Improving ESL Students' Writing:
A Systematic Review of Written Corrective Feedback

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Introduction

WHILE CORRECTING MISTAKES IN STUDENTS' WRITTEN ENGLISH can be a time-consuming task, it is a practice that has come to be expected as part of the learning process by both ESL students and teachers. However, there has long been debate over how beneficial it is for teachers to provide written correction. Truscott (1996) believed that overt correction of written errors may be demotivating and harmful to students' progress. He recommended that teachers should focus on "anything except grammar correction" when providing feedback on students' writing. His findings led to several counter-studies by Ferris (1994, 1999, 2004) who aimed to prove that the "common sense" approach of correcting students' errors should continue. She concluded that while further research was needed, written errors in production should be corrected unless there is conclusive evidence to show otherwise.

In my own intermediate-level second grade writing classes at a Japanese senior high school, I experimented with providing different forms of written corrective feedback (hereafter WCF) to my students. While it seemed that most students at least looked over the corrections provided, similar mistakes often occurred on subsequent writing tasks. This appeared to be a common trend when I discussed the issue with other teachers. I became interested in how I could provide corrections to my students in the most effective way. While there exists a significant body of research regarding this topic, recommendations are often conflicting, with conclusions regularly advising further study.

This inspired my search to compare the results of recent studies and conduct a systematic review of their findings.

     The aim of this paper is to therefore review as many recent papers as possible relating to the application of WCF, search for patterns among them and hopefully draw clearer recommendations for teachers on how to provide effective written feedback to their students.

Types of Written Corrective Feedback

     WCF can vary depending on the form (direct or indirect) and the scope (focused or unfocused). Direct WCF occurs when the teacher crosses out or underlines a mistake and rewrites the correct English for the student. This may range from simply correcting spelling of words to rewriting a whole sentence above, beside or near the mistake. It also includes crossing-out of unnecessary words and insertion of missing words or articles. Indirect WCF occurs when the teacher only underlines or highlights students' mistake for them to notice and correct the error by themselves.

     As well as the form of feedback, corrections may be unfocused or focused in their scope. Unfocused correction occurs when the teacher corrects every single mistake the student makes. In contrast, focused correction is when a teacher chooses to correct only specific errors (such as errors in preposition usage, spelling mistakes or missing articles). This may be more effective when trying to improve a specific weakness and less time consuming for the teacher. Error codes indicating the type of mistake (also known as metalinguistic cues) are often provided alongside focused corrections to aid the students in understanding the type of error they have made, though they can also be provided with unfocused WCF too.

     Therefore, there exist four distinct categories: direct-unfocused, indirect-unfocused, direct-focused and indirect-focused WCF. Alongside these, there is the possibility of adding metalinguistic cues to any of the methods. Examples of each type of error correction can be seen in Table 1.

Table 1. Examples of Different Types of WCF

Type of WCF	Example Sentence
Direct, unfocused	Yesterday, I ~~studyed~~ at school library with my friends for 2 hours. studied ^the
Indirect, unfocused	Yesterday, I <u>studyed</u> at school library with my friends for 2 hours. ^
Direct, focused on articles only	Yesterday, I studyed at school library with my friends for 2 hours. ^the
Indirect, focused on articles only	Yesterday, I studyed at school library with my friends for 2 hours. ^
Direct, focused on articles with metalinguistic cues	Yesterday, I studyed at school library with my friends for 2 hours. ^the (DA; definite article)
Indirect, focused on articles with metalinguistic cues	Yesterday, I studyed at school library with my friends for 2 hours. ^DA (definite article)

Research Questions

This review will first aim to establish if there is any evidence that Truscott was correct in asserting that WCF may not be beneficial. It will also consider the differences in form and scope of feedback provided. The research questions are therefore as follows:

1. Is WCF effective at improving the accuracy of students studying English as a second or foreign language?
2. If so, how can WCF be provided to students in the most effective way?

Methodology

Criteria for Inclusion

Due to the amount of research already performed in this field, only sources published within the last 10 years will be included. The criteria for inclusion are therefore:

- Studies that include students studying English as a second or foreign language.
- Studies that have been published within the last 10 years (2011 – 2021).
- Studies that focus on the effect of WCF on students' written English.
- Studies that include a variety of direct, indirect, focused and unfocused WCF.
- Studies conducted and reported in English.

Identification of Sources

In finding primary sources that matched the specified criteria, the following resources were used:

1. The University of Sunderland's "Discovery" service. The database of academic journals was searched for a combination of the following terms: *corrective feedback, intermediate students, indirect feedback, direct feedback, focused, unfocused, second language, foreign language, writing, error correction, written correction, WCF, WCF.* Filters were applied to limit the results to only full texts that were peer-reviewed and published between 2011-2021.

