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The effect of different types of corrective feedback on ESL student writing

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Abstract

Debate about the value of providing corrective feedback on L2 writing has been prominent in recent years as a result of Truscott's [Truscott, J. (1996). The case against grammar correction in L2 writing classes. Language Learning, 46, 327–369] claim that it is both ineffective and harmful and should therefore be abandoned. A growing body of empirical research is now investigating the agenda proposed by Ferris [Ferris, D.R. (1999). The case for grammar correction in L2 writing classes. A response to Truscott (1996). Journal of Second Language Writing, 8, 1-10, Ferris, D.R. (2004). The "Grammar Correction" debate in L2 writing: Where are we, and where do we go from here? (and what do we do in the meantime...?). Journal of Second Language Writing, 13, 49-62.]. Contributing to this research base, the study reported in this article investigated whether the type of feedback (direct, explicit written feedback and student-researcher 5 minute individual conferences; direct, explicit written feedback only; no corrective feedback) given to 53 adult migrant students on three types of error (prepositions, the past simple tense, and the definite article) resulted in improved accuracy in new pieces of writing over a 12 week period. The study found a significant effect for the combination of written and conference feedback on accuracy levels in the use of the past simple tense and the definite article in new pieces of writing but no overall effect on accuracy improvement for feedback types when the three error categories were considered as a single group. Significant variations in accuracy across the four pieces of writing support earlier SLA discoveries that L2 learners, in the process of acquiring new linguistic forms, may perform them with accuracy on one occasion but fail to do so on other similar occasions.

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1. Introduction

Since Truscott published his 1996 article, "The case against grammar correction in L2 writing classes," debate about whether and how to give L2 students feedback on their written

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grammatical errors has been of considerable interest to researchers and classroom practitioners (Ferris, 1999, 2002, 2004; Truscott, 1996, 1999). On several grounds, Truscott (1996) claimed that grammar correction has no place in writing courses and should be abandoned. From an analysis of studies by Kepner (1991), Semke (1984) and Sheppard (1992), he concluded that there is no convincing research evidence that error correction ever helps student writers improve the accuracy of their writing. For two major reasons, he explained that this finding should not be surprising. On the one hand, he argued that error correction, as it is typically practised, overlooks SLA insights about the gradual and complex process of acquiring the forms and structures of a second language. On the other hand, he outlined a range of practical problems related to the ability and willingness of teachers to give and students to receive error correction. Moreover, he claimed that error correction is harmful because it diverts time and energy away from the more productive aspects of a writing programme. Not surprisingly, these claims have since generated a considerable amount of vigorous debate at international conferences and in published articles (Ellis, 1998; Ferris, 1999; Ferris & Hedgcock, 1998; Truscott, 1999).

Championing the case against Truscott's firmly held position, Ferris (1999) claimed that his arguments were premature and overly strong given the rapidly growing research evidence pointing to ways in which effective error correction can and does help at least some student writers, providing it is selective, prioritised and clear. While acknowledging that Truscott had made several compelling points concerning the nature of the SLA process and practical problems with providing corrective feedback, Ferris maintained that the evidence he cited in support of his argument was not always complete. As Chandler (2003) also points out, Truscott did not always take into account the fact that reported differences need to be supported with statistically significant evidence. In addition, Ferris maintained that there were equally strong reasons for teachers to continue giving feedback, not the least of which is the belief that students have regarding its value. However, she did accept that it is necessary to consider ways of improving the practical issues highlighted by Truscott.

Despite his call for the abandonment of error correction, Truscott (1999), in his response to Ferris, acknowledged that many interesting questions remain open and that it would be premature to claim that research has proven error correction can never be beneficial under any circumstances. However, he suggested that researchers and teachers should acknowledge that grammar correction is, in general, a bad idea until future research demonstrates that there are specific cases in which it might not be a totally misguided practice. Agreeing with the future research focus proposed by Ferris (1999), he suggested that attention be given to investigating which methods, techniques, or approaches to error correction lead to short-term or long-term improvement and whether students make better progress in monitoring for certain types of errors than others. The following section surveys some of the major findings from studies that have sought to examine these issues.

2. Research evidence on whether error correction results in improved accuracy

Only a few studies have attempted to directly investigate whether L2 students who receive written corrective feedback on their errors are able to improve the accuracy of their writing compared with those who do not receive error feedback. Each of these studies (Kepner, 1991; Polio, Fleck, & Leder, 1998; Robb, Ross, & Shortreed, 1986; Semke, 1984; Sheppard, 1992) reported that there was no significant difference in the writing accuracy of the students. However, it needs to be noted that three of the studies (Polio et al., 1998; Robb et al., 1986; Sheppard, 1992) did not include a non-feedback control group. Although Fathman and Whalley (1990) found that

fewer grammatical errors were made by students who received error feedback, this particular study examined text revisions and not new pieces of writing over time. Thus, there is clearly a need for research that not only compares the effects of receiving corrective feedback and no corrective feedback but also examines the long-term effects of such treatments (Ferris, 2002, 2004; Truscott, 1999).

