Correcting students' written grammatical errors: The effects of negotiated versus nonnegotiated feedback

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Abstract

A substantial number of studies have examined the effects of grammar correction on second language (L2) written errors. However, most of the existing research has involved unidirectional written feedback. This classroom-based study examined the effects of oral negotiation in addressing L2 written errors. Data were collected in two intermediate adult English as a second language classes. Three types of feedback were compared: nonnegotiated direct reformulation, feedback with limited negotiation (i.e., prompt + reformulation) and feedback with negotiation. The linguistic targets chosen were the two most common grammatical errors in English: articles and prepositions. The effects of feedback were measured by means of learner-specific error identification/correction tasks administered three days, and again ten days, after the treatment. The results showed an overall advantage for feedback that involved negotiation. However, a comparison of data per error types showed that the differential effects of feedback types were mainly apparent for article errors rather than preposition errors. These results suggest that while negotiated feedback may play an important role in addressing L2 written errors, the degree of its effects may differ for different linguistic targets.

Keywords: error correction, written errors, feedback, oral negotiation

Dealing with second language (L2) learner errors is an important aspect of classroom pedagogy. However, there is a considerable controversy surrounding the effectiveness of grammar feedback for improving L2 accuracy. In particular, the role feedback in correcting L2 written errors has been the subject of an extensive debate in the second language acquisition (SLA) literature. Many may be familiar with the debate that began with Truscott's (1996)'s paper "The case against grammar correction in L2 writing classes" in which (and also in subsequent papers) Truscott questioned the value of grammar feedback. Truscott (1996) argued that "substantial research shows it [grammar correction] to be ineffective and none shows it to be helpful in any interesting sense" (p. 327). He believed that correcting grammar errors is a waste of time and teachers should attempt to use their instructional time in a more constructive way. Providing a number of reasons for his argument, he concluded that, "grammar correction has no place in writing courses and should be abandoned" (p. 328). Many writing and SLA researchers have strongly reacted to Truscott's remarks, expressing their disagreement with his critiques (Chandler, 2003, 2004; Ferris, 1999, 2004; Ferris & Helt, 2000; Lyster, Lightbown, & Spada, 1999). Ferris (1999, 2004), for example, described Truscott's conclusion as "premature" and based on inadequate database. She argued that, although Truscott's observation regarding the complexity of corrective feedback, and the practical problems associated with it, should be taken into consideration, his dismissal of grammar correction is unfounded. Other researchers such as Lyster, Lightbown, and Spada (1999) and Chandler (2003, 2004) have argued that grammar correction is essential for L2 acquisition, and therefore, it must remain an important component of L2 instruction.

However, despite the above observations, it is quite obvious that grammar correction is not a simple issue and there is no simple solution to it. Even if there is more agreement among researchers that corrective feedback is useful in general, there is much less disagreement on how and when it should be provided to be effective.

As for research, a considerable number of studies have examined the effectiveness of corrective feedback on L2 writing in both past and present (e.g., Ashwell, 2000; Bitchener, 2003, 2008, 2009; Bitchener & Knoch, 2009; Chandler, 2003; Fathman & Whalley, 1990; Ferris, 1995; Ferris & Roberts, 2001; Frantzen, 1995; Kepner, 1991; Lalande, 1982; Robb, Ross, & Shortreed, 1986; Sachs & Polio, 2007; Semke, 1984; Sheppard, 1992). However, the results of these studies are mixed. Among the studies, those that have compared feedback with no feedback conditions have reported a positive effect for feedback (Chandler, 2003; Fathman & Whalley, 1990; Ferris, 2006; Ferris & Roberts, 2001). Nevertheless, those that have compared different types of

feedback have reported inconsistent results. For example, whereas some have found a positive effect for more indirect feedback strategies (such as error coding or underlining) (Ferris & Helt, 2000; Lalande, 1982; Lee, 1997), others have reported no significant differences between coded and not coded feedback (Ferris & Robert, 2001; Robb et al., 1986). Similarly, while some have found a major effect for feedback that identifies the errors (Chandler, 2003; Ferris, 2006; Ferris, Chaney, Komura, Roberts, & McKee, 2000), others have reported a similar effect (e.g., Frantzen, 1995) or a more positive effect for feedback that both identifies and provides the correct form (Bitchener, 2008; Bitchener & Knoch, 2008; Sheen, 2007).

