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The Effects of Peer Feedback on Second and Foreign Language Writing Development

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The Effects of Peer Feedback on Second and Foreign Language Writing Development

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The Effects of Peer Feedback on Second and Foreign Language Writing Development

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Process approaches to writing are widely used in various second language teaching contexts, and many teachers and researchers are trying to find more efficient and meaningful ways to help students to improve their writing skills. Especially in the revision process, students can get help from teacher feedback, so they can have more opportunities to improve their drafts. In a class of 30 students, however, it is very difficult for a teacher to provide timely feedback to all students. The quality and the amount of teacher feedback can fall off due to time constraints and the number of students' drafts. If it is used effectively, a great help to a teacher of a writing class, then is peer feedback. Peer feedback can provide such other benefits as a sense of audience and ownership, more meaningful collaborative learning, and student awareness of the strengths and weaknesses in their drafts. The following report discusses the nature of peer feedback in writing and illustrates the effects of such feedback on students' perspectives about the revision process. The report also traces impact of providing and receiving different types of feedback. It shows us the unique features of paper-and-pencil and computer-mediated peer feedback, and highlights the important points in linguistic and extra linguistic elements observed in peer feedback.

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1.0 Introduction

1.1 Process Approaches to Writing

Though the term, "process approach" is widely used in the field of writing, global consensus on how to define it is yet to be reached. However, Graham and Sandmel (2011) used a definition for the process approach to writing in their research, which is helpful to understand its characteristics. They mentioned that in the process approach to writing, students can have cycles of planning, putting the plan into action, and reviewing with revision and editing (p. 396). In addition, Williams (2005) described various characteristics of process approaches to writing, noting that they let learners focus not on the product but on the processes when they write. It also emphasizes the process of invention and discovery, and collaborative participation of peers. Moreover, the importance of grammar correction is reduced, and the presentation of individual perspectives and meaning making are emphasized.

1.2 The Characteristics of Peer Feedback

In the second language classroom, giving feedback to students in a timely manner is considerably difficult to accomplish. It can easily encounter delays, and whatever the merits of the feedback, such delays may lessen the beneficial effects for students. Gibbs and Simpson (2004) also suggested however inferior students' instant feedback was to that of the teacher, it could still influence students' writing much more than teachers' feedback that comes later (p. 19). Moreover, sometimes teachers' feedback is too complex and authoritative, so students may, in many cases, misunderstand the real meaning of it within a specific context (Gibbs & Simpson, 2004; Yang et al, 2006). Furthermore, the possibility of including peers who could

judge their writing in class could increase the amount of time and effort students put forth to improve their work (Gibbs & Simpson, 2004; Pope, 2001; Tsui & Ng, 2000).

Williams (2005) argued several things as she explained the characteristics of the possible benefits of peer feedback. First, such feedback gives students a real audience for their writing, and it can allow them to entertain multiple perspectives of their draft. Next, it can help to lower anxiety that they might otherwise experience in connection with the teacher's authoritative comments. This may provide students with more opportunities to participate in the process of writing. Lastly, in the process of peer revision, during group interaction, students can engage in all four language skills, including writing, speaking, listening, and reading. This kind of interaction can give them more chances to build good rapport with their peers and associate positive emotional feelings with creating compositions in their foreign language class.

In this report, I group peer feedback into two categories: paper-and-pencil peer feedback and computer-mediated peer feedback. The paper-and-pencil method is the more traditional way to provide and receive peer feedback. It is also the most common technique that teachers currently use in writing classes. Computer-mediated peer feedback is an innovative way of using computers and the internet to provide and receive peer feedback. It has also been widely studied by many teachers and researchers and is reported to provide various benefits that paper-and-pencil peer feedback fails to. The following literature review discusses the following: (a) paper-and-pencil peer feedback in second language writing, (b) computer-mediated peer feedback, (c) linguistic elements observed in peer feedback, and (d) extra linguistic elements observed in peer feedback. After a review of the relevant studies, I discuss the advantages and disadvantages of the different types of feedback and resultant

pedagogical implications.

2.0 Literature Review

2.1 Paper-and-Pencil Peer Feedback

Tsui and Ng (2000) investigated peer and teacher feedback in revision in L2 paper-and-pencil writing in a secondary setting. Their study showed the unique features of paper-and-pencil peer feedback and the roles of peer feedback in a writing class. Their study investigated three research questions: (1) Do peer and teacher feedback help the revision process meaningfully? (2) Does a teacher's feedback bring more revisions than peer's? (3) What are the roles of teachers' and peers' feedback in the process of L2 writing? Participating in this study were 27 Chinese students in 12th and 13th graders in a secondary school in Hong Kong. They performed four cycles of process writing, and each cycle lasted for six weeks. In each cycle, there was a whole-class brainstorming class; a first draft writing session followed it. Then, the teacher gave whole-class feedback about common errors and problems in the students' first drafts. After that, the students read their peers' first drafts and gave written comments. Then they discussed their peer's responses in groups, and went on to make their second drafts. Afterward, the teacher provided comments on the second drafts, and the students revised them and wrote the final drafts. Also, the students received peer feedback training to respond to peers' drafts before they provided peer feedback. The data was collected from a questionnaire survey of the students' perceptions of the usefulness of peer and teacher feedback via a Likert-type scale. In addition, a semi-structured interview was performed with six students. These six students were divided into three groups: two students who incorporated a high rate of teacher and peer feedback, another two students who incorporated a higher rate of the teacher feedback than of peer feedback, and two students who incorporated a lower rate of both teacher

and peer feedback.

