Online Peer Discourse in a Writing Classroom

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This paper is an attempt to explore the interaction discourse of second language undergraduate learners in the online peer review process of a writing classroom in Hong Kong. Specifically, the writer sought to investigate the types of online discourse learners have in the peer discussions on their writing, and to examine the role of explicit instructions and training for producing quality online peer discourses. Finally, she hoped to understand how instructors could better support and facilitate effective online discourse in peer reviews. Ongoing developments in Hong Kong's higher education call for implementation of more innovative technology-assisted teaching methods that emphasize learner autonomy; thus, this study examines online discourse that occurred during the peer review process in a writing class in which learners assisted one another in revising their writing with the help of technology. The study was conducted on a group of first-year part-time undergraduate students in an Early Childhood Education program in Hong Kong. In this paper, the online peer discourse was assessed by examining the types of comments students made for their peers during two writing tasks: a group task and an individual task. To facilitate the analyses of peer responses, a coding scheme was used (Liang, 2008). Results show that students tended to give more positive revision-related comments and that explicit instruction and training had an impact on the quality and quantity of online discourse. In conclusion, the author identifies several essential elements for facilitating online peer response groups.

In response to the call for the use of information technology in education and the emphasis on a learnercentered paradigm, there has been an increasing use of technology in higher education. This mode of teaching has become "an imperative" in many areas of education (Warschauer, 2002, p. 455). In the context of language education, numerous studies have discovered the benefits of the use of technology on teaching writing (Ciekanski & Chanier, 2008; Ho & Savignon, 2007; Shang, 2007; Warschauer & Ware, 2006). Among the numerous benefits, the major one is that it can facilitate interaction among learners. Research has been designed to explore the effective uses of online peer reviews (Hansen & Liu, 2005). However, relatively little research has been done on the nature of interaction in online peer reviews in the context of English as a second language (ESL). Since the process approach is adopted for teaching writing and the Blackboard learning platform is available in the institute of this study, this paper investigates the types of discourse that occur in the online peer reviews of a writing classroom and examines if explicit guidance and training is helpful for learners to produce quality peer discourses that can lead to ESL writing revision. Finally, elements for facilitating online peer response groups will then be identified.

Literature Review

Collaborative Learning

Collaborative learning has been a common practice in the language context in the past two decades. In fact, pair and group activities are the norm in the language classrooms around the world. The effectiveness of collaborative learning has been widely researched and

supported (Johnson & Johnson, 2009; Roseth, Johnson, & Johnson, 2008).

Following Vygotsky (1978), advocates of social constructivism, such as Bigge and Shermis (2004) and Woolfolk (2004), emphasized the creation of an that could environment stimulate learner's inquisitiveness and social interaction, which they believed could result in effective learning. Based on the theory, the role of the teacher is as a facilitator who can provide guidance for learners throughout the process, and learners can develop themselves to full potentials in such a dynamic and interactive environment. Research has found that this situation occurs in the pair and group activities of second language (L2) learning context (Barcelos, 2006; Fushino, 2006; Jacobs, Power, & Loh, 2002; & Woods, 2006).

Pedagogically, research has found that there are various kinds of advantages of using collaborative learning in classrooms. As pointed out by McDonough (2004), the provision of collaborative tasks, such as pair and group activities, in class could allow learners to have opportunities to learn through interactions with others and engagement in the real process of communication of meaning. This view is echoed by Mohammed (2011) who stated that the language teacher always found it hard to let learners experience the "level of free communication" (p. 17), collaborative learning could then help to achieve this by facilitating "student-student interaction" (p. 18) and thus it was effective for promoting language learning for learners.

Collaborative Writing

Research into collaborative writing has proven that collaboration can contribute to a higher quality of

writing (Storch, 2005; Storch & Wigglesworth, 2007) and better acquisition of L2 knowledge (Kuiken & Vedder, 2002). The potential benefits of collaboration in writing lie in the interaction with their peers in their writing process as learners can learn and acquire knowledge when they are involved in a problem-solving activity that requires them to exercise their ideas expression and decision-making skills (Elola, 2010).

Wigglesworth and Storch (2009) investigated the use of collaborative writing in L2 writing classrooms by comparing the performance of two L2 writing groups in an identical task: one individually and the other in pairs. They collected data from 48 individual learners and 96 learners who were in pairs at a research university in Australia. They compared the tasks by examining the discourse analytic measures of fluency, complexity and accuracy. The results showed that learners could achieve higher level of accuracy if they worked with others in their writing task. In other words, they could produce a better piece of writing.

