

Written Corrective Feedback on College English Writing

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1. Introduction

Corrective feedback (CF) is generally defined as the response to learner utterances that contain an error. The response can consist of 1) an indication that an error has been committed; or 2) provision of the correct target language form; or 3) metalinguistic information about the nature of the error; or 4) any combination of these. In the second language acquisition field, research on CF has primarily been concerned with the roles of CF for language development in communicative interactions. Since Lyster and Ranta's (1997) influential work on CF and their taxonomy of different types of CF, researchers have been investigating the effects of different forms of CF. In recent years, study has been proving oral CF as a technique of focus on form which can facilitate interlanguage development. However, agreement has not been reached about the efficacy of different types of oral CF.

Based on research on oral CF, researchers in the second language

writing field have worked at measuring the effects of written CF. Written CF and oral CF contain different types (see Figure 1). Written CF can be classified as direct feedback and indirect feedback (i.e., underlining with a description of types of errors, simple underlining, a marginal description of types of errors, and recording in the margin of the number of errors in a given line). The oral CF can be either explicit, as an overt error correction, or implicit, as in the case of recasts or prompts (i.e., clarification request, repetition, elicitation, and metalinguistic clue). There exist some similarities between different types of written CF and oral CF. Both direct feedback and explicit feedback directly point out the errors and provide the right linguistic forms; both indirect feedback and implicit feedback indicate that an error has been made to encourage learners to diagnose and correct them. However, there are also some differences between written CF and oral CF. Written CF is generally used in writing. As a rule, it is provided after a while when the composition is assessed, whereas oral CF is usually offered immediately when an error appears. Written CF does not put too much demand on learners' short-term memory, but oral CF requires learners to compare their output with the target forms immediately, thus it relies on memory load. When testing the effects, research on written CF needs to detect whether it helps learners improve the linguistic accuracy, whereas a study on oral CF can only examine its role to acquire one language rule, such as past tense. Therefore, in the second language field a consensus has been reached on the facilitative roles of oral CF to language learning, but no conclusion has been drawn about the effects of written CF, not to mention the effects of different kinds of written CF. The present study attempts to explore the effects of form-focused written CF on improving linguistic accuracy and the roles of content-focused written CF to writing content.

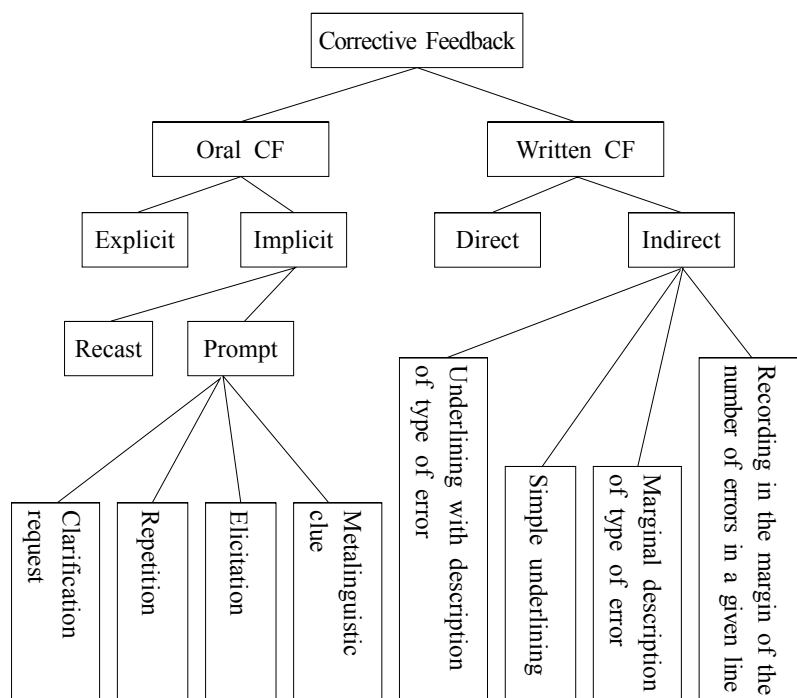


Figure 1. The Categorization of Corrective Feedback

2. Literature Review

CF shows that an utterance the learners have just produced is incorrect. Written CF usually refers to any written input concerning some aspects of the written output in the hope of informing learners that there is something wrong with their output and providing suggestions for them to make revisions and improvement. Generally speaking, CF in writing can be divided into different kinds according to different standards. The present paper will mainly focus on direct feedback, indirect feedback and

content feedback. The first two are called form focused feedback and the last is called content focused feedback in this paper. Direct feedback occurs when the teacher points out an error and provides the correct linguistic forms or structures, while indirect feedback employs various strategies to indicate that an error has been made and to guide learners to diagnose and correct it. Content feedback includes comments on the development of ideas, organization and the overall focus of what learners are writing. Up to now, no consensus has been reached concerning the influence of written CF on the improvement of the linguistic accuracy and on the enhancement of the content.

2.1 Studies on the Effects of Written Corrective Feedback on Linguistic Accuracy

The efficacy of the form focused written CF has been a hot topic since Truscott's (1996) claim that grammar correction was both ineffective and harmful and should be abandoned. So far, some studies have shown form focused written CF could improve students' writing linguistic accuracy, yet other studies have not found the effectiveness of the written CF on the linguistic accuracy of L2 students' writing. Therefore, the effectiveness of form focused written CF is an unsolved issue.

