulation) that were not examined in this study. Furthermore, these studies need to use various instruments such as open-ended questionnaires and data gathering techniques including

observation to triangulate the process of data collection. Lastly, the future studies could be conducted in both second and foreign language contexts and need to focus on different settings such as schools and language institutes to determine the generalizability of the results of this study to various contexts and academic settings.

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References

- Abbaspour, E., Atai, M. R., & Maftoon, P. (2020). The effect of scaffolded written corrective feedback on Iranian EFL learners' writing quality: An activity theory perspective. *International Journal of Foreign Language Teaching and Research*, 30, 177-196.
- Allan D. (2004). *Oxford placement test*. Oxford University Press.
- Almasi, E., & Tabrizi, A. (2016). The effects of direct vs. indirect corrective feedback on Iranian EFL learners' writing accuracy. *Journal of Applied Linguistics and Language Research*, 3(1), 74-16.
- Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing*, 17(2), 102-118. <https://doi.org/10.1016/j.jslw.2007.11.004>
- Bitchener, J. (2009). Measuring the effectiveness of written corrective feedback: A response to "Overgeneralization from a narrow focus: A response to Bitchener (2008)". *Journal of Second Language Writing*, 18(4), 276-279. <https://doi.org/10.1016/j.jslw.2009.06.001>
- Bitchener, J. (2018). Direct versus indirect grammar feedback. In J. I. Lontas (Ed.), *The TESOL encyclopedia of English language teaching* (pp. 1-8). John Wiley & Sons
- Bitchener, J., & Ferris, D. R. (2012). *Written corrective feedback in second language acquisition and writing*. Routledge.
- Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. Sage.
- Brown, J. D., & Bailey, K. M. (1984). A categorical instrument for scoring second language writing skills. *Language Learning*, 34, 21-42.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th Ed.). Sage.
- Dobakhti, L., & Khalili, A. (2024). A contributory study of the factors in British and Iranian English instructors' teacher immunity. *Applied Research on English Language*, 13(2), 125-148. <https://doi.org/10.22108/are.2024.141099.2264>
- Ekiert, M., & Di Gennaro, K. (2021). Focused written corrective feedback and linguistic target mastery: Conceptual replication of Bitchener and Knoch (2010). *Language Teaching*, 54(1), 71-89. <https://doi.org/10.1017/S0261444819000120>
- Ellis, R. (2008). *The study of second language acquisition* (2nd Ed.). Oxford University Press.
- Ellis, R. (2009a). A typology of written corrective feedback types. *ELT Journal*, 63(2), 97-107. <https://doi.org/10.1093/elt/ccn023>
- Ellis, R. (2009b). Corrective feedback and teacher development. *L2 Journal*, 1, 3-18. <https://doi.org/10.5070/L2.V1I1.9054>
- Ellis, R., Loewen, S., & Erlam, R. (2005). Implicit and explicit corrective feedback and the acquisition of L2 grammar. *Studies in Second*