In a recent study conducted by Shehadeh (2011), the effectiveness of collaborative writing in L2 was assessed. In addition, learners' perception towards collaborative writing was investigated. The study consisted of 38 undergraduate students in two writing classes at a university in the UAE (United Arab Emirates). There were 18 students in one class and 20 students in the other (which was the control group). In the control group, students were required to finish their writing individually while the students in the experimental group could work in pairs. Finally, the writing quality of students' writing was examined in the areas of content, organization, grammar, vocabulary, and mechanics. The researcher found that collaborative writing had the most influence on content, organization. and vocabulary, but not on grammar or mechanics. Moreover, a majority of students in the study enjoyed writing collaboratively.

Process Writing and Peer Feedback

Revision has long been regarded as an important stage in the writing process (Bridwell, 1980; Soven, 1999; Taylor, 1981) as it is believed that writing should never be a linear process; instead it should be a recursive process which the writer should be able to go back to edit and revise his or her work so as to reorganize ideas and to discover and remake new ideas. Given the importance of revision, the process writing approach has been widely adopted in L2 writing classrooms (Atkinson, 2003). The process approach, as defined by Kroll (2001), is

that student writers engage in their writing tasks through a cyclical approach, . . . going through stages of drafting and receiving feedback on their drafts, be it from peers and/or from the teacher, followed by revision of their evolving texts. (p. 220-221)

Hence, it is a process in which learners have to go through planning, drafting, revising and editing stages. Additionally, it emphasizes the importance of having a sense of audience and continual interaction with peers and the teacher. In particular, feedback is the core feature in the revision process (Liu & Sadler, 2003; Silva & Brice, 2004) because it can promote a sense of audience and encourage the interactions between the writer and audience.

As a tool for promoting and improving writing, peer feedback is especially an effective tool (Simmons, 2003). It allows student writers to share their writing with others, thus enhancing an awareness of audience and revision in the minds of the writers (Fletcher & Portalupi, 2001). Further, with the engagement in the process, the student writer could be more critical (Moran & Greenburg, 2008).

In L2 research, the results on the effectiveness of peer feedback in improving students' writing have generally been positive. In a study which explored the effectiveness of the use of peer review on L2 academic writing skills from 2001 to 2003 in a university in Singapore, the researcher found that "the students clearly recognized the value of peer review in improving their academic writing competence" (Hu, 2005, p. 339). Comparable results were reported by Lundstrom and Baker (2009), who conducted a study at an intensive English institute in the United States with 91 students in nine writing classes at two proficiency levels. Results indicated that L2 student writers could "improve their own writing by transferring abilities they learn when reviewing peer texts" (Lundstrom & Baker, 2009, p. 38).

Online Peer Review and Discourse

With the increasing application of technology to the education field, the time of e-learning has arrived, which definitely brings new insights into English writing instruction. Online peer review is one of the techniques that has been widely adopted for improving the efficacy of L2 writing. As the literature above suggests, the conventional face-to-face peer review is an essential element of writing classes, and the response and revising process has played a key role in improving the writing of student writers and developing their critical thinking (Rollinson, 2005; Wooley, 2007). However, despite the potential merits of peer review, the traditional face-to-face format is time consuming, and the student writers "from certain cultures may feel uncomfortable with . . . the social interaction demanded

by peer review" (Rollinson, 2005, p. 26). Hence, the emergence of digital technologies can help to alleviate these concerns by changing the face-to-face peer review to an online one.

There is an extensive literature showing that the online use of peer review is more beneficial to student writers than the conventional peer review. For instance, DiGiovanni and Nagaswami (2001) found from their study-which was conducted in two precollege ESL writing classes at the Community College of Philadelphia-that there were a number of advantages of using online peer review. First, students became more committed and involved in the peer review tasks. Also, it was easier for teachers to monitor the peer review process if it was done online. Further, unlike the conventional face-to-face peer review, both student writers and the teacher could refer to the printouts for the comments of peer reviewers and assess the usefulness of peer comments more easily. Some researchers (e.g., Figl, Bauer, & Mangler, 2006; Guiller, Durndell, & Ross, 2008; Schultz, 2000) have also given their support for the use of peer review in an online format. For instance, Figl et al. (2006) pointed out that the digital peer review format helped in "tapping the full potential of the online version and benefiting from rich discussions among teams" (p. 12). As for the improvement of writing, Schultz (2000) maintained that online peer interaction is generally found to be more useful and helpful. This view is shared by Guiller et al. (2008), who compared the transcripts of online and face-to-face discussion and indicated that the online mode facilitated the development of critical thinking and that students like this mode of discussion more. Another study done by Liu (2005) comparing the performances of student writers in a pre-writing group using both the traditional and online communication modes showed that there was a more equal participation of student writers if the online communication mode was used.