A number of reasons have been suggested for these discrepancies in results. One is inconsistencies in research methodologies used in different studies (Ferris, 2004; Guenette, 2007). For example, after reviewing a number of written feedback studies, Guenette (2007) concluded that no comparison could be made because studies have used different populations, research designs, elicitation tasks, and feedback measures. Guenette (2007) also attributed part of the discrepancies to the lack of adequate control for a number of extraneous variables that can affect the role of feedback in L2 learning. Another reason is that feedback has not often been provided in a focused manner, and that in most studies, the feedback has targeted a range of errors rather than particular errors (Bitchener & Knoch, 2008). In such cases, inconsistencies are expected because different types of errors do not react equally even to the same feedback treatment.

However, in addition to the above reasons, most studies of feedback on written errors have focused on unidirectional feedback without any student-teacher interaction or negotiation. In such cases, the teacher has always been the provider of the feedback and the learner the receiver. Such feedback may not be necessarily informative, for although the feedback is provided, since it is not reciprocal, it does not take into account learner needs and responses to feedback. It is possible that if the feedback is provided in a negotiated and interactive manner, it may become more effective because in such cases the feedback can become more fine-tuned and adjusted to the learner's level of interlanguage through negotiation. Indeed, many studies that have examined the role of negotiation have shown positive effects for this kind of feedback strategy (e.g., Braidi, 2002; Ellis, Tanaka, & Yamazaki, 1994; Lyster, 1998, 2002; Mackey & Philp, 1998; Nassaji, 2007a, 2009; Ohta, 2000, 2001; Oliver, 1995; Pica, 1994; Van den Branden, 1997). However, they have been mainly in the context of addressing oral errors. Fewer studies have examined the potential effectiveness of negotiation for addressing written errors.

Negotiation is a process that takes place through the back and forth in-

teractional strategies used to reach a solution to a problem in the course of communication. It can be of two types: form negotiation and meaning negotiation. Meaning negotiation refers to the side sequences to the conversational interaction in order to deal with communication problems and to make input more comprehensible (Pica, 1988, 1994; Van den Branden, 1997). Form negotiation, on the other hand, is trigged by an attention to form and occurs when "one interlocutor tries to 'push' the other towards producing a formally more correct and/or appropriate utterance" (Van den Branden, 1997, p. 592). Interactional feedback during conversational interaction can result from both negotiation of meaning and negotiation of form. However, interactional feedback on written errors can be considered to be a kind of negotiation of form.

Theoretical support for negotiation comes from various interactionist perspectives on L2 acquisition. One such perspective is Long's (1996) interaction hypothesis, which emphasizes that negotiated interaction is an important source of L2 learning (Gass, Mackey, & Pica, 1998; Gass & Varonis, 1994; Long, 2006). In this framework negotiation refers to the processes whereby interlocutors attempt to clarify the content of their message through the use of various interactional adjustments and modifications that occur in the course of interaction. Such strategies are assumed to contribute to L2 development by enhancing message comprehensibility and encouraging attention to form (Pica, 1994).

The value of negotiation also links closely with the theoretical importance attributed to the notion of focus on form in SLA and the idea that the effectiveness of corrective feedback largely depends on the degree to which it is integrated with meaningful communication in L2 classrooms (Doughty, 2001; Long, 1991; Long & Robinson, 1998). Furthermore, negotiation provides students with opportunities to identify and detect their errors themselves. This would provide a discovery-based approach to error correction, which has been described as not only motivating but also helping "students to make inferences and formulate concepts about the target language and to help them fix this information in their long term memories" (Hendrickson, 1978, p. 393).