Among the studies claiming the effectiveness of form focused written CF, some measured the efficacy through students' revisions of their original draft after receiving feedback, while others investigated the efficacy from students' performances in the subsequent writing. Fathman & Whalley (1990), Yang (1996), Lee (1997), Ashwell (2000), and Ferris & Roberts (2001) belonged to the first type. All these studies found form focused written CF helped produce more accurate revisions, but they have always been criticized for not being longitudinal. More research is

needed to examine whether learners could sustain this improvement on subsequent assignments. Lalande's (1982) study, Robb et al.'s (1986) study and Frantzen's (1995) study satisfied this demand.

Lalande (1982) studied American learners of German as a second language. Participants in his study were two groups of students who either received coded corrections and used error logs to track their errors or got explicit corrections without logs. As a result, the coded group improved in linguistic accuracy, while the explicit correction group actually made more errors in their essays.

Robb et al. (1986) obtained different results from those of Lalande (1982). In their study, 134 Japanese EFL learners were divided into 4 groups, each receiving a different type of feedback. Group 1 received direct correction; Group 2 received coded feedback with the type and location of errors marked in an abbreviated code system; Group 3 received uncoded feedback with the locations of their errors marked with a yellow text marking pen; and Group 4 received marginal feedback with the total number of errors per line written in the margins of the paper. At the end of the course, Robb et al. found all the groups improved linguistic accuracy nonsignificantly and there were negligible differences among the 4 groups, so they (1986: 91) concluded that "less time consuming methods of directing student attention to surface error may suffice."

Similar to the findings of Robb et al.'s (1986) study, Frantzen (1995) also showed there was no difference between direct feedback and uncoded feedback. She used two types of feedback: direct correction plus extensive grammar reviews and uncoded correction. As a result, her research revealed both types of feedback increased linguistic accuracy of overall grammar usage in subsequent essays.

However, neither Lalande (1982) nor Robb et al. (1986) nor Frantzen (1995) included a control group that received no correction and none of

these studies reported statistically significant differences between different treatment conditions. In Chandler's (2003) Study 1, a so called control group was included. Both groups in her study received underlined feedback and the only difference between the two groups was that the experimental group was required to correct all their underlined errors before submitting their next assignments and the so called control group was asked to revise their errors after the experiment was finished. The data showed the experimental group reduced errors significantly. However, this study did not provide solid evidence to prove the effectiveness of feedback, because as Guénette (2007: 45) pointed out, "both the experimental group and the control group saw their errors indicated, the only difference being what they were asked to do with the feedback."

In Study 2, Chandler (2003) used four different types of correction with a single group. All the students received different types of feedback on the first four assignments in rotation and were required to correct errors before submitting the next assignment. The author found a significant error reduction with the direct correction and underlining treatments but not with the codes and underlining with codes treatments.

Contrary to the above results, some studies found written CF was to be useless. Basically, all these studies were longitudinal studies. Semke (1984) looked at the effects of CF on linguistic accuracy in journal writing. She divided the students into 4 groups. One group received direct error correction; the second received comments on content, the third had a combination of error correction and content comment; while the fourth got coded feedback and had to correct the errors by themselves. At the end of the study, Semke found no significant differences among the four groups on measures of linguistic accuracy. Furthermore, the students who got comments on content wrote significantly more fluently than other groups, so Truscott (1996)

concluded error correction had a negative side effect.

Like Semke (1984), Kepner (1991) also measured the effects of written CF on students' linguistic accuracy in journals. The participants in her study got two forms of feedback. Half of them received feedback on sentence level errors and the other half had feedback on content. When their sixth assignment was checked for grammatical accuracy, the results did not show preference for the former participants. However, Kepner did not include a pretest, so whether the two groups of participants were equivalent from the start was uncertain. Besides, the students apparently were not required to do anything with the written CF. Neither Semke (1984) nor Kepner (1991) included a control group. In addition, as Guénette (2007) claimed, the elicitation task (journal) used in the studies was perhaps not the most appropriate to look at the development of linguistic accuracy, because as Ferris (2003:126) said, "feedback and correction of journal entries are not likely to have much effect since they are almost never revised by students."

Compared with the two studies mentioned above, though Sheppard's (1992) study also did not include a control group, the writing tasks were changed into narratives and expositions. This study looked at the performances of the learners under two distinct ways of responding to an essay: feedback on form and feedback on content. The errors of the feedback on form group were corrected comprehensively using correction codes and the writing content of the feedback on content group was commented including marginal statements saying when that part of the writing was difficult to understand. Furthermore, the participants in each group had individual conferences with the instructor. For the feedback on form group, they talked exclusively about the grammatical errors; for the feedback on content group, they discussed the meaning of their writing entirely. When tested for accurate markings of sentence boundaries, the feedback on the content group did

significantly better than the feedback on form group. Sheppard's study was criticized for including teacher student conferences. Under this condition, it was hard to judge the sources of the effects as to whether they came from the written CF or the conferences.

A recent study by Rahimi (2009) also did not use journal entries as elicitation tasks and did not find the effectiveness of teacher's written CF on writing linguistic accuracy over time. The two groups of Iranian English majors either received indirect grammar feedback (underlining and coding of grammar errors) or no grammar feedback in their expository and argumentative essays. Over a period of four months, both groups improved linguistic accuracy, with the feedback group making more improvement. However, the results of this study only revealed a main effect for practice and an interaction of practice and feedback but did not show a significant main effect for the teachers' feedback. The no feedback group was not a real control group, since they were provided with some comments on the organization and the content of their essays as well as general comments on their grammar.