- Language Acquisition*, 28(2), 339-368. <https://doi.org/10.1017/S0272263106060141>
- Fahmi, M. A., & Cahyono, B. Y. (2021). EFL students' perception on the use of Grammarly and teacher feedback. *Journal of English Educators Society*, 6(1), 18-25.
- Ferris, D. R. (2010). Second language writing research and written corrective feedback in SLA. *Studies in Second Language Acquisition*, 32(2), 181-201. <https://doi.org/10.1017/S0272263109990490>
- Gharanjik, N., & Ghoorchaei, B. (2020). The impact of metalinguistic corrective feedback on Iranian EFL learners' acquisition of the hypothetical conditional. *AJELP: Journal of English Language and Pedagogy*, 8(2), 27-38. <https://doi.org/10.37134/ajelp.vol8.2.3.2020>
- Gundersen, E., & Lee, L. (2011). *Pre-intermediate select readings*. Oxford University Press.
- Guo, Q., Feng, R., & Hua, Y. (2021). How effectively can EFL students use automated written corrective feedback (AWCF) in research writing? *Computer Assisted Language Learning*, 35(9), 2312-2331. <https://doi.org/10.1080/09588221.2021.1879161>
- Hajebi, M. (2018). Enhancing writing performance of Iranian EFL university students in the light of using computer-assisted language learning. *International Linguistics Research*, 1(2), 47-51. <https://doi.org/10.30560/ilr.v1n2p47>
- Hashemian, M., & Farhang-Ju, M. (2022). Comparative effects of direct and metalinguistic computer-mediated feedback on L2 learners' writing ability and willingness-to-write. *Journal of Modern Research in English Language Studies*, 9(4), 119-142. <https://doi.org/10.30479/jmrels.2022.17200.2064>
- Karim, K., & Nassaji, H. (2020a). The revision and transfer effects of direct and indirect comprehensive corrective feedback on ESL students' writing. *Language Teaching Research*, 24(4), 519-539. <https://doi.org/10.1177/1362168818802469>
- Karim, K., & Nassaji, H. (2020b). The effects of written corrective feedback: A critical synthesis of past and present research. *Instructed Second Language Acquisition*, 3(1), 28-52. <https://doi.org/10.1558/isla.37949>
- Kashef, S. H., & Khalili, A. (2023). Perspective chapter: English for academic purposes teacher education: Prerequisites, predicaments, and perquisites. In D. Ortega-Sánchez (Ed.), *Education annual volume 2023* (pp. 299-309). IntechOpen. <https://doi.org/10.5772/intechopen.112400>
- Khalili, A., Dobakhti, L., & Zohrabi, M. (2024a). Scrutinizing the predicting factors in native and nonnative English instructors' teacher immunity.

- Journal of Research in Applied Linguistics*, 15(1), 62-74.
<https://doi.org/10.22055/rals.2023.43835.3061>
- Khalili, A., Kashef, S. H., & Khalili, F. (2022a). Interlinking corrective feedback with EAP writing instruction: An advantageous endeavor? *ESP Today*, 10(2), 286-309.
<https://doi.org/10.18485/esptoday.2022.10.2.5>
- Khalili, A., Zafarani, P., & Gholami, J. (2024b). Learning-oriented assessment in the context of Iran: Teachers' perspectives. *International Journal of Language Testing*, 14(2), 82-96.
<https://doi.org/10.22034/ijlt.2024.433024.1317>
- Khalili, A., & Zohrabi, M. (2024). Predictors of New Zealander and Iranian English teachers' productive and maladaptive teacher immunity. *Journal of Language Horizons*, 8(3), 97-124.
<https://doi.org/10.22051/lghor.2024.46117.1892>
- Khalili, A., Zohrabi, M., Dobakhti, L., & Gholami, J. (2025). Convenience editing in medical sciences: Professional expertise vis-à-vis linguistic virtuosity. *Language Related Research*, 16(1), 161-189.
<https://doi.org/10.48311/LRR.16.1.7>
- Khanlarzadeh, M., & Nemati, M. (2016). The effect of written corrective feedback on grammatical accuracy of EFL students: An improvement over previous unfocused designs. *Iranian Journal of Language Teaching Research*, 4(2), 55-68.
- Koltovskaia, S. (2020). Student engagement with automated written corrective feedback (AWCF) provided by Grammarly: A multiple case study. *Assessing Writing*, 44, 100450.
<https://doi.org/10.1016/j.asw.2020.100450>
- Lantolf, J., & Thorne, S. (2006). *Sociocultural theory and the genesis of second language development*. Oxford University Press.
- Long, M. (1996). The role of the linguistic environment in second language acquisition. In W. Ritchie, & T. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413-468). Academic Press.
- Luquin, M., & García Mayo, M. P. (2021). Exploring the use of models as a written corrective feedback technique among EFL children. *System*, 98, 102465. <https://doi.org/10.1016/j.system.2021.102465>
- Mak, P. (2019). From traditional to alternative feedback: What do L2 elementary students think? *International Journal of Applied Linguistics*, 29(1), 109-129. <https://doi.org/10.1111/ijal.12250>
- Mao, Z., & Lee, I. (2020). Feedback scope in written corrective feedback: Analysis of empirical research in L2 contexts. *Assessing Writing*, 45, 100469. <https://doi.org/10.1016/j.asw.2020.100469>
- Mapunda, G., & Kyara, E. (2023). "You must be crazy!" Teacher corrective feedback and student uptake in two Tanzanian secondary schools.