As the merits of using online peer review have been further shown by research, online peer feedback is widely seen as a very essential feature in the field of L2 writing. This type of feedback can be extremely useful for fostering independent learning skills and improving writing (Milton, 2004; Hyland & Hyland, 2006). Furthermore, the conversational type of peer feedback can help to cultivate a "sense of community" and develop support systems (Hyland, 2000), as well as encourage collaborative learning (Tsui & Ng, 2000) as there are more interactions between students and students (Warschauer, 2002). Online peer feedback can also result in better writing as it promotes revision (Min, 2008) and a sense of audience (Ware, 2004).

A number of L2 studies have emphasized the value of peer discourse in the process of peer review.

There is a growing body of research exploring the relationship between online peer discourses and writing performance in order to assess the effectiveness of peer review. Nelson (2007) identified two major groups of peer discourse for the writing context which were cognitive and affective in nature: "(1) summarization, (2) specificity, (3) explanations, (4) scope" (p. 4) belonged to the cognitive aspect, while (5) "affective language" (p. 4), such as praise and criticism, was about the affective domain. Summary feedback was useful as it summarized the information that helped to improve the writing performance. Feedback specificity meant giving feedback for revising specific areas. Explanations were comments that helped to clarify or explain the feedback in detail. The scope of feedback referred to the evaluation from a narrow or global focus. A narrow focus referred to an emphasis on surface features while a global level meant a more holistic evaluation. Affective feedback included criticism, praise, and summary. Nelson (2007) pointed out that it was important to understand which types of feedback features possibly affected the revision process of learners. According to her, feedback should start with a summary of the evaluation of the writing performance and then specific feedback should be given with a global perspective. The location at which the problem was found should also be included. Finally, explanations should be given with all the details necessary for revision.

Liang (2008) developed a framework specific to the online writing context to examine the interaction discourse of 35 students from a freshman level English course in a university in Taiwan. The students were asked to comment on the summaries and revisions of one another in weblogs, and then two raters coded the peer comments using the six types of online interaction identified from the framework. They were: (1) meaning negotiation, (2) content discussion, (3) error correction, (4) task management, (5) social talk, and (6) technical study. The study found that most of the online discourse was about social talk and irrelevant discussion. Constructive negotiations and revisions seldom appeared (Liang, 2008).

As shown from the above research, online peer feedback has been useful for student writers in many aspects. It is thus worth investigating the discourse involved in the process so as to enhance the effectiveness of the use of online peer review.

Methodology

In this section, the research questions pursued in the study, the background of the participants, the procedures adopted, the data collection and analysis methods used are presented.

Research Questions

The study aimed to address three research questions:

- 1. What types of online discourse appeared in the peer review process of a writing classroom with Hong Kong ESL undergraduates?
- What is the role of explicit instructions and training for producing quality online peer discourse?
- 3. What are the important elements that facilitate the production of quality online peer discourse?

Participants

The participants were 27 students, all female, enrolled in a 3-year Bachelor of Education program in Early Childhood Education, year 1, at the Institute of Education of Hong Kong. All of them were serving as full-time kindergarten teachers (one of them was a kindergarten principal) of Hong Kong and were doing the course on a part-time basis. The participants were students taking a 10-week course titled English for Early Childhood Education and taught by the writer of the study. The course consisted of three contact hours per week over a ten-week term in a language laboratory.

Procedures

Tasks. In the writing course, students received process writing instructions and participated in drafting and revising. Wiki embedded in Blackboard was used for posting students' work and getting peer comments on the work. Wiki is a web-based collaborative publication platform oriented to the production of user-written articles. There were two writing tasks for the study: group and individual writing tasks. The group writing task was conducted first and with two purposes: (a) to familiarize students with the drafting and revising process using Wiki in the Blackboard system, and (b) to act as an experimental task, examining if there were differences in the types and quality of peer comments after training for giving peer comments was given.

Group task. In the third session of the class, students were presented an article from the South China Morning Post titled "Obsessions that Kill a Child's Quality of Life." They were then divided into groups of three to five. Each group was asked to write a 300 to 350-word reaction to the article and post it online. This became the group's first draft. A total of seven group reports were received.