2.2 Studies on the Effects of Written Corrective Feedback on Content

Similar to the measurement of effects of written CF on linguistic accuracy, the effect of written CF on content was also tested through revisions or new writings, and the studies also reported inconsistent results.

From the above, we know that Fathman & Whalley (1990), Yang (1996) and Ashwell (2000) reported written CF could improve the linguistic accuracy of students' writing via revisions. In fact, the change of content was also examined in these studies. In a carefully designed experiment, Fathman & Whalley (1990) evaluated the content of

revisions under four different feedback conditions (indirect underlining, content comment, content comment & indirect underlining, and no feedback) and found that learners who had feedback on content and a combination of grammar feedback and content feedback enhanced the content of their original writing in the revisions.

In line with Fathman & Whalley's findings, Yang (1996) also found the content focused written CF was helpful to improve students' content in the process of editing. In his study, the original compositions and revisions were scored holistically for content based upon the CET 4 (College English Test 4) scoring criteria. Yang discovered feedback on form, feedback on content, a combination of both could improve students' writing content equally, so he concluded the students did not depend entirely on written CF when they revised their original compositions, and they would ponder over their writing comprehensively.

Some longitudinal studies mentioned above also involved content feedback, but the content gains did not get measured or reported in Semke (1984) and Sheppard (1992). Kepner (1991) examined the quality of the writing content of the error feedback group and the content feedback group by measuring the number of high level propositions it contained. Her study provided some empirical support for content focused written CF on enhancing content in new writing.

Anyhow there were also some studies which did not find the effectiveness of written CF on content. The study by Ashwell (2000) reflected written CF could improve linguistic accuracy of learners' writing, disregarding the order of the content oriented feedback and form oriented feedback. However, this study showed content feedback had only a moderate effect on the revision of writing content, because all the groups made net gains in Draft 3, though the control group did not get any feedback. The author (2000: 238) maintained that these results would at least initially suggest that gains in content quality were

less sensitive than gains in formal linguistic accuracy to the types or amount of feedback given at each stage as to whether feedback was given or not.

In Chandler's (2003) Study 2, the overall quality of the participants' writings was examined after receiving the treatment of direct corrections, underlining with descriptions, a description of an error type only and underlining only in rotation. The results of the holistic ratings conducted according to the guidelines of the Education Testing Service did not demonstrate that the quality of the fifth assignment improved significantly compared with the first assignment. For this result, Chandler explained, the autobiography was a genre that the participants had mastered well at the beginning of the experiment, so it was difficult for them to make measurable improvement.

All in all, the effects of written CF on learners' writing accuracy and content were problems that had no definite answers and needed further research to prove. During the process of teaching SL/FL, commenting on students' writing consumes a large proportion of teachers' time, so more studies should be put into practice to test how worthwhile it is with so much time and effort directed to such a single activity.

3. Research Methodology

Reviewing the previous research, we can see that many studies have compared the effects of the types of written CF, but the research results differed from each other. At the same time, relevant studies are scanty in China (Guo & Qin 2006). Therefore, whether CF is effective and which form is more effective are still under debate. There is an urgent need for research examining the effects of such treatments on Chinese EFL learners. The following two issues are addressed:

1) Will form focused written CF help student writers promote linguistic accuracy in their subsequent writings? If so, which kind of feedback is more effective?

2) Will content based written CF improve the content of students' subsequent writings? If so, which kind of feedback is more effective?

3.1 Participants

This research was conducted in spring semester, 2007. The 45 (28 male and 17 female) subjects were students in a college of Hunan Province, China. They were freshmen and non English majors. Their ages ranged from 18 to 21 years. The students in the direct group were 9 males and 6 females and were studying Environment Art as their major. The students in the indirect group were studying Computer Software Design as their major. 10 were males and 5 were females. The students in the control group were majoring in accounting with 9 males and 6 females. At the beginning of the experiment, the majority of the subjects had been receiving formal classroom instruction in the English language over an average of 7 years. Most of them had not passed the CET 4 which is a national English exam used to test the English level of college students in China, so they were considered of intermediate English level. Furthermore, these students still had difficulties in learning English, especially in English writing.

3 teachers participated in this research. They were all non native speakers of English. One was the subjects' English teacher. She was an experienced teacher of English and owned a master's degree in Applied Linguistics. Another was an experienced teacher who had been teaching writing course to English majors for 10 years. The third teacher has been teaching English to non English majors for 8 years and once had scored the compositions of the CET 4 test.

3.2 Target Tasks

Through an investigation the researchers knew that 95.6% students were familiar with the argumentative essay requirement in the CET 4, 93.1% students thought they were not satisfied with their performance and 90.8% students were eager to improve further. In addition, previous studies had explored the effect of written CF in the writing of journal entries, autobiographies, letters, etc., but its effect in the genre of argumentative was hardly investigated. Considering these factors, the researchers decided to use the type of essay writing in the CET 4 test as the target tasks. The 4 topics of the target tasks were filtered through a pilot study. The author found 30 non English majors in the same college who were at the similar English level with the subjects and whose major was electronic information. Then the 30 students were divided into 3 comparable groups referring to their English scores in the last term examination with 10 students in each group. 2 topics were given to each group and the topics were different from group to group. In total, there were 6 topics. The 3 groups of students wrote the topics in an examination environment, so they were not allowed to use dictionaries or references. To guarantee that these students treated the writing tasks seriously, their teacher told them that the scores of the argumentative essays would take a part of the final score of the English course. Later, these essays were scored rigorously, and 4 roughly equivalent topics were chosen from the 6 topics according to their performance to be used in the present experiment.