2. Google Scholar. The same search terms with the same limitations were also applied to Google Scholar. Duplicate studies or those requiring additional licensing fees were omitted.

3. Web searches. To search for references mentioned in other articles and provide follow up data.

Following a screening process, 13 studies were chosen for inclusion. A data capture form was created to summarise the papers based on a similar literature review by Liu and Brown (2015). A full list of included studies and the data capture form can be seen in the

appendix. Study 9 (Ene and Kosobucki, 2016) was later excluded due to a heavy emphasis on the use of rubrics in addition to WCF.

Analysis and Results

Table 2 shows a simplified summary of the conclusions drawn from each included study. One paper focused only on direct correction. Four papers focused only on indirect correction and six papers compared the differences between both direct and indirect correction. A variety of focused or unfocused errors were included.

Table 2. Summary of Findings

Direct WCF			
No.	Authors	Scope	Did Accuracy Improve?
12	Mekala and Ponmani (2017)	Unfocused	Yes
Indirect WCF			
No.	Authors	Scope	Did Accuracy Improve?
1	Ferris *et al.* (2013)	Focused	Yes
3	Ebadi (2014)	Focused	Yes
7	Frear and Chiu (2015)	Focused, Unfocused	Yes
11	Shirotha (2016)	Unfocused	Yes
Comparative Studies (Both Direct and Indirect WCF)			
No.	Authors	Scope	Did Accuracy Improve?
2	Karim (2013)	Unfocused	Yes
4	Yoo (2014)	Unfocused	Yes
5	Jamalinesari *et al.* (2015)	Focused	Yes
6	Diab (2015)	Focused	Yes
8	Almassi and Tabrizi (2016)	Unfocused	Yes
10	Aghajanloo *et al.* (2016)	Focused, Unfocused	Yes
13	Wang (2017)	Unfocused	No

Accuracy was shown to improve in students' writing in 11 of the 12 papers.

While Mekala and Ponmani's (2017) study showed that direct WCF was significantly effective at reducing mistakes made, it noted they were "lower proficiency" learners compared to a control group.

Of the four studies focusing only on indirect WCF (Ferris *et al.,* 2013, Ebadi, 2014, Frear and Chiu, 2015 and Shirotha, 2016), results showed that correction was significantly effective at improving the written accuracy of learners in all cases.

Six studies compared the differences in effectiveness of direct and indirect WCF. A summary of observations is shown in Table 3.

Table 3. Observations from Studies that Compared Both Indirect and Direct WCF

No.	Authors	Observations
2	Karim	Direct WCF more effective for re-writes and second drafts. Indirect WCF more effective for reducing mistakes in new tasks.
4	Yoo	Indirect WCF with metalinguistic cues most effective for intermediate learners.
5	Jamalinesari *et al.*	Indirect WCF more effective overall.
6	Diab	Direct WCF more effective for treating vocabulary errors. Indirect WCF more effective for treating rule-based errors.
8	Almassi and Tabrizi	Direct WCF more effective overall.
10	Aghajanloo *et al.*	Direct WCF more effective overall.
13	Wang	No significant differences observed. No improvement in writing.

Two studies (Almassi and Tabrizi, 2016 & Aghajanloo et al, 2016) showed that direct WCF is more effective at increasing students' accuracy than indirect WCF, specifically on new written tasks. In contrast, Jamalinesari et al., 2015 and Karim (2013) found indirect WCF to be more effective for improving accuracy. In Karim's study, it

was shown that while indirect WCF appeared more effective than direct WCF in the short-term, there was little difference between the two in the long term (three weeks later).

In Yoo's (2014) multi-level study too, indirect WCF when paired with metalinguistic Feedback was shown to be more effective at reducing mistakes, especially for low-level and intermediate level students. No significant difference was found between the kinds of feedback provided to higher level learners. Diab (2015) found from the delayed post-test that direct WCF allows students to reduce non-rule-based errors, such as correct vocabulary usage or accurate spelling, while indirect WCF allowed students to better remember grammar rules and apply them to subsequent writing tasks. This is in line with observations from Ferris (2006, 2011), who has suggested that certain kinds of errors are more treatable than others,

Discussion of Results

The results will now be discussed with respect to the research questions outlined previously.

1. Is WCF effective at improving the accuracy of students studying English as a second or foreign language?

Unequivocally, the results still show that WCF is effective at improving the accuracy of students' writing. While it is questionable if this can be attributed directly and solely to the WCF they received, it certainly contrasts Truscott's (1996) suggestion that WCF may be detrimental to a student's learning. This will hopefully alleviate worries that providing students with WCF may be a rewardless and time-consuming tasks for teachers.

