

Exploring e-learners' perceptions of net-based peer-reviewed English writing

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Abstract This study aims to investigate the effectiveness of a net-based peer review process for improving Chinese adult e-learners' English writing ability. A class of 36 students participated in this study, which lasted one school year of two semesters. Participants were divided into three groups according to their English writing abilities at the beginning of the study. They attended regular synchronous classes and took writing assignments home. The feature of this experiment is that their writings were submitted for peers' reviews from another group. At the end of each semester, an online writing contest was organized and all the participants took part in order to examine learning outcomes. A survey at the end of the study was also conducted to obtain students' perceptions of the process. The result of the study shows that all the participants obtained satisfactory results, but the students with lower writing ability made more progress than those with higher ability. The finding also indicates that students with higher writing ability tend to become discouraged if they are grouped with lower-ability students for too long.

Keywords Distance education · Peer review · Teaching/learning strategies · Pedagogical issues

Introduction

An important goal of teaching English as a foreign language (EFL) is to develop students' writing ability, one of the four skills in language learning, namely listening, speaking, reading and writing. In an e-learning environment, writing classes are often lecture-centered, that is to say, the teacher will spend nearly all the time (normally in an online synchronous class) lecturing about writing skills and evaluating some good or bad writings

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and then students will be left on their own to do a writing assignment at home and turn in their products online within a specific period of time. But, scholars criticize this teaching method because there is too little exchange between students themselves and students may often feel isolated in learning. Isolation is indeed a common feeling among e-learners. Luckily with the development of the collaborative learning theory since the early 1980s, many e-learning institutions have begun to encourage students to form study groups to facilitate their learning. Many approaches have been done in this field including experimental studies (Suthers and Hundhausen 2003), case analysis (Yukawa 2006), and blended methods (Dwyer and Suthers 2006).

The collaborative learning theory has exerted great influence on language teaching, in which the teaching of writing has been taken as an important experimental field. Many approaches have been developed to encourage students' cooperation and interaction. For example, the Writing Group approach is often adopted to teach writing to undergraduate students. In this approach, students will work in small groups throughout the whole process of writing. They can formulate ideas together and exchange their written drafts and get feedback. The whole process can be very challenging, because every group member needs to be responsible not only for his or her own writing but also for others' (Smith and MacGregor 1992). Another approach called the Writing Fellows was adopted by Tori Haring-Smith in teaching an undergraduate class. These writing fellows were excellent writers chosen from the students and they would be deployed to different classes and read and make comments on the papers of other students (*ibid.*).

A common goal of these various approaches is to enable students to obtain feedback from each other and then revise and improve their writings based on the feedback. Although scholars have discussed both advantages and disadvantages of peer feedback (see Zamel 1982; Leki 1990; Mendonça and Johnson 1994; Amores 1997; Liu 1998), peer feedback is always deemed as an important and necessary source for learning besides instructor feedback (Villamil and de Guerrero 1998; Yang et al. 2006).

Scholars also believe that peer cooperation and interaction can also facilitate students' writing abilities in an e-learning environment. For example, Warschauer (2002) argued that peer response could promote e-learners' motivation and participation. Hewett (2000) and Tuzi (2004) claimed that peer responses could enable e-learners to revise writings by frequently using ideas from their peers.

Teaching writing by encouraging cooperation and interaction among students is not a new idea in China, but this is still mainly done in traditional face-to-face classes. This study aims to examine the effect of peer cooperation and interaction on students' writing performances in China's online education environment. This may shed some light on the practice.

Literature review

Peer collaboration

Proponents of peer collaboration claim that students can learn more of a subject matter, no matter what it is, and retain it longer. Good learning is collaborative but not isolated (Chickering and Gamson 1987; Beckman 1990). Panitz (1997) has listed 67 benefits of collaborative learning, such as building one's self-esteem and establishing peer relationships, etc.

Debates still go on as to the composition of collaborative groups. More and more researchers support diversity in groups with the hope that stronger students can help weaker ones and will benefit from the experience of tutoring (Webb et al. 1998; Dembo and

McAuliffe 1987; Hooper and Hannafin 1998). They also found that high-ability students will perform equally well whether in heterogeneous groups or in homogeneous groups. But Mills and Durden (1992) suggested that gifted students might be hindered when they were grouped with weaker students. Radencich and McKay (1995) also summarized that grouping students according to their ability did not usually benefit overall achievement and they advocated a flexible grouping idea by using a variety of grouping formats. Scholars also debated on the most effective size for groups. For example, Antil et al. (1997) concluded that most teachers who used cooperative learning would use pairs and small groups of three or four at least 57% of the time. Slavin (1987) also showed that groups with two or three members usually would do better than groups with four or more members.