A further perspective comes from socio-cultural framework, including Vygotskian sociocultural theory (e.g., Aljaafreh & Lantolf, 1994; Donato, 1994; Lantolf & Thorne, 2006; Nassaji & Cumming, 2000; Nassaji & Swain, 2000). In a socio-cultural view, language learning is essentially seen as a socially mediated process, and one which is highly "dependent on face to face interaction and shared processes, such as joint problem solving and discussion" (Mitchell & Myles, 2004, p. 195). Central to the sociocultural theory is the notion of the Zone of Proximal Development (ZPD), which refers to "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solv-

ing under adult guidance, or in collaboration with more capable peers" (Vygotsky 1978, p. 86). The notion of the ZPD highlights the importance of negotiation in language learning because it is believed that joint negotiation within the ZPD helps learners use their existing linguistic knowledge to develop what they have not yet mastered independently (Donato, 1994; Lantolf & Appel, 1994a, 1994b; Nassaji & Cumming, 2000; Nassaji & Swain, 2000).

The sociocultural perspective places particular emphasis on social and dialogic nature of feedback (Aljaafreh & Lantolf, 1994). It considers that the effectiveness of feedback depends to a large degree on the degree of negotiation and meaningful transactions between the learner and the teacher (Nassaji & Swain, 2000). It is through negotiation that the teacher is able to discover the learner's developmental level or ZPD, and then to provide appropriate feedback as needed. Also, negotiation provides an environment for scaffolding, which enables the learner to reach a cognitive level that he or she may not be able to achieve alone (Nassaji & Cumming, 2000).

Although many studies have examined the role of negotiation in addressing oral errors, to date only very few studies have investigated its role in addressing L2 written errors. One such study is that by Aljaafreh and Lantolf (1994), which, within a socio-cultural perspective, examined negotiated feedback as it occurred in oral interactions between three English as a second language (ESL) writers and one tutor. The researchers operationalized negotiated feedback in terms of a "regulatory scale" consisting of a number of feedback strategies, beginning with broad implicit feedback and gradually moving toward more specific direct/explicit help in a scaffolding manner. The results showed that when feedback was negotiated, it facilitated students' learning of new forms and also increased learners' control over already known forms. Nassaji and Swain (2000) compared the effectiveness of negotiation in a case study of two adult ESL learners. Using Aljaafreh and Lantolf's regulatory scale, the study compared negotiated feedback within the learners' ZPD versus nonnegotiated random feedback. The results of qualitative and quantitative analyses showed that negotiated feedback was more effective than random feedback in not only promoting learner accuracy as measured in subsequent error correction posttests, but also in accelerating development by making learners able to correct similar linguistic errors on subsequent occasions with much less assistance.

Both of the above studies were conducted in tutorial sessions outside the classroom. Therefore, their results cannot be generalized to classroom contexts. In a recent study (Nassaji, 2007), I attempted to investigate the role of negotiation in feedback in response to written errors in an adult ESL classroom. The feedback occurred in the context of a routine classroom activity, in which students wrote weekly journals. The study first documented the occur-

rence of such feedback, and then examined its effect on learners' ability to identify and correct the same errors after interaction. The findings of this study confirmed the importance of negotiated feedback on written errors by providing evidence for its effectiveness inside an L2 classroom. The results showed that when the feedback involved negotiation, it resulted in more successful correction of the same error by the learners than feedback that involved no, or limited, negotiation. However, the study was small scale, observational, and the feedback occurred on any errors.

The present study is an extension of the above study. It sought to explore the role of negotiation further by examining not only whether negotiated feedback had any effects on learners' ability to correct their errors, but also whether the effect of negotiation differed depending on the nature of the target form. The study compared three types of oral feedback: nonnegotiated reformulation, feedback with limited negotiation (i.e., prompt + reformulation), and feedback with extended negotiation. Two most commonly used linguistic forms were also selected as feedback targets: prepositions and articles. The study addressed the following research questions:

1. What is the effect of oral feedback on leaner's ability to correct their written errors?
2. Are learners more likely to benefit from feedback that involves negotiation than feedback that involves limited or no negotiation?
3. Do the advantages of negotiated feedback, if any, depend on the type of linguistic target?