The results indicated that the students preferred teacher comments much more than peer comments, and they enjoyed reading peers' drafts significantly more than simply reading their written comments or listening to oral feedback. Moreover, students incorporated the teacher's feedback much more often than their peers' feedback. However, the semi-structured interviews showed different results. In case of the students who incorporated higher percentages of peer comments, they reported that these peer comments helped them to experience an enhanced sense of an authentic audience. Also, peer comments allowed them to feel a greater sense of ownership of their writing by allowing them to decide whether or not to accept their peers' feedback. Moreover, they stated that they could learn from each other, illustrating collaborative learning. Even the students who incorporated more feedback from the teacher said that by providing feedback to their peers they were able to pay attention to the weaknesses within their own writings, and to think about how to improve them. Also, they pointed out that teacher comments provided more effective macro-level suggestions about organization than did peer comments.

Therefore, this study revealed that there was a tendency for students to respect and prefer teacher comments because of the teacher's authority and the more professional nature of the feedback, but peer comments still played an important roles in the process of writing, such as (a) enhancing students' sense of audience; (b) making them aware of the weaknesses and strengths of their drafts through reading their peers' papers; (c) encouraging collaborative learning; and (d) fostering ownership of their drafts. Interestingly, in contrast to the cases of computer-mediated peer feedback (Liou and Peng, 2009; Woo et al., 2013), the students in this study did

not effectively pay attention to global-level issues, and in this sense preferred teacher feedback.

Zhao (2010) explored the differences between using and understanding teacher and peer feedback during the revision process. This study asked three research questions: (1) Which kind of feedback did the students use more often in their revision process, peer comments or teacher comments? (2) Which kind of feedback did they understand better, peer or teacher feedback? (3) What kind of factors influenced the students' decision to accept different types of feedback? Participating in this study were 18 second-year college students (10 females and 8 males) who were studying at a southern Chinese university. The teacher, an American professor who had taught in America for over 30 years, was in only his second year of teaching in China. In addition, the teacher and the students had never before used peer feedback in any English writing class.

Each class was composed of two parts; in the first part, the students received their draft with the teacher's comments. In the second part, the students read their partner's draft in pairs, gave written feedback, and discussed the provided peer feedback. Afterwards, the teacher provided feedback on the students' drafts again, and held conferences with the students to help them understand the feedback. In the next class period, the students returned their revised final drafts. There was no specific training for peer feedback given. To analyze the data, 26 student drafts were collected, and each feedback instance became a unit of analysis. The feedback units were grouped into peer feedback and teacher feedback, and also categorized as *used* and *not used*. In addition, stimulated recall interviews (SRIs) (Zhao, 2010, p. 8) were performed with three students to identify if the revisions made by the students were

fully understood or not. Moreover, semi-structured interviews with 11 volunteer students proceeded at the end of the study to investigate the factors that influenced the students' decision-making process.

The results showed that to revise their drafts the students used much more teacher feedback than peer feedback (teacher feedback: 74%; peer feedback: 46%). However, they better understood peer comments than teacher comments, 83% and 58%, respectively. This suggests that although they used teacher feedback more often, they did not, in many cases, understand exactly what the comments meant. Furthermore, in the interviews, the students mentioned that they regarded teacher feedback as a requirement for revision but regarded peer feedback as only a suggestion. The results of this study imply that the high percentages of students' incorporating teacher feedback in the revision process does not necessarily mean that the teacher's comments are understood. Also, it shows that peer feedback can help students decide which feedback they may use more meaningfully, giving them more active roles in the process of writing.

In addition, Yang et al. (2006) compared the characteristics of peer and teacher feedback, exploring differences in the rate of incorporation between the two kinds of feedback. The researchers investigated two writing classes at a Chinese university, where one class (n = 41) received teacher feedback on their drafts orally, and the other (n = 38) received peer feedback by means of feedback sheet and oral communication. For the peer feedback group, the instructor modeled how to provide peer feedback with a structured peer feedback sheet eliciting comments about organization, grammar, and vocabulary. After completing the sheet, the students provided comments on each other's drafts and discussed them for 30 minutes. In the case of the teacher's feedback

group, the instructor provided comments on the drafts, and gave oral feedback to the whole class. They collected data from the feedback from the first and second drafts from both classes. Additionally, a questionnaire survey was performed two days after the final drafts were submitted, and interviews with 12 students were conducted in conjunction with the final products and the written comments.

The results revealed that 60% of the students in the peer feedback group reported that peer feedback was useful or very useful, compared to 22% from the teacher feedback group, suggesting that the experience of engaging in peer feedback provided a positive impact on the students' impression of it. Moreover, the students in the peer feedback groups were able to conduct a successful (98%) revision uptake when they adopted the peer feedback, better than that of adopting the teacher's feedback (87%). This difference may not look significant, but their inferential statistics may suggest that when students made their own decisions about accepting peer feedback, their revision uptake was more successful. On the other hand, students' respect for the teacher's authority and professional feedback may discourage students' autonomy and self-decision. Based on the results, peer feedback appears to be meaningful in writing instruction, and it can also encourage student autonomy in the process of writing.

In a separate study, Gielen et al. (2010) examined whether or not peer feedback could be meaningful in improving writing skills, and whether or not it merely supports or actually replaces teacher feedback. This study compared the effects of peer and teacher feedback, where the control group received only the teacher's feedback, but the experimental groups received both teacher and peer feedback. Their research questions included the following: How will the scores between the pre-test and the post-test be different in the control group and the experimental groups? How

will it be different in the case of extended peer feedback conditions and the plain peer feedback conditions? How will the students' perception of the two types of feedback be different? Will the students want to continue receiving peer feedback?