On the other hand, many researchers have pointed out disadvantages of collaborative learning. Salomon (1992) once said that despite the advantages attached to collaborative learning, teams frequently did not work as well as expected. Problems such as the “free rider” effect (Kerr and Brunn 1983) and “ganging up on the task” phenomenon (Salomon and Globerson 1987) often come up in collaborative learning.

Peer review in writing teaching

One form of peer collaboration in practicing writing is peer review. Peer review, sometimes named as peer assessment or peer editing, usually means that students check each other's drafts and then provide feedback to each other. A more detailed definition of peer review is provided by Liu and Hansen (2002) who argued that the use of learners instead of a teacher as sources of information and interaction in commenting on each other's drafts in the process of writing.

Many scholars have stated that the usefulness and effectiveness of a peer review process in improving learners' writing abilities, can make students more actively involved in the writing process instead of passively receiving information from the teacher (Mittan 1989) and that students can reflect on their own writings in light of their peers' comments (Mendonça and Johnson 1994), enabling students to build up critical skills needed to analyze and revise their own writings (Leki 1990). Chaulk (1994) claimed that teachers' feedback was often rather general, while responses from students could be more specific. He reported that his students could and did revise effectively based on comments from their peers. Villamil and de Guerrero (1998) in their investigation of peer revision on students' final drafts found that peer feedback could develop students' potential for effective revision. Tsui and Ng (2000), through their work, claimed that peer comments could contribute positively to secondary L2 (second language) writers' writing process. They pointed out that peer comments could make students more aware of their own strengths and weaknesses and encourage more cooperation among them.

The peer review practice also finds its way in China's EFL teaching environment. Xu (2000) concluded from a questionnaire survey among 58 college students that most students held a positive attitude towards peer assessment. Zhang (2008) also claimed that peer feedback could be a necessary complement to teacher feedback in practicing writing.

While the usefulness of peer review has been admitted in writing teaching, scholars have also pointed out some shortcomings and uncertainties of this practice. Zhang (1995) suggested that students participating in the peer review process might sometimes doubt the correctness and accuracy of the comments from peers, and they also tended to be overly critical of each other's writings. Amores (1997) also indicated that some students might resent acting like a teacher and became uneasy in editing peers' writings. Saito and Fujita (2004) suggested that friendship bias, reference bias, purpose bias, collusive bias and feedback bias might appear in some cases. Research has also shown that students favored teacher feedback rather than peer feedback.

Yang et al. (2006), after analyzing some textual and questionnaire data, concluded that although peer feedback could facilitate students' writing practice, teacher feedback was more likely to be adopted by students to improve their writing. This conclusion is echoed by some other researchers like Qi (2004) and Yang et al. (2006). Some research indicates that students sometimes have negative reactions to peer response (Fei 2006).

While the above research is all about the use of peer review in a face-to-face teaching environment, scholars also admit the feasibility of applying the practice in an e-learning environment. Research has been done to explore issues like the effectiveness of synchronous online peer responses and revisions (Hansen and Liu 2005). Online peer response is believed to promote student motivation, participation, and collaboration (Warschauer 2002), and facilitate students' revisions of their writings (Tuzi 2004).

The present study

In research about face-to-face writing teaching, students usually knew who they were collaborating with. The familiarity might have led to some unwanted effects; for example, students might feel uneasy in commenting on their friends' writings. In the Chinese culture, people tend to avoid finding fault with each other so as to save face. So what if peer review activities are blind?

In the above mentioned online writing teaching research, the peer review activities usually were carried out synchronously, that is to say, students needed to meet online at the same time. But as e-learners in China are mostly full-time job holders, this time requirement may be unsuitable. Recently many e-learning institutions in mainland China have begun to advocate asynchronous learning in teaching their students. Synchronous communication between students and between students and their instructors has become less and less. This change may imply that we should make more efforts to facilitate asynchronous collaboration among students.

The investigation presented in this study aimed to test the feasibility and effectiveness of applying the peer review practice to the teaching of English writing in an e-learning environment. The peer review activities described here are blind and asynchronous in nature. Participants were divided into different groups and would practice their English writing through a peer review process, which is a form of collaborative learning.

The researcher expected that all the participants would improve their English writing abilities after this two-semester-long experiment. Participants' perceptions of the collaborative experience were also obtained. Therefore, a survey was conducted at the end of the investigation to address the following questions:

- (1) Did all the participants improve their English writing, and which group improved most?
- (2) What did they benefit most from the peer review process?
- (3) Is it necessary for the instructor to provide guidance or consulting in the peer review process?