A week later, students were told briefly to comment on their peers' first drafts. They were told

generally to comment on the content rather than on grammar to help their peers rewrite their first drafts. By the fifth session, each group had to submit a second draft based on the comments of their peers. In the following week, the teacher commented on their second drafts. By the sixth session, each group submitted a final draft based on the teacher's comments.

Individual task. In the seventh session of the course, students were presented a parent's sharing on a blog titled "Kindergarten Admission Process and the Interview." Each student was asked to write a reaction to the article and submit it online before the end of the week. This became the individual's first draft.

In the eighth session, students were asked if the peer review for group work was useful. They were then shown sample comments and an editing checklist (Appendix A). There was a class discussion on the samples and on what made a quality comment. Students were then explicitly instructed to make three comments on the content and two comments on the organization, and after this they were free to comment on the grammar and style of their peers' work. Some time was allotted in class to make these specific comments online. They had the following three to four days to finish this task.

Each student wrote a second draft based on their classmates' comments and submitted it by the ninth session. In the following week, the teacher commented on their second draft online. Based on these comments, students rewrote them into a final draft to be submitted in the last session.

Training and provision of explicit instructions for the peer review process. The training for giving peer reviews, which was provided for students in the individual writing task, focused on developing an awareness of text revision by asking them to pay more attention to the content and organization of their peers' work since students tended to work on surface-level revision. To enhance students' awareness of the macro aspects of revision, which were content and organization, a training practice and explicit instructions for the number of responses in these two areas were given. The training practice was done in half of a lesson through class discussion between teachers and students on what quality comments were, followed by a reinforcement exercise on distinguishing useful comments from the given samples.

When reviewing their peers' individual writing drafts, the students were asked to provide comments for at least three pieces of work from the peers in their class. They made their own choices and worked alone. A revision guideline was given as a reference on what student reviewers should do, and teacher gave explicit instructions on what student reviewers were required to do in terms of the types and numbers of comments. They were reminded that the quality of their comments

would be graded and included as part of their scores. The students were given one lesson to start revising the work of their peers, and the teacher then acted as a guide in the lesson to check if they understood the process and to answer any questions they had in the process. At the end of the revision session, they were given three more days to continue commenting on their peers' drafts and post their comments in Blackboard. Every student writer could then access peer comments and revise his or her draft based on the useful comments. The revised draft (namely second draft) was then submitted online to the Blackboard system before the following lesson in Week 7.

Procedures for Data Collection

Peers' comments collected in this study were analyzed by content analysis. Four stages of content analysis were conducted in this study: coding, categorization, description and interpretation. A coding system developed by Liang (2008) was adopted and modified for use in this study. Nine categories were identified for the types of discourse that would occur in peer interactions: (1) Meaning negotiation, (2) Constructive content discussion, (3) Organization discussion, (4) Error correction, (5) Social remarks, (6) Irrelevant opinion/information, (7) Regurgitation, (8) General evaluation, and (9) Unclassified. Numbers 3, 6, 7, 8, and 9 were additional codes included in this study. Number 3 was used to accommodate the comments relating to the improvement of organization of ideas of the writing as it was the focal point of learning in the writing lessons. Numbers 6, 7, 8, and 9 were added to accommodate all comments that were not directly related to the writing revisions. Definitions and examples of each code are presented in Appendix B. The unit of analysis for the online discourses is referred to as a segment in this study. Using the modified coding

system, the researcher and a trained research assistant coded three pieces of comments from the participants independently, then reviewed all cases of disagreement and resolved the differences together. Finally, the research assistant helped to code all the comments. Almost all the segments included one type of interaction, but a few segments (less than 5%) included two types of interactions, which were counted as two segments.

A post-course questionnaire was administered at the end of the course to explore the attitudes towards the use of peer review. However, not all data acquired through the questionnaire were relevant to the present discussion, as my main focus was on the online discourse learners had in the peer review process. Hence only the responses of two questions regarding the usefulness of explicit instructions and training for the use of peer review were used in this study.

Results

The focus of this study was the learners' interaction through discourse in the peer review process. Specifically, the discourse types that appeared in the discussion of group and individual tasks were examined. The results were then compared to determine if the explicit instructions and training given by the instructor were helpful in producing better quality or quantity of responses. Table 1 provides a summary of the types of discourse from both group and individual tasks.

As shown in Table 1, the participants showed a greater awareness of making quality comments than they did prior to taking the training and instructions on peer review. However, it needs to be pointed out that non-revision related or non-constructive comments were still widespread in both group and individual comments.