Method

Participants

The study was conducted in two intermediate adult ESL classrooms in an intensive ESL program in a university context (henceforth Class A and Class B). Learners attended these classes five days a week, receiving 20 hours of instruction each week. The students had been placed at this level based on a language placement test administered by the program. There were 15 students in Class A and 16 students in Class B ($N = 31$). Of the 15 students in Class A, nine were female and six were male. Their ages ranged from 18 to 48 ($M = 24$, $SD = 8.44$). Their first language included: Japanese ($n = 8$), Korean ($n = 3$), Spanish ($n = 3$), and Turkish ($n = 1$). Of the 16 students in Class B, ten were female and six were male. Their ages ranged from 19 to 29 ($M = 22.62$, $SD = 2.9$). They were from a variety of language backgrounds including Chinese ($n = 2$), Japanese ($n = 7$), Ko-

rean (*n* = 5), and Spanish (*n* = 2). By the time of the study, the participants had been in Canada for 1 to 10 months, and had been in the program for 1 to 6 months. The same instructor, who was a male native speaker of English, taught the two classes. He had 16 years of ESL and EFL teaching experience, and had been teaching in that program for about 10 years. His method of instruction was primarily communicative, and his method of error correction involved a combination of form-focused feedback and explanation.

Linguistic Targets

Prepositions and articles were selected as linguistic targets. This selection was based on a number of reasons. First, both features have been described as among the most difficult grammatical forms for L2 learners to master (Celce-Murcia & Larsen-Freeman, 1999). Even students at fairly advanced levels of language proficiency have difficulty with these forms. Second, these errors were found to represent a large number of grammatical errors learners made in their written journals during the present study. Therefore, the teacher recommended them as good candidates for corrective feedback. Another reason comes from a recent study by Bitchener, Young, and Cameron (2005), which compared the effect of direct written feedback versus feedback in combination with oral feedback on three types of written errors (prepositions, the past simple tense, and the definite article). The study found that written feedback in combination with oral feedback had a significant effect on learners' accuracy of past tense and definite articles but not on prepositions. The researchers explained these differences in terms of Ferris' (1999) distinction between treatable and less treatable errors. Ferris (1999) defined treatable errors as those that occur in a patterned, rule-governed manner and untreatable as those that do not follow certain rules such as the choice of lexical forms. Bitchener et al. (2005) argued that feedback on prepositions was less effective because prepositions are less treatable than past tense and articles. Focusing on prepositions and articles in the present study can allow a comparison with their study, and also an examination of whether different degrees of negotiation have any differential effects on these two types of errors.

Research Design and Procedures

The study used a research design involving four phases: a journal writing phase, a feedback phase, an immediate posttest phase and a delayed posttest phase. The data collection procedures for both Class A and B were the same, except for the fact that in Class A the feedback focused on article errors and in Class

B it focused on preposition errors. In each class, three feedback sessions were conducted over a three-week period, with each week focusing on a particular type of feedback. The procedure was as follows. During each of the three weeks, students wrote journals on topics of their own interest. The teacher reviewed the journals and selected samples of students' sentences that contained the target errors. He then conducted a feedback session on those erroneous sentences the last day of the week. In Week 1 of the treatment in each class, the teacher provided nonnegotiated direct reformulation of instances of the target form students had produced during that week. In Week 2, the feedback involved prompt + reformulation, and in Week 3, the feedback involved negotiation. After each feedback session, and before the next one, students received a learner-specific test on the errors that they had received feedback on in that session (see the next section for detail). Figure 1 shows a schematic representation of the research design for one of the classes (in the figure, feedback treatment 1, 2, and 3 refer to nonnegotiated direct reformulation, prompt + reformulation, and feedback with negotiation, respectively). The same procedure was followed for the other class.