Method

Participants

A class of 36 students majoring in Telecommunications Engineering from the School of Network Education at Beijing University of Posts and Telecommunications participated in the study. Consent was obtained from the school and all the participants. They took part in

an online English writing quiz at the beginning of the study (this quiz, the home assignments for students to do in the study and the two writing contests at the end of the two semesters had the same requirements and were marked by the same course instructor according to the same set of rules, which are shown in Appendix A), and they were divided into three groups based on their scores (see Table 1).

Group A was designated as the upper level; Group B, the intermediate level, and Group C, the lower level. Group A consisted of 8 students; Group B, 11; and Group C, 17. As some research has indicated that grouping students according to ability may make low-achievers feel upset and communicate self-fulfilling low expectations (Slavin 1987; Hooper and Hannafin 1998), the instructor did not tell the students about which group they belonged to with the hope to avoid this unwanted effect. They had the same instructor and they used the same materials. Students' email addresses were collected for use in the study.

The scores were then processed for a descriptive analysis with the use of SPSS. From Table 2, we can see the standard deviations of Group A and B are small but that of Group C is rather large. This shows that the students of Group C were very different in their writing abilities. The mean differences among the three groups are large, too and this shows that the three groups were very different in their overall writing abilities.

Descriptive analysis of the quiz scores

The quiz scores were put to a nonparametric test to see whether the differences were statistically significant. Table 3 shows that there were statistically significant differences among the three groups.

Procedure

There would be one synchronous learning class every other week in the two semesters (about 8 months). Each class lasted about 3 h with two intervals. The classes were recorded simultaneously by a web tool named Webex (<http://www.webex.com.cn>) and uploaded to the online forum of the course. All the students were required to take part in the classes or watch the recordings; otherwise they would not even know what topic they should write on. Since the number of students was very large and online synchronous discussions among students were hard to control, the classes were lecture-centered with occasional discussions between students and the instructor. In the first synchronous class, the instructor explained to the students about the workflow of the peer review process (but not tell them about which group they belonged to or would work with), but there would be no requirements about how to comment on a peer's writings, that is to say, the students were left on their own to make judgments on each other's writings. In each synchronous class, the students were assigned a writing homework (so in sum, the students would do 16 home writing assignments) and were required to submit their writings through e-mail to the instructor in

Table 1 Grouping based on students' writing scores

Group	total number of students	range of scores	mean of scores
A	8	score>75	78
B	11	60<score≤75	64
C	17	score≤60	43

Table 2 Descriptive analysis of the quiz scores

group	Number	Mean	Minimum	Maximum	Std. Deviation
Group A	8	78.0000	76.00	81.00	2.13809
Group B	11	64.0000	61.00	72.00	3.25576
Group C	17	43.0000	28.00	57.00	7.81825
Total	36	57.1944	28.00	81.00	15.59637

2 days (Phase one). The assignment was usually a short passage of at least 150 words on a certain topic. The instructor would examine the writings first to check their originality. If he detected any plagiarism in one's paper, the student would be excluded from the study. If not, the instructor sent the student's writing to one peer in another group for peer reviewing (Phase two). The peer review process was conducted rotationally; for example, this time it was Group A working with Group B, but the next time it was Group A with Group C, and so on. Students in Group B and C also underwent the same process. Students completed the review process in 2 days and sent the commented writings to the instructor again (Phase three). This requirement was to ensure that the peer review process was a blind one so that the side effects mentioned in 2.2 and 3 would not appear.. The instructor then sent the commented writings to their original writers (Phase four). Figure 1 shows the workflow of the peer review process. The dotted line connecting the instructor and Student C means Student C was not in the present round, but in the next.

As can be seen from the description above, each time the student interacted indirectly through the instructor with a peer from a different group. This indirect interaction like direct interaction could also enable them to know each other's writing abilities and each other's opinions on their own writings. This design was to ensure the student to have access to writings of different levels, as some researchers have shown that students will perform better when working in heterogeneous groups (Slavin 1987; Hooper and Hannafin 1998).

During the whole peer review process, the instructor mainly acted as a messenger for the peers, but in the online synchronous class following each assignment, the instructor spent some time summarizing students' performance in their writings and pointing out problems in the review process. These advices and suggestions were to help improve students' performance in the next peer review round. So the instructor also played the role of facilitator or supervisor in the study.