Table 1
Types of Online Discourse

	Group		Individual	
Types	No. of occurrences	%	No. of occurrences	%
Meaning negotiation	9	3	20	5
Constructive content discussion	53	16	135	33
Organization	19	6	18	4
Error correction	3	1	42	10
Social remarks	50	15	29	7
Irrelevant opinion/information	39	12	7	2
Regurgitation	40	12	42	10
General evaluation	113	34	99	24
Unclassified	10	3	18	4
Total	336	100	410	100

Responses for the Group Task

In commenting on the group task, some participants had taken into account the content issue when commenting on others' work, as there were 16% and 3% for "constructive content discussion" and "meaning negotiation," respectively. However, they comparatively tended to give more frequent general evaluations (34%), such as praises and comments that were not very useful for revision. In addition, the participants also made a lot of social remarks (15%) in their responses such as, "I agree you." Regurgitation and irrelevant with information/opinion accounted for 12% each in the total responses.

Responses for the Individual Task

Different from the responses for the group task, the responses for the individual task mainly concentrated on constructive content discussion (33%). There were still a fair number of responses on general comments (24%), but the percentage dropped from 34% to 24%. The responses on social remarks and irrelevant comments and opinions also decreased significantly from 15% to 7% and 12% to 2% respectively. However, appearance the regurgitations seemed almost the same (12% to 10%) in the two tasks. Another notable change is the number of responses on erroneous grammar, which changed from 1% in the group task to 10% in the individual task.

Influences of Explicit Instructions and Training on the Types of Peer Discourse

In order to determine if explicit instructions and training were useful for making responses of better quality and in greater quantity, the nine discourse types were categorized into constructive and non-constructive comments and were examined in both group and individual tasks (see Table 2). Types 1-4 were considered as constructive comments, as they were about meaning, content, organization, and error

correction, which were important feedback in improving written work. Types 5-9 were regarded as non-constructive comments, as they were about social remarks, irrelevant information/opinion, regurgitation, general evaluation, and unclassified information.

From the result, when comparing the responses for group and individual tasks, it was found that constructive comments increased more than double (from 25% to 52%) while non-constructive comments decreased by more than one-third (from 75% to 48%) in the responses to the individual task.

In addition, the ratio of constructive to non-constructive comments shifted from 1:3 to 1:0.9 (84:252 to 215:195) in the responses for the group task to the ones for the individual task. This shows that in the group task, for every constructive comment, there were three non-constructive comments. However, in the individual task, for each constructive comment, there were only 0.9 non-constructive comments.

Hence, there were more constructive comments on the individual task. Among them, 33% were on content discussion, and 10% were on error correction. It appears that the explicit instructions and training given by the instructor in the peer review session for the individual writing task was useful for helping learners to give responses in good quality and quantity. This finding is further confirmed by the responses of the learners to a post-course questionnaire on the use of peer review, as shown in Table 3. Two questions in the questionnaire asked about the usefulness of training and class instructions on giving peer review. Although there were 11 responses only, 73% agreed or strongly agreed that the instructions provided by the teacher in the provision of the types of peer comments were useful, and 64% regarded that the class discussion on "what a quality comment is" was useful. These findings showed that a majority of the respondents were satisfied with the training and class instructions provided in the peer review process.

Six students, who made facilitative peer revisions in their individual writing tasks, were randomly selected as an example to show the positive influence of the explicit instructions and training on their writing

Table 2

Constructive and Non-Constructive Comments in Group and Individual Tasks

	Group		Individual	
Types	No. of occurrences	%	No. of occurrences	%
Constructive (Types 1-4)	84	25	215	52
Non-constructive (Types 5-9)	252	75	195	48
Total	336	100	410	100

Table 3				
Learners' Responses on the Use of Explicit Instructions and Training from the Post-Course Questionnaire				

	Neither				
	Strongly		disagree nor		Strongly
Question	disagree	Disagree	agree	Agree	agree
The instructions given by the					
teacher in giving the types of	0%	0%	27%	55%	18%
peer comments were useful.					
The class discussion on "what					
a quality peer comment" was	0%	0%	36%	55%	9%
useful.					

text improvement. Table 4 shows the peer comments, which they capitalized on in their revisions and the comparison between their original and amended drafts.

Discussion

Results of the study are discussed with respect to the three research questions that guided this investigation.

