



UNIVERSITY OF LEEDS

This is a repository copy of *New insights into the process of peer review for EFL writing: a process-oriented socio-cultural perspective*.

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/134427/>

Version: Accepted Version

Article:

Zhao, H orcid.org/0000-0002-9502-4763 (2018) New insights into the process of peer review for EFL writing: a process-oriented socio-cultural perspective. *Learning and Instruction*, 58. pp. 263-273. ISSN 0959-4752

<https://doi.org/10.1016/j.learninstruc.2018.07.010>

Crown Copyright © 2018 Published by Elsevier Ltd. This is an author produced version of a paper published in *Learning and Instruction*. Uploaded in accordance with the publisher's self-archiving policy. This manuscript version is made available under the Creative Commons CC-BY-NC-ND 4.0 license <http://creativecommons.org/licenses/by-nc-nd/4.0/>

Reuse

This article is distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND) licence. This licence only allows you to download this work and share it with others as long as you credit the authors, but you can't change the article in any way or use it commercially. More information and the full terms of the licence here: <https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

1 **New insights into the process of peer review for EFL writing: a** 2 **process-oriented socio-cultural perspective**

3 **1. Introduction**

4 Peer review has been increasingly applied in EFL/ESL (English as a Foreign/Second
5 Language) writing instruction. This has given rise to research on the roles of peer review
6 in writing instruction. Nevertheless, the dynamics of peer interaction and the strategies
7 mediating writers' understanding of peer feedback are still underexplored (Yu & Lee,
8 2016). It is important to understand these aspects of peer review from both theoretical and
9 empirical perspectives. From the theoretical perspective, the socio-cultural theory
10 suggests that the effectiveness of other regulation (e.g., support from peers) for learning is
11 decided by its frequency and quality that occurs between collaborators (Lantolf &
12 Aljaafreh, 1995, p. 620). Accordingly, to unveil the effectiveness of peer review, one
13 needs to explore how peer review occurs between writers and peer reviewers. From the
14 empirical perspective, the examination of the process of peer review will provide insights
15 into how language learners approach peer review, reveal why some students benefit from
16 peer review while others do not (Yu & Lee, 2015; Zhu & Mitchell, 2012), and generate
17 empirical evidence to enhance the effectiveness of peer review for writing.

18 The current study aimed to explore the process of peer review and developed the
19 theory and practice of peer review for writing in several ways. One, it identified the
20 pitfalls of the predominant product-oriented research paradigm in existing studies which
21 measured the effectiveness of peer review in terms of learners' use of peer feedback in
22 revisions. Two, it postulated the importance of investigating the process of peer review
23 through the lens of the socio-cultural theory which highlighted the importance of social
24 interaction for learning and the necessity of a process-oriented paradigm. Three, it
25 expanded the relatively small number of studies of peer review in EFL writing instruction
26 in China wherein resistance to peer review has been found magnified compared to those
27 from other parts of the world (Chang, 2016). Last but not least, it enriched the limited
28 amount of literature on the process of peer review in both first and second language
29 writing.

1 **1.1. Critiques of product-oriented research on peer review for writing**

2 Chang (2016) conducted a comprehensive review of existing studies on peer review for
3 ESL/EFL writing between 1990-2015. She identified the most predominant research line
4 as comparing the effectiveness of peer and teacher feedback in terms of their use in
5 redrafts. In that research line, peer feedback was reported to be used less frequently than
6 teacher feedback, indicating a less effective role of peer than teacher assessment for
7 writing (e.g., Cho & MacArthur, 2010; Gielen, Peeters, Dochy, Onghena, & Struyven,
8 2010; Ruegg, 2015; Yang, Badger, & Yu, 2006). Another main research line that was
9 identified in her review paper explored learners' preference for peer and teacher feedback
10 wherein learners perceived the latter as being more useful and reliable to revise drafts;
11 however, they expressed their willingness to have peer review alongside teacher
12 assessment to increase the amount and diversity of feedback on their writing (Hu & Lam,
13 2010; Lee, 2015; Lei, 2017; Nelson & Carson, 1998; Zhang, 1999).