- Journal of Modern Research in English Language Studies*, 10(4), 1-20. <https://doi.org/10.30479/jmrels.2023.18556.2188>
- Merkel, W. (2018). Role reversals: A case study of dialogic interactions and feedback on L2 writing. *Journal of Second Language Writing*, 39(1), 16-28. <https://doi.org/10.1016/j.jslw.2017.11.007>
- Milton, J. (2006). Resource-rich web-based feedback: Helping learners become independent writers. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing: Contexts and issues* (pp. 123-139). Cambridge University Press.
- Mohammadnia, Z., & Khalili, A. (2014a). An investigation of the existence of a threshold level for the vocabulary. *Iranian EFL Journal*, 10(6), 590-608.
- Mohammadnia, Z., & Khalili, A. (2014b). Linguistic focus of language related episodes in intermediate and advanced EFL learners' group-based interactions: A case study. *Advances in Language and Literary Studies*, 5(2), 127-133. <https://doi.org/10.7575/aiac.all.v.5n.2p.127>
- Mohammadnia, Z., & Khalili, A. (2014c). An investigation of the differential effects of visual input enhancement on the vocabulary learning of Iranian EFL learners. *International Journal of Applied Linguistics and English Literature*, 3(4), 69-79. <https://doi.org/10.7575/aiac.ijalel.v.3n.4p.69>
- Nassaji, H., & Kartchava, E. (2017). *Corrective feedback in second language teaching and learning*. Routledge.
- Nassaji, H., & Swain, M. (2000). A Vygotskian perspective on corrective feedback in L2: The effect of random versus negotiated help in the learning of English articles. *Language Awareness*, 9(1), 34-51. <https://doi.org/10.1080/09658410008667135>
- Ohta, A. (2001). *Second language acquisition processes in the classroom: Learning Japanese*. Lawrence Erlbaum.
- Rezaee, A. A., Norouzi, M. H., & Aryaeian, N. (2024). Iranian EFL teachers' cognition of corrective feedback as an element of classroom management: A qualitative study. *Journal of Modern Research in English Language Studies*, 11(2), 2-24. <https://doi.org/10.30479/jmrels.2023.18807.221>
- Saadi, Z., & Saadat, M. (2015). EFL learners' writing accuracy: Effects of direct and metalinguistic electronic feedback. *Theory and Practice in Language Studies*, 5(10), 2053-2063. <https://doi.org/10.17507/tpls.0510.11>
- Sachs, R., & Polio, C. (2007). Learners' use of two types of written feedback on an L2 writing task. *Studies in Second Language Acquisition*, 29, 67-100. <https://doi.org/10.1017/S0272263107070039>