Types of Online Discourse in the Peer Review Process

This study explored the types of online peer discourse in a writing class supported by the Wiki function of Blackboard system. Nine different types of online discourse were examined in this study. The types of discourse occurred in the tasks represented the understanding of learners on peer review. As described in the data presentation, the interactions amongst participants could mainly be found in general evaluations, which were basically useless for making revision. Some of them commented on content, but a majority of responses were on social remarks, regurgitations, and irrelevant opinions, which were categorized as non-constructive comments. Although the participants gave more constructive comments after receiving the training or instructions about what to do in the peer review process of the group task, a considerable amount of comments was still nonrevision, which meant useless for making revisions. The frequent occurrence of these types of discourse could be mainly explained in relationship to the characteristics of Chinese students and the competency level of reviewers.

Characteristics of Chinese students. As we described earlier, it was meaningful to consider the nature of Chinese students in examining discourse generated via online discussion. Understanding the characteristics of Chinese students helped to guide us in deciding the best way of implementation of peer review in a Chinese context. A study done by Carson and

Nelson (1996) showed that Chinese learners were inclined to maintain the social harmony in groups, thus they were very careful in making comments and avoided making strong criticisms and disagreements. As a result, these kinds of characteristics affected the types of interactions they had in their peer discussions. Cotterall (1995) also found that Chinese learners were used to traditional a teaching method in which the teacher would direct all the things and students were supposed to follow the instructions. Thus, they did not know what to do when they were given the autonomy and would only trust their teacher's comments. Roskams (1999) agreed that cultural issues should be taken into consideration when planning collaborative learning activities, such as peer reviews, as some of the cultures did not allow public disagreement. The Chinese culture is one that teaches people not to provoke conflicts by giving disagreements or negative criticisms openly.

Competency of reviewers. The investigation results showed that a large amount of the comments from both individual and group tasks was about general evaluations, such as praises, while others were social remarks and irrelevant comments. This raises a question on the value of peer comments, for researchers (Leki, 1990; Nelson & Carson, 1998) believe that there is a strong relationship between comments and the reviewer's competence level. The comments from a highly competent peer might be perceived as similar to feedback by a teacher (Tsui & Ng, 2000). Thus, if students are more competent reviewers, they are able to produce revision-related comments which are deemed as constructive and useful. On the other hand, if students are not competent, they may not have processed the abilities to make useful comments on content development, organization of ideas and use of grammar. Hence, the value of feedback content correlates with the competence level of a peer. The competency of reviewers refers to the knowledge of the target language. As researchers (e.g., Nelson & Murphy, 1993; Zhu, 2001) have pointed out, L2 learners may not have sufficient knowledge to find out

Table 4 Examples of Facilitative Peer Revisions

Note. Information is presented without amendments. Changes made by student writers are in **bold**.

the errors made by their peers in their writings and provide useful comments for making revisions as they are still in the process of learning the target language. Thus they will be put in a difficult situation if they are asked to give comments on the others' writing.

The Role of Explicit Instructions and Training for Producing Quality Online Peer Discourses

From the results, it was found that students made more constructive and useful comments in the peer reviews of the individual tasks. This finding shows that explicit instructions and training have a positive impact on the quality of reviewers' comments. Similar findings have been reported on the usefulness of instructions and training to participants in a number of recent studies (Min, 2006; Rollinson, 2005). All these support the role of instruction (Van Steendam, Rijlaarsdam, Sercu, & Van den Bergh, 2010) on peer feedback quality. Nevertheless, only one attempt was used in the study to try out explicit instructions and training, and there were still a lot of non-constructive comments in the peer reviews of the individual tasks. In this regard, it seems to be helpful if more explicit instructions and training were given to peer reviewers repeatedly. Apparently, with more guidance and training, they could be more competent reviewers. The guidance and training could be compensatory mechanisms that mediate between peer comment content and reviewers' competence level. The primary objective of guidance and training is to maximize the effectiveness of the peer review activity (Rollinson, 1998). By means of informal discussions of sample peer comments, as well as inclass evaluation practices on peers' writing which require participants to note the types of comments that will be useful for student writers, the teacher can help build up the competency of peer reviewers. The teacher is in a position to bring out the quality of online peer discourse.

Elements Facilitating the Online Peer Response Groups

Despite the support given by the literature on the use of peer review in L2 writing instruction, which suggests that it can be a potential tool in teaching learners a wide range of skills important in the development of language learning and writing ability (Hu, 2005; Kamimura, 2006; Lundstrom & Baker, 2009), there are also criticisms on its usage when it has been tested more experimentally. Thus, it is essential for us to identify the elements that can facilitate the online peer response groups based on the findings of this study.