Eighty-five Belgian seventh grade students (12-13 years old, 63% male) participated in this study. They were divided into four classes: three feedback groups and one control group. In the peer feedback groups, each student was matched with a student who had, determined by a comparison of writing scores, a similar writing ability. For the first and the second assignments, the students created their first draft, and were provided peer or teacher feedback. For the third assignment, the peer feedback groups followed the same procedure, but the control group had an oral discussion with the teacher. After the feedback sessions, all of the groups revised their drafts and submitted them. The pre-test was a writing test as part of the Dutch writing exam in December, and the post-test was the final writing exam in June. Before the post-test, researchers administered a questionnaire about students' perception of peer feedback. Two extended peer feedback groups had an extra requirement to encourage each other to provide more feedback. In the first extended peer feedback group, students submitted a written reply to the teacher. In the other extended group, students completed a question form for their peers. In the control group, the teacher provided written feedback.

The result showed that the there was no significant difference in the scores among the groups that received peer feedback and those that received teacher feedback. This implies that peer feedback had meaningful possibilities to substitute for or be combined with teacher feedback. In addition, the two extended peer feedback groups made relatively more progress ($t(84) = 3.92$, $p = 0.0002$)) than the

other groups based on their inferential statistics. This may suggest that the students who were asked to reply about the peer feedback made more progress. However, while 44% of the students showed a positive perception of peer feedback, 63% of them did not want to continue receiving peer feedback. This might suggest that the traditional paper-and-pencil peer feedback may not efficiently bring students' attention to the revision process, and that it may be necessary to find other ways to encourage their autonomy and to promote more interest in providing peer feedback. Overall, this study showed that peer feedback can be meaningful in writing instruction, and that there may not be any serious loss of effectiveness in writing by using peer feedback in a writing class.

2.2 Computer-mediated Peer Feedback

In contrast to the cases of paper-and-pencil peer feedback, computer-mediated peer feedback showed different aspects of peer feedback that have been caused by different features of the computer-mediated condition. Cho et al. (2008) explored the distance of knowledge between experts and non-experts when they gave feedback in computer-supported feedback system for writing. They hypothesized that the knowledge difference between experts and non-experts could interfere with students' understanding of the professional feedback, though feedback from multiple peers could make students more amenable to accepting the feedback because peers are more likely to have similar perspectives about their classmates' works. For this study, 28 undergraduate students (average 3.4 years of college) and an academic scholar with a Ph.D and expertise in social science participated. Using the online system (Knowledge Management repository-based system), all participants submitted their

first draft responding to the system's prompt on the same day. Then, each student got six drafts, chosen randomly by the system, to review, and the expert gave feedback on all the drafts through the system. They assessed the drafts based on the three points; flow (general organization), logic (the effectiveness of the supporting ideas), and insight (innovative ideas). The students were grouped into three blocks: single expert (SE), single peer (SP), and multiple peers (MP). The students in SE group received the expert's feedback only, the MP participants got all six students' feedback but not the expert's. For the SP group, the best of the six non-expert reviews was selected, and each of them was given to the writer. After each student received the feedback, they evaluated the helpfulness of the feedback on the system, and performed a second review on the revised drafts.

The results revealed that flow in MP was meaningfully better than the one in SE and SP, and insight in MP was much better than the one in SE. However, logic was the same across all groups. Moreover, 71% of participants responded that they were satisfied with their peer feedback, while only 62% of them were satisfied with the expert's feedback. The findings suggest that multiple feedback with the computer-mediated system can help the participants to improve their flow and insight, and when the audience for the review is composed of non-experts, the non-experts' perspectives can be more helpful than only the one from an expert. Moreover, the expert's feedback, made under the pressure of a deadline and numerous drafts to get through, may not be as effective as that of the non-experts. Indeed, multiple peers' feedback, supported by a computer system that can help them review others' drafts, can be more effective to let classmates provide feedback to each other.

In a Chinese primary school in Hong Kong, Woo et al. (2013) investigated the

characteristics of using a wiki for collaborative writing. Their main research question concerned the degree to which a wiki can help primary school L2 learners as they perform collaborative writing in an English class. For this, they asked four sub-research questions: "(1) What kinds of comments are posted? (2) What kinds of revisions are made on the wiki platform? (3) Is there an association between comments and revisions? (4) Is there an association between revisions and improvement in students' writing?" (p. 301 - p. 302). Participating in this study were 119 students (10 to 11 years old, 59 males and 60 females) in an Anglican school in which 50% of the sixth graders were headed to a secondary school where English was used for instruction. For the collaborative writing and feedback, the study used a wiki tool, PBworks. To help the students improve their writing skills, they were asked to perform a collaborative writing task on PBworks, where they exchanged feedback and comments on the group page. Groups of four students worked together to write two texts with pictures and graphics. The teachers gave feedback to the students during the writing process, and there was no control group. For the data collection and analysis, the researchers considered students' comments on the wiki pages, editing records in the wiki history page, assessments of students' writing, and student and teacher interviews after the class. The students' peer comments were grouped into two categories: content meaning (idea development and organization of writing), and surface or local (wording, grammar and punctuation). Comments were also categorized into two groups: revision-oriented and non-revision-oriented.