3. Research evidence on the effect of different feedback strategies on improved accuracy

An increasing number of studies have also been investigating whether certain types of corrective feedback are more likely than others to help L2 students improve the accuracy of their writing. In reviewing some of these studies, Truscott (1996) reported that none of them (Kepner, 1991; Semke, 1984; Sheppard, 1992) found significant differences across any of the different treatment groups (content comments only; error correction only; a combination of content comments and error correction; error identification, but no correction) but when the evidence from studies that have considered other feedback distinctions is examined, it is clear that such a conclusion should at this stage be treated with caution.

A good number of studies have distinguished between direct and indirect feedback strategies and investigated the extent to which they facilitate greater accuracy (Ferris, 1995a,b; Ferris & Hedgcock, 1998; Lalande, 1982; Robb, Ross, & Shortreed, 1986). Direct or explicit feedback occurs when the teacher identifies an error and provides the correct form, while indirect strategies refer to situations when the teacher indicates that an error has been made but does not provide a correction, thereby leaving the student to diagnose and correct it. Additionally, studies examining the effect of indirect feedback strategies have tended to make a further distinction between those that do or do not use a code. Coded feedback points to the exact location of an error, and the type of error involved is indicated with a code (for example, PS means an error in the use or form of the past simple tense). Uncoded feedback refers to instances when the teacher underlines an error, circles an error, or places an error tally in the margin, but, in each case, leaves the student to diagnose and correct the error.

Contrary to surveys which reveal that both students and teachers have a preference for direct, explicit feedback rather than indirect feedback (Ferris & Roberts, 2001; Ferris, Cheyney, Komura, Roberts, & McKee, 2000; Komura, 1999; Rennie, 2000; Roberts, 1999), several studies report that the latter leads to either greater or similar levels of accuracy over time (Ferris et al., 2000; Ferris & Helt, 2000; Frantzen, 1995; Lalande, 1982; Lee, 1997; Robb et al., 1986). However, neither the Lalande nor the Robb et al. studies had control groups which received no correction and neither study found statistically significant differences between the treatment conditions.

On the other hand, the studies by Lee (1997) and Ferris and Roberts (2001) did have control groups which received no corrective feedback. Lee's study of EFL college students in Hong Kong found a significant effect for the group whose errors were underlined, compared with the groups who received no corrective feedback or only a marginal check. Ferris and Roberts (2001) examined the effects of three different feedback treatments (errors marked with codes; errors underlined but not otherwise marked or labelled; no error feedback) and found that both error feedback groups significantly outperformed the no feedback control group, but, like Robb et al. (1986), they found that there were no significant differences between the group given coded feedback and the group not given coded feedback. Furthermore, it needs to be noted that Ferris and Roberts (2001) investigated text revisions rather than new pieces of writing over time.

One study (Ferris et al., 2000) has investigated the effects of different treatment conditions on both text revisions and new pieces of writing. Discussing the findings of the study, Ferris (2002) reported that direct error correction led to more correct revisions (88%) than indirect error feedback (77%). Over the course of the semester, however, it was noted that students who received indirect feedback reduced their error frequency ratios substantially more than those who received direct feedback.

Compared with this growing but far from conclusive body of research on the written feedback strategies of teachers, virtually no research has investigated the effect of other feedback strategies, such as teacher–student conferences, peer-editing sessions, and the keeping of error logs (Ferris, 2002). Many writing teachers consider one-on-one teacher–student conferences to be potentially more effective than written corrective feedback because they provide an opportunity for clarification, instruction, and negotiation (Ferris, 2002; Ferris & Hedgcock, 1998), but the absence of published empirical research on this option means that this popularly held belief cannot be taken as evidence of effectiveness.

4. Research evidence on the effect of corrective feedback on different linguistic error categories

SLA insights (Truscott, 1996) and studies of error correction (Chaney, 1999; Ferris, 1995a; Ferris et al., 2000; Ferris & Helt, 2000; Frantzen & Rissell, 1987; Lalande, 1982; Sheppard, 1992) point to the fact that different linguistic categories should not be treated as if they are equivalent because they represent separate domains of knowledge that are acquired through different stages and processes. All of these studies which targeted specific error categories found that there were significantly different rates of student achievement and progress across error types.

