Written Corrective Feedback: How can it influence adult ELLs writing performance?

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Abstract. Previous research on teacher feedback focused on investigating the connection between L2 development and Written Corrective Feedback (WCF) given to adult learners, measuring the effectiveness of WCF given by teachers. However, these studies mainly ignored the importance of analyzing the cause of mixed results and summarizing different types of feedback outcomes, and results were inconclusive due to the various divisions of WCF types in this area. This study systematically divides WCF into five types, reviewing their positive and negative outcome. Also, it tries to explain why the same division of WCF has different results about its outcomes in various studies. This article reviews previous literature to provide a comprehensive and critical view of the field of WCF. Based on previous research, this paper finds that different kinds of WCF can contribute to various outcomes. Direct Written Corrective Feedback improves linguistic accuracy significantly without a convincing long-term impact, while Indirect Written Corrective Feedback may outperform it in this aspect. Metalinguistic Written Corrective Feedback (MWCF) and Reformation benefits the acquisition of explicit knowledge and help students understand grammar rules deeply. Besides, many studies demonstrate that both Focus Written Corrective Feedback (FWCF) and Comprehensive Written Corrective Feedback (CWCF) can help students correctly use their targeted grammatical rules, but CWCF may reduce students' motivation. Future studies should pay more attention to control variables during the experiment process and systematically compare the different outcomes of WCF. This paper contributes to a better understanding of the efficacy of WCF and inspires researchers to provide guidance about feedback for pedagogical practices.

Keywords: Written corrective feedback; Writing; Higher education; Second language acquisition.

1. Introduction

In the past decades, there is a heated debate in terms of the role of WCF in second language acquisition [1] [2]. They questioned whether teachers should make corrections to students' grammar errors. In recent years, WCF has received more extensive attention. Many scholars measured its effectiveness in improving the linguistic accuracy of students' writing [3]. Later, many studies prove that WCF plays a vital role in English writing classes, helping teachers benefit adult students' writing competence, especially in English Language Program and in higher education [4]. Many different types of WCF could be used to assist students' learning process. Results as to the outcome of different types are inconclusive, however. This is probably because different types of WCF with different features may have a different effect on the improvement of students' writing performance. Moreover, the different designs used in different studies led to various results. This review paper is to review previous investigations on the outcome of different WCF. It covers five types of WCF, including direct written corrective feedback, indirect written corrective feedback, metalinguistic written corrective feedback, reformulation, and focus or comprehensive written corrective feedback. These five types are essential, as they can help students realize their errors in their writing and improve their writing abilities. The typology used in this paper serves as a basis for the systematic investigation of the efficacy of different WCF, but it is not certain. Some scholars may divide feedback into three categories: metalinguistic, direct, or indirect. This paper will review these five types in detail in the main body part.

2. Written Corrective Feedback

2.1 Direct Written Corrective Feedback

Direct Written Corrective Feedback can benefit low-level English learners with a large extent, as it can improve their writing accuracy of some targeted language points. Direct WCF has been defined as identifying the errors directly and providing the explicit correct forms in the written text. According to Park, Sung, Song, and Shin, if teachers can cross out unnecessary words, add missing words and replace the erroneous forms with the correct forms, it can enhance lower-proficiency L2 learners' competence in writing accurately [5]. Diab also found that direct WCF can promote students' development of linguistic accuracy in using targeted syntactic structures [6]. Without enough guidance, students may wrongly revise the text and waste plenty of time doing so. After getting direct WCF about the targeted English article system, students spend less time identifying errors and looking up the dictionary, which is more efficient. When students write the wrong sentence such as "There is table", teachers will insert "a" between "is" and "table." Hence, students can directly concentrate on the mistake, consider the given "a" as a model and learn how to use the English article correctly. According to Suziki, Nassaji, and Sato, both a simple and complex grammatical structure can be acquired effectively by providing students with direct WCF [7]. They measured the changing accuracy of the past perfect and the indefinite article within four weeks. Students finished their first text reconstruction task in the first week and received direct WCF to revise them in the next week. In the fourth week, another new text reconstruction task, like the initial one in the first week, was completed to test the improvement of students. The author analyzed graphs in this research paper to access the following data. The percentage accuracy scores of the indefinite article ranged from 0.38 in the pretest to 1 in revision and came to 0.48 in the post-test. Moreover, the percentage accuracy scores of the past perfect started from 0.58 in the pretest to 0.99 in revision. Last, it came to 0.76 in the post-test. These data showed a distinct outcome of direct WCF in helping students learn targeted grammatical structures.