The results of this study showed that there were more content and meaning comments than surface or local level comments, and that these comments were mainly revision-oriented ones. The authors supposed this might be because students

could use the spell check function on the program, and the internet to search surface-level information. Doing so helped them focus on the content-level discussion (p. 302). Also, there was meaningful correlation between the number of comments and actual successful revisions, though more content-level revision was performed than the surface level. Moreover, the asynchronous characteristics of wiki tools let students and teachers give feedback anytime and anywhere. Such characteristics could increase the amount of comments and feedback, and elicit actual revisions. Still playing an important role in the whole process, was the teacher's instruction to manage the class and clarify the assignments.

Ho and Savignon (2007) also investigated the characteristics of face-to-face and asynchronous computer-mediated peer review. Their main research question asks how learners respond differently to face-to-face and computer-mediated peer feedback. 37 college students (12 males and 25 females) in Taiwanese English classes participated in this study. 18 of them were from a senior writing class taught by an English native speaker. The other 19 were from a junior writing class taught by a non-native speaker of English. The two instructors and the participants had used face-to-face peer review, but not computer-mediated peer feedback.

For the face-to-face peer review in both classes, the students wrote three drafts responding to the writing assignments. Then, they read each other's drafts in pairs and gave written feedback to their partners. In addition, the students read an assigned peer's draft with the peer review worksheet given by the instructors, and gave written suggestions for revision. For the computer-mediated peer review, the students in the senior class sent their drafts to other students through e-mail outside the classroom. They reviewed their peers' drafts and provided feedback by using with the annotation

function in the word-processing program. In the junior class, the students performed the same procedure in a networked computer lab. To gather data to analyze, the researchers developed a questionnaire consisting of three parts: a biographical part, 30 items with 5-point Likert scale, and 5 open ended question. The Likert scale items focused on the students' attitudes for both kinds of peer review. The 5 open-ended questions were made to investigate the students' perceptions of the benefits and problems of the two kinds of reviews.

The results showed that 82% of learners thought that peer review helped them improve their writing, and 92% of them agreed that they benefited from giving feedback on their peers' drafts. Also, they preferred the face-to-face peer review to the computer-mediated one. However, it needs be pointed out that the manner in the computer-mediated peer review was used in this study was limited because the e-mail and word processor did not provide for enough interaction between students. In addition, the students answered that the annotation function was very convenient for providing feedback, and the spelling and grammar checking function in the word-processing program was useful when they performed their peer reviews. The students who preferred face-to-face peer reviews remarked on being able to communicate directly with their peers to clarify misunderstandings.

On the other hand, the open-ended questions revealed two advantages of using computer-mediated peer review. Firstly, they mentioned that the asynchronous characteristics of the online tool gave them more flexibility than face-to-face peer review, because they did not have to log on at the same time. Furthermore, they felt more comfortable and less anxious when they provided feedback with using a computer. Nearly three-quarters (72%) preferred using both types of peer reviews,

face-to-face and computer-mediated. Therefore, the results of this study imply that the asynchronous characteristics of computer-mediated peer review and the convenient features of computer-mediated writing tools need to be considered to encourage learners to provide peer feedback more efficiently.

In a separate study, Kessler et al. (2012) attempted to understand the changing nature of collaborative writing and its influence on web-based writing context. Their research questions were "How do L2 students engage in the collaborative writing process using web-based word processing tool?" and "What is the nature of group participation in web-based collaborative writing? (Kessler et al. 2012, p. 94)" 38 Fulbright scholars in a pre-academic orientation program in an American Midwestern university participated in the study, and their students in the program worked in small groups of three to four for three weeks. Also, for the case study analysis, three groups of nine students were randomly chosen, and their randomly chosen 10% which were the saved versions of the three teams' Google Docs texts were analyzed. The web-based word processing documents were categorized by the revision activity, and the researchers identified two types of contributions: language-related contributions (LRCs) and non-language related contributions (NLRCs). LRCs refer to suggestions made to change the forms, or add and move some sentences or text about meaning. NLRCs refers to comments or suggestions about formatting or style.

The results showed that language related contributions were more frequent than non-language related contributions (82% LRCs and 18% NLRCs). The meaning-related LRCs were most common (55.70%), and the form-related LRCs were only 13.29%. Furthermore, the changes they made were more accurate (79%) than inaccurate (21%). These results showed that students paid more attention to meaning

than form when working with computer-mediated tools to provide peer feedback, and that they were able to give useful and accurate grammatical feedback while they were performing web-based collaborative writing.

Lee (2010) performed a case study to explore the characteristics of using wikis for collaborative writing. She posed three research questions: How do learners see the effectiveness of using wikis in the process writing classroom? What is the role of the task in wiki-mediated writing? And how does using wikis promote peer feedback and scaffolding in the revision step in writing. 35 university students in a beginning level Spanish course participated in the project. All of them were native speakers of English, and their average age was 19.6 years. None of them had used wikis prior to the study, so they received a brief training on wikispaces. In the beginning of the semester, the teacher prepared a class wiki in which students could practice using wiki features. They worked in groups of four or five, and each group had two to three weeks to engage in drafting, revising, editing, and publishing. They wrote drafts collaboratively and then, read, and edited each other's contributions. They provided peer feedback with the discussion page, while the instructor played a facilitating role. A five-point Likert scale was used to measure the learners' view of using wikis through a survey. Ten items were given, regarding the effectiveness of wiki for collaborative writing (#3, #8, #9, #10), the role of task for wiki assignments (#1, #2), and feedback and scaffolding in the revision process (#4, #5, #6, #7). Students were randomly chosen, and 20-minute interviews were also conducted to investigate the participants' perspectives about using wikis in collaborative writing.