Ferris (1999) introduced a distinction between "treatable" and "untreatable" errors, suggesting that the former (verb tense and form, subject-verb agreement, article usage, plural and possessive noun endings, and sentence fragments) occur in a rule-governed way, and so learners can be pointed to a grammar book or set of rules to resolve the error, while the latter (word choice errors, with the possible exception of some pronoun and preposition uses, and unidiomatic sentence structure, resulting from problems to do with word order and missing or unnecessary words) are idiosyncratic and so require learners to utilize acquired knowledge of the language to correct the error. This distinction has been examined in two recent studies (Ferris et al., 2000; Ferris & Roberts, 2001).

The Ferris et al. (2000) study, for example, found that learners made substantial progress over a semester in reducing errors in verb tense and form ("treatable"), made slight progress in reducing lexical ("untreatable") and noun ending errors ("treatable"), and regressed in the sentence structure ("untreatable") and article errors categories ("treatable"). Ferris and Roberts (2001) also reported a reduction in verb and noun ending errors in text revisions. Additionally, whereas Ferris et al. (2000) found no reduction in article errors, Ferris and Roberts (2001) reported some increase in the accurate use of articles. This difference in findings for articles is not altogether surprising when one considers the complex rule structure associated with the correct usage of definite and indefinite articles in different linguistic environments (Master, 1995).

As the preceding sections have revealed, a number of issues concerning the value of error correction feedback on ESL student writing have been investigated, but it is equally clear that further research needs to examine the effects of corrective feedback: (1) on new pieces of writing,

(2) on a wide range of linguistic error categories, (3) with less advanced learners, including migrant and international learners in non-academic and pre-degree settings and (4) in ways that involve different feedback strategies and combinations of strategies. In order to start addressing these needs, the following 12 week study was undertaken with 53 post-intermediate ESOL (migrant) students at a New Zealand university to investigate the extent to which corrective feedback on targeted linguistic forms under different treatment conditions helped students improve the accuracy of new pieces of writing.

5. Research question

To what extent does the type of corrective feedback on linguistic errors determine accuracy performance in new pieces of writing?

6. Methodology

6.1. Participants and instructional context

Unlike most error correction studies to date that have focussed on more advanced learners in academic settings, this study comprised 53 post-intermediate ESOL (migrant) learners who had only just entered a post-intermediate ESOL programme. They were predominantly mainland Chinese adult migrants, but participants from a number of other countries were also represented, including Sri Lanka, Romania, Iran, Turkey, Serbia, Russia, Korea, Indonesia, Taiwan, Japan, and India. Ages ranged from early twenties to late fifties, but the majority were in their late twenties and early thirties. Most had arrived in New Zealand over the last 2 years as permanent residents and had brought with them some form of tertiary qualification. For one semester (16 weeks), they followed a competency-based curriculum, the aim of which was to improve their communicative skills in the four macro-skills (reading, writing, speaking, listening) for the purpose of resettlement and to introduce them to aspects of New Zealand society. As part of their course, they had to achieve one out of two writing competencies which were similar to, but not the same as, the tasks set for the research. The research tasks, therefore, provided practice with feedback for these assessments.

6.2. Design

The participants were divided into three treatment groups according to whether they had decided to study in a full-time post-intermediate class for 20 hours per week, a part-time post-intermediate class for 10 hours per week, or a part-time post-intermediate class for 4 hours per week. Despite different amounts of instruction, the same amount of time was spent teaching grammar in each of the three classes. Because the focus of the part-time classes was on writing, all three classes received the same amount of attention in this skill area. Attention given to the other skill areas (reading, speaking, and listening) varied according to the classes the students enrolled in. Group one, the full-time class of 19 participants, received direct written corrective feedback and a 5 minute student—researcher conference after each piece of writing. Group two, the 10 hours per week part-time class of 17 participants, received direct written corrective feedback only. Group three, the 4 hours per week part-time class of 17 participants, received no corrective feedback on the targeted features but, to satisfy ethical requirements, they were given feedback on the quality and organisation of their content.

Direct written feedback took the form of full, explicit corrections above the underlined errors (see example in Appendix A). The conference sessions gave participants the opportunity to ask questions about their errors and the corrections they had received as well as the chance to receive additional explanations and examples. Each conference session began with the researcher asking the student which corrections he or she did not understand or wanted further examples of. When additional explanations of the corrective feedback were given, the researcher wrote down a new sentence with the same error in it for the student to correct. The researcher then referred to other instances of the error in the student's text and asked him/her to correct them. The researcher drew particular attention to errors that were made in different linguistic environments. In each conference session, all three targeted categories of error were discussed (if errors had been made in these categories). The content of these sessions was controlled by the fact that only one of the researchers participated in the conferences. This researcher was not involved in teaching any of the groups.

