Collaborative error correction: How does it help?

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ABSTRACT
This paper reports on a classroom-based study that explored the use of collaborative error correction in a university-level academic writing class. The study grew out of a concern often expressed by teachers about what can be done to encourage student uptake of feedback on writing and to foster awareness of accurate grammatical structures in written composition. The paper presents data on the use of this technique, and outlines some of the insights the data provided.

Introduction
Most teachers have, at times, questioned the value of spending a great deal of time marking student essays and giving feedback on grammatical accuracy, particularly when such feedback sometimes seems to be given scant regard by students. Finding ways to facilitate student awareness of accuracy in writing is a quest that most teachers of English know only too well. This study looked at a technique that required students to spend time focusing on accuracy in their writing by actively responding to teacher feedback.

Three strands of research have influenced the focus of this case study of collaborative error correction: the literature on noticing and consciousness-raising, the literature on error feedback, and the research on output and collaborative tasks.

NOTICING AND CONSCIOUSNESS-RAISING
Schmidt (1990) claims that the process of noticing is a necessary component of second language (L2) acquisition and that intake occurs when learners consciously notice language features. Ellis (1991) acknowledges the importance of noticing and suggests that, in order to acquire implicit knowledge of a second language, that is, automatic control of language features that makes effortless communication possible, language students must progress through three major stages. In the initial stage students notice, for the first time, a particular structure in the input; in the second stage they move to comparing this structure with their own version of the same feature and
noticing if there is a gap in accuracy; and in the final stage the learner progresses to integrating this feature into their language. Ellis suggests that consciousness-raising techniques like direct grammar teaching can aid language acquisition in that they can assist with the process of noticing and comparing and prepare the ground for integration. Furthermore, consciousness-raising techniques often promote the development of explicit knowledge that not only helps students monitor their output (a very useful tool to foster in a writer), but will also help the learner to notice the targeted features in subsequent input and lead eventually to acquisition. Ellis is quick to point out that consciousness-raising does not bring about the integration stage, since this is done by the learner, and then only when he or she is ready.

ERROR FEEDBACK

There is a continuing debate about the value of teacher feedback on student errors in writing. Some researchers question the benefits of corrective feedback (Truscott 1996). Ferris (2002), however, maintains that there is fairly conclusive evidence that teacher feedback leads to more accurate revisions by students. This improvement could be drawing only on explicit knowledge, but this process can nevertheless play an important role in writing and revising writing. What is abundantly clear is that students want error feedback and believe that it is very beneficial in helping them to become better writers (Lee 2004). Nevertheless, most researchers agree that more studies need to be done on error feedback, particularly longitudinal studies and studies that compare the progress of students with and without error feedback. The trouble is that studies of both types are fraught with difficulty. In longitudinal studies it is hard to attribute any results to teacher feedback rather than to other variables. In comparative studies it is difficult to find a teacher or researcher (or student) who would be willing to experiment with giving students no feedback when such a tactic may have a significant and negative impact on language acquisition. Despite these gaps, a great many studies have provided useful results about the effect of different types of error feedback strategies. Ferris (2002) provides a summary of much of the recent research in this area and concludes that indirect feedback (that is, feedback by highlighting the existence of an error rather than by correcting it) was the most effective technique for improving accuracy; that there was no significant difference between coded and uncoded treatment of error; and that some types of error were treatable by indirect error feedback and some were less treatable. Treatable errors included errors of verb form and tense, subject and verb agreement, article usage, plural and possessive noun endings, sentence fragments, run-ons and comma splices, some errors in
word form, and some errors in punctuation, capitalisation and spelling. Untreatable errors included word order errors, word choice errors and errors of missing or unnecessary words (Ferris 2002: 23).

The research on error correction has also drawn attention to the importance of other strategies in addition to teacher feedback. Chandler (2003) suggests that, in order for error correction to be effective, students must do something with the error correction, and that incorporating teacher feedback into later revisions was therefore crucial. Ferris (2002) suggests that students need to understand the place of teacher feedback in the development of accuracy. She sees training in self- and peer-editing strategies as essential components in a writing program. She points out that peer editing is valuable because proofreading another’s writing is easier than proofing one’s own, as well as being both motivating and engaging. In a comparative study of peer and teacher feedback, Yang, Badger and Yu (in press) found that though peer feedback had less impact than teacher feedback, it did seem to result in improvements in student writing and appeared to encourage student autonomy. Similarly, Min (2006) concluded that trained peer review feedback had a positive impact on the number and quality of students’ revisions.