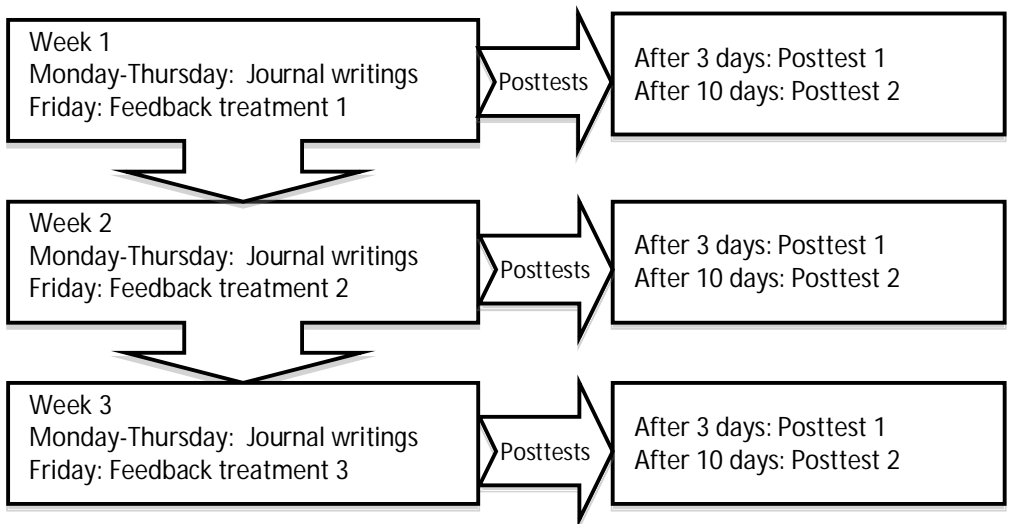| Week 1 Monday-Thursday: Journal writings Friday: Feedback treatment 1	Posttests	After 3 days: Posttest 1 After 10 days: Posttest 2
Week 2 Monday-Thursday: Journal writings Friday: Feedback treatment 2	Posttests	After 3 days: Posttest 1 After 10 days: Posttest 2
Week 3 Monday-Thursday: Journal writings Friday: Feedback treatment 3	Posttests	After 3 days: Posttest 1 After 10 days: Posttest 2

Figure 1 A schematic representation of the research design

A Description of Feedback Types

This section describes the three feedback types compared.

Nonnegotiated direct reformulation. This was a feedback strategy in which the teacher provided a direct correction of the error with no negotiation and interaction with the student. To this end, the teacher first read the erroneous sentence and then corrected the target error immediately:

Example 1

Trigger   *"I had a class at UVic downtown campus."*

Teacher   I had a class at the UVic downtown campus.

Prompt + reformulation. This feedback involved an initial prompt plus reformulation. In this strategy, the teacher first asked the learner who had made the target error to correct it. If the error was corrected, the teacher confirmed the correction. If not, the teacher provided the correction without any further negotiation. The difference between this feedback type and the previous one was that it allowed the learner to self-correct. Thus, it involved some negotiation. However, the negotiation was limited because the teacher immediately provided the correction upon the learner's initial failure. Thus, it did not provide the learner with any further guidance or assistance:

Example 2

Trigger   *"I am aware that my mother went through varieties of experience when she brought me up."*

Teacher   Nemar,[1] what's your suggestion?

Student   Just thinking . . . It includes "the", through the

Teacher   Went through a variety . . .

Feedback with negotiation. In this feedback, the teacher addressed the target error through negotiation. The difference between this type of feedback and the previous feedback type was that, in the former, as noted earlier, the teacher corrected the learner's error upon the learner's initial failure. However, in this feedback type, the teacher encouraged and pushed the learner further to discover and correct the error, using a step-by-step guided help and scaffolding. The feedback followed the procedure used in Nassaji and Swain (2002), beginning with indirect and implicit feedback and moving progressively toward more direct and more explicit help as needed until the error was resolved (Example 3). In this feedback type (and also and the previous one), the teacher nominated the learner who had made the error to correct it. Thus, the negotiation was between the teacher and that learner. The amount of negotiation in the negotiated feedback strategy varied depending on the degree of assistance needed, with some negotiations being more extended than others.

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[1] Names are pseudonyms.