Between the writing tasks, no explicit instruction on the targeted linguistic errors was given by the researchers, but some form of instruction was given by the classroom teachers because they form part of the curriculum at this level. Also, it was not possible to control for any additional input or production practice that may have occurred outside of class time and that was initiated by the students themselves.

Table 1 Number and percentage of error types

Feature	Number of errors	Total errors (%)	
Prepositions	171	29.23	
Definite articles	67	11.45	
Indefinite articles	50	8.54	
Present simple	56	9.57	
Present progressive	18	3.07	
Past simple	70	11.96	
Past progressive	0	0.00	
Future	2	0.34	
Present perfect	6	1.02	
Modals	7	1.19	
Passive	1	0.20	
Singular vs. plural verb	6	1.02	
Infinitive	11	1.88	
Present participle	1	0.20	
Gerund	2	0.34	
Verb duplication	2	0.34	
Possessive pronouns	0	0.00	
Reflexive pronouns	0	0.00	
Relative pronouns	6	1.02	
Demonstrative pronouns	1	0.20	
Personal pronouns	13	2.22	
Determiners	2	0.34	
Nouns	30	5.12	
Word order	16	2.73	
Subordinate conjunctions	3	0.51	
Coordinate conjunction	1	0.20	
Subject or object	43	7.35	

6.3. Targeted linguistic errors

The three linguistic errors chosen by the researchers to be targeted in the research were those which occurred most frequently during the first writing task. The researchers identified and categorised all errors in the first writing task. The range of error categories are presented in Table 1. It was decided that the three most recurrent error categories would be focused on in this study. As Table 1 reveals, the greatest difficulty occurred with the use of prepositions (29.23% of all errors), followed by the past simple tense (11.96% of the total errors) and the definite article (11.45% of the total errors). The scripts were marked by two researchers and a 94% agreement rate was calculated for error identification and categorization.

6.4. Writing tasks

Each participant completed four 250 word writing tasks during the 12 week period, staged at weeks 2, 4, 8, and 12. Each writing task was of a similar type — an informal letter which varied in content but which nevertheless provided participants with the opportunity to use the targeted linguistic forms (see the example in Appendix A). One task, for example, asked participants to write a letter to a Kiwi friend who they used to know in New Zealand but who later went to work in the student's native city. They were given 45 minutes to write about (1) what they had been doing since the Kiwi friend left New Zealand 6 months ago and (2) the activities they could do together when the student returned to their native city at the end of the year (see the example in Appendix A). These tasks were similar to the writing assessment tasks given to the students in this post-intermediate course as part of a competency-based programme. Achievement-based criteria are used to determine whether students are assessed as PA (partly achieved) or as A (achieved). Resit opportunities are provided when students achieve a PA in their final competency assessment. The tasks provided in this study were versions of the final assessments.

6.5. Analysis

Each participant was exposed to all combinations of levels of two qualitative within-participant factors: (1) linguistic error at three levels (prepositions, past simple tense, definite article), and (2) time at four levels (week 2, week 4, week 8, week 12). In addition, there was a between-participants factor: feedback at three levels (conference and written, written only, none). For each combination, participants were measured on a quantitative variable: accuracy performance. This was calculated as the percentage of correct usage of each targeted linguistic form. For example, three correct uses of the linguistic form Definite Article from ten obligatory occasions gave an accuracy performance score of 30%. In order to investigate interactions between factors as well as the effects of individual factors, a two-way repeated-measures ANOVA was chosen as an appropriate statistical procedure. Additionally, if a test revealed statistical significance, post hoc tests to evaluate differences among specific means were also conducted.

7. Results

This section presents the results of investigating the extent to which different types of corrective feedback on three targeted linguistic errors helped learners improve the accuracy of their writing when producing new texts. The means and standard deviations for each treatment

Table 2
Mean performance score (percentage of correct usages)

