Original Paper

Study on Effectiveness of Online Peer Review in C-E Translation

Licheng Pan[1]

[1] Wenzhou Medical University, Wenzhou, China

Abstract

The author collects data from an online peer review platform (Peerceptive), where 25 junior English majors in Wenzhou Medical university were asked to exchange peer reviews of first drafts of 2 translation assignments and then make modifications on their own translation works based on peer reviews they received. The author analyzes the acceptance rate of peer reviews of 12 students, who are divided into 3 groups, good, average and weak based on their academic performance in their previous semester. The author also compares the test performance of the 12 students at the beginning of the semester and at the end of the semester. Finally, the author hands out questionnaires to collect students' perceptions and attitudes towards online peer review in C-E translation. Based on a comprehensive and statistic analysis of the data collected from the 2 assignments, 1 test and 1 questionnaire, the author draws a conclusion that online peer review is beneficial for English major students in C-E translation.

Keywords

online peer review, C-E translation, English major students

1. Introduction

Peer review is a prevalent way of improving students' translation ability at home and abroad. There is an increasing use of peer review in classrooms and other learning settings, especially in recent years (Li H. L. et al., 2020, pp. 193-211). Since about 1950s, lots of researches have been carried out by scholars of different countries in different intellectual fields. For example, Rotsaert Tijs et al. did a study to explore the relationship between students' perceptions of peer assessment (PA) and its social nature (2017., pp. 29-40). Li H. L.et al. did a meta-analysis to find out that whether peer assessment can promote students' learning (pp. 193-211). Garcia-Loro Felix spent two decades in doing research in L2 peer review (p. 154). And most of them made a conclusion that peer review makes a great contribution to students' learning. For example, it can cultivate students' learning autonomy and deepen their understanding of translation

principles and strategies (Li X., p. 87). Peer feedback can encourage students' autonomy learning, enhance a sense of audience among student writers, improve students' awareness of strengths and weakness in their peers' writing, involve students in constructing their own knowledge in the process of peer feedback and exercise their cooperative skills (Jiang, p. 19). Peer assessment in general has a positive effect on students' learning performance (Li H. S. et al., 2013, pp. 193-211). Peer evaluation is a feasible and effective teaching method, which can enable learners to construct and internalize knowledge and master the right process of translation skills to enable students to be "involved in the whole process of learning" (Gong, 2014, p. 1). Thence numerous teachers have put peer review into practice in their teaching. And in doing peer review, traditionally, students must be gathered at a specific place or time so that they can meet each other and have peer review successfully.

But with the fast development of technology, a new form of peer review was created in recent few decades. With a lot of peer review platforms designed and developed, teachers and students are able to do peer review on the internet without the limitation of time and place. By analyzing the articles published in key academic journals abroad and at home as well as with the help of scientific text mining software, it can be found that online peer review is both a hot issue and frontier (Dong et al., 2020, p. 63). Especially in this period of pandemic, online peer review shed its light all over the world.

With the support of the online platform, the author focuses on the research of online peer review to see its effectiveness. The research would focus on students' attitude and perception towards online peer review as well as whether students have made any improvements in their translation after a semester's online peer review practice.

Through collecting data from 2 online translation assignments, 1 test and 1 questionnaire of 12 students, the author makes a comprehensive and analytical analysis of the data and conduct a conclusion that online peer review can improve students' C-E translation ability in some degree.

2. Literature Review

2.1 Research Trend of Peer Review

Peer review, also known as peer feedback or peer response, refers to the exchange of drafts between two or among multiple learners for oral, written or a mix of oral and written feedback (Rotsaert Tijs et al., 2017, pp. 29-40). In the late twentieth century, with the spread of process-oriented approach in western countries, peer review gradually became an important subject in research field. At home, Chinese scholars mainly focus on the application of PR in writing and translation. Jiang Y. (2013), Feng L. J. (2012) and Bai L. R. (2013) all did a research about peer review in the field of writing. The first two researches all confirmed the positive effect that peer review has on students' writing ability, such as improving the overall level of writing proficiency and writing level and raising students' interests in English writing. While the third one drew a conclusion that peer review lacks some feasibility in real life. Dong Z. et al. (2020) did a research about the frontiers and hot issues of peer review. The author pointed out that there are 5 hot issues and 3 frontiers. They are online peer review, peer comment, peer review