The results showed that more than 50% of the students preferred using wiki to traditional writing with a word processor, and that many of them added multimedia

sources in the wiki. Students also stated that collaborative work with wikis helped them to re-organize the content and correct errors, and in many cases, they found and corrected errors at the sentence and word level. The collaborative revision process with wiki allowed them to feel affective support from their team members and fostered a feeling of community. Though more than 40% of them hesitated to edit peers' entries because of their lack of confidence, they paid meaningful attention to both form and accuracy.

2.3 Linguistic Elements Observed in Peer Editing

The first issue of the linguistic elements in peer feedback has to do with grammar instruction in the writing class. Graham and Perin (2007) performed a meta-analysis of writing instruction for adolescent students, and they calculated effect size for 11 factors in writing instruction. Their primary research question was "What instructional practices improve the quality of adolescent students' writing? (Graham and Perin, 2007, p. 447)."

They selected 123 studies out of 582 based on the following factors: studies that involved students in grades 4 through 12, attending regular public or private schools, studies that included a measure of writing quality, studies that had inter-rater reliability for the quality measure of .06 or higher, studies that used an experimental or quasi-experimental design that provided an effect size, a weighted average effect size, and homogeneity of effect sizes. The effect sizes were calculated as the standardized mean difference, and they also calculated the mean and confidence interval for weighted effect sizes for the average weighted effect size.

They showed the average weighted effect sizes for 11 interventions, observed the

following results: strategy instruction (0.82), summarization (0.82), peer assistance (0.75), setting product goals (0.70), word processing (0.55), sentence combining (0.50), inquiry (0.32), prewriting activities (0.32), process writing approach (0.32), study of model (0.25), grammar instruction (-0.32). As expected, strategy instruction (0.82) and peer assistance (0.75) showed meaningful influences on writing instruction. However, the size effect for grammar instruction (-0.32) showed a strong negative result. Their definition of grammar instruction was "This instruction involves the explicit and systematic teaching of grammar (e.g., the study of parts of speech and sentences) (Graham et al., 2007, p. 449)."

The results revealed that grammar instruction can be challenging in the process approach to writing, and that traditional grammar instruction was not effective in the writing classroom for adolescent students. Thus, the grammar issues in writing class need to be considered seriously in future studies. This study also revealed that peer assistance and peer feedback have a meaningful role in the process of writing development (0.75).

In addition, Kessler (2009) explored student-initiated attention to form with collaborative writing in wikis. His research questions were : How do non-native EFL students work to correct their own and others' grammatical errors in collaborative writing tasks? How accurate will their peer and self-correction be? What can their postings show about the students and their web-based collaborative writing?

40 students (21-23 years old) in their final year of a BA program in English Language Teaching in Mexico participated in this study. Wiki was demonstrated in the first week. It was initiated by the instructor, and then the students took the responsibility to run the web site. They worked collaboratively to construct the wiki

as reflective material about what they learned in the class. The researcher focused on the data provided in the wiki by the students, and the error categories included articles, coordination, fragments, parts of speech, punctuation, run-on sentences, spelling, subject-verb agreement, and word choice. Interviews about individual contributions and any change they might have overlooked were performed with 20 students.

The results showed that among the 233 edits that the students made, 169 (73%) were about language-related episodes (LRE), and 77 (45%) of LREs were related to the attention to the form of the language. Among 77 LREs, 35 were direct form-focused ones. In addition, the students were not reluctant to edit their peers' posts, so peer-editing contributions made up 72 of the 77 LREs. All of the 35 form-focused contributions were from peers' revisions. Thus, this study showed that peer correction with wiki tools can be useful to bring students' attention to the form in collaborative writing, and can enhance learners' autonomy for the revision process.

Another issue is that of using learners' own texts as a learner corpus to improve students' accuracy in the revision process in writing. Cotos (2014) explored the potential of a local learner corpus and the effect of data-driven learning (DDL), and compared these with those of a native-speaker corpus (NSC). There were 31 international graduate students (19 male and 12 female) in an advanced academic writing course participating, aged between 23 and 31. The course used a specialized corpus of research articles as well as top-down and bottom-up techniques to complete corpus-driven language project tasks.

The study used a mixed-methods form-function analysis, and the linguistic forms were individual linking adverbial (LA). The local learner corpus (LDD group) was the experimental group, and the NSC group was used for comparison. The quantitative

data were collected from LA frequency counts and pre- and post-test results, and the qualitative data were taken from participants' responses to a questionnaire and their written productions. The local learner corpus was the computed collection of written productions by participants, and the texts in the learner corpus were from course assignments. Two kinds of questionnaires were prepared for before and after the experiment. The NSC group completed the teacher-selected LA practices with a specialized corpus, and the LDD group studied both the native-speaker corpus and their own productions in the local corpus.

The results showed that participants used adverbials more often and more properly after DLL tasks. Before the DLL tasks, the students used LAs properly 41% of the time, but after the tasks, this percentage increased to 81%. Moreover, the students in both tasks showed significant improvement in the knowledge of LAs, so the effect size was larger (for NSC d=1.66, for LDD d=2.05). In addition, many NSC students (11 of 13) mentioned that they used memorization for LAs, but only four LDD students said the same thing. Also, LDD students engaged more in the problem-solving tasks. Therefore, the results revealed that letting learners use their own writing production as the local learner corpus can improve their grammatical accuracy in writing, and help them engage in tasks more meaningfully.