	Type of corrective feedback							
	Both conference and written		Written only		None			
	Mean	S.D.	Mean	S.D.	Mean	S.D.		
Preposition score time 1	82.21	7.03	83.71	10.56	80.31	10.64		
Preposition score time 2	79.93	8.22	80.64	11.53	79.69	7.81		
Preposition score time 3	77.93	11.75	81.36	8.05	81.00	8.50		
Preposition score time 4	84.79	8.92	75.79	10.09	77.38	7.97		
Past simple score time 1	91.64	8.66	81.07	18.49	75.69	17.14		
Past simple score time 2	82.64	28.89	56.93	33.18	75.31	31.67		
Past simple score time 3	59.86	38.58	58.21	44.86	68.31	27.08		
Past simple score time 4	91.50	11.22	77.86	15.91	82.92	11.17		
Definite article time 1	63.00	37.22	69.29	30.60	55.31	29.15		
Definite article time 2	62.29	17.39	54.79	28.13	42.62	28.60		
Definite article time 3	58.36	19.23	61.57	19.52	58.92	26.94		
Definite article time 4	83.93	14.40	61.93	17.57	47.62	25.45		

combination are shown in Table 2. As an example of the information revealed in this table, it can be seen that in using the definite article in the first piece of writing (time one), participants who received no written feedback had a mean score of 55.31 and a standard deviation of 29.15. The data were then used to find out whether there was an effect for the different types of feedback on accuracy performance.

Firstly, we were interested in seeing if there was a differential effect for any of the feedback options on the targeted error categories when they were considered as a single group rather than as three separate error categories. An ANOVA test revealed that there was not a differential effect for any of the feedback options at the 0.05 level (F(2, 38) = 2.7, p = .081). However, Fig. 1 below indicates that the typical performance of the participants over the 12 week

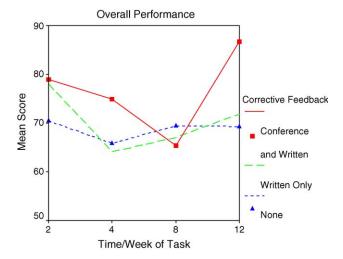


Fig. 1. Mean performances for types of feedback irrespective of linguistic form.

period differed according to each feedback option. For example, we can see that group one (receiving both written and conference feedback) improved from week 8 to week 12. An ANOVA test confirmed that the effect of this interaction between feedback types and time was statistically significant (Wilks' Λ = .64, F(6, 72) = 3.00, *p < 0.05). Therefore, although average levels of accuracy overall were not significantly different, patterns of improvement or decline were significantly different for the different feedback types according to which of the four times in which the writing was produced. Consequently, we were interested in investigating these separate patterns. Firstly, we examined the effect of the different feedback types on each linguistic error category (prepositions, the past simple tense, and the definite article). Then, we investigated the interactional effect of feedback type and time on each error category.

7.1. Prepositions

For prepositions, the average accuracy performance did not vary according to the type of feedback provided. However, when we examined whether there was an effect for the interaction of feedback type and time, the ANOVA test revealed a significant difference across the four writing times (Wilks' $\Lambda = .77$, F(6, 96) = 2.26, *p < 0.05). For example, Fig. 2 below shows that group one (receiving both written and conference feedback) performed differently across the four times to the other two groups and most noticeably so between weeks 8 and 12.

7.2. The past simple tense

For the past simple tense, the average accuracy performance differed according to the type of feedback provided (F(2, 40) = 3.58, p < 0.05). As Fig. 3 indicates, group one (receiving both written and conference feedback) had a significantly higher performance average than group two (receiving written feedback only). The interaction effect of feedback type and time was not significant, implying that patterns of improvement over the 12 weeks were similar for

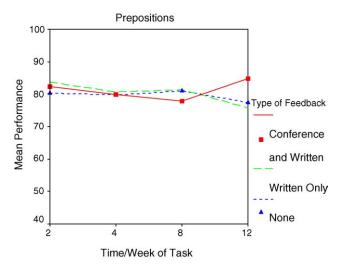


Fig. 2. Preposition performance score by feedback.

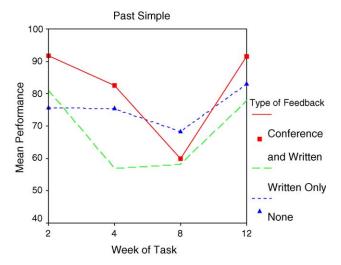


Fig. 3. Past simple performance score by feedback.

the three types of feedback. In other words, time did not have an effect on the three types of feedback.

7.3. The definite article

For the definite article also, the average performance differed according to the type of feedback provided (F(2, 48) = 4.42, p < 0.05) (Fig. 4). Group one (receiving both written and conference feedback) had a significantly higher performance average than group three (receiving no corrective feedback). The interaction effect of feedback type and time was not significant, indicating that the pattern of improvement over time was similar for the three feedback types.

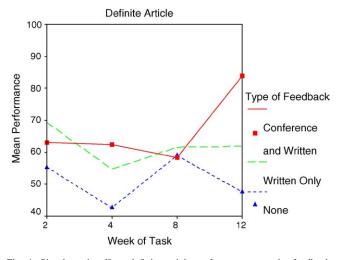


Fig. 4. Simple main effect: definite article performance score by feedback.