perception, feedback comparison and peer review training. Online peer review, peer comment and peer review perception are both hot issues and frontiers. In western countries, scholars have different views of peer review. Double Kit et al. (2019) and Li H. L. et al. (2019) analyzed the effect of peer review on study by the way of meta-analysis. S.Double confirmed that as a formative practice, peer review has a positive effect on improving students' learning performance. Li H. L. also confirmed the positive effect of peer review, but he also pointed out that if students are well trained or they can use online peer review instead of traditional peer review, peer review would have a better effect. Shen B. et al. (2020) is devoted to exploring the influence of peer review on students' autonomous learning ability. It can be seen from the research that using peer review instead of teacher feedback can better enhance students' language acquisition. At the same time, peer review can also reduce students' dependence on teachers and enhance students' confidence in their own learning ability. The research of Garcia-Loro and his co-authors focus on online peer review (Garcia-Loro et al., 2020). Their research was based on the platform of MOOC, with the purpose of exploring effectiveness of peer review. However, the final research result shows that peer review data collected from MOOC are not completely reliable. In short, scholars have agreed on the positive effect of peer review in writing and language acquisition. The effectiveness influence includes not only improvement in performance, but also attitude, affections, confidence, autonomy, etc.

2.2 Peer Review in Translation Teaching

Peer review has been applied in many fields, but it is mainly used by people in the field of translation. And few domestic scholars have conducted some researches on it. For example, Li X. S. and Ke P. (2013) studied the effect of peer review from the perspective of translation. And their researches have confirmed the positive effect of peer review in translation teaching. They conducted the conclusion that peer review is conducive to cultivating learners' abilities of independent and cooperative learning, strengthening the awareness of revision and improving the quality of translation, and most importantly, facilitating the transition of translation teaching in China to a process-oriented approach. Zhuang Y. S. (2016) studied the influence of peer review on students' motivation level from the perspective of Chinese-English simultaneous interpretation. The research proves that in Chinese-English simultaneous interpretation teaching, peer review plays a certain role in promoting learners' internalization of learning motivation. And for the first time, it proposes that individual differences have a great influence on the effect of peer evaluation in practice. Gong B. S. (2014) explored the effectiveness and feasibility of peer review from the perspective of translation. It can be seen from the research that peer evaluation is feasible and effective in the translation teaching of postgraduate translation majors. It can deepen the students' understanding of texts and enhance the intention of cooperation. In conclusion, peer review in translation and interpretation has started to emerge, and in accordance with the result of the peer review research in writing courses, scholars confirmed the effectiveness of peer review in translation courses as well.

But with the fast development of online platform, online peer review has become a hot issue in China in recent years. However, there are few researches about it in China. Based on the above studies, this paper explores the effectiveness of online peer review in C-E translation.

3. Theoretical Background

Peer review has its theoretical support from constructivism and collaborative learning. Under the guidance of behaviorist theory, product-focused approach plays a major role in traditional writing and translation teaching. In product-focused approach, teachers only care about the final result of the translation instead of the procedure. And in this process, students communicate little with their classmates, all they need to do is to finish their own translation works. Under this circumstance, translation is totally an individual work rather than group work.

But with the development of psychology, social constructivism starts to replace the behaviorist theory. Glasersfeld (1989) described constructivism as "a theory of knowledge with roots in philosophy, psychology, and cybernetics". It derived from the cognitive psychology and was put forward by Piaget in 1960s. Since then, constructivism has been widely used in all aspects. Jiang Y. (2013) pointed out that constructivism formed its unique principles and ideas in education. Learners are active constructors of knowledge and the center of learning, they should get involved in problem-solving actively.

It can be seen that constructivism emphasizes the active role of learners in the construction of knowledge. And in online peer review, students become the center of learning and have the chance to cultivate their problem-solving and critical thinking ability. As an important constituent of the constructivist learning theory, collaborative learning plays a key role in explaining the construction of knowledge acquisition. Collaborative learning starts from the collectivity of the teaching process and emphasizes the interaction between students. No matter what the subject is, compared with other teaching forms, the mode of group cooperative learning enables students to acquire more knowledge, and the learning effect is better and more lasting (Gong, 2014, p. 76).