An online writing contest was organized to evaluate their learning outcomes at the end of each semester. The contests were actually quizzes like the one at the beginning of the

Table 3 Kruskal-Wallis Test Statistics^{a,b} of the quiz

Group	N	Mean Rank	Chi-Square	df	Asymp. Sig.
quiz	Group A	8	32.50		
	Group B	11	23.00		
	Group C	17	9.00		
Total	36		30.021	2	.000

^a Kruskal Wallis Test

^b Grouping Variable: group

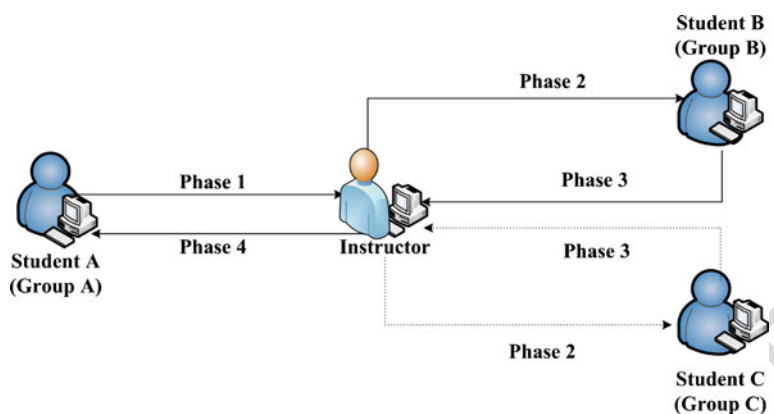


Fig. 1

Q5

study but were given the name “contest” to make them appear more formal and conclusive. All students were required to take part in the contests, and if not they would be excluded from the study. The contests had the same requirements as the home assignments. This was to make students’ improvement in writing easily detected. Students submitted their writings for the contests through e-mail to the teacher in 2 days. An e-mail survey was conducted at the end of the second semester to investigate participants’ perceptions of the peer review process (see Appendix B).

Results and discussion

The peer review process required every reviewer to be responsible for others’ writings. They might point out the vocabulary or structural errors of their peers’ works, and they could also see others’ comments on their own writings. But the collaboration between them employed a new form in the experiment. Traditional forms of collaboration include peer teaching, peer learning, study groups and so on, which were classified by Davis (1993) into three general types: informal learning groups, formal learning groups, and study teams. Whatever the name is, most of them tend to focus on collaboration between students themselves. The collaboration described in this study was via the instructor, who served as a messenger and supervisor. The teacher’s participation as described in the above section might have reinforced students’ collaboration and made the whole process proceed in the right direction. Another feature of the collaboration is that the students did not have a stable collaborative relationship. They might have a different partner to work with each time. This changing nature of collaboration was interesting and challenging to them. What’s more, they did not know the names of their partners, so their collaborative relationship was a blind one.

After the first contest at the end of the first semester, students’ scores were processed for a descriptive analysis and a nonparametric test (see Tables 4 and 5).

Compared with Table 2, Table 4 shows that the means for the three groups had increased, which implies that the overall writing abilities of all the groups had improved. While the standard deviations of Group A and C remained almost unchanged, that of Group B became very large. This change indicates that the differences within Group B were more dispersed than before. The nonparametric test shows that the differences among the three groups were still significant.

Table 4 Descriptive analysis of contest 1

Table with 6 columns: group, Number, Mean, Minimum, Maximum, Std. Deviation. Rows include Group A, Group B, Group C, and Total.

It was also found that students in Group A were still the best writers among all the groups, but Group B improved more greatly. Students from Group C also improved but not that much. Five students from Group B met the standard of Group A and two students from Group C reached the requirement for Group B. Table 6 and Fig. 2 shows the results. After the second contest at the end of the second semester, results changed. Students from Group C improved most. Group B still progressed but not as much as in the first semester. Students in Group A, on the other hand, improved less than the other two groups throughout the two semesters, although they were still the best writers among the groups. Eight students from Group C now met the standard of Group B as is shown in Table 7 and Fig. 3. The scores were also processed for a descriptive analysis and a nonparametric test. Table 8 shows that the means of the three groups increased again, with that of Group C significantly increased (61 - 46 = 15). The standard deviations of Group B and C were still very large, which implies that the students in these two groups were still very uneven in their writing abilities. The nonparametric test shows that the differences among the three groups were significant (Table 9). From the above data analysis, we can see that all the three groups made some progress. This finding confirms the common idea that collaborative learning can be very rewarding (Beckman 1990; Chickering and Gamson 1987; Johnson et al. 1991; Panitz 1997), and peer review is effective in teaching writing (Villamil and de Guerrero 1998; Zhang 2008; Tsui and Ng 2000; Xu 2000). On the other hand, the study also shows that students with lower abilities made greater progress than those with higher abilities. This finding is consistent with observations that although high-ability students can perform equally well in various groups (Webb et al. 1998; Dembo and McAuliffe 1987; Hooper and Hannafin 1998; Lundstrom and Baker 2009), they may be held up when grouped with weaker students (Mills and Durden 1992). Among the three groups, Group C was the weakest, but when they worked with Group A and B, they made the greatest progress in the long run. This finding also confirms the idea that for those less mature EFL writers, peer comments lead to

Table 5 Kruskal-Wallis test statistics^{a,b} of contest 1

Table with 6 columns: Group, N, Mean Rank, Chi-Square, df, Asymp. Sig. Rows include quiz, Group A, Group B, Group C, and Total.