8. Discussion

Truscott's review of studies by Kepner (1991), Semke (1984), and Sheppard (1992) claimed that error correction does not have a significant effect on improving L2 student writing. Given this limited range of studies, the present study sought to expand the base by investigating the effect of three different types of feedback on the accuracy performance of three targeted linguistic error categories in new pieces of writing. The study found that the type of feedback provided did not have a significant effect on accuracy when the three targeted error categories were considered as a single group. From this finding, one could easily jump to the conclusion that Truscott (1996) was right when he claimed that the provision of corrective feedback on L2 writing is ineffective. However, we would suggest that a measurement of the effect of particular types of feedback on a single grouping of several error categories is not helpful. The results of our investigation into the effects of different types of feedback on individual linguistic features suggests that this type of examination is more fruitful because it acknowledges the fact that different linguistic categories represent separate domains of knowledge and that they are acquired through different stages and processes (Ferris, 1999, 2002; Truscott, 1996).

The present study found that the type of feedback provided had a significant effect on the accuracy with which the participants used the separate linguistic categories in new pieces of writing. The provision of full, explicit written feedback, together with individual conference feedback, resulted in significantly greater accuracy when the past simple tense and the definite article were used in new pieces of writing. However, this was not the case with the use of prepositions. Whereas the use of the past simple tense and the definite article are determined by sets of rules, those concerning the use of prepositions are more idiosyncratic. As Ferris (1999) suggests, the former are more readily "treatable" than the latter. It is clear from our study that the two more "treatable" categories (the past simple tense and the definite article) were amenable to the combination of written and oral (conference) feedback. This result was not particularly surprising as one would tend to expect that three opportunities (times 2-4) for discussing the errors, clarifying the rules, and illustrating them with additional examples on a one-to-one level would help learners notice the difference between their errors and the corrections they receive. Noticing such differences is now widely accepted in the SLA literature as crucial to uptake and long-term acquisition (Gass, 1997; Schmidt, 1990, 1994). By comparison, participants in group two who received only written feedback were not given the opportunity to discuss their corrected errors and those in the control group were not given any written or oral feedback on the targeted linguistic features.

The study also found that the overall accuracy of the participants varied significantly across the four writing times. In other words, there was not a linear and upward pattern of improvement from one time to another. This, too, was not surprising as earlier research has shown that L2 learners, in the process of learning new linguistic forms, may perform them with accuracy on one occasion but fail to do so on other, similar occasions (Ellis, 1994; Lightbown & Spada, 1999; Pienemann, 1989). The study also examined whether there was an effect for the interaction of time and type of feedback. It found a significant effect on accuracy levels for the use of prepositions but not so with the use of the past simple tense and the definite article. The group that received both written and conference feedback performed differently from the other two groups in their use of prepositions across the four tasks. This was not the case in their use of the past simple tense and the definite article, where performance patterns were similar for the three types of feedback.

Although variations in accuracy performance across the treatment period can be explained in terms of earlier SLA research findings (Ellis, 1994; Lightbown & Spada, 1999), we were also interested in reflecting on whether these variations could also have been the result of other variables such as the nature of the tasks, the scheduling of the tasks, and individual performance factors. Every effort was made to write task rubrics that would provide participants with opportunities to use the three targeted linguistic features. Inevitably, minor differences in subject focus may have made the use of some forms obligatory and others optional, thereby enabling learners to avoid using targeted features they were not confident in using correctly. Secondly, it is always possible that the timing of a task may influence the quality of performance, but it is unlikely that this was a factor in the study because the time of day and the days of the week during which the tasks were performed did not differ. Thirdly, socio-cultural research (Coughlan & Duff, 1994; Lantolf & Appel, 1994) has convincingly demonstrated that individual performance of the same task on different occasions can yield vastly different performance outputs as a result of the complex interaction of individual, situational and task factors. For example, the personal circumstances and daily experiences of individual learners can often have an effect on their motivation and attention-span and therefore mean that the quality of their application may be less than is characteristic of other occasions. Together with the fact that L2 learners can often perform linguistic features with accuracy on one occasions but fail to do so on other, similar occasion, this socio-cultural explanation would seem to be the most plausible of the three offered here.