14 The two prevailing research lines have commonly adopted a product-oriented
15 perspective which suggests the effectiveness of feedback for writing in terms of its impact
16 on instant writing quality. The product-oriented approach could be problematic in a
17 number of ways. First, students have been observed to incorporate incorrect peer feedback
18 in their revisions (Villamil & DE Guerrero, 1998). Using invalid peer feedback in redrafts
19 impairs rather than improves their quality. Second, students have been reported to use
20 feedback in revised drafts without understanding its necessity for their writing (Lee, 2007;
21 Villamil & DE Guerrero, 2006). Using feedback without understanding why it is needed
22 for their redrafts will not develop learners' writing proficiency as learners have not
23 understood feedback in their inner space (i.e., internalisation) (Lantolf, 2003; Lantolf &
24 Aljaafreh, 1995; Vygotsky, 1978). Last but not least, the product-oriented approach
25 neglects learning opportunities arising from the process of peer review including the
26 benefits for reviewers from giving feedback (Lundstrom & Baker, 2009). Consequently,
27 the product-oriented approach has either overvalued or undervalued peer review for
28 writing and learning. It has overvalued peer review due to its ignorance of (a) the
29 integration of invalid peer feedback in revisions and (b) the peer feedback instance that is
30 used without understanding its necessity of revisions. It has underestimated the value of

1 peer review owing to its disregard for (a) learning arising from the process of peer review,
2 (b) learning evidence undiscernible in revised drafts, and (c) the benefits of peer review
3 for reviewers. Furthermore, the product-oriented approach could not explain the
4 underlying reasons for why individual learners use different amount of feedback and
5 generate evidence for improving the effectiveness of peer review for writing. To fully
6 understand peer review for writing, it is essential to disclose the process of peer review
7 apart from the impact of peer feedback on redrafts.

8 **1.2. Other regulation in the socio-cultural theory**

9 The socio-cultural theory stipulates that language learning is first constructed via other
10 regulation through social interaction (e.g., with teachers and/or peers) and then
11 appropriated via self-regulation (i.e., internalised by learners themselves) (Aljaafreh &
12 Lantolf, 1994; Vygotsky, 1978). Social-cultural theorists also believe that language
13 development is not simply determined by the relative accuracy of linguistic performance,
14 but, crucially, is a function of the frequency and quality of regulation (i.e., help)
15 negotiated between collaborators (Lantolf & Aljaafreh, 1995, p. 620). This indicates the
16 importance of investigating the negotiation process of other regulation between learners
17 and their learning partners (e.g., teachers and peers) to unveil the role of other regulation
18 in language development. This notion of the socio-cultural theory should be echoed in
19 studies of peer review, “those supportive behaviours that one partner helps another to
20 achieve higher levels of competence and regulation in semiotically mediated interactive
21 situation” (Villamil & DE Guerrero, 2006, p. 31). Studying the process of peer review
22 will help to produce a comprehensive picture of its efficiency for writing (van Zundert,
23 Sluijsmans, & van Merriënboer, 2010).

24 **1.3. Importance of peer interaction for learning in the socio-cultural theory**

25 The significant role of peer interaction in peer review can be gleaned from the socio-
26 cultural theory. The theory elucidates that social interaction is the most effective way to
27 facilitate other regulation as it discloses the needs of social interactants thereby enabling
28 collaborators to provide assistance attuned to those needs (Aljaafreh & Lantolf, 1994;
29 Lantolf, 2000; Weissberg, 2006). As far as peer review is concerned, peer interaction
30 would help to identify student writers’ learning needs thus enabling peer reviewers to
31 address those needs with appropriate support. This theoretical stance has been

1 substantiated in Zhao (2010) wherein learners reported that interactive peer interaction
2 greatly facilitated their understanding of peer feedback.

3 Nevertheless, very limited studies have investigated the dynamics of peer
4 interaction since the 1990s. Lockhart and Ng (1995) analysed reviewer instances among
5 27 pairs of secondary Chinese ESL students. They observed that probing and
6 collaborative peer reviewers encouraged writers to articulate the intended meaning of their
7 texts and built ideas through negotiation; contrariwise, authoritative and interpretative
8 reviewers carried out little interaction with writers which led to/enhance product-oriented
9 attitudes towards writing. Likewise, Villamil and De Guerrero (1996, 2006) and De
10 Guerrero and Villamil (2000) analysed peer interaction protocols among tertiary Spanish
11 ESL learners. They noted that collaborative peer reviewers assisted their partners via
12 negotiation whereas reviewers in non-collaborative peer revision held authoritative
13 attitudes and resisted collaboratively working out revision solutions.