3.3 Research Design

The 45 subjects were assigned into 3 groups according to the number of linguistic errors in the subjects' first argumentative essay writing and the quality of the writing content (evaluated referring to the guideline

for scoring the CET-4 writing) and the scores of the English course in the last term examination. One-way ANOVA of the three groups' achievement showed that there was no significant difference between the two experimental groups and the control group at the beginning in terms of error numbers and content score (See Table 1 & Table 5). Then the rater gave every group CF respectively. For Group 1 ($n=15$, hereafter direct group), the rater pointed out their errors, provided them with the correct forms and gave some specific feedback for revising the content; for Group 2 ($n=15$, hereafter indirect group), the rater drew a line under the error, wrote out which type of error it belonged to and offered some general feedback on improving the content. In this study, the rater described the type of errors in the learners' native language because Ferris (1999) proposed that many students could not understand the code used by their teacher, thus failing to correct errors. For Group 3 ($n=15$, hereafter the control group), the rater gave no feedback but the students in this group were required to write the same quantity of writings as the students in the other groups. Therefore, the three groups differed primarily with respect to a single variable: the feedback.

In the first week, the students were asked to write an essay of no less than 150 words in 45 minutes. The time was limited to 45 minutes because the duration of each class is 45 minutes in China. In order to get scientific and valid data, we tried to let the subjects finish their writing in class. The topic of the essay was given by the researchers. In the process of writing, the students had to write by themselves and could not ask their teacher or classmates for help or consult any reference materials. After collecting the students' first draft, the rater gave every student corresponding feedback according to the group the student belonged to. In the second week, the students were required to rewrite their first draft after class based on the feedback they had received and handed in their revision. After that, the rater gave corrections to the

errors which were not corrected or mistakenly corrected in the revisions. Though the control group received no feedback, they also had to revise their draft. In the third week, the students began to write a new topic. The whole procedure was demonstrated in Figure 2. Over the whole procedure of the experiment, the students wrote four argumentative essays and one revised version for each composition at equal intervals.

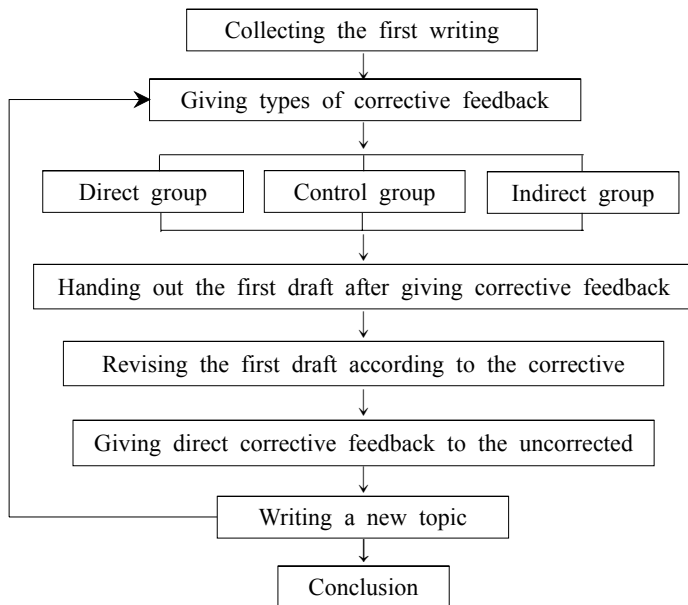


Figure 2 The Procedure of the Experiment

3.4 Data Collection

All the essays were typed into the computer by word processor with double space. Except for obvious spelling errors, the typist did not make any changes to the essays. Each essay was only labeled with a code number and no information provided concerning the writer's name.

Furthermore, the code number of each essay by the same writer was different so that the raters were unlikely to be biased in scoring the essays.

Research Question 1: Will form focused written CF help student writers promote linguistic accuracy in their subsequent writings? If so, which kind of feedback is more effective?

Each time, 30% of the essays were chosen from the total essays randomly and were coded and counted for the number of errors separately by the researcher and the students' teacher. Then the Pearson Correlation was used to test the inter-rater reliability of the two raters. When the inter-rater reliability was higher than 0.80, the remaining 70% essays were coded by the two raters half by half. When the inter-rater coefficient was lower than 0.80, the raters checked the essays as to the disagreement on the number of errors until they came to the greatest agreement in assessment.

In order to let the raters mark all the errors of the indirect feedback group in the same way, the researcher made out a Guide for Correcting Compositions (revised from Chandler 2003). In this study, the error categories such as spelling, punctuation and capitalization errors were excluded. According to Truscott (2001), these errors were among the most correctible error types and were relatively simple. The identical errors in the same essay were counted as one token of an error.

Research Question 2: Will content based written CF improve the content of students' subsequent writings? If so, which kind of feedback is more effective?

Each essay was marked separately by two raters, the experienced writing teacher and the teacher who had participated in rating the writings of the CET-4, and each rater gave the essay a mark according to the directions for grading the CET-4 writing. In addition, each rater provided some specific feedback for the students in the direct feedback

group to revise the content and offered some general feedback to the students in the indirect feedback group to improve the content. The final mark for each composition was the mean of the scores given by the two raters. The researcher summarized the feedback on content provided by the raters and offered to the students for revising their compositions.

The number of linguistic errors and quality of the content of all the valid writings were evaluated and recorded objectively and the statistical results were used as the reference data of the current study. After the completion of the statistics, a qualitative and quantitative study was conducted using SPSS 13.0.