9. Conclusion

In order to contribute to the need for further research on the value of providing corrective feedback to L2 writers (Ferris, 1999; Truscott, 1996), the present study investigated the extent to which different types of feedback on three targeted error categories helped L2 writers improve the accuracy of their use in new pieces of writing. It found that the combination of full, explicit written feedback and one-to-one conference feedback enabled them to use the past simple tense and the definite article with significantly greater accuracy in new pieces of writing than was the case with their use of prepositions. This finding adds to a growing body of research that has investigated the effect of different feedback strategies on accuracy performance. For instance, it has already been noted that indirect feedback is more effective than direct feedback in helping learners improve the accuracy of their writing. Because little to no research has specifically investigated the effect of different direct feedback options on improved accuracy, the findings of the present study are noteworthy.

Not only did the study find that direct oral feedback in combination with direct written feedback had a greater effect than direct written feedback alone on improved accuracy over time, but it also found that the combined feedback option facilitated improvement in the more "treatable", rule-governed features (the past simple tense and the definite article) than in the less "treatable" feature (prepositions). Consequently, we would suggest that classroom L2 writing teachers provide their learners with both oral feedback as well as written feedback on the more "treatable" types of linguistic error on a regular basis. So that learners buy into this learning process, we would suggest that teachers discuss with their learners which linguistic errors should be focused on. Because current research indicates that indirect feedback options have a greater effect than direct feedback on accuracy performance, future research would do well to compare the effects of both direct oral and written feedback with various indirect options to see if the same differential effects are observed between "treatable" error categories (the past simple tense and the definite article) and the less "treatable" error category (prepositions).

The present study also found that accuracy performance was inconsistent across the four writing occasions. Although time comparisons have not been directly investigated in earlier error correction research, SLA research has consistently found that learners, in the process of acquiring mastery over the use of linguistic features, will accurately use a given feature on one occasion but fail to do so on other occasions even when the linguistic environment is the same. Consequently, in order to be able to observe patterns of consistent improvement, we would suggest that there is a need for research to examine the effects of corrective feedback more longitudinally. Investigations over several semesters would be ideal.

Finally, we believe that the findings of this study have demonstrated that upper intermediate L2 writers can improve the accuracy of their use of rule-governed linguistic features if they are regularly exposed to oral and written corrective feedback. Further research would need to be undertaken to see if this finding also applies to L2 writers at other proficiency levels and whether it is also true for other linguistic forms where rules of usage are more complex and more idiosyncratic than they are for the use of the past simple tense and the definite article.

References

- Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. *Journal of Second Language Writing*, 12, 267–296.
- Chaney, S. (1999). The effect of error types on error correction and revision. Master's thesis, California State University, Sacramento.
- Coughlan, P., & Duff, P. (1994). Same task, different activities: Analysis of SLA task from an activity theory perspective. In J. Lantolf, & G. Appel (Eds.), Vygotskian approaches to second language research. Norwood, NJ: Ablex Publishing Corporation.
- Ellis, R. (1994). The study of second language acquisition. Oxford: Oxford University Press.
- Ellis, R. (1998). Teaching and research: Options in grammar teaching. TESOL Quarterly, 32, 39-60.
- Fathman, A., & Whalley, E. (1990). Teacher response to student writing: Focus on form versus content. In B. Kroll (Ed.), Second language writing: Research insights for the classroom (pp. 178–190). Cambridge: Cambridge University Press.
- Ferris, D. R. (1995a). Can advanced ESL students be taught to correct their most serious and frequent errors? CATESOL Journal, 8, 41–62.
- Ferris, D. R. (1995b). Teaching ESL composition students to become independent self-editors. TESOL Journal, 4, 18–22.
 Ferris, D. R. (1999). The case for grammar correction in L2 writing classes. A response to Truscott (1996). Journal of Second Language Writing, 8, 1–10.
- Ferris, D. R. (2002). *Treatment of error in second language student writing*. Ann Arbor: University of Michigan Press. Ferris, D. R. (2004). The "Grammar Correction" debate in L2 writing: Where are we, and where do we go from here? (and what do we do in the meantime. . . ?). *Journal of Second Language Writing*, 13, 49–62.
- Ferris, D. R., & Hedgcock, J. S. (1998). *Teaching ESL composition: Purpose, process, and practice*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Ferris, D.R., & Helt, M. (2000). Was Truscott right? New evidence on the effects of error correction in L2 writing classes. Paper presented at Proceedings of the American Association of Applied Linguistics Conference, Vancouver, B.C., March 11–14, 2000.
- Ferris, D. R., & Roberts, B. (2001). Error feedback in L2 writing classes: How explicit does it need to be? *Journal of Second Language Writing*, 10, 161–184.
- Ferris, D. R., Chaney, S. J., Komura, K., Roberts, B. J., & McKee, S. (2000). Perspectives, problems, and practices in treating written error. In Colloquium presented at International TESOL Convention, Vancouver, B.C., March 14–18, 2000.
- Frantzen, D. (1995). The effects of grammar supplementation on written accuracy in an intermediate Spanish content course. *Modern Language Journal*, 79, 329–344.
- Frantzen, D., & Rissell, D. (1987). Learner self-correction of written compositions: What does it show us? In B. Van Patten, T. R. Dvorak, & J. F. Lee (Eds.), *Foreign language learning: A research perspective* (pp. 92–107). Cambridge: Newbury House.