- Santos, M., López Serrano, S., & Manchón, R. M. (2010). The differential effect of two types of direct written corrective feedback on noticing and uptake: Reformulation vs. error correction. *International Journal of English Studies*, 10(1), 131–154. <https://doi.org/10.6018/ijes/2010/1/114011>
- Schmidt, R. (2001). Attention. In P. Robinson (Ed.), *Cognition and second language instruction* (pp. 3-32). Cambridge University Press.
- Shaqaqi, M., & Soliemani, H. (2018). Effects of asynchronous and conventional paper-and-pen metalinguistic feedback on L2 learners' use of verb tense. *Journal of Modern Research in English Language Studies*, 5(3), 72-55. <https://doi.org/10.30479/jmrels.2019.10230.1269>
- Sheen, Y. (2007). The effect of focused written corrective feedback and language aptitude on ESL learners' acquisition of articles. *TESOL Quarterly*, 41(2), 255-283. <https://doi.org/10.1002/j.1545-7249.2007.tb00059.x>
- Shirkhani, S., & Omidi, S. (2024). Written corrective feedback on intermediate EFL learners' formulaic errors: The impact of a teacher awareness-raising program. *Journal of Modern Research in English Language Studies*, 11(3), 79-100. <https://doi.org/10.30479/jmrels.2023.19517.2278>
- Storch, N., & Wigglesworth, G. (2010). Learners' processing, uptake, and retention of corrective feedback on writing: Case studies. *Studies in Second Language Acquisition*, 32(2), 303–334. <https://doi.org/10.1017/S0272263109990532>
- Talatifard, S. (2016). The Effect of reactive focused corrective feedback on Iranian EFL learners' writing performance. *Journal of Advances in English Language Teaching*, 4(3), 40–48.
- Tomlin, R. S., & Villa, V. (1994). Attention in cognitive science and second language acquisition. *Studies in Second Language Acquisition*, 16(2), 183-203. <https://doi.org/10.1017/S0272263100012870>
- Truscott, J. (2007). The effect of error correction on learners' ability to write accurately. *Journal of Second Language Writing*, 16(4), 255-272. <https://doi.org/10.1016/j.jslw.2007.06.003>
- Truscott, J. (2010a). Some thoughts on Anthony Bruton's critique of the correction debate. *System*, 38(2), 329-335. <https://doi.org/10.1016/j.system.2010.03.014>
- Truscott, J. (2010b). Further thoughts on Anthony Bruton's critique of the correction debate. *System*, 38(4), 626-633. <https://doi.org/10.1016/j.system.2010.10.003>
- Valizadeh, M., & Soltanpour, F. (2021). Focused direct corrective feedback: Effects on the elementary English learners' written syntactic

- complexity. *Eurasian Journal of Applied Linguistics*, 7(1), 132–150. <https://doi.org/10.32601/ejal.911207>
- Van Beuningen, C. G., De Jong, N. H., & Kuiken, F. (2012). Evidence on the effectiveness of comprehensive error correction in second language writing. *Language Learning*, 62(1), 1–41. <https://doi.org/10.1111/j.1467-9922.2011.00674.x>
- Wang, Z., & Han, F. (2022). The effects of teacher feedback and automated feedback on cognitive and psychological aspects of foreign language writing: A mixed-methods research. *Frontiers in Psychology*, 13, 1–12. <https://doi.org/10.3389/fpsyg.2022.909802>
- Yu, S., & Hu, G. (2017). Understanding university students' peer feedback practices in EFL writing: Insights from a case study. *Assessing Writing*, 33(1), 25–35. <https://doi.org/10.1016/j.asw.2017.03.004>
- Zohrabi, M., & Khalili, A. (2023). The philosophy of teacher immunity: EFL teachers' perspectives. *Journal of Philosophical Investigations*, 17(45), 330–346. <https://doi.org/10.22034/jpiut.2024.59889.3664>
- Zohrabi, M., & Khalili, A. (2024a). A cross-cultural study into the utility of diverse written corrective feedback strategies in medicine students' ESP writing courses. *International Journal of Society, Culture & Language*, 12(2), 150–169. <https://doi.org/10.22034/ij scl.2024.2025600.3436>
- Zohrabi, M., & Khalili, A. (2024b). A study of the predictors of English and Persian language learners' psychological well-being. *Literary Arts*, 16(2), 1–12. <https://doi.org/10.22108/liar.2024.140835.2360>