Besides, the outcome of direct WCF outperforms many other types of WCF. Many experiments were done to test the grammatical improvement of college students after they get direct WCF. Many other types of WCF were examined at the same time. Then these scholars observed that direct WCF had the most substantial outcome [8]. Ellis et al. reported that the experimental group who received direct WCF had statistically significantly higher scores on a test that assessed students' writing performance. The direct WCF group outmatched the control group, showing a superior outcome [8]. These studies demonstrated that direct WCF works better in most cases.

However, Shintani and Ellis, and other scholars found that the direct WCF was ineffective in increasing the accurate use of the target feature, which was different from some results [4]. They claimed that direct WCF benefited from neither implicit nor explicit knowledge. Their experiment tested whether the direct WCF can hinder students' acquisition of explicit and implicit knowledge of the English indefinite article. Through analyzing students' scores in the Error Correction from pretest to post-test and the scores about students' accuracy in new pieces of writing, they demonstrated that direct WCF had no effect in this area. To sum up, direct WCF cannot pass on either their explicit or their implicit L2 knowledge effectively.

Besides, Al-Rubai'ey and Nassaji also pointed out that it was not proven adequate to improve the use of the English articles by providing direct WCF [9]. In their study, the improvement of linguistic accuracy was not significant, as there was only a slight decline in the number of mistakes students made after receiving direct WCF. This controversy in the outcome of direct WCF was possibly caused by a deficiency in the number of participants who took part in the research and the difference in how to measure students' improvement. The experiment that Al-Rubai'ey et al. conducted will be taken as an example. From one aspect, Al-Rubai'ey et al. only included 22 students to join in the experiment [9]. The samples were not representative enough. Hence, the result was not very convincing and it was lacking in credibility. From the other aspect, the methods in these two experiments are different. Diab used similar text reconstruction tasks to assess students' change in accuracy. In contrast, Al-

Rubai'ey et al. used tasks with different topics. The inconsistency in writing may confuse the students or hinder their acquisition of a new language. It is not efficacious to provide DWCF to increase the usage accuracy of the English articles.

More research is needed to verify whether direct WCF processes a long-lasting positive effect. This is mainly because in some research, no significant results showed the long-term impact of direct WCF [10], which were different from some previous studies. In those studies, students usually repeat the same mistakes once the direct WCF is longer provided. This represented they had not fully mastered the language points with the help of direct WCF.

2.2 Indirect Written Corrective Feedback

Indirect Written Corrective feedback is helpful to improve college students' writing performance at all textual levels. Bitchener and Knoch defined it as providing hints of errors to guide students to revise errors without directly giving out an explicit correction [11]. Sigott, Fleischhacker, Sihler, and Steiner found that indirect WCF benefited students' accuracy not only at sentence and words level but also at paragraph and texts level, outperforming the directive written corrective feedback which can be seen as metalinguistic feedback [12]. Comparing the first draft and the revision draft, researchers found that indirect WCF reduced 69.7% of errors at the sentence or word level. In comparison, directive CF reduced lesser errors (50.5%) at the sentence or word level. Then students avoided 45.5% of errors at the text or paragraph level with the guidance of indirect WCF, and directive CF only cut down 33.3% of errors at the text or paragraph level. The above data showed that students had better writing performance after receiving indirect WCF at all textual levels. Accordingly, indirect WCF provides enough input and corrections for students' language acquisition and offers help for their corrective learning.

Besides increasing the accuracy of revision text, indirect WCF has a long-term impact on students' language acquisition. Niu and You verified the effect of indirect WCF on accuracy improvement by conducting an experiment that evaluated the effect in different time intervals [13]. As the long-term effect is linked with more stable memory storage (i.e., working memory), they used working memory to measure students' temporary storage and manipulation of information for the purpose of testing the duration of indirect WCF outcome [14]. The experimental group which received indirect WCF avoided making more same mistakes than the control group did, showing the long-lasting effect of indirect WCF. This result was congruent with the one done by Tan, Eng, and Manochphinyo [10]. The long-term effect of indirect WCF can be explained by the additional effort students made. In direct WCF, teachers only underline wrong words without correcting them and write the number of errors next to the targeted sentence or paragraph. Students are required to solve these linguistic problems through their effort, which can cultivate their self-study ability, as teachers did not directly show the correct text version. The acquired self-study ability will help them process and store the information about indicated errors more effectively. It can strengthen their working memory. Hence, students' performance is more consistent.