2. If so, how can WCF be provided to students in the most effective way?

The form and scope of the WCF seem to be less important overall than the application of correction itself, but some notable observations can be made. Firstly, for the form of correction provided, direct WCF may be better suited to treating errors in spelling or vocabulary and for lower-level students (Mekala and Ponmani, 2017, Diab, 2015). Indirect WCF with metalinguistic cues seems to be more effective for

intermediate-level students, although the difference between indirect and direct correction may not be long term (Yoo, 2014, Karim, 2013). For higher level students, there appears to be little to no difference between the two. Karim (2013) also noted that the efficiency of the form of feedback differs depending on whether the task is new or a rewrite, although this type of comparison was only made in this one study.

As for the scope of the correction, only Frear and Chiu (2015) and Aghajanloo *et al*. (2016) made direct comparisons between focused and unfocused WCF techniques. In Frear and Chiu's study, it was shown that there was no significant difference in the scope of WCF applied, although only one writing task was included and the study was conducted in two weeks. Perhaps more time would have allowed patterns to develop. In contrast to previous studies (Ellis *et al*., 2008, Sheen, 2007), Aghajanloo *et al.* found unfocused, direct WCF to be the most effective method for reducing the number of errors made by students at the intermediate level. However, the students in the study were only receiving corrections on one paragraph writing. Schmidt (1994) has previously suggested that focused WCF may be more effective for lower-level learners due to a larger number of mistakes being made being overwhelming and demotivational if corrected in their entirety. Perhaps this is also true if the writing is of some length, where correcting all the mistakes might overload the student with information.

Notably, giving students a chance to clarify the mistakes with a teacher through feedback sessions not only allowed students to value the feedback more but seemed to play a significant role in increasing the effectiveness of corrections they received (Ferris *et al.,* 2013, Yoo, 2014, Diab, 2015, Mekala and Ponmani, 2017). This is in line with a previous summary of five studies on the effectiveness of WCF conducted by Bitchener and Knoch (2008).

Other Findings

Several of the included studies had qualitative elements where students were asked their opinions regarding the kind of WCF being provided to them. It was shown that

students indeed value receiving WCF from their teachers and feel that it helps them in reducing the number of mistakes they make. In Aghajanloo *et al.'s* (2016) study, 69% of learners prefer receiving indirect WCF from their teacher. 4 out of 5 students in Diab's (2015) study also preferred receiving indirect feedback, believing it to be more beneficial to their learning process. Specifically, they enjoyed receiving metalinguistic hints as to the type of mistake they had made. Ferris *et al.* (2013) inferred from interviews that feedback provided to students should be relevant, clear and motivating without being "too explicit" (favoring indirect correction). Again, the importance of an opportunity for students to check the feedback verbally with a teacher was stressed to cater for individual differences.

Only one study found that students prefer receiving direct WCF (Mekala and Ponmani, 2017), but the learners were of "lower proficiency". It could be assumed that as proficiency improves and they begin writing at length, students value receiving more indirect WCF. Matching students' preferences appears to not only increase their motivation, but also improve the efficacy of the feedback provided.

A summary of the conclusions discussed in this section can be seen in Table 4.

Table 4. Suitability of Form and Scope of Written Correction

Direct-unfocused	Direct-focused	Indirect-unfocused	Indirect-focused
Low-level learners		Intermediate-level learners	
"Untreatable errors"; spelling, vocabulary		"Treatable errors"; grammar, rule-based (word order, subject-verb agreement etc.)	
Short writing tasks		Longer writing tasks	

Conclusion

Based on the observations discussed above, it can be presumed that providing WCF to students is an effective tool for both the student and the teacher in improving students'

level of written English. The degree to which the form and scope of WCF provided impacts its efficacy for the student depends on the following four factors:

1. The type of error made.
2. The level of the student.
3. The student's individual preferences.
4. Whether verbal clarification is provided or not.

The reality of taking each of these considerations into account may not always be practical, especially for new teachers or teachers of larger classes where students are at different stages of language development. As a rule, perhaps a set of simple guidelines like those summarized in Table 4 could help teachers decide what type of written feedback to provide. Providing students with an example of each type of corrective feedback at the start of the year and noting their preferences could be a simple way to align expectations with corrections and maximise the benefit. The learning effect from receiving corrections can be amplified further by allowing students an opportunity to discuss the feedback given to them in detail during individual counseling sessions.