4. Results

Research Question 1: Will form focused written CF help student writers promote linguistic accuracy in their subsequent writings? If so, which kind of feedback is more effective?

The means and standard deviations of errors in Essay 1 produced by three groups of students and the results of one way ANOVA of the errors in Essay 1 were displayed in Table 1. This showed that each student in the direct group, the indirect group and the control group separately made 10.270, 10.200, 10.000 errors on average. When the three groups were treated as a whole, each subject made 10.160 errors on average, so we could conclude that there were many linguistic errors in the subjects' first writings. Besides, one way ANOVA showed there were no significant differences ($F=0.091$, $p=0.913>0.05$) for the errors in Essay 1 among the three groups. Therefore, it was reasonable to infer that any differences among the three groups in the subsequent writings were caused by feedback.

Table 1 Descriptive Statistics for the Errors of Essay 1

Group	N	M	SD	One way ANOVA	
				F	Sig.
Direct	15	10.270	1.387	0.091	0.913
Indirect	15	10.200	1.568		
Control	15	10.000	2.268		
Total	45	10.160	1.745		

In order to evaluate the changes in the number of errors in Essay 1 and Essay 4, Paired Samples T Tests were performed. As shown in Table 2, for the direct group, in comparison to their performances in Essay 1, the students made fewer than 2.067 errors in Essay 4 and statistically significant differences ($p=0.000$) were obtained for the mean differences of the errors between Essay 1 and Essay 4. So this group significantly improved linguistic accuracy in Essay 4. For the indirect group, compared to their performances in Essay 1, these students made fewer than 3.733 errors and statistically significant difference ($p=0.000$) were also obtained for the mean differences of the errors between Essay 1 and Essay 4. For the control group, they made more than 0.200 errors when writing Essay 4 in comparison to Essay 1 and no significant difference ($p=0.715$) was found between Essay 1 and Essay 4. In other words, the two experimental groups significantly improved linguistic accuracy after receiving feedback, while the control group did not make progress.

Table 2 Paired-Samples T Test for the Errors in Essay 1&Essay 4

Group	Mean	SD	t	df	95% Confidence Interval		Sig. (2 tailed)
					Lower	Upper	
Direct	2.067	1.100	7.278	14	1.458	2.676	0.000
Indirect	3.733	1.335	10.835	14	2.994	4.472	0.000
Control	-0.200	2.077	-0.862	14	-1.350	0.950	0.715

A One way ANOVA was then carried out to examine whether the

three groups of students differed significantly for linguistic accuracy in Essay 4. The result showed the three groups of students to be statistically different number of errors in Essay 4 ($F=15.873$, $p=0.000$). In order to examine how the differences were distributed across groups, post hoc multiple comparisons were made using the Tukey tests. The test results were displayed in Table 3 from which we could see that the probability between the direct group and the indirect group was 0.032 concerning the number of errors in the fourth essay. Therefore, their differences were significant. The probability between the direct group and the control group was 0.012. Therefore, the two groups differed significantly in the fourth essay. In addition, the difference between the indirect group and the control group also achieved a significant level ($p=0.000<0.05$). Furthermore, the mean differences between the control group and the direct group, the control group and the indirect group, the direct group and the indirect group were all positive. Therefore, the students who received the indirect feedback made the fewest errors in the fourth essay and the control group had the most errors. It was worth mentioning that since the errors of the indirect group were coded in their native language instead of using an abbreviated code system, they rarely asked the researchers for the meaning of the feedback or misunderstood the feedback.

Table 3 Multiple Comparisons for the Errors in Essay 4

(I)Group	(J)Group	Mean Diff. (I - J)	95% Confidence Interval		Sig.
			Lower	Upper	
Direct	Indirect	1.733*	0.120	3.340	0.032
	Control	-2.000*	-3.610	-0.390	0.012
Indirect	Direct	-1.733*	-3.340	-0.120	0.032
	Control	-3.733*	-5.340	-2.120	0.000
Control	Direct	2.000*	0.390	3.610	0.012
	Indirect	3.733*	2.120	5.340	0.000

*. The mean difference is significant at the 0.05 level

In order to quantify the changes of errors of the three groups in the

four essays, Table 4 listed the means and standard deviations of errors in each writing. Table 4 and Figure 3 showed that the students who received the form focused written CF especially the indirect feedback gradually reduced linguistic errors in their subsequent writings, while the control group basically did not decrease such errors. Therefore, we could safely conclude that the form focused written CF had visible effects on improving linguistic accuracy.

Table 4 Errors of 4 Essays for 3 Groups

Essay	Direct		Indirect		Control	
	Mean	SD	Mean	SD	Mean	SD
Essay 1	10.270	1.387	10.200	1.567	10.000	2.268
Essay 2	10.130	2.356	9.530	2.503	10.200	2.007
Essay 3	8.530	2.446	7.400	2.028	9.670	1.589
Essay 4	8.200	2.178	6.470	1.642	10.200	1.568