From this point of view, collaborative learning can cultivate students' consciousness of cooperation and promote learners to explore the application of translation theories and strategies in the translation practice. In short, social constructivism emphasizes the role of students themselves. They hold that students are the subject of learning and they should try to grasp and process information on their own.

4. Quantitative Study

4.1 Research Purpose

In order to test out the effectiveness of online peer review in translation teaching, the research probes into, firstly, how much the students accept the rate of peer comments towards their translation works and, especially, how accurately they accept their peer comments, and secondly, any improvement they make on the second test which is done at the end of the semester by students, and thirdly, students' perception and attitudes towards online peer comment.

This article breaks down research purpose into four questions:

(1) What are the students' acceptance rates towards suggestions given by classmates? Is there any difference between groups of different level?

(2) What are the students' accuracy rates about the suggestions given by classmates? Is there any difference between groups of different level?

(3) Is there any improvement on students' translation ability after the semester? On what point do they have improvement? Is there any difference between groups of different level?

(4) What are the students' attitudes toward online peer review?

4.2 Research Subject

The subject of this article are 12 English major students (9girls, 3boys) of Renji college of 2017. They are divided into three different groups, namely good, average, weak according to their academic performance in the previous semester. They have received E-C translation course 1 semester before. Thence they have grasped some basic translation knowledge and skills about translation, but they practiced little in their studies. They are required to take C-E translation course in the second semester of 2019-2020.

Before this semester, they are not very familiar with the online peer review about translation. All they did before was the online peer review about writing. So teacher introduced the ways and procedures of online peer review in the initial classes.

When given an assignment, students are firstly asked to produce their first drafts and upload them to Peerceptive platform. Then, the teacher will choose typical translation works for students to discuss, to identify major errors and make possible improvements. Based on students' discussion of errors, students and the teacher work together to produce a specific rubric for assessing and grading this piece of work. The rubric contains three dimensions, namely, sentence, vocabulary and text. After students have made the rubric and learned them in heart, each student needs to log in Peerceptive platform and check the translation work of three peers. They need to give comments to their peers' work in aspects of sentence, vocabulary and text. They also need to assign a value to each of their peers' work. That means they need to grade their peers' work.

After the first peer assessment is over, students need to improve their versions based on the suggestions and comments they have received and produce a second draft, which is also required to upload to Peerceptive platform.

Both the verbal comments students give to their peers as well as the two drafts of each of the assignments will be collected for research study in this paper.

4.3 Research Materials and Data

The material of the test is selected from TEM8 and it is finished by students before the semester and after the semester respectively. Students did not get a chance to check their answer after they finished the test before the semester. Students were asked whether the test they have done before the semester influenced their performance at the end of the test, and all of their answers were negative. All of the tests were collected as soon as they were finished by students.

And materials of the two assignments are abstracts of two proses which are equal to TEM8. Students have never seen them before. Their grades are judged from three levels, word, sentence and text. Both

17

the verbal comments students give to their peers as well the two drafts of two assignments will be collected from the platform of peerceptive.

The results of 1 questionnaire which includes 14 questions are also collected. The questionnaire includes five main parts, the experience of online peer review, advantages and disadvantages of online peer review, if online peer review is helpful, the preferences in the online peer review, problems encountered in the process of online peer review.

4.4 Data Analysis

4.4.1 The Comparison of a Test at the Beginning of the Semester Versus at the end of the Semester

12 students are divided into three groups, namely good, average, and weak according to their academic performance in the last semester. Five points are selected as observation points or rich points (see Table 1). Based on the research result of corpus-based TEM-8 Grading system (Chen, 2011, p. 91), the author identifies the following five points as observation points. They are listed as followings. For each observation point, the table includes the Chinese expression and its acceptable English translations.

Table 1. Judging Criteria

Observation Point 1	Observation Point 2	Observation Point 3	Observation Point 4	Observation Point 5
多大意义	估计	一切..人..当他	古来	不肯..不让
how significant	to estimate	all people…they	from ancient to now	instead of
how meaningful	measure	the one who…he	since ancient dynasties	rather than
how important	to assess	those…they	through history	
how valuable	to judge		throughout the ages	

According to the above judging criteria, total mistakes of 12 students' pre-test text and their post-test texts are counted in following table.