Limitations of the Study

No two studies are conducted the same, and as Hyland and Hyland (2006) suggest, it can be difficult to tie together results of studies that have varied approaches. Major differences identified between studies can be seen in the summary provided in the appendix of this review. Most of the studies took place at university and so the conclusions drawn may differ for younger or older learners. In addition, some of the included studies took place during term time or in classes that were deemed necessary for students to pass their course (Ferris *et al.*, 2013, Almassi and Tabrizi, 2016). It may be questionable whether improvements in accuracy can be solely attributed to the manner of corrective feedback applied or simply a learning effect taking place as the student took

part in English classes during their course. Finally, the difference between ESL and EFL was largely considered to be of negligible consequence, but perhaps it would be interesting to consider how the method of WCF differs depending on the classroom environment.

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Appendix

1 – Summary of studies included in the review

#	Authors	Year	Setting	Scope	Types of WCF	Length of Study
1	Ferris, Lliu, Sinha and Senna	2013	EFL	Focused	Indirect + meta	16 weeks
2	Karim	2013	ESL	Unfocused	Direct, Indirect, Indirect + meta	6 weeks
3	Ebadi	2014	EFL	Focused	Indirect + meta	12 "sessions"
4	Yoo	2014	ESL	Unfocused	Direct, Indirect + meta	8 weeks
5	Jamalinesari, Rahimi, Gowhary, Azizifar	2015	EFL	Focused	Direct, Indirect	40 days
6	Diab	2015	ESL	Focused	Direct	8 weeks
7	Frear and Chiu	2015	EFL	Focused, Unfocused	Indirect	2 weeks
8	Almassi and Tabrizi	2016	EFL	Unfocused	Direct, Indirect	15 weeks
9	~~Ene and Kosobucki~~	~~2016~~	~~ESL~~	~~Focused~~	~~Indirect~~	~~12 months~~
10	Aghajanloo, Mobini and Khosravi	2016	EFL	Focused, Unfocused	Direct, Indirect	18 weeks
11	Shirotha	2016	ESL	Unfocused	Indirect	5 "sessions"
12	Mekala and Ponmani	2017	ESL	Unfocused	Direct	14 weeks
13	Wang	2017	EFL	Unfocused	Direct, Indirect	2 months

2 - Data capture form used to make comparisons

Category	Variable	Value
Basic Information	**Authors**	Multiple
	Title	Multiple
	Journal	Multiple
	Date	Multiple
	Research question	Multiple
Study Context	**Length of study**	Multiple
	Method of study	Qualitative / Quantitative / Qualitative + Quantitative
	Type of English	ESL / EFL
	Educational setting	Primary school / Secondary school / University / Language school / Other
	Participant age	Children (1-12) / Teens (13-17) / Adult (18+)
	English proficiency	Beginner (low-level) / Intermediate / Advanced (high-level) / Other
	Data collection methods	Multiple
	Number of participants	Multiple
	Number of groups	Multiple
	Number of members per group	Multiple
	Random group assignment	Yes / No
	Control group	Yes / No
	Pre-test	Yes / No
	Post-tests	Yes / No
	Delayed post-tests	Yes / No
Writing Task	**Number of tasks**	Multiple

	Type	Creative / Academic / Correspondence / Persuasive / Other
	Timed	Yes / No
	Revision required	Yes / No
	Number of revisions	Multiple
	Time between revisions	Multiple
Feedback	Focus	Spelling / Grammar / Content / Other
	Type	Indirect-unfocused WCF, Indirect-focused WCF, Direct-unfocused WCF, Direct-focused WCF, Metalinguistic strategies, Other
	Delivery	Verbal / Written / Verbal + Written / Other
Statistical	Sampling procedures	ANOVA / t test / Other
Results	Most effective WCF	Indirect-unfocused WCF, Indirect-focused WCF, Direct-unfocused WCF, Direct-focused WCF, None, Multiple, Other
Other	Other comments	Multiple

3 – Major differences between studies

#	Authors	Length	Participants	Control Group?	Pre-test	Post-Test	Delayed Post-test	Number of Tasks
1	Ferris *et al.*	16 weeks	10	No	Yes	No	No	4
2	Karim	6 weeks	53	Yes	Yes	No	Yes	4
3	Ebadi	12 "sessions"	47	Yes	Yes	Yes	No	4
4	Yoo	8 weeks	11	No	Yes	No	No	3
5	Jamalinesari *et al.*	40 days	20	No	Yes	No	No	10
6	Diab	8 weeks	57	Yes	No	Yes	Yes	3
7	Frear and Chiu	2 weeks	42	Yes	No	Yes	Yes	1
8	Almassi and Tabrizi	15 weeks	80	Yes	No	Yes	No	8
10	Aghajanloo, *et al.*	18 weeks	120	No	No	Yes	No	5
11	Shirotha	5 "sessions"	35	No	Yes	Yes	No	3
12	Mekala and Ponmani	14 weeks	116	Yes	No	Yes	Yes	6
13	Wang	2 months	105	Yes	Yes	No	Yes	3

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