Gass, S. (1997). Input, interaction, and the second language learner. Mahwah, NJ: Lawrence Erlbaum Associates.

Kepner, C. G. (1991). An experiment in the relationship of types of written feedback to the development of second-language writing skills. *Modern Language Journal*, 75, 305–313.

Komura, K. (1999). Student response to error correction in ESL classrooms. Master's thesis, California State University, Sacramento.

Lalande, J. F. (1982). Reducing composition errors: An experiment. Modern Language Journal, 66, 140-149.

Lantolf, J., & Appel, G. (Eds.). (1994). Vygotskian approaches to second language research. Norwood, NJ: Ablex Publishing Corporation.

Lee, I. (1997). ESL learners' performance in error correction in writing: Some implications for college-level teaching. *System*, 25, 465–477.

Lightbown, P., & Spada, N. (1999). How languages are learned. Oxford: Oxford University Press.

Master, P. (1995). Consciousness raising and article pedagogy. In D. Belcher, & G. Braine (Eds.), *Academic writing in a second language: Essays on research and pedagogy*. Ablex Publishing Corporation: Norwood, NJ.

Pienemann, M. (1989). Is language teachable? Psycholinguistic experiments and hypotheses. Applied Linguistics, 10, 52–79.Polio, C., Fleck, N., & Leder, N. (1998). "If only I had more time": ESL learners' changes in linguistic accuracy on essay revisions. Journal of Second Language Writing, 7, 43–68.

Rennie, C. (2000). Error feedback in ESL writing classes: What do students really want? Master's thesis, California State University, Sacramento.

Robb, T., Ross, S., & Shortreed, I. (1986). Salience of feedback on error and its effect on EFL writing quality. *TESOL Quarterly*, 20, 83–93.

Roberts, B.J. (1999). Can error logs raise more than consciousness? The effects of error logs and grammar feedback on ESL students' final drafts. Master's thesis, California State University, Sacramento.

Schmidt, R. (1990). The role of consciousness in second language learning. Applied Linguistics, 11, 129-158.

Schmidt, R. (1994). Awareness and second language acquisition. *Annual Review of Applied Linguistics*, 12, 206–226. Semke, H. (1984). The effects of the red pen. *Foreign Language Annals*, 17, 195–202.

Sheppard, K. (1992). Two feedback types: Do they make a difference? RELC Journal, 23, 103-110.

Truscott, J. (1996). The case against grammar correction in L2 writing classes. Language Learning, 46, 327-369.

Truscott, J. (1999). The case for "the case for grammar correction in L2 writing classes": A response to Ferris. *Journal of Second Language Writing*, 8, 111–122.

Appendix A. Sample instructions and text

The following example illustrates the type of instructions that students were given before writing their texts and the type of correction they were provided with.

Instructions for learners

Write a letter to an English-speaking friend living overseas. In his/her last letter he/she asked you questions about your family:

- 1. Where is your family living?
- 2. How many close relatives do you have (e.g. cousins, sisters, brothers, aunts, uncles, grandparents, etc.)?
- 3. What was the last family occasion you spent together (describe, for example, a birthday, a festival, etc.)?

Include any news that your friend might be interested in about your life in New Zealand. Head up and end the letter appropriately for an informal letter.

Write on alternate lines.

Write a minimum of 250 words in the text of the letter.

Part of one student's text

[Note: the corrective feedback provided in brackets was written above the underlined error in the student's text.]

Dear John

I <u>have received</u> [wrong past tense — use past simple tense] your letter <u>for</u> [no preposition] 2 weeks [word missing — add the word 'ago']. I'm so sorry that I wrote the letter to you late. My husband and I are very good. How are you?

Last Sunday I moved <u>the</u> [no definite article] house and now I <u>lived</u> [wrong tense — use present simple tense] in Mt Eden. It <u>was</u> [wrong tense — use present simple tense] very close [preposition and article missing — add 'to' and 'the'] city because I <u>studied</u> [wrong tense — use present simple tense] English in [article missing — add 'the'] city. My house is not very large, but very nice and sunny.

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