Example 3

Trigger	"When I was a kindergarten student, I went to international school."
Teacher	Harnak? Can you try and give solutions, corrections, for this sentence?
Student	"When I was a kindergarten student, I went to the international schools."
Teacher	You went to the international school. So, you added the, article "the"?
Student	"a"?
Teacher	What's that?
Student	Ah no.
Teacher	I went to, which one sounds better? "the" or "an"
Student	The
Teacher	Now, you could "the international school," if you give more information, "in my hometown."
Student	Oh
Teacher	Then you can use it because it's a definite article, but because you don't give more information, what would you say? Instead of the? Haruka what do you think?
Student	"an"
Teacher	"an" The whole table agrees, everyone agrees. "an" you say, "an" because it's indefinite. Your not giving us specifics, so "an."

Testing

The test was a learner-specific error identification/correction test, in which each learner was asked to identify and correct his or her own errors on which they had received feedback (see Nassaji, 2007b, 2009). For that purpose, after each feedback session, each learner's erroneous sentences were collected. These erroneous sentences were typed and given back to the same students for correction. The students were asked to go over the sentences and identify any errors and make any corrections needed. The instruction was as follows: "Read the following sentences and see if there are any errors. Locate the errors by underlying them, and then correct them if you can." Learners were tested twice: three days after each feedback session (and before the next feedback session), and then again ten days after. The purpose of the second posttest was to determine whether the learners were able to remember

the corrections made to their errors in the first posttest. For the second post-test, the same erroneous sentences used in the first posttest were retyped with a different order and given to the students. The instruction was the same as in the immediate testing. That is, learners were asked to find any errors and then correct them if they could. Since there were three feedback sessions, each learner received three immediate and three delayed posttests.

Scoring the tests. To score learners' responses to the test items, a strict coding criterion was adopted, in which responses were scored as either correct or incorrect. They were scored as correct if the learner had identified and corrected the error. Incorrect responses included those that involved wrong identification of the error or no response. Since the data consisted of frequency of counts of categorical data, chi-square tests were used to determine the relationship between feedback types and learner test performances. Furthermore, because the analysis involved a comparison between three types of feedback, whenever the overall chi-square test was statistically significant, adjusted standardized residuals were used to determine where the difference lied. Standardized residuals of greater than 2 or -2 were considered to show significantly large contribution to the overall difference.

Results

Altogether, 162 target errors that learners had made in their journals received feedback. Of these errors, 89 (55%) were article errors and 73 (45%) were preposition errors. Of the total number of article errors, 38% had received direct reformulation with no negotiation, 26% had received prompt + reformulation, and 36% had received negotiation. Of the total number of preposition errors, 34%, 32%, and 34% had received direct reformulation, prompt + reformulation, and feedback with negotiation, respectively. Altogether, about one third of each of the two target forms had received one of the three feedback types.

The first analysis examined whether there was any relationship between feedback types and learners' ability to successfully identify and correct the target errors. To this end, the frequency and percentages of learners' correct test scores in each of the feedback conditions were calculated and compared. Overall, learners were able to correct more than half (54%) of the errors (articles and prepositions) on which they had received feedback in the first immediate testing (Table 1). A comparison of the three feedback types showed that the percentages of correct test scores varied across feedback conditions. Of the total number of errors that had received direct reformulations with no negotiation, learn-

ers corrected 41% of them in the first testing. However, of the total number of errors that had received prompt + reformulation and negotiation, learners corrected higher percentages: 56% and 65%, respectively. A chi-square test indicated that the difference among the three feedback types was statistically significant (2, N = 162) = 7.05, p < .05. The residual analysis, shown in Table 1, further indicated that of the three feedback types, feedback with negotiation led to a significantly higher percentage, and reformulation with no negotiation led to a significantly lower percentage, of correct test scores.