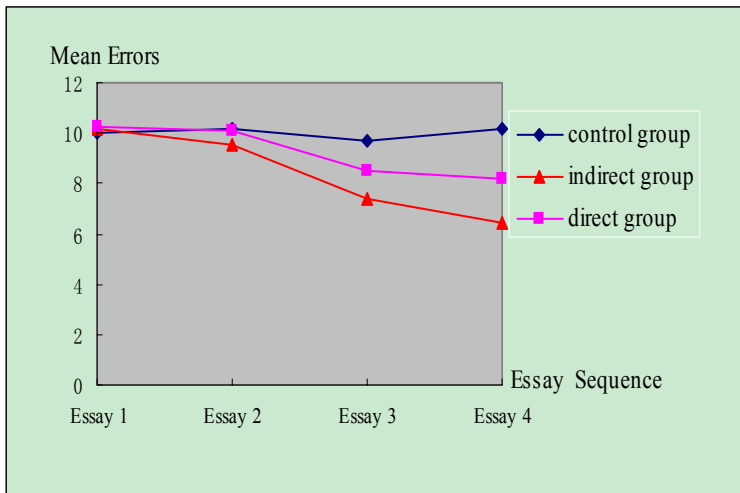


Figure 3 Errors of 8 Essays for 3 Groups

Research Question 2: Will content based written CF improve the content of students' subsequent writing? If so, which kind of feedback

is more effective?

The means and standard deviations of the score of content of Essay 1 produced by the three groups of students and the results of a one way ANOVA of the holistic score of Essay 1 were displayed in Table 5. The students in the direct group, the indirect group and the control group scored 6.930, 6.530, 6.600 respectively (the full score was 15) on average as for the content of the first essay. When the three groups were treated as a whole, each subject scored 6.690 on average, so the subjects did not do well in their first writing. Moreover, the one way ANOVA showed that there were no significant differences ($F=0.352$, $p=0.706>0.05$) for the score of the content of Essay 1 among the three groups. Therefore, it was reasonable to infer that the differences among the three groups in the subsequent writings were caused by the feedback.

Table 5 Descriptive Statistics for the Score of Content of Essay 1

Group	N	M	SD	One-way ANOVA	
				F	Sig.
Direct	15	6.930	1.387	0.352	0.706
Indirect	15	6.530	1.356		
Control	15	6.600	1.454		
Total	45	6.690	1.379		

In order to evaluate the changes of the score of content of Essay 1 and Essay 4, Paired Samples T Tests were carried out. The results of Paired Samples T Tests showed for the direct group, in comparison with their performances in Essay 1, that the students increased by 2.667 marks in Essay 4 and statistically significant differences ($p=0.000$) were obtained for the mean differences of the score of content between Essay 1 and Essay 4. Therefore, this group wrote significantly better in terms of content in Essay 4. For the indirect group, in comparison to their performances in Essay 1, these students got 2.467 scores more and a

statistically significant difference ($p=0.000$) was also obtained for the mean differences of the score of the content between Essay 1 and Essay 4. For the control group, they improved only 0.533 marks in writing Essay 4 in comparison to Essay 1, so no significant difference ($p=0.072$) was discovered between Essay 1 and Essay 4.

Table 6 Paired-Samples T Test for the Score of Content of Essay 1 & Essay 4

Group	Mean	SD	t	df	95% Confidence Interval		Sig. (2-tailed)
					Lower	Upper	
Direct	-2.667	1.047	-9.869	14	-3.246	-2.087	0.000
Indirect	-2.467	1.060	-9.012	14	-3.054	-1.880	0.000
Control	-0.533	1.060	-1.948	14	-1.120	0.054	0.072

Likewise, a one way ANOVA was run to examine whether the three groups of students differed significantly with a view to content in Essay 4. The result revealed that the three groups of students got statistically different ($F=10.089$, $p=0.000$) marks in Essay 4. In order to further examine how the differences were distributed across groups, post hoc multiple comparisons were made using the Tukey tests. As Table 7 illustrated the probability between the direct group and the control group was 0.000 with regard to the mean score of the fourth essay. Therefore, their differences were significant. The probability between the indirect group and the control feedback group was 0.006, so the two groups differed significantly in the fourth essay. However, the difference between the direct feedback group and indirect feedback group was not notable ($p=0.551>0.05$). Moreover, the mean differences between the control group and the direct feedback group, the control group and the indirect feedback group, the indirect group and the direct group were negative. Therefore, the direct group who received specific feedback about the content of their writing in the former three essays did best in

the fourth essay, while the control group did worst.

Table 7 Multiple Comparisons for the Score of Content of Essay 4

(I)Group	(J)Group	Mean Diff. (I-J)	95% Confidence Interval		Sig.
			Lower	Upper	
Direct	Indirect	0.600	-0.790	1.990	0.551
	Control	2.467*	1.080	3.860	0.000
Indirect	Direct	-0.600	-1.990	0.790	0.551
	Control	1.867*	0.480	3.260	0.006
Control	Direct	-2.467*	-3.860	-1.080	0.000
	Indirect	-1.867*	-3.260	-0.480	0.006

*. The mean difference is significant at the 0.05 level

In order to provide a clearer picture of the changes of the three groups' writing content during the study, descriptive statistics were calculated. Table 8 presented the results. Table 8 and Figure 4 showed that the quality of the writing of the control group did not improve basically, whereas the writing quality of the students in the direct feedback group and indirect group got better and better. It was obvious that CF on content led to content improvement, but it seemed that the specific and general feedback did not bring strikingly different results.