Training. One of the aspects that received most of the criticism is the inability of learners to produce

quality comments. My study and other research has found that peer reviewers tended to give very general evaluations. Training reviewers could be a possible way to improve peer review. Reviewers can learn either by trial and error or by working with experienced reviewers in the training session (e.g., Sluijsmans, Brand-Gruwel, van Merriënboer, & Martens, 2004; Zundert, Sluijsmans, & van Merriënboer, 2010) as it has been found that training positively influenced their motivation and writing skills. According to Hu (2005), training sessions have to be able to provide students with adequate understandings of the peer review process and its potential benefits. Peer review training can be started with a class discussion of the potential advantages and problems of peer review. An explanation of how peer review can be carried out and the teacher's expectations during and after peer review should be made clear to learners. Provision and explanation of response guidelines before each peer review assignment is a must. Training sessions can be grouped according to aims and functions. Awarenessraising activities should be added if learners are from Asian countries whose cultural norms may not comply with the pedagogical principles underlying peer review. Actual examples of good and poor peer comments should be provided to develop an understanding of how peer response might work. Sample written peer comments on excerpts of essays written by previous students can be discussed. Learners can also be asked to examine the revisions made by the previous students in response to the peer comments. To be effective, training activities should be done continuously for several times until learners are completely ready for the review process. Enabling ongoing communication between the teacher and learners and building a trustful environment in the training sessions are crucial for the success of the process.

Grading peer comments. Another possible technique that may help to enhance the effects of peer reviews is grading peer review comments. Reviewers will be more motivated to spend time in their peer review process if they know that their instructors will assess or even grade their comments. This is not only a way of increasing their accountability, but it is a method that can promote the production of more quality comments as most of the learners would strive to obtain a higher grade during their review process. "Effective grading . . . presents suggestions for making classroom grading fairer, more time-efficient, and more conducive to learning" (Walvoord & Anderson, 2010, p. xvi). The impact of such an instructional technique has been shown in this study as the amount of quality comments appeared more after explicit instructions on the types and numbers of comments required were given. Similar to other types of assignments, the instructor should present clearly to learners the task, his/her requirements

and grading rubrics for the peer feedback. The instructor should not check grammar accuracy only, instead he or she should focus on the usefulness of peer comments for student-writers. When learners know that the useful comments will result in higher scores, they will pay more effort in their peer review work.

Having enough set-up preparation. As Rollinson (2004) stated, peer review could be run more smoothly if the instructor organizes groups properly and establishes procedures that are effective. The instructor should make decisions on the establishment of groups (e.g., whether they are self- or teacher-selected) and the number of learners. Learners are different in terms of ability and cultures in different classes (even in the same class). There could be mixed-ability or sameability groups or groups of four or five. The instructor has to help in the formation of groups that can maximize their effectiveness for learning and insure that they can work in a comfortable environment. As for procedures, issues to be considered will include: guidance to be provided to learners on the peer review process, the level of involvement of the instructor in the process, the number of drafts to be done, and the grading of feedback. Additionally, decisions will need to be made about how the peer review sessions are to be organized. The instructor will have to consider carefully if reviewers provide feedback independently or in groups before the process starts.

Limitations of the Study

It is clear that the present study is not devoid of limitations. The first limitation concerns the scale of this research project. Thus there is a doubt about the extent to which the findings can be generalized beyond the participants studied. The number of participants is too limited for broad generalizations as only 27 students were involved. Also, the participants were all female. This reflects the demographics of the class studied. The opinions of males may differ in important ways from those of females; these differences need to be explored further. The generalizability of these research findings is also limited because they were generated in an exploratory inquiry.

The second limitation has to do with the roles of the writer of the current study since she was the researcher and instructor. However, caution had been taken since the onset of the study to avoid the possibility of role conflict. For instance, a research assistant was invited to carry out data analysis to ensure the objectivity of the classification and interpretation of data.

Time constraints created another limitation in the study as the duration of the writing program was about 20 hours; another 10 hours were for training the speaking skills of the learners (as designed by the curriculum of the Institute) in the course. During the 20

hours, the participants had to learn how to write a response and finish one in groups and another individually. They then had to give comments on one another's work. Given the relatively short time and the fairly new materials and processes they had to learn and use, it seems quite good that they could manage to finish all on time. It is certain that with a longer writing course which spans two semesters instead of one, the results could be more valid and reliable.