ERROR FEEDBACK AND NOTICING

Several researchers see a link between teacher feedback and the process of noticing and comparing. Ellis (1998) points out that negative feedback (error correction) helps students to notice the gap between their incorrect production and the correct version in the target language. When negative feedback is available, the steps in normal language acquisition are reversed; that is, students are directed to notice the error in their interlanguage first and only then to look to the target language for a grammatically correct version, rather than the other way around. In a study that investigated the effect of students’ correction of grammatical and lexical errors after receiving teacher feedback, Chandler (2003) found that such errors were reduced in subsequent writing without a reduction in fluency or quality. She reinforced the observation that error feedback helps students to notice a mismatch between their own version and the target language. Qi and Lapkin (2001), in a study investigating error feedback and the noticing of forms, found that when noticing is combined with understanding, the impact on learning in L2 writing is greater. They suggest that the greater the level of metacognitive processing, the greater the level of understanding. Better understanding may promote a higher quality of noticing that can further facilitate language learning.
OUTPUT AND COLLABORATIVE DIALOGUE

Swain (1998) suggests that encouraging students to produce language (output) may help language acquisition in two ways. First, it promotes the likelihood of noticing. Being encouraged to produce language in a spoken or written form may, in some circumstances, help students notice the gap between their own version of the target language (interlanguage) and the correct model of the language. Second, Swain notes that the act of producing language may encourage hypothesis formulation and the testing of language features that can lead to further progress in language acquisition. Finding tasks that encourage output and provide opportunities for noticing are therefore essential. Swain suggests that collaborative tasks, which by their very nature are communicative and encourage output, are more likely to encourage noticing and hypothesis testing and ultimately language learning. Such tasks need to be carefully chosen and designed to promote the use of meta-talk; that is, tasks that are communicatively oriented but where students talk about and reflect on their own language. In a subsequent article, Swain (2000: 111) notes a number of other benefits from teachers adopting this strategy: she discovered that in collaborative work the students’ ‘jointly constructed performances outstripped their individual competencies’. Furthermore she notes that this type of collaborative dialogue becomes not only problem solving but also knowledge building.

Support for the value of collaborative work comes from several other researchers. Storch (2001) looked at the characteristics of collaborative work and found that although students did not always work collaboratively when they worked in pairs, when they did collaborate there was evidence of co-construction, extension of knowledge and of students supporting each other to reach higher levels of competence. She suggests that these interactions reflect the cognitive processes involved, such as noticing the gap between one’s interlanguage and the target language and the consolidation and extension of knowledge – processes that facilitate language learning. Qi and Lapkin (2001) suggest that collaborative tasks are useful because they increase the opportunities for noticing and verbalisation, and therefore metacognitive processing. Tocalli-Beller and Swain (2005) observed that when students discussed and disagreed about feedback they were forced to re-examine and clarify their thoughts about language use. Through these episodes of cognitive conflict, students were able to advance their knowledge of the target language. The authors noted that this knowledge was co-constructed more through the process of disagreeing than through agreeing.

Swain, Brooks and Tocalli-Beller (2002: 181), in a review of collaborative
studies, many of which involved writing activities, conclude that collaborative dialogue ‘mediates second language learning’.

SUMMARY

The literature suggests that communicative classroom activities that allow some attention to form can provide opportunities for noticing and comparing language features. Collaborative classroom activities that encourage discussion of language features can further promote noticing and, if feedback on errors is included, then the noticing can be enhanced. In addition, the verbalisation that occurs in these communicative activities may be an effective strategy in the language learning process, as it can promote metacognitive processing.

The study

The design of this study draws on the research outlined above. The study looks at a collaborative error correction task that required students to do something with teacher feedback on writing errors in the hope that such a task would enhance the opportunities for noticing and ultimately contribute to the language learning process.

PARTICIPANTS

Participants in the study were all students enrolled in a three month, pre-entry program designed to prepare non-native speakers for the linguistic and academic demands of study at a New Zealand university. Two classes were involved in the study, one in each of two semesters. The class involved in the study in Semester One contained 16 students, who were at a low intermediate level of proficiency in English. The class in Semester Two was made up of 16 students, who were at a high intermediate level. These proficiency levels were established by placement tests carried out at the beginning of each semester. The students were from China, Korea, Vietnam, Somalia and Japan, and their ages ranged from 21 to 26 years. Most students had had at least four years of English language learning in their own countries and several had studied English at university level for at least one year.

THE TASK

In this study, students were asked to collaborate with a partner to correct the errors in their weekly essays. During the course of one semester students usually wrote seven or eight weekly essays and participated in the collaborative error correction task for each of these essays. These weekly essays were of an academic nature, such as argument essays or comparative essays. I had previously read the essays and, following the findings of Ferris (2002),
I had simply highlighted the errors (indirect feedback), in this case by underlining them. I then asked students to work with a partner and to attempt to correct the errors that were highlighted in their essays. During this collaborative work I was available as a consultant. Students made the most of the opportunity, and the exercise of discussing and correcting two essays of about 600 words often took 30 minutes.