Table 2. Mistakes in the Test Done at the Beginning and at the End of the Semester

Group	Text done at the beginning of the semester	Text done at the end of the semester
Weak	16	11

18

| Average | 11 | 3 |
| Good | 6 | 2 |

It can be seen from the table that the weak group made the largest amount of mistakes in both pre-test and post-test and the group of good had the least amount of mistakes in both pre-text and post-text. It can be seen from the table that the group of average makes the biggest improvement.

As for the group of weak, there is a 31.3% improvement in their translation work throughout a whole semester of online peer comment practice.

As for the group of average, there is a 72.7% improvement in their translation work after one semester's online peer review.

As for the group of good, there is a 66.7% improvement in their translation work after one semester's online peer review.

The group of weak has the least improvement after one semester's online peer review which may be attributed by their relatively unserious attitudes. The group of average and good have a great improvement in their translation ability which may be attributed by the serious attitudes and good understandings of suggestions given by classmates.

The following two tables are designed to find out students' performances in each of the observation points.

Table 3. Mistakes in the Text Done at the Beginning of the Semester

Group	Observation Point 1	Observation Point 2	Observation Point 3	Observation Point 4	Observation Point 5
Weak	3	3	3	3	4
Average	2	2	1	3	3
Good	1	0	2	1	2

Table 4. Mistakes in the Text Done at the End of the Semester

Group	Observation Point	Observation Point 2	Observation Point 3	Observation Point 4	Observation Point 5
Weak	0	3	2	3	3
Average	0	1	1	1	0
Good	0	0	0	0	2

It can be seen from the tables that students make the largest number of mistakes in observation point 5.

As for all groups, they correct 100% of mistakes in observation point 1, 20% of mistakes in observation point 2, 50% of mistakes in observation point 3, 42.9% of mistakes in observation point 4, 44.4% of mistakes in observation point 5.

In a whole, we can draw a conclusion that after receiving online peer review, students have improvement in word, grammar and text level. But compared with word and grammar level, the improvement in text level is the smallest. Most of students think that mistakes in text are hard to find so they can give or get few suggestions in text level.

4.4.2 Analysis of Questionnaires

19 students have finished the questionnaire, including the 12 students whose pre-test text and post-test text has been analyzed. There are 14 questions in the questionnaire. The questionnaire can be concluded into the following 5 parts: previous online peer review experience, the advantages and disadvantages of online peer review, the helpfulness of online peer review, preferences of the online peer review and the problems in the online peer review.

As for the first part, the experience of online peer review, we can see from the questionnaire that all the students have participated in peer review before and all of them practiced peer review online on the platform of Peerceptive, Chaoxing Xuexitong, Bingguo and Weizhujiao.

As for the second part, advantages and disadvantages of online peer review, 89.47% classmates think that online peer review is free from the limitation of time and place and consequently they can have online peer review anywhere and anytime. But online peer review also has disadvantages. 73.68% students hold that the effectiveness of online peer review might be reduced because of the lack of supervision from teachers and that some platforms have a very complex procedure of doing online peer review which is not conducive to the online peer review.

As for the third part, the helpfulness of online peer review, 68.42% students hold that online peer review improves their translation ability in a large degree. And 5.26% students hold that online peer review contributes little to their translation ability.

As for the fourth part, the preferences in the online peer review, 57.89% students prefer online peer review and 21.05% students prefer traditional peer review.10.53% students like both ways of peer review.

As for the fifth part, problems encountered in the process of online peer review, 94.74% students point out that the comments given by classmates are too general and 21.05% students say their classmates don not review their texts.

In conclusion, almost all the students have experienced the peer review before thanks to the numerous online writing and translation platforms. Most students prefer to do peer review on the internet because they think online peer review is not only time-saving but also more helpful. Most students think online peer review helps improving their translation abilities, and lack of supervision and guidance from the teacher is considered as the biggest obstacle to the effectiveness of online peer review.

4.4.3 Students' Acceptance Rate of Suggestions in Two Assignments

The 12 students are divided into three different groups, good, average, weak, according to their academic performance in the previous semester.