Table 8 Score of Content of 4 Essays for 3 Groups

Essay	Direct		Indirect		Control	
	Mean	SD	Mean	SD	Mean	SD
Essay 1	6.930	1.387	6.530	1.356	6.600	1.454
Essay 2	7.870	1.407	7.670	1.447	6.800	1.373
Essay 3	9.130	1.457	8.730	1.534	6.870	1.125
Essay 4	9.600	1.805	9.000	1.648	7.130	1.187

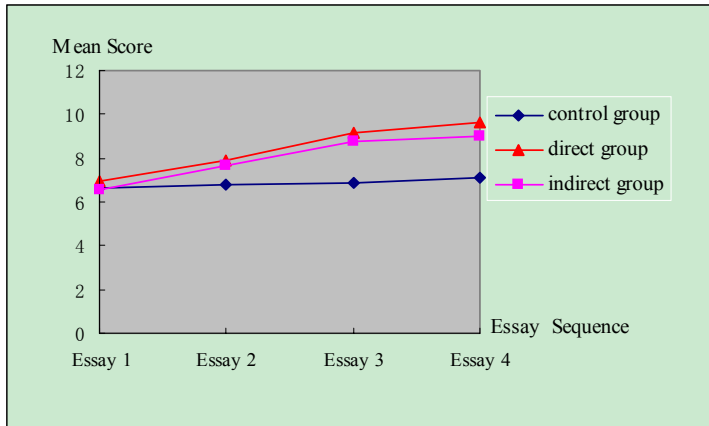


Figure 4 The Score of Content of 8 Essays for 3 Groups

5. Discussion

The first research question of the present study was whether the form-focused written CF could improve EFL learners' writing linguistic accuracy and whether direct feedback and indirect feedback in the form of underlining with a description of different types of errors produced different effects. Similar to Frantzen's (1995) research result, this study indicated that both direct feedback and indirect feedback helped produce significantly more accurate writings. Therefore, this study provided new evidence for the argument of the effectiveness of written CF. Concurring with Lalande (1982) and Ferris et al. (2000), the present research results demonstrated that indirect feedback was superior to direct feedback in terms of improving the linguistic accuracy of writing, so our findings supported the viewpoint that indirect feedback was preferable to direct feedback in reducing linguistic errors.

The direct group went from an average of 10.270 linguistic errors on the first essay to 8.200 errors on the fourth writing, and this reduction in errors between the two assignments was statistically significant ($p=0.000$); the indirect group went from an average of 10.200 linguistic errors to 6.470 errors on the last writing and this progress achieved significant level, too ($p=0.000$); while the control group went from an average of 10.000 linguistic errors on the first essay to 10.200 errors on the fourth essay and no difference at 0.05 level of significance was observed ($p=0.715$). Part of the effectiveness of the feedback could be attributed to the error types. In the SLA field, many researchers (Frantzen & Rissell 1987; Ferris 1995; Truscott 1996; Ferris et al. 2000) claimed that different language points represented different domains of knowledge, and they were acquired through different stages and processes. At first Ferris (1999) made a distinction between “treatable” and “untreatable” errors. The treatable errors referred to verb tense and form, subject verb agreement, article usage, plural and possessive noun endings, and sentence fragments. The learners could correct these kinds of errors through consulting a grammar book or set of rules. The uncorrectable errors included word choice errors, with the possible exception of some pronoun and preposition uses, and problems with sentence structure including missing words, unnecessary words and word order problems. For these errors, the learners had no handbook to look up and could only resolve the errors using the acquired knowledge of the language. Enlightened by these ideas, the authors categorized the errors in the subjects’ first writing and found 84.6% of the subjects’ errors belonged to the treatable type, so it was not surprising to get the result that the students who received the form focused written CF improved linguistic accuracy in their subsequent writings. Another part of the answer could be found in the marking of the essays for the direct group and the indirect group. Guénette (2007) proposed that learners who

were corrected might pay special attention to form. Since the two feedback groups got correction in each essay, they were prone to have strong motivation to reduce errors and make improvement.

Under no feedback condition, the students in the control group were also required to revise their writing at least once before writing the next essay. The research found that most of these students only corrected some obvious errors such as spellings, the form of nouns, etc. sometimes the students avoided the errors of their previous writings, but most of the time, the students made the same error repeatedly. Although the researchers promised these students to give them specific corrections for all their writings at the end of the experiment, their writing motivation still declined dramatically. One subject in this group said, "It is difficult for me to find out errors and correct them by myself, though I know there are many errors in my writing. Still it is embarrassing to be always asking others for help..." There were indications that the students expected written CF, and written CF was a motivation for students to improve their writing. This was consistent with earlier studies (Hedgecock & Lefkowitz 1994; Hyland & Hyland 2001; Schulz 2001) which found that students expected feedback from their teachers and generally felt it helped them. Due to these facts, it was not surprising that the control group did not increase linguistic accuracy.

Post hoc multiple comparisons demonstrated a significant difference in improvement of linguistic accuracy over the 8 weeks between the direct group and the indirect group ($p=0.032$). The indirect group made less than 1.733 errors compared with the direct group on average in the fourth essay. Therefore, the research revealed that the indirect feedback was more effective to reduce linguistic errors. As Lalande (1982) pointed out, indirect feedback involved guided learning and problem solving. After receiving feedback, the learners could reflect on their errors, look up references and try their best to correct them by themselves. This

process helped the students more easily to notice the gap between their interlanguage and the target forms and such noticing was necessary for language acquisition. According to Schmidt's Noticing Hypothesis (1990), not all input had the same role and only input noticed by learners could become intake. In addition, many studies indicated that indirect feedback was favored in the SLW field. The results of the investigation by Ferris & Roberts (2001) indicated that the most popular feedback type was to underline the errors and label each one with an error code, followed by direct corrections, and the last was underlining only. In their study (1986), Robb et al. put forward that the indirect feedback saved considerable time by comparison to the direct feedback. Together with the research result in this study, we could conclude indirect feedback was worth investigating further.