Following the paired correction session, students were encouraged to choose a certain number, usually five, of what they considered to be significant errors and to record these in their personal error charts. I then required the students to rewrite the essay so that I could check their corrections. This exercise took various forms: rewriting the whole essay the next day in class without looking at the original, rewriting the essay for homework with recourse to the original, or rewriting certain sentences or passages.

DATA COLLECTION AND ANALYSIS
To obtain an insight into how collaborative error correction was carried out I tape-recorded seven pairs of students over the course of the two university semesters. Four pairs of students were from the class in Semester One and three pairs from Semester Two. The students who took part in the tape-recorded sessions were volunteers.

At the end of each of the seven tape-recorded collaborative sessions I interviewed each pair about their perceptions of the technique. Also at the end of Semesters One and Two I distributed questionnaires to the students in each class. The questionnaires looked at many aspects of the writing program and at teacher feedback in particular.

I analysed the data from the taped dialogues and the student interviews in order to address two questions:

• In what ways does collaborative error correction appear to help language learning?
• Under what conditions does collaborative error correction seem to work best?

Findings
As detailed below, the recorded data of the interactions between students and comments made during the interviews suggest that students found collaborative error correction helpful for language learning in a number of ways: it encouraged deeper processing, it enhanced individual performances and it extended language knowledge. Many of these findings support claims noted by researchers mentioned earlier in this paper.
ENCOURAGED DEEPER PROCESSING

The data showed that students were highly focused and engaged in the process of error correction during the collaborative work, and that a great deal of thinking and processing was taking place. Students discussed and debated each point very thoroughly.

In the example below, two students discuss in some detail the suitability of the definite article that had been highlighted in one of their essays: ‘Most people think the grammar of the second language is too difficult.’

P: You mean the grammar, all of the grammar?

L: The reason I use ‘the’ is second language is only one, my second language is English. Some people’s second language is Spanish, Japanese …

P: Yes, but, if you think the second language is specific.

L: Yes, mm. Ah, oh. I understand. I understand, right, right, if I use ‘the’ …

P: Yes.

L: This is mine, just mine, but you mean in general.

P: Yes.

L: So, okay, it becomes ‘a’.

When students reflected on the process they commented on this aspect of collaborative work.

After see another person’s idea, after that I saw my writing, my thinking is another way. It made me thinking differently. This method give me another viewpoint in my grammar and my sentence. So I think it is a very useful method. (J)

The discussion helped because we have to think why it is incorrect rather than ask Nicky straight away. Two people’s discussion and thinking – helps me remember longer. (S)

It is easy to remember because we discuss it. (T)

Most questions can be clearly after debating – in my mind. (P)

Sometimes this deeper processing took the form of students engaging in meta-talk, that is, discussion about the structure of the language. For example, students sometimes reflected on the types of errors made: ‘Most mistakes is the article’ (T). At other times the paired activity encouraged students to discuss finer points of grammar and to refer to grammar texts to
check corrections. After a long debate about whether a verb could be the subject of a sentence, the comment was made: ‘I will show my grammar book’ (B). Such evidence of the tendency of students to engage in valuable discussion of language during a collaborative task is also noted by Swain (1998) and Qi and Lapkin (2001).

ENHANCED INDIVIDUAL PERFORMANCES

The process of correcting errors collaboratively in some cases provided an opportunity for students to build on each other’s suggestions to reach a higher level of language awareness, as seen in the following excerpt. Here two students are trying to correct the verb form that had been highlighted in the sentence, *Experts analyse languages that were been using in our society.*

L: Were used.
P: If you said ‘were used’ it means that we don’t use that.
L: So – how about is, are used?
P: Are used?
L: Are used.
P: But we used, we have been using to now.
L: Ah, I think, more better tense, from before, we use have verb.
P: We have being using.
L: Have been used. But ‘have been used’ is finished now. So …
P: Have being using.
L: Been.
P: We have been using, okay.

Interview data from the study also showed that students identified this significant benefit of working collaboratively:

If I work by myself I cannot know everything but together we know, we share. (A)

In the talking we can change it ourselves. We can find it in the talking. (Y)

Two people better than one people. (P)

These comments seem to reflect the findings of Swain and Lapkin (1998), who observed that in collaborative work students’ joint performance exceeded what they were able to achieve individually.
EXTENDED LANGUAGE KNOWLEDGE

The recorded discussions indicated that collaborative work could extend the language knowledge of the participants. The following excerpt from the recorded data indicates knowledge building in the area of vocabulary. The sentence under discussion is, *The immigrant society brings a big economic gap between wealth and poverty*.

H: Gap?
J: Gap is the break between … um … difference … um … If you receive 100 score in our test and I receive 70 score our gap is 30.
H: That is a gap?
J: Yes.
H: How far from, between two things?
J: Yes.