^a Kruskal Wallis Test
^b Grouping Variable: group

Table 6 Overview of contest 1

Group	total number of students	range of scores	mean of scores
A	8	score>75	80
B	11	60<score≤75 (6 students) score>75 (5 students)	69
C	17	score≤60 (15 students) 60<score≤75 (2 students)	46

positive results (Tsui and Ng 2000). On the other hand, Group A was the strongest but their writing abilities did not seem to improve much. Some students in Group A stated in the survey that comments from others provided little help for them, so they did not make any revisions of their original writings. Table 10 also shows that no one in Group A revised their writings. As practice makes perfect, this attitude might have hindered their improvement in writing.

All the participants responded to the survey conducted at the end of the second semester. They all held a positive attitude towards the peer review experience. But when asked if it was necessary to prolong the experiment, both Group B and C said “Yes”, while only three from Group A thought so. The other five participants from Group A stated in their answers to the open question in the survey (see examples in Appendix C) that they put too much effort in the peer review process but received too little, and they felt that they had been taken advantage of by the school. This implies that these students could resent the peer review process if they were always helping out students, but not getting much help back. This finding indicates that the participants with lower writing abilities were better motivated

Fig. 2

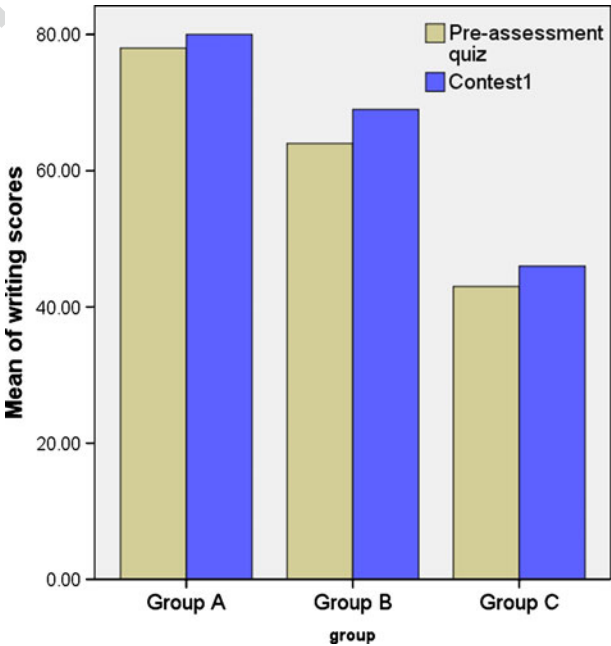


Table 7 Overview of contest 2

Group	total number of students	range of scores	mean of scores
A	8	score>75	82
B	11	60<score≤75 (6 students) score>75 (5 students)	71
C	17	score≤60 (9 students) 60<score≤75 (8 students)	61

and those with higher abilities might have high interest in the beginning but tend to be under-motivated and even bored if they continued working with those with lower abilities. This finding is consistent with that of Mills and Durden (1992). Flexible grouping may be more suitable for them in the long run (Radencich and Mckay 1995). Besides, some students from Group A and B thought some comments from their peers were not right or reasonable (see Appendix C), and this finding echoes conclusions from some other scholars (Nelson and Murphy 1992; Zhang 1995).