Hegelheimer et al. (2006) further explored how the need for grammar instruction and online resource development with using collection of learners' texts can be related. They collected 45 learner essays from an English placement test at Iowa State University, and 1,268 errors were marked. Then, five essays were analyzed for the initial categorization, and 40 essays were analyzed according to the grammar and lexicon error categories. Afterwards, each error was put into a spreadsheet that

offered one solution for that error. For the annotation and additional information, video recordings and reference pages were made, and a corpus transformation for error types and linked solutions was prepared. Based on this database, the *iWrite* web-site was designed to provide solutions for errors in the essays, error categories, learners' practice, and annotations and references. In *iWrite*, students can access all the errors in the learner corpus, and when they click on them, the program provides the description of the errors and the solution for them. Also, students can revise the problematic parts with their own writing in a word-processing format.

The researchers showed how learners' texts and errors based on their corpus can be transformed into the materials for class writing activities. There are plenty of possibilities to apply this to classroom activities, and it can even be a new framework for further research. If the process can include learners' participation and their peer feedback, it can be related to more meaningful research to investigate the characteristics of different types of feedback and an alternative way for grammar instruction in the process approach to writing.

2.4 Extra Linguistic Elements in Peer Editing

Arnold et al. (2012) examined online writing and revision behavior based on whether learners work cooperatively or collaboratively. In this case, cooperative working means changing only their own writing, and collaborative working means changing other group members' writing. The authors posed three research questions: Did they only edit their own writing cooperatively, or other members' as well collaboratively? Did the formal revision work better when they worked cooperatively or collaboratively? Did they develop any task roles while they worked with wikis?

53 German students in three intermediate German classes participated in the study. There were 26 students in Class 1 though one student did participate in the wiki, 10 students for Class 2, and 18 students for Class 3. Thus, Classes 2 and 3 worked together. In Class 1, students performed the wiki project after reading a novel and watching a movie. They were put in groups of two or three to make a wiki page with at least 400 words. In Classes 2 and 3, students were put in groups of two to four, and they read the texts in the wiki, and read a novel to write their first draft. Then, they received feedback from peers and the instructor, and wrote a second draft. To collect data, the wiki history page was used, and at the end of the semester, a questionnaire was administered. When analyzing the revision process, grammar, spelling, punctuation, and meaning changes were checked.

The results revealed that the wiki-based process was a combination of cooperation and collaboration. Working collaboratively were 75% of the students. Also, 64 % of students focused on their own writing more, so they worked cooperatively rather than collaboratively. In addition, 42% of the revisions of their own texts were successful, and 37% of the revisions for others' texts were successful, so there was no substantial difference between working for cooperation or collaboration. It was also observed that there were free riders and social loafers in each class. Most of the students contributed to the collaborative writing process more than 10% of the time, but not all of them contributed equally. It was noted that there were no free riders when they worked in pairs.

The results showed that there is not any significant difference when students work for themselves or for others. This study also makes us aware that we need to think about free riders, and that it is necessary to use appropriate classroom

management to encourage students to engage in the wiki-based tasks.

In another study, Liou and Peng (2009) explored the effects of training on peer feedback, revision quality, and peers' perceptions of the process. Their main research question was how peer review training affected students' peer feedback adoption, and revision quality. The participants were 13 EFL freshmen who majored in English at a public university in an Asian country. They were English learners and native speakers of Mandarin-Chinese, and did not have much experience in writing in different genres in English. A blog, *VOX*, was used in the study. Four writing assignments were prepared, and the students performed the first and the fourth writing without any training. Before the second and the third assignments, they received training on how to give meaningful feedback in the revision process. The participants made their comments in peers' blogs for the four writings, and after the four cycles, they did an evaluation questionnaire via a five-point Likert scale about students' perceptions of the process of the exercise. Students' comments on the blogs were classified by the text areas: global issues (organization, purpose, and idea development), and local issues (wording, grammar, and punctuation). Their comments were then re-categorized based on their functions: evaluation, clarification, suggestion, and chatting(comments not related to writing process). In addition, their comments were categorized based on whether or not they led to text revision (revision-oriented comments and non-revision-oriented comments).

The results showed that the peer comments became more revision-oriented after the revision trainings (from 42.2% to 68.7%), and the percentage of the revision success increased significantly (from 67.8% to 91.8%). Additionally, the rate of chatting comments dropped dramatically (46.6% to 9.4%). However, students'

adoption rate of accepting peer feedback did not change much, and once their comments were accepted by students, both of the cases (first and fourth writings) showed high rates of successful revision. There were many global comments than local issues in both cases, but the percentage of local issues increased after the training (from 27.7% to 34.3%). The results showed that the feedback training helped the participants to effectively improve their feedback quality, and it made them be more attentive to online peer feedback. The authors concluded that in the beginning of the study, the participants regarded the online task as a social event to chat online, and did not pay that much attention to the peer editing activity, but changed their attitude after the training. This suggests that teachers need to encourage students to pay more attention to the online task through peer feedback training especially in the online environment.

3.0 Summary of Findings of Literature Review

Overall, the results of the studies featured in this report revealed that peer feedback can play a meaningful role in the development of second language writing. Tsui & Ng (2000) mentioned the four roles of peer feedback in writing: encouraging a sense of audience and ownership, collaborative learning, and raising awareness of the strengths and weaknesses of students' drafts. Also, Zhao (2010) showed that students can understand peers' comments more effectively than teachers' in many cases because they share same kind of perspective as non-experts. In addition, Gielen et al. (2010) revealed that the scores of a peer feedback group were not very different from the ones of a teacher feedback group.