Several students also commented that collaborative error correction helped them learn more about the language:

My mistake and other’s mistake – I also know them. (J)
What I need she can tell me. (P)

The extension of knowledge sometimes took the form of students reminding each other of a point previously taught:

Remember Nicky said this sentence is not English. (S)
Today teacher said like this – common mistake – just one sentence not two sentence. (E)

In other cases students were able to generalise from an earlier correction of the same structure after a suggestion from one of the pair. Students were also able to help each other with spelling errors and stylistic aspects of the essay, such as referencing styles. These findings seem to support Swain and Lapkin’s (1998) and Storch’s (2001) observations on collaborative dialogue and knowledge building.

HOW DO STUDENTS VIEW THE TECHNIQUE?

As mentioned earlier, questionnaires were distributed to both classes at the end of each semester. Sixteen students completed the questionnaire in Semester One and 15 in Semester Two. In one question, students were asked to rate the value of discussing their writing feedback with their teacher. In the next question students were asked to rate the value of discussing their writing feedback with a partner.
Table 1 shows the responses to these questions.

**Table 1: Discussion of errors with teacher and collaborative error correction**

<table>
<thead>
<tr>
<th></th>
<th>Semester 1 2004</th>
<th>Semester 2 2004</th>
<th>Semester 1 2004</th>
<th>Semester 2 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very useful</td>
<td>12</td>
<td>11</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Useful</td>
<td>4</td>
<td>3</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Not useful</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

The results from the questionnaires showed that, as might be expected, most students regarded discussing writing feedback and error correction with the teacher as a very useful activity. In addition, the majority of students also found collaborative error correction useful. Indeed, a number of students rated collaborative error correction as being very useful, on a par with teacher discussion. The table also shows that more students in Semester Two rated collaborative work as being very useful than those in Semester One. The difference in these responses may be due to the different levels of proficiency of the two groups, which may suggest that collaborative error correction works better when students have a higher level of language knowledge. This exploratory study did not include a comparative group but this would be a useful addition in a further study.

**UNDER WHAT CONDITIONS DOES COLLABORATIVE ERROR CORRECTION SEEM TO WORK BEST?**

One significant aspect of collaborative error correction relates to how effectively students were able to correct in pairs. Students in this study were generally able to correct the following types of errors, albeit after lengthy discussion in some cases: errors of agreement, parts of speech, verb forms, articles and missing words. The ease and speed of correction of this group of errors depended on the level of English proficiency.

However, in this study, even students at a higher level of proficiency had difficulty correcting the following errors: sentence structure errors, including relative clause errors, and word choice and word order errors. On many occasions the data from the taped interviews and the revised essays showed that these errors were the ones that most often needed teacher assistance. These findings closely echoed the findings of Ferris (2002) on treatable and
untreatable errors noted earlier in this paper. It follows that collaborative error correction, although a very useful technique, must be seen as just one intervention in the path towards awareness of accuracy in writing.

In addition, the data showed that some of the corrections made by the student pairs were inaccurate. Students themselves were well aware of this aspect: ‘This method is good but sometimes we do not have the correct idea – both of us do not have the correct idea’ (P). Collaborative error correction does not entirely replace teacher correction and ideally should be followed by further checking by the teacher. I would also recommend some sort of follow-up activity on the part of the writers, such as rewriting, error charts and grammar exercises.

Another aspect is that of time. It takes time to train students in collaborative correction and time to carry out the process. As noted above, I found that most student pairs needed at least 30 minutes to review their two essays, each of which were about 600 words. However, because of the benefits of collaborative correction work, I would argue that this is time well spent.

**Conclusion and implications**

The data collected from students in taped dialogues and questionnaires seem to suggest that collaborative error correction, although it has certain limitations, is a useful technique that is worth including in a classroom program. It is a process that is generally well received by students, who see it as a valuable task. Peer collaboration increases student engagement and provides another opportunity for students to focus on accuracy in their writing. Furthermore, collaborative error correction is problem raising, even if not always problem solving.

As many teachers are aware, there is a paucity of research into the long-term effects of error correction on L2 learning. Similarly there is little research to date on the extent of uptake from collaborative error correction. More research is needed to study whether the insights and understandings that students reach during a collaborative error correction session carry over into future written exercises, both in the short term and in the long term. It would be interesting, for example, to ask students to rewrite the essay discussed in a collaborative session, without recourse to the original. Directly after the rewrite, using stimulated recall, students could be asked to comment on the changes they made to the rewritten version and to discuss whether any of the changes were linked to the discussion during the paired correction session. Even if dramatic changes were not noticeable in the rewritten version, it would be useful to see how much enhanced noticing of errors or linguistic features was evident.
REFERENCES