The second issue addressed in the current research was whether content based written CF could enhance the content of students' subsequent writings and whether the specific and general content focused written CF brought different results. After 8 weeks of treatment, in comparison to the control group, the present study found that both the direct group who got specific feedback on content and the indirect group who received general feedback enhanced their writing content substantially, yet between the two feedback groups, there were no significant differences in terms of improvement on content. This result agreed with the studies on the effectiveness of content focused written CF on improving content (Fathman & Whalley 1990; Yang 1996; Kepner 1991) and provided strong evidence concerning the unsolved problem of the effects of content focused written CF on content in new pieces of writing.

Paired Samples T Tests for the score concerning the content of Essay 1 & Essay 4 showed that the direct group and the indirect group scored 2.667 and 2.467 respectively marks higher in the fourth essay than that

in the first essay, the improvement was significant for the two groups ($p=0.000$; $p=0.000$). However, the control group only increased by 0.533, and the probability of 0.072 greatly exceeded the 0.05 level of significance. This indicated that the learners were dependent on the content focused written CF and this kind of feedback was effective. In support of Fathman & Whalley's (1990) research result, this study revealed that the students used the written CF as a guideline to revise their first draft. Pushing Fathman & Whalley's (1990) study further, the current study found the students also applied the guideline to a new piece of writing of the same genre. At the same time, this result verified Chandler's viewpoint (2003) that for some genres that were not good at the beginning, it was easy to show measurable improvement.

As mentioned above, though they were not provided with any feedback, the control group was also asked to revise the content of their writing before starting the next assignment. The author observed that their revision was limited. Most of the time, the original version and the revised version were roughly the same. Many students felt that it was a kind of mechanical repetition to modify the composition again if they could not get any advice or directions on how to improve writing. The long time lack of feedback affected their motivation, and they did not put much energy or devote enthusiasm into writing as the students in the other two groups did. They were very likely not to make much progress.

Although both the direct group and the indirect group significantly improved their content in the fourth writing compared to their first writing, multiple comparisons for the score of content of Essay 4 showed that the direct group got 0.600 marks higher than the indirect group on average in respect to content, but this difference was not significant ($p=0.551>0.05$). Likewise, the present research result concurred with and pushed further Yang's (1996) study. The specific content focused

feedback and general feedback played the equally facilitative roles not only in the process of revising but also in writing a new assignment. The reason for the nonsignificant difference between the two feedback groups might be due to the nature of the content feedback. As Ashwell (2000) pointed out, learners were less sensitive to content feedback than to form feedback

6. Conclusion

Whether written CF was effective has been the focus of contention. To this question, there were both theoretical explorations and empirical investigations. However, as Truscott (1996, 1999) and Ferris (1999) pointed out, the existing research was far from sufficient to give a definite answer to this question because of their quantity and quality. Therefore, more studies are needed. In order to contribute to the need for further research on the value of providing written CF to L2 writers, the present study investigated the effect of form focused written CF on linguistic accuracy and content focused written CF on content to EFL learners in China. Based on the results reported and discussed in the previous section, the major findings are listed in the following:

First, this study found that form focused written CF to linguistic errors could significantly improve learners' linguistic accuracy in new pieces of writings, whether it was given in a direct way or by underlining the deviant linguistic forms with a description of types of errors. This finding provided convincing evidence in support of the visible effectiveness of written CF on second language writing in opposition to Truscott's viewpoint that teachers' grammar correction was ineffective in L2 writing (1996, 1999, 2007). Besides, not only did this study find written CF to be effective, but it also found that indirect feedback had

greater effects than direct feedback on improving linguistic accuracy over time. Therefore, this result agreed with Lalande's (1982) and Ferris's (2002) conclusion that indirect feedback was superior to direct feedback.

Secondly, based on the earlier studies, this research subdivided the content focused TWCF into specific and general means. Through 8 weeks of treatment, this study showed that the content focused written CF could significantly enhance learners' writing content, whether in a detailed way or in a general way. This research result supported a growing body of studies which verified the efficacy of content focused written CF (Fathman & Whalley 1990; Kepner 1991; Yang 1996). In addition, the present study found that detailed feedback did not produce different results from general feedback, and the former was just a little better than the latter. This finding suggested that the learners were not sensitive to the quantity of content comments in comparison to form feedback, and the content focused written CF was an influential prompt which guided the learners to make substantial and effective improvement.

To sum up, teachers' written CF is an important way to cause learners to notice the gap between their interlanguage and the target language. Moreover, learners have the expectation for teachers' feedback and the feedback is the motivation for them to promote their writing. Therefore, the teacher needs to provide systematic and consistent feedback to learners. Besides, in providing feedback, teachers should focus on both language and content to improve learners' writing fundamentally.

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❖ ABSTRACT

Written Corrective Feedback on College English Writing

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This paper studies the effects of written corrective feedback on non English majors' English writing at college in China. The experiment lasted 8 weeks and involved 45 students, divided into three groups: the direct feedback, the indirect feedback and the control group according to their pretest scores and the types of feedback they received. Each group was composed of 15 subjects. Based on an analysis of the experimental and control group data, the current study showed that the students who received form focused written corrective feedback over 8 weeks reduced linguistic errors greatly in their subsequent writings and the students who got indirect feedback did better than those who had direct feedback. In addition, it was found that content focused written corrective feedback can significantly enhance the content of students' writing whether the feedback was given in a detailed way or general way.

Key Words

direct feedback; indirect feedback; detailed feedback; general feedback; non English majors; English writing

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