As direct and indirect WCF are common in class, it is worth investigating their effect comparingly. Many scholars reached a consensus on whether direct WCF and indirect WCF were effective [15]. Both of them work well. However, their opinions were divided on whether direct WCF or indirect WCF was more effective. Some studies demonstrated that the outcomes between direct and indirect feedback had no significant difference [7] [12]. Many results on this issue were inconclusive. The possible explanation to this phenomenon is that the different methods used in the experiment led to different results. Most of the results that supported direct WCF targeted fixed grammatical mistakes to represent the improvement of students, while those that show indirect WCF is better did not prescribe measure students' improvement with targeted error types [10] [12]. The above studies show that researchers should not treat different linguistic structures in the same way. Hence, the controversial results are likely to be caused by the different measurements of students' improvement.

2.3 Metalinguistic Written Corrective Feedback

Metalinguistic Corrective Feedback has been defined as using error codes as metalinguistic clues to tell students the existence of errors or providing brief grammatical descriptions for each error. There are two types of Metalinguistic WCF: Metalinguistic Coded Feedback and Metalinguistic Explanation Feedback. From the perspective of feedback explicitness, Metalinguistic WCF is more explicit and more precise than indirect WCF. The metalinguistic explanation shows the reason for the correction, which helps students "understand the nature of the mistakes they make" [4]. Meanwhile, the error codes can indicate the type of grammatical errors. Metalinguistic WCF is a technique that can solve the problem of information insufficiency which is the weakness of direct and indirect WCF.

2.3.1 Metalinguistic Coded Feedback (MCF)

Metalinguistic Coded Feedback is found to be more effective in the correction of lexical or orthographical errors. It is defined as pointing out errors with special error codes. A study done by Aliakbari and Toni tested the outcome of direct WCF, indirect uncoded corrective feedback, and MCF [16]. Based on the data, MCF outperformed the other two types of feedback in improving grammatical accuracy. Other studies also have proved the efficacy of MCF. It leads to an increment in the number and the depth of language-related episodes [17].

However, there are still some disadvantages of providing MCF. The usage of an error code system has its deficiency. According to Han, Ye, and Hyland, when students cannot adequately comprehend the codes, their confusion about the codes will lead to the ineffectiveness of feedback [18]. For example, if there is a spelling mistake, teachers will write a code that names SP (i.e., spelling next to the mistake). Nevertheless, students may have difficulty understanding the code SP. Therefore, they may need to ask their peers or teachers, which is time-consuming, making the feedback less effective.

2.3.2 Metalinguistic Explanation Feedback (MEF)

Metalinguistic Explanation Feedback enhances students' understanding of grammar rules and helps students gain explicit knowledge. It means offering a detailed explanation of grammatical mistakes in the written text. Compared with direct WCF, which emphasizes too much on the correct forms, MEF assists students in understanding grammar rules better, which is conducive for students to gain explicit knowledge about language [9]. According to Sheen, MEF is proved to be more effective when it is used with direct WCF [19]. If teachers point out the mistakes directly and offer metalinguistic comments simultaneously, students can develop their understanding of the errors they have made to avoid them. However, in some cases, combining direct WCF with metalinguistic EF is not necessary. For instance, there is no need to do so when students are learning the past perfect tense. When students might have processed basic knowledge of the past perfect tense, the additional metalinguistic CF might not have been necessary for the direct CF learners [11]. If WCF with less explicitness of errors can be sufficient for students to identify and understand the grammatical rules about the past perfect tense, extra MEF may turn out to be a burden for them so as to hinder their language acquisition.

Though the metalinguistic explanation can enhance the acquisition of explicit knowledge, its effect is not durable. The possible explanation is that it probably has no effect on helping students to acquire implicit knowledge [9]. The invalidity may be caused by the participants' perspectives towards the tests in the study. According to the questionnaire given to the participants who received MEF, these participants did not regard the writing tasks as opportunities to practice writing. They overlooked the grammar learning chances offered by the writing tasks. Hence, the outcome of metalinguistic explanation might be influenced to a large extent. Apart from this, all functions of English articles were tested in this experiment simultaneously so that the invalidity could result from the unfocused test about the functions of English articles.