Table 5. Acceptance Rate of Peer Suggestions in 1st Assignment of the Semester

Group	Suggestions	Acceptance	Accuracy
Weak	61	51	48
Average	36	26	23
Good	54	41	40

Table 6. Acceptance Rate of Peer Suggestions in 2nd Assignment of the Semester

Group	Suggestion	Acceptance	Accuracy
Weak	64	52	51
Average	58	46	42
Good	43	36	36

In regard to the Table 5, it can be calculated that the total acceptance rate and the total accuracy rate of assignment 1 are respectively 78.1% and 94.1%.

In regard to the Table 6, it can be calculated that the total acceptance rate and the total accuracy rate of assignment 2 are respectively 81.2% and 96.3%.

Through the above data, we can know that the total acceptance rates of two assignments are close, they are respectively 78.1% and 81.2%. At the same time, the total accuracy rates of two assignments are close too, they are respectively 94.1% and 96.3%. The statistics show that students all have a serious attitude towards two assignments.

In regard to different groups, the total acceptance rates and accuracy rates of assignment 1 and assignment 2 combined together are as follows: the total acceptance rate and the total accuracy rate of the weak group are highest, at 82.5% and 96.1% respectively; the total acceptance rate and the total accuracy rate of the good group are second, at 79.8% and 98.8% respectively; the total acceptance rate and the total accuracy rate of the average group are lowest, at 75.8% and 89.9%.

The group of Average has the lowest rate of acceptance and accuracy rate seems not consistent with the outcome from the comparison between pre-test and post-test as discussed in 4.4.1. One reasonable justification is that they insist more in the correctness of their own ideas when they amend their texts so they take relatively fewer suggestions from their peers. This, to some degree, shows that they are more

21

willing to think independently and try to accept more alternatives. This good quality eventually helps them to improve in their abilities, as is shown in the improvement in their post-tests.

5. Results and Discussion

5.1 Major Findings

By analyzing the data collected from 2 assignments, 1 test done by 12 students and 1 questionnaire finished by 19 classmates, this paper talks about the effectiveness of online peer review. And all the data show that online peer review is practical and beneficial for English major students in improving their C-E translation ability. The major findings are listed as follows:

(1) Students hold a positive attitude towards online peer review because they think that online peer review is more conducive for themselves compared with tradition peer review.

(2) After a semester' peer review, there is an improvement in students' translation ability especially in words level. This outcome is consistent with the findings from the questionnaires. According to the questionnaire, 84.21% students believe that online peer review can help them cultivate independent thinking ability and the ability of solving problems individually.

(3) The group of average benefits most from online peer review. Compared with two other groups, they are more critical and judgemental when accepting their peers' work (as shown in the lowest rate of acceptance in their peer's suggestions), which is a good quality that eventually helps them to improve most in their translation abilities (as shown in the improvement they make in post-test).

(4) According to the questionnaire, students are more likely to do peer review on the internet compared with traditional peer review. When they do peer review on the internet, they have more confidence to do it better and they are free from the limitation of time and place.

In a word, online peer review is an efficient and practical way of teaching translation. It can not only improve students' translation work but also cultivate students' cooperative consciousness.

5.2 Limitations

(1) The students involved in this paper are relatively few, so the data of this paper will be greatly influenced if there is any mistake of the date collected from the students' translation work and questionnaires.

(2) The improvements of students' translation texts are all contributed to classmates' suggestions without considering the possibility that students improve their texts by searching information on the internet themselves.

(3) There is no control group in the online peer review, so the improvement in students' translation ability can not be all attributed to online peer review. The only thing for sure is that this semester's translation teaching which is based on the online peer review is successful.

6. Conclusion

The study shows online peer review is welcomed among students and is of great effectiveness in C-E translation course. In the process of online peer review, most students are motivated by the new form of course and benefits from the process of exchanging their comments and thinking critically to solve problems during the process.

Considering its effectiveness, online peer review can be actively incorporated into C-E translation course or other similar courses. Another implication from the study is teachers, when applying peer review in class, need to pay attention to group differences. The weak group need to be encouraged and given more instructions as to how to think independently and bravely.

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