Implications

One area in need of further examination is the use of peer review among students from the different or same ability groups in writing courses. While the usefulness of peer review was identified from the data. how this review can be effective in different or same ability writing groups in the peer review process was not explored. Future research needs to focus on how peer review can be employed in different or same ability groups and how this process might contribute to the learning of the writer and the reviewer during a peer review exercise. Vygotsky (1986) theorized that both the giver and receiver of peer feedback could learn from each other in the process as mutual scaffolding of learning occur within their zone of proximal development. A more detailed analysis of discourse strategies used by the different or same ability groups may extend our understanding of how peer review can effectively support the learning process of people of different or same abilities and what supports should be provided to them in the peer review process. It would also extend the ideas how people of different or same ability groups function in different types of discourse.

Further research is also needed to investigate the collaboration of peers in the peer review process. The purpose of this study was to examine the types of discourses found in peer discussions before and after explicit instructions and training were given. Hence, we can continue the process by examining the impact on revisions after different forms of explicit instructions and training are given. Collaborative learning theories support the use of peer review to enhance the writing skills of learners, but it is worth investigating if different forms of explicit instructions and training will bring out different learning outcomes in the process.

Conclusion

Three main conclusions were drawn from this study. Firstly, non-constructive peer discourse dominated the online interaction of the L2 students of my study. Though the situation became better after explicit instructions and training were given, a considerable amount of the peer feedback was still useless which did not lead to successful revisions in most cases.

Second, the impact of explicit instructions and training was positive. More instructions and training should be incorporated in the peer review process to lead to greater improvement. After the guidance and training, peer feedback appears to bring about a higher percentage of meaning-change revision. At the same time, students also find instructions and training useful in helping them to give more constructive comments.

Lastly, elements, such as providing continuous training, grading peer comments and having set-up preparation for the peer review process, are useful for learners to produce quality online peer discourse. To achieve an effective online course design, these elements should be incorporated into the course design as they can motivate and support learning (Koszalka, 2001).

As the advancement of technology continues and becomes more prevalent in our lives, the exploration of a variety of methods for studying the use of technology in different aspects will continue to increase. Further, I would very much like to see new teaching and learning strategies to fully engage the capabilities of the new devices. Continuing exploration of the technology in enhancing the effectiveness of learning is vital if we are to realize its full potential.

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Appendix A Peer Editing Checklist

This checklist is to help you evaluate your classmates' writing. Remember to offer at least 3 constructive suggestions on content/idea improvement and 2 on organization. After that, you can comment on the other areas, such as the use of grammar, mechanics and style.

- 1. Can you identify the main message in this response? Yes/No
- 2. If so, what is it?
- 3. Does this response have an introduction? Yes/No
- 4. Does the introduction give the position of the author? Yes/No
- 5. Does the introduction give the information of the source that the response refers to? Yes/No
- 6. Is the introduction clear and understandable? Yes/No
- 7. Are the main points given in the body paragraphs clear? If not, underline them and put a question mark next to them?
- 8. Does the response have a clearly organized main body, with ideas separated into paragraphs? Yes/No
- 9. Does each paragraph end with a transition sentence, smoothly connecting the ideas of the previous paragraph to the next? Yes/No
- 10. Are the arguments given in the response clear? Yes/No
- 11. Are the arguments given in the response convincing? Yes/No
- 12. If the response is not clear, what do you think the writer should do?
- 13. Does the response contain facts and data to support the claims made? Yes/No
- 14. Does the essay have a concluding paragraph? Yes/No
- 15. Does the conclusion restate the main points of the response in a new way and give a sense of completion to the essay? Yes/No

Appendix B Coding Sheet

Code	Type	Description	Example
01	Meaning Negotiation	Check understanding, ask for clarification, confirmation/explanation	What do you mean by X?
02	Constructive Content Discussion	Propose thoughts, extend meaning. Suggestions that will enrich the content	If my friend is Harry, maybe I will believe him You can do this/thatrewrite, add quote/content.
03	Organization	Comment on organization	You missed the introduction. Need coherence here.
04	Error Correction	Comment on grammatical errors	Lost "a". Tense, grammar, add punctuations.
05	Social Remarks	Check attendance, signal presence, humor, acknowledgement, agreement	I agree with you. Are you there? O.i c. byebye. Add oil Thank you. I like what you wrote.
06	Irrelevant Opinion/ Info	Opinion on general issues	Parents are too protective of their children.
07	Regurgitation	Repeat original	You mentioned XYZ. Quotations from the original.
08	General Evaluation	General rating/ comment of original with or without reasons	It's good! Well written. You are a good writer.
09	Unclassified	Incomprehensible	

The unit of analysis is every single idea in a sentence. Double coding is allowed.