2.4 Reformation

Reformulation enhances students to write in a more natural way and process corrections better. It can be seen as a provision for the correction of faulty parts in the text. Teachers should address the linguistic error and then paraphrase the sentence in a corrective way to improve the text's overall accuracy. According to Sulistyo and Heriyawati, reformulation improves students' writing performances [20]. When direct WCF fails to engage learners with processing the feedback deeply, reformulation can be a popular and less explicit alternative. Reformulation maintains the original meaning of the draft and involves a native-like writing style in the paraphrased sentence. Therefore, it provides a "positive modeling of native-like writing" [22]. Students can revise their mistakes by comparing reformulated versions with their original writing. Apart from this, reformulated versions also become the language learning resource, providing more native sentence structures. Several studies have investigated the usefulness of providing reformulation. The results showed that learners, especially intermediate and advanced ones, benefit from it the most [23]. When learners compare their original drafts with reformulated versions, they can gain a deeper insight into aspects like vocabulary, syntax, and cohesion.

Reformulation prompts high Depth of Processing better than direct corrections do [24]. Depth of processing (DOP) is related with cognitive competence[24]. If students have higher DOP, they can perform better in writing. They can analyze the grammar rules in mind deeply. However, Kim and Bowles found little difference between direct corrections and reformulations on most error types at high DOP [24].

2.5 The Focus of Feedback

Two kinds of WCF are classified based on the number of errors that teachers focus on. They are Focus Written Corrective Feedback and Comprehensive Written Corrective Feedback. FWCF only targeted several errors which teachers choose in the written text. In comparison, CWCF targeted all the errors in the written text. It can also be called Unfocused Written Corrective Feedback.

2.5.1 Focus Written Corrective Feedback (FWCF)

FWCF has a salient impact on grammar accuracy. The result of Rahimi's study showed that FWCF was significantly more effective than CWCF in helping students reduce their word and sentence errors [25]. If teachers point out all the errors in the text, students will need to spend much time correcting them without a clear focus. This possibly fails to provide effective assistance for them to improve grammar accuracy, as the correction may overload the mind and reduce their language learning efficiency. When teachers select fewer grammar items for students' attention, students can pay more attention to the feedback.

However, some research shows no significant difference between the outcome of CWCF and FWCF [26]. The different results may be related to the different measurements of outcome. According to Kassim, Asiah, and Luan Ng, the number of revised prepositions was used to test the improvement of students' writing accuracy [26]. As each grammar rule has its own feature, if researchers use other targeted language points to test, they might get a different result. Aside from this, the extra error codes which only provided for the experimental group could be a disturbing factor. Variables were not strictly controlled, so the result of this research may be inconclusive.

2.5.2 Comprehensive Written Corrective Feedback (CWCF)

Bonilla López, Van Beuningen, Speelman, and Buyse and other resachers found that the outcome of CWCF for written accuracy was salient [27] [28]. Students can avoid making more grammatical mistakes after receiving CWCF than the ones without it. However, those experiments were operated in unauthentic classrooms. The efficacy of CWCF in real classrooms may not be the same as the one in those experiments.

Nevertheless, CWCF can be confusing and ineffective for students. According to Frear and Chiu, CWCF may has a negative impact on students' writing motivation, as it increases the attentional load

[29]. Too many mistakes pointed out at a time may overwhelm and discourage students. The process of error correction can turn out to be an awful experience for their language acquisition. Later, students may be afraid of writing in English, which reduces language learning motivation. To sum up, CWCF may have an adverse impact on students' writing performance.

3. Conclusion

This study reviewed five categories of WCF and their outcomes. The main findings of this paper are: 1) Direct WCF can help students use the article and past perfect tense more accurately. However, it does not pass on implicit or explicit knowledge effectively. And this possibly results in its insignificant and unconvincing long-term impact; 2) Unlike direct WCF, indirect WCF improves students' writing accuracy at all textual levels not only in the first few weeks but also in the long run; 3) MWCF can solve the problem of error ambiguity which emerges in both indirect WCF and direct WCF. And the two branches of MWCF have different outcomes. WCF can diminish the presentation of lexical or orthographical errors, but the error code system it uses may confuse students, reducing its efficacy. At the same time, MEF can deepen students' understanding of grammar rules and help them absorb explicit knowledge, but it may fail to benefit their acquisition of implicit knowledge; 4) Reformulation can assist students in writing naturally and processing grammar rules deeply. Both CWCF and FWCF can improve grammar accuracy without much difference. However, CWCF may pose a threat to students' writing motivation; 5) Some studies show contradictory results of the same feedback due to different methods used in the experiments.

Due to the variety of previous findings, this study needs to specifically analyze methods used in testing students' improvement. Furthermore, it needs to compare the outcome of different feedback systematically. In future studies, it is necessary to analyze the long-term impact of different feedback and thoroughly compare the outcome of different feedback to provide guidance for English writing teachers.

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