Table 1 Accuracy of learner responses in the first posttest for different feedback conditions

	Total	N Correct	% Correct	Residual
Total number of errors	162	87	54%	
a) Nonnegotiated reformulation	59	24	41%	-2.5
b) Prompt + reformulation	46	26	56%	.5
c) Feedback with negotiation	57	37	65%	2.1

Table 2 displays the results of the delayed testing. As can be seen, there was a decrease in the overall rate of correction from the immediate to the delayed posttest. However, the decrease is greater for reformulation with no negotiation (41% vs. 30%) than feedback with negotiation (65% vs. 60%). This suggests that learners were more likely to remember their corrections when they had received feedback with negotiation. As for the difference among feedback types, the pattern was similar to that in the immediate testing. That is, the percentage of correct test scores remained to be significantly different across different feedback conditions (2, N = 162) = 10.59, p < .01. An examination of their residuals further showed that feedback with negotiation led to a significantly higher percentage of correct test scores, and that reformulation with no negotiation led to a significantly lower percentage.

Table 2 Accuracy of learner responses in the delayed posttest for different feedback conditions

	Total	N Correct	% Correct	Residual
Total number of errors	162	76	47%	
a) Nonnegotiated reformulation	59	18	30%	-3.2
b) Prompt + reformulation	46	24	52%	.8
c) Feedback with negotiation	57	34	60%	2.4

The analyses then examined whether there was any relationship between feedback types and error types. To this end, the frequency and per-

centages of learners' correct test scores for preposition and article errors across the three feedback conditions were compared. The results showed that although negotiated feedback led to significantly greater percentages of correct test scores overall, this difference was mainly apparent for feedback on article errors rather than on preposition errors (Table 3). When the target form was prepositions, the chi-square test showed no statistically significant difference across the three feedback conditions in the first posttest. However, when the target form was articles, the chi-square result was statistically significant (2, N = 89) = 9.04, p < .01. Their residuals, shown in Table 3, further indicated that, of the three feedback types, direct reformulation with no negotiation led to a significantly lower percentage of correct test scores (32%, residual = -2.9), and feedback with negotiation led to a significantly higher percentage of correction (69%, residual = 2.4). This finding suggests that the effects of feedback types depended on the type of linguistic targets.

Table 3 Accuracy of the first posttest scores for different feedback types in response to prepositions and articles

		Nonnegotiated reformulation	Prompt + reformulation	Feedback with negotiation	Total
Prepositions					
	Total	25	23	25	73
	N Correct	13	13	15	41
	% Correct	52%	56%	60%	56%
	Residual	-.5	.0	.5	
Articles					
	Total	34	23	32	89
	N Correct	11	13	22	46
	% Correct	32%	56%	69%	52%
	Residual	-2.9	.5	2.4	

In the delayed testing, there was a similar pattern (Table 4). When the target form was prepositions, the chi-square test did not show a statistically significant difference among different feedback types. However, when it was articles, it did show a difference (2, N = 89) = 9.48, p < .01. Furthermore, a comparison of the effects of reformulation and negotiation across error types showed that while negotiation led to a similar percentage of correction in the case of both preposition and article errors, reformulation led to a noticeably higher percentage of correction in the case of prepositions (40%) than articles (24%).

Table 4 Accuracy of delayed posttest scores for different feedback types in response to prepositions and articles

		Nonnegotiated reformulation	Prompt + reformulation	Feedback with negotiation	Total
Prepositions					
	Total	25	23	25	73
	N Correct	10	12	15	37
	% Correct	40%	52%	60%	51%
	Residual	-1.3	.2	1.1	
Articles					
	Total	34	23	32	89
	N Correct	8	12	19	39
	% Correct	24%	52%	59%	44%
	Residual	-3.0	.9	2.2	

Discussion

Previous studies of corrective feedback on written errors have examined the effectiveness of various types of written feedback. The present study examined the effects of oral feedback, particularly feedback that involved negotiation, in addressing L2 written errors. Data were collected in two adult ESL classes. Three types of feedback were compared: direct reformulation with no negotiation, prompt + reformulation, and feedback with negotiation. The linguistic targets were English articles and prepositions. The effects of feedback were measured by means of tailor-made learner specific error identification/correction tasks that asked learners to identify and correct their erroneous sentences on which they had received feedback three days, and again ten days, after the treatment. The results showed a clear advantage for negotiated feedback when the data for the two types of errors were combined. However, a comparison of data per error types showed that the differential effects of feedback types were mainly apparent for article errors rather than for preposition errors. When the target form was prepositions, the three types of feedback led to comparable degrees of post-interaction correction. However, when the target form was articles, reformulation with no negotiation led to a significantly lower degree of correction as compared to feedback with negotiation, which led to a significantly higher percentage of correction.