All groups thought they still needed synchronous classes. In their mind, synchronous learning could provide them with basic writing skills from the instructor and they thought this was essential for their study. They stated that they seemed unable to concentrate on the learning process without this. This finding is consistent with previous observations that asynchronous and synchronous e-learning can complement each other and the combination of these two types of e-learning supports several ways for learners and teachers to exchange information, collaborate on work, and get to know each other (Haythornthwaite and Kazmer 2002). As indicated by some scholars, asynchronous learning can provide students

Fig. 3

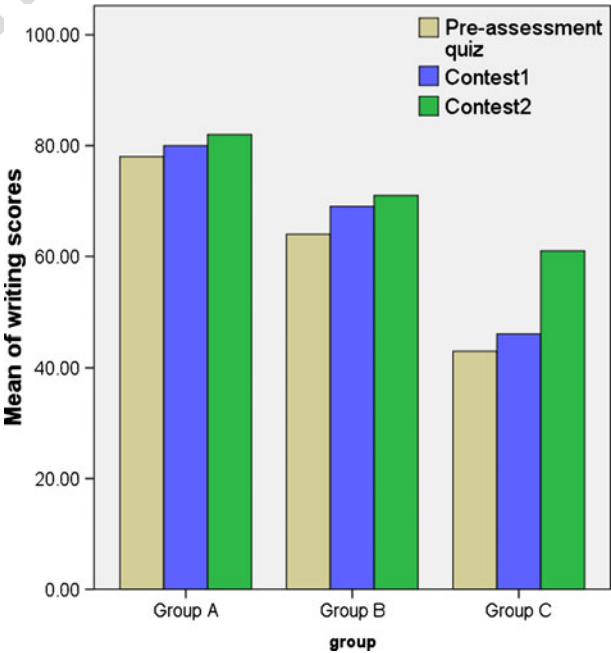


Table 8 Descriptive analysis of contest 2

group	Number	Mean	Minimum	Maximum	Std. Deviation
Group A	8	82.0000	76.00	87.00	3.46410
Group B	11	71.0000	62.00	82.00	7.65506
Group C	17	61.0000	40.00	75.00	9.08295
Total	36	68.7222	40.00	87.00	11.30262

with more autonomy, allow students to be free from the constraints of time and space (Kruse 2004), and thus improve one’s personal ability in self-study (Robert and Dennis 2005), while synchronous learning is essential to SLA (second language acquisition) (Lee 2002), and it can duplicate some elements of the traditional face-to-face classes, enable students to receive immediate feedback from other learners and the teacher (Keegan et al. 2005), and thus involve more interaction between teachers and students or among students (Pfister 2005). In the case of this study, although students did not know who they were collaborating with, they still got to know each other’s opinions on their writing.

All the students thought it was very interesting and challenging to comment on others’ writings. Students in Group A stated that they enjoyed finding errors and mistakes in others’ compositions, especially those badly written, and they did not hesitate in commenting on these mistakes. They often felt proud that their own writings were better than those they commented on. Students in Group C said that they were very cautious in the peer review process. They thought that could tell that they were being critiqued by someone who knew more than they did and could articulate it better in English, and so were afraid to make any wrong comment on others’ work. They would often use dictionaries or resources on the Internet to help themselves. They thought they might have benefited much from this “cautiousness”. On the other hand, they often felt inferior in the writing ability to their peers from other groups. Four of them stated in the survey that they had become less confident in English writing and five others said they were determined to catch up with those high-ability students. This implies that the heterogeneous grouping may have different impacts on low-ability students: Some may be encouraged while others may be discouraged. Students in Group B often had mixed feelings. They did not necessarily know the group structure of the experiment, but they could tell when their paper was being critiqued by a student whose English was better or worse than theirs, so they would feel superior when reviewing writings worse than theirs but inferior when reading works better than theirs. Anyway, they knew they were still not so good at writing, so they would not stop

Table 9 Kruskal-Wallis test statistics^{a,b} of contest 2

Group	N	Mean Rank	Chi-Square	df	Asymp. Sig.
quiz					
Group A	8	31.38			
Group B	11	20.86			
Group C	17	10.91			
Total	36		21.366	2	.000

^a Kruskal Wallis Test

^b Grouping Variable: group

Table 10 Calculation of students' responses to the email survey

Please read the following statements and check the boxes next to the answers which you think are most appropriate to you.

1. I enjoy reviewing others' writings.

Strongly Agree ☒ Agree ☒ Slightly Agree ☐ Disagree ☐ Strongly Disagree ☐

Group A (3) Group A (5)

Group B (all)

Group C (all)

2. The synchronous classes are still necessary.

Strongly Agree ☒ Agree ☒ Slightly Agree ☐ Disagree ☐ Strongly Disagree ☐

Group A (3) Group A (5)

Group B (8) Group B (3)

Group C (all)

3. I think it is interesting and challenging to review my classmates' writings.

Strongly Agree ☒ Agree ☐ Slightly Agree ☐ Disagree ☐ Strongly Disagree ☐

Group A (all)

Group B (all)

Group C (all)

4. I will primarily focus on the grammatical mistakes when reviewing others' works.

Strongly Agree ☒ Agree ☒ Slightly Agree ☒ Disagree ☐ Strongly Disagree ☐

Group A (4) Group A (2) Group A (2)