However, in the studies on paper and pencil peer feedback, students did not prefer peer feedback to teacher feedback (Tsui & Ng, 2000; Zhao, 2010; Gielen et al., 2010; Yang et al., 2006). In Tsui & Ng's study (2000), many students paid more attention to local issues like grammar and punctuation than to global issues about meaning, but the teachers' feedback included more macro-level suggestions, which many students preferred. In addition, a lot of students accepted teacher feedback passively, and did not have active roles in the revision process (Tsui & Ng, 2000; Zhao, 2010; Gielen et al., 2010; Yang et al., 2006). Many students in Gielen et al.'s study (2010) even said that they did not wish to receive peers' feedback in the future. This means students play rather passive roles in the paper-and-pencil peer feedback process, which causes them dislike providing and receiving peer feedback though they understand the possible advantages of peer feedback.

On the other hand, in the case of computer-mediated peer feedback, students could have more active and autonomous roles in writing, causing many students to

prefer providing and receiving peer feedback (Cho et al., 2008; Lee, 2010). In addition, many students paid attention to providing global feedback (Cho et al., 2008; Kessler, 2012; Woo et al., 2013), due to the fact that they could receive help from spell and grammar checking function in the computer-mediated system, allowing them to focus on global issues more easily (Ho & Savignon, 2007). Moreover, the asynchronous features of computer-mediated tools gave more flexibility for time and space, so students could provide each other with more feedback (Ho & Savignon, 2007; Woo et al., 2013). Students also included various media resources in their wiki pages and performed collaborative work to help each other (Lee, 2010).

Though grammar instruction in a writing class is challenging (Graham & Perin, 2007), the revision process and collaborative peer feedback with wiki tools could be useful to improve students' grammatical accuracy in writing (Kessler, 2009, 2012; Lee, 2010). Moreover, letting learners use their own texts as a learner corpus could be helpful to improve accuracy in writing (Cotos, 2014; Hegelheimer & Fisher, 2006). A training process for providing peer feedback is an important step to take in a writing class because it can greatly improve the quality of peer feedback (Liou and Peng, 2009). Finally, the problem of free riders in collaborative writing and the peer feedback process with wiki tools needs to be considered (Arnold et al., 2012).

4.0 Pedagogical Implications

The findings of the literature review revealed that peer feedback can play meaningful roles in a writing class and that students can gain many advantages from using peer feedback. Through peer feedback in writing class, students can have more autonomous roles during the process of writing, giving them ownership as the decision maker for their own drafts (Tsui & Ng, 2000). It also enhances collaborative learning, so they can help each other pay attention to global and local issues, especially in computer-mediated peer feedback (Cho et al., 2008; Kessler, 2012; Woo et al., 2013). Also, the experience of providing peer feedback has been found to change their perspective toward peer feedback positively (Yang et al., 2006). In many cases in computer-mediated peer feedback, learners showed positive attitudes toward peer feedback because they could be more active and autonomous in writing class while they corrected each other's work (Cho et al., 2008; Lee, 2010). Furthermore, the asynchronous characteristics of computer-mediated tools like wikis let students have more flexibility of time and space, allowing them to have more active interaction and autonomous roles in writing classes. These opportunities with wiki tools can help students to pay more attention to both global and local issues (Kessler, 2009, 2012; Lee, 2010), and using learners' texts themselves as a learning material and learner corpus can let them improve their grammatical accuracy in writing classes (Cotos, 2014; Hegelheimer & Fisher, 2006). Also, it is important to give students appropriate peer feedback training to improve the quality of their feedback (Liou & Peng, 2009).

Based on these findings about the characteristics of peer feedback in a writing class, I wish to suggest a model lesson project to help teachers and researchers have a better understanding of using peer feedback in a writing class in a more meaningful

way. The target students are one class of an afterschool program (10 males and 10 females) in a Korean middle school. The students are 9th graders (14 - 16 years old). The class meets 15 times in 15 weeks for 90 minutes. After the first 45 minutes, there will be a 10 minute break, followed by the last 45 minutes of class.

Because of recent changes in required Korean English tests, many Korean provincial educational governments have included essay-based evaluations as a part of the English test in their schools. But since, the Korean school system has not given students many chances to improve their writing strategies, so many students are worried about these changes. Graham and Perin (2007)'s meta-analysis compared the effect sizes of 123 studies about writing instruction, and the results showed that strategy instruction (0.82), peer assistance (0.75), setting product goals (0.70) had positive effect sizes, but traditional grammar instruction (-0.32) had a negative effect size. That means that traditional grammar instruction will not likely be helpful for Korean students to improve their English writing. Therefore, other approaches to improve their strategies for writing still need to be provided. As the findings of this literature review showed, peer assistance can be a meaningful way to help English learners improve their writing ability, and a wiki-based collaborative revision process can be a particularly useful tool to help them develop strategies for their writing. Also, by composing and analyzing their own learner corpus, they can enhance their learner autonomy and develop clearer goals.