The findings regarding the overall efficacy of negotiation can be explained in terms of the opportunities that it provides for scaffolding and guided help learners obtained as a result of interacting with the teacher (Nassaji & Swain, 2000). The finding pertaining to the greater effect of negotiation on article errors also echoes those of Bitchener et al. (2005) who found a signifi-

cant effect for feedback (when combined with oral conferencing) on the accuracy of the definite article but not on the accuracy of preposition errors. Bitchener et al. (2005) explained the difference in terms of Ferris' distinction between treatable and less treatable errors. According to Bitchener et al. (2005), since the use of articles is more rule-governed, feedback with oral negotiation is more effective because it can provide opportunities for explaining and illustrating those rules. This is not true for prepositions that have many meanings and whose application is more idiosyncratic.

However, in the present study, direct reformulation also led to a noticeably high percentage of correction in the case of preposition errors, but not article errors. Although variations in the effectiveness of negotiated feedback on article errors may be explained in terms of the degree of error treatability, the findings regarding the relative ineffectiveness of direct reformulation for articles and its effectiveness for prepositions need further explanation. One explanation, although speculative, may come from the type of rules involved in article errors, on the one hand, and the more lexical nature of prepositions, on the other. Grammatical rules can be classified into two types: 'transparent' and 'opaque' (Kiparsky, 1971). Transparent rules are easy to explain and teach (an example could be plural -*s*.). Opaque rules are not simple, and therefore, are harder to explain and grasp. Although article errors are relatively rule-oriented, these rules are not straightforward and can be considered to be more opaque. In the case of such errors, negotiation was helpful possibly because it provided the necessary time to explain and treat the error. Direct reformulation was not very helpful because it did not provide such opportunities. Prepositions, on the other hand, responded effectively to direct reformulations possibly because learners may have simply stored the reformulations in the memory and then remembered them in the posttests. This could have been because of the more lexical nature of prepositions (e.g., Crystal, 1992). Because of that, prepositions are also more salient than articles. This characteristic may then make them also more likely to be noticed when they become the target of reformulation. There is some research evidence from feedback on oral errors that seems to support this latter explanation. Mackey, Gass, and McDonough (2000), for example, found that learners perceived the corrective nature of lexical reformulations (recasts) more accurately than morphosyntactic reformulations.

Conclusion

In summary, this research explored the role of oral negotiation in response to written errors in L2 classrooms. The examination was motivated by L2 studies that have argued for the role of negotiated interaction in L2 learn-

ing. To date, most of the studies of feedback on L2 written errors have involved unidirectional written feedback. The results of this study suggest that oral feedback with negotiation can have positive effects on learners' accuracy, but the differential effects of such feedback may also depend on the type and nature of the linguistic target.

There are a few limitations of this study that should be considered. First, the results are based on data from only two ESL classrooms. Thus, the generalizability of the findings must be further examined in future research. Second, in this study, learners were asked to review and correct their own previous errors. Although such findings may provide evidence about the role of feedback in assisting learners to revise their errors, they do not provide evidence that learners would be able to use the forms productively in subsequent, or new pieces of, writings. We should also recognize that such effects may be short-term and may fade away over time. Thus, there is a need for more research to examine whether negotiated feedback has any significant long-term benefits for writing development as compared to other types of feedback. Finally, this study examined the effects of feedback on only two categories of errors, and only with intermediate ESL learners. Future studies should be carried out with other types of errors, other types of learners, and in different instructional settings. Such studies are extremely necessary in order to determine what roles various learner- and context-specific factors may play in the effectiveness of feedback.

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