Group B (7) Group B (4)

Group C (all)

5. I will rewrite on the topic after obtaining others' comments on the previous writing.

Yes ☒ No ☐

Group B (5) Group B (6)

Group C (13) Group C (4)

Group A (8)

6. I need more online contests.

Strongly Agree ☒ Agree ☐ Slightly Agree ☒ Disagree ☒ Strongly Disagree ☐

Group A (all) Group B (2) Group B (9)

Group C (2) Group C (15)

7. I think it is necessary for the teacher to provide his comment on my writings.

Strongly Agree ☒ Agree ☐ Slightly Agree ☐ Disagree ☐ Strongly Disagree ☐

Group A (all)

Group B (all)

Group C (all)

8. I would like to continue with the peer review process next year.

Strongly Agree ☒ Agree ☐ Slightly Agree ☐ Disagree ☒ Strongly Disagree ☐

Group A (3) Group A (5)

Group B (all)

Group C (all)

State your perceptions of the peer review process.(An open question)

(some students' answers are provided in Appendix C)

practicing. In other words, all the groups were willing to assume responsibility. This finding confirms Johnson and Johnson's (2004) belief that individual accountability is one of the five basic elements needed for effective group collaboration. Some scholars even claim individual accountability to be the most critical factor in collaborative learning, and a lack of it can impede collaboration (An et al. 2008). The positive attitude of the students towards peer review is also consistent with previous research findings that most students will favor the peer review practice in writing and peer cooperation is a good complement to teachers' instruction (Xu 2000; Yang et al. 2006).

Interestingly, all the participants focused their attention on grammatical mistakes in others' writings, with students in Group A occasionally commenting on others' wording or textual organization. This phenomenon was also found in some other research (see Zhang 2008). The reason may be that most adult e-learners in China are poor in English and that most tests for e-learners of non-English majors in China still focus on students' grammatical and vocabulary abilities. This special focus on grammar and vocabulary might account for the most prominent progress in Group B and C. They could use more grammatical structures and more varied vocabularies in writing. For example, they would sometimes use "affection" instead of "love".

When asked whether they rewrote on the topics after obtaining others' comments, 13 Students in Group C said they rewrote on all or some of the topics, and five students in Group B did so, but none in Group A. This shows that most low-ability students had made good use of peer feedback, but most of those with intermediate or high writing abilities did not. Students in Group A stated that their writings were almost always commented favorably by others, so they thought they need to rewrite.

All the participants stated that although they appreciated the comments from their peers, they still wanted to know the teacher's opinions. They thought comments from the teacher would be more appropriate. In other words, these students still believed in the authority of their teacher (Tsui and Ng 2000; Lee 2004; Lee 2008), and the teacher's feedback, if there was any, was more likely to be adopted (Qi 2004; Yang et al. 2006; Zhang 2008; Zhao 2010). From another perspective, this may mean that students sometimes lack trust in peer feedback (Zhang 1995). This finding echoes the idea that the teacher needs to act as both a facilitator and authority in the classroom (O'Dwyer 2006).

As to the online writing contests, all the students in Group A requested more, but only a few from Group B and C held the same idea. This may lie in the fact that the students in Group A had more confidence in their writing ability and they wanted opportunities to show that they were better than others.

Conclusion

Online collaborative learning has long been advocated by educators. But they often debate on the specific formats to be taken. In the teaching of writing to undergraduate students, many approaches have been developed, such as those mentioned in the Introduction. As more and more e-learning institutions in China are reducing synchronous classes and most synchronous classes are still lecture-centered, there is a special need to find ways to involve all the students in the learning process. The approach in this study was to improve students' English writing skills through a peer review process. The result showed that most participants accepted this approach and received satisfactory results. Students with higher writing abilities enjoyed the process of commenting on others' works, and they built up more confidence in learning. Those with lower abilities might have lost confidence in the

process, but they made the greatest progress and they were the most prominent beneficiaries. As to the few who were not satisfied with the process, special care might be given to them. Maybe they needed more challenging tasks to facilitate their learning. This is not so difficult to realize. In any case, e-learners need to experience learning successes that can build their competence, control and worth (Cheng and Lin 2010).

On the other hand, there are some limitations of this study that need to be recognized.. First, the sample size of this study is relatively small. The small sample size may not represent the overall situations of adult e-learners in China. Second, it is indicated that the peer review form in this study was more to the advantage of the students with low or intermediate writing abilities, so there was a kind of unfairness for those high-ability students. Are there more appropriate forms of peer review that can facilitate all the participants? Third, the survey indicated that all the students called for the instructor's feedback, but due to various considerations the instructor actually did not give one-to-one feedback in the study. So what results will come up if there is some teacher feedback? All these questions are worthy of consideration and call for further exploration.