As the first part of the project, the students should have revision training for two weeks, where they will learn about the basic concepts of process writing, pre-writing practice, and grammar error correction practice in Wikispaces. Wikispaces is a very useful tool, because the teacher can group the students on the website, and they

can give their feedback to each other both synchronously and asynchronously. For revision practice, the teacher should prepare at least four texts that have various grammatical errors and upload them to Wikispaces. Five students will be in each group and they can give feedback on the errors in Wikispaces synchronously in a computer lab. The teacher will prepare a worksheet for error corrections: it would include sections for grammatical error types, the actual corrected forms, and students' comments on them. The students will need to fill out the worksheet in class while they are doing the exercise and submit it individually to prevent any free riding and give them more individual responsibility.

After the revision training, the students should compose the first draft of their essay. Each student should have a personalized topic, and the teacher can provide them with example topics like 'My Favorite Holiday,' and 'My Hero.' They will have 90 minutes in class to individually write an essay about their personalized topics in Wikispaces. Each student will have an independent team slot in Wikispaces, and their errors will be used for the learner corpus. To maintain privacy, their names will not be shown to other students.

The next step is to have peer feedback sessions for six weeks. For these activities, five students will be in each group, and the teacher will provide three or four texts per week from students' drafts without names. During class time, they can give peer feedback just like they practiced in the training sessions. They will give individual feedback in Wikipaces, and write down their feedback on the same type of worksheet as used in the revision training. Then, they can get together in the groups of five and share their thoughts. Students will perform the same kind of feedback process for six weeks, so that all of the students' drafts can be revised by peers, and the

students' errors can be collected from their worksheets.

For the next 3 weeks, the students use the data on their errors from the revision process, and they can analyze their errors in groups according to the categories and build their own learner corpus. The first step is to organize the errors according to the category. In the first week of the process, the four groups of five students will work together to figure out possible grammar categories of the errors, and when each group is ready, the whole class will share their results. Based on the results, they can create their own grammar categories to analyze. Then, students will be put into pairs of two, and they will get two drafts from the teacher to check for the categorization. The teacher prepares an excel spreadsheet for the students to enter the coded errors by the categories which were decided by themselves. When they find coded errors, they type in the form, categories, and comments. When the corpus is ready, the number of the errors by categories and the comments will be the results.

When the learner corpus is ready, the students can make their own wiki-based solution in groups of five students. Based on the learner corpus, each group of students can have a discussion about what types of errors were the most common, and how they can fix them. They can also discuss efficiency of the steps of the process approach to writing, and provide their own suggestions for the steps of the process, such as using a prewriting step, for example. When each group is ready, they can have one or two weeks to rewrite their compositions. Afterwards, they can write written solutions about each type of error with examples, and upload them in Wikispaces. Also, they can record their announcement or their short presentation and upload it in Wikispaces. When each group's solution materials are ready, they can give their presentation on their solution.

5. 0 Conclusion

First of all, the studies reviewed in this report about peer feedback revealed that it can be a useful tool in ESL writing classes. The studies showed that peer feedback can allow students to have a sense of audience and ownership, more meaningful collaborative learning, and awareness of the strengths and weaknesses of their own drafts (Tsui & Ng, 2000). Moreover, students understood peers' comments more effectively than teachers' comments (Cho et al., 2008; Zhao, 2010), and the experience of peer feedback itself helped them have more positive opinions about correcting each other's work (Yang et al, 2006).

The characteristics of computer-mediated peer feedback were quite different from the ones of paper-and-pencil peer feedback. Above all, in paper and pencil peer feedback, students had rather passive roles, but in computer-mediated peer feedback, they became more autonomous, and played more active roles while interacting collaboratively with their peers. When they provided and received paper-and-pencil feedback, they regarded teacher feedback as required suggestion, so they accepted it without critical consideration (Zhao, 2010). Also, students focused more on local issues, and easily overlooked global issues when providing paper-and-pencil peer feedback, so many of them preferred teacher feedback, which included global issues as well (Tsui & Ng, 2000; Zhao, 2010). On the other hand, in the case of computer-mediated peer feedback, they paid attention to global issues equally or more because the spell and grammar checking functions helped them fix local issues more easily, allowing them to provide more types of meaningful peer feedback, and letting them enjoy the process of giving peer feedback (Cho et al., 2008; Kessler, 2012; Lee, 2010; Woo et al., 2013). The asynchronous aspect of computer-mediated tools let students

have flexibility of time and space, so they can exchange more feedback wherever and whenever they wanted. Such flexibility helped them feel more comfortable and less anxious when they provided peer feedback, and it helped to increase the quantity and the quality of their feedback (Cho et al., 2008; Ho & Savignon, 2007; Woo et al., 2013).

The issue of grammar instruction in an ESL writing class is a challenging one. Nevertheless, it appears that students' accuracy in writing can be improved by using learners' own texts as a learner corpus and performing peer revisions with computer-mediated tools. Cotos (2014) found that using learners' own texts as a learner corpus in writing practice can improve their grammatical accuracy, and Hegelheimer and Fisher (2006) provided a framework for developing a revision tool with learners' texts to help learners to improve their accuracy and writing skills. In another study, Arnold et al. (2012) mentioned the importance of classroom management and the problem of free riders. Finally, Liou and Peng showed that training for providing peer feedback can change the quality of peer feedback.

As I showed in the model-lesson project, peer feedback can let students have autonomous and active roles in the ESL writing class, and when students work collaboratively, they can improve their writing skills. Though a teacher's encouragement and classroom management are very important, letting students interact and collaborate to provide peer feedback with computer-mediated tools like wikis can help them enjoy the writing class and be motivated to participate in each step in writing. Finally, meaningful peer feedback can decrease the teacher's burden to provide feedback under the pressure of time and amount of students' drafts.

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