Appendix A: Rules for grading writings

1. The full mark of a writing is 100 points.
2. Writings unrelated to the given topic means 100 points to be deducted.
3. Word count fewer than 150 means 40 points to be deducted.
4. Any mistake in grammar or vocabulary means 5 points to be deducted.
5. Wrong use of transitional words means 5 points to be deducted.
6. Wrong use of punctuation marks means 2 points to be deducted.
7. Illegibility means 1-3 points to be deducted.

Appendix B: Email survey

Please read the following statements and check the boxes next to the answers which you think are most appropriate to you.

1. I enjoy reviewing others' writings.
 Strongly Agree ☐ Agree ☐ Slightly Agree ☐ disagree ☐ Strongly Disagree ☐
2. The synchronous classes are still necessary.
 Strongly Agree ☐ Agree ☐ Slightly Agree ☐ disagree ☐ Strongly Disagree ☐
3. I think it is interesting and challenging to review my classmates' writings.
 Strongly Agree ☐ Agree ☐ Slightly Agree ☐ disagree ☐ Strongly Disagree ☐
4. I will primarily focus on the grammatical mistakes when reviewing others' works.
 Strongly Agree ☐ Agree ☐ Slightly Agree ☐ disagree ☐ Strongly Disagree ☐
5. I will rewrite on the topic after obtaining others' comments on the previous writing.
 Strongly Agree ☐ Agree ☐ Slightly Agree ☐ disagree ☐ Strongly Disagree ☐

6. I need more online contests. 425
Strongly Agree ☐ Agree ☐ Slightly Agree ☐ disagree ☐ Strongly Disagree ☐ 426
7. I think it is necessary for the teacher to provide his comment on my writings. 427
Strongly Agree ☐ Agree ☐ Slightly Agree ☐ disagree ☐ Strongly Disagree ☐ 428
8. I would like to continue with the peer review process next year. 429
Strongly Agree ☐ Agree ☐ Slightly Agree ☐ disagree ☐ Strongly Disagree ☐ 430
9. State your perceptions of the peer review process. 431
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Appendix C: Some students' answers to question 9 in the email survey 433

1. Student 1 (Group A) (translated from Chinese): I felt quite excited to acquire the teacher's role at first, but felt bored as time went on. There were so many mistakes and errors I needed to point out in others' compositions. I had little time to check my own work. Besides, I found that some comments on my work were not right. This greatly upset me. 434
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2. Student 2 (Group A) (translated from Chinese): The editing work was interesting at the beginning, but I found it quite boring later. I found others' comments on my writings were always so few and could hardly do me any good. In my mind, I think I need to collaborate with more competent and responsible peers. So I will say that I do not like the peer review experience. I paid too much but got too little. 438
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3. Student 3 (Group B) (translated from Chinese): I like the experience. I got a lot of help from it, and I want to continue. By the way, I know the teacher is very busy, but can he provide his comments on my writings or perhaps can he comment more on our writings in the synchronous classes? 443
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4. Student 4 (Group B) (translated from Chinese): I have really learnt a lot from the peer review process. I like to see others' comments on my compositions, especially those from my classmates. One last thing, I found some comments are not so reasonable. Is it possible that I misunderstood their ideas? 447
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5. Student 5 (Group C) (translated from Chinese): At the end of this semester, I feel that my writing abilities have been greatly improved. Thanks to the help from my classmates. But I think I still fall behind others. Maybe I need more such experiences. As you know my English is poor, so I often felt it was very difficult for me to comment on others' writings. But I still tried hard to accomplish the task. I would use dictionaries or surf the Internet. Anyway, I was kept busy in the process. Maybe this is worthwhile. 451
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6. Student 6 (Group C) (translated from Chinese): I like to hear others' ideas about my writings. I think these ideas are quite useful and helpful for me to revise my compositions. I'd like hear the teacher's opinions, too? Can he provide his? In addition, I think I need the synchronous classes, because I often feel quite uncertain and helpless when I study asynchronously. Sometimes, I don't know what to do and where to begin in my learning. Asynchronous study gives me time, space and great autonomy, but as my English is poor I still need direct instructions from the teacher in synchronous classes. 457
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7. Student 7 (Group C) (translated from Chinese): I have only one feeling that my English is so poor. Sometimes I felt quite upset. Why others' writings are so good? Do you think I can catch up with those high-achievers, my dear teacher? Anyway, I will give it a last try next semester. 464
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