14 A more detailed analytical scheme of interaction patterns was developed in Storch
15 (2002) in terms of equality (i.e., the degree of control or authority over the task) and
16 mutuality (i.e., the level of engagement with each other's contribution), although she
17 examined peer collaborative writing (i.e., learners produced a piece of writing together)
18 rather than peer review for writing. Based on 33 ESL college students (mainly from Asia),
19 she classified peer interaction into the expert/novice, the dominant/dominant, the
20 dominant/passive, and the collaborative pattern. The current study adapted Storch (2002)
21 categories to identify peer interaction patterns alongside mediating strategies.

22 **1.4. Mediating strategies to facilitate peer interaction**

23 Strategies to provide other regulation are an important dimension for understanding the
24 quality of other regulation, based on the socio-cultural theory. Vygotsky (1978) proposed
25 that human activities, including human intellectual capacities such as language learning
26 were socially and culturally mediated via tools such as language, external sources, self
27 and others (e.g., peers). The examination of mediating strategies would disclose how
28 learners employ those tools to facilitate their discussion during the review process and
29 consequently their language learning.

30 Villamil and De Guerrero (1996) examined mediating strategies that were used by
31 54 intermediate Spanish ESL learners during paired peer review for writing. They

1 identified five strategies, consisting of employing symbols and external resources, using
2 the L1, providing scaffolding [i.e., a process enabling a child or novice to solve a
3 problem, carry out a task, or achieve a goal which could be beyond his unassisted efforts
4 (Wood, Bruner, & Ross, 1976, p. 90)], resorting to interlanguage knowledge, and
5 vocalising private speech. A more recent study on mediating strategies was conducted by
6 Yu and Lee (2016). They observed five strategies that were employed by four Chinese
7 EFL learners in grouped peer review on an argumentative essay: using the L1, employing
8 L2 writing criteria, adopting rules of group activities, seeking help from teachers, and
9 playing different roles. Both studies have generated insightful information of how peer
10 reviewers from two cultures draw on different internal and external resources to facilitate
11 peer review for writing. However, none of them has investigated the variation of
12 mediating strategies across peer interaction patterns.

13 **2. Methods**

14 The current study filled in the research gaps that were identified above. It explored the
15 process of peer review to suggest the frequency and quality of other regulation negotiated
16 between writers and reviewers from varied perspectives, through the lens of the socio-
17 cultural theory. To be specific, it explored interaction patterns and their relations to
18 mediating strategies and the amount and focus of feedback via asking three research
19 questions:

- 20 1. What patterns of interaction were followed by learners in the process of peer
21 review?
- 22 2. What were the relations between mediating strategies and interaction patterns?
- 23 3. What were the relations between the amount and focus of peer feedback and
24 interaction patterns?

25 Through answering these questions, this study sought to provide new insights into how
26 Chinese EFL learners negotiated peer feedback and facilitated writers understanding it
27 from a process-oriented socio-cultural perspective.

28 **2.1. Participants**

29 This study involved eighteen undergraduate second-year English majors (ten females and
30 eight males) from a large-scale university in southern China for sixteen weeks. All
31 participants were native Chinese speakers and intermediate EFL learners, based on their

1 writing tutors' judgement (who was an experienced writing tutor with over 20 years of
2 teaching experience) on their writing proficiency and their English marks in the
3 University Entrance Examination (on average 120 out of 150, roughly equivalent to B2 in
4 CEFR). All participants were aged 19. The students had very limited experience of peer
5 review due to their prolonged teacher-centred and examination-driven education
6 experience in China (Berry, 2011; Zhao, 2018). Therefore, to improve the quantity and
7 quality of peer feedback (Rahimi, 2013; Yang & Meng, 2013; Zhao, 2014), an
8 approximately 20 minute training session was provided by the writing tutor prior to each
9 peer review activity. In total, seven training sessions were provided.

10 **2.2. Training in peer review**

11 In all training sessions, the tutor demonstrated how he commented on student writing.
12 Grammar and vocabulary were the two common aspects of all training sessions given
13 their predominant roles in examination essays. It was essential to align the focuses of peer
14 review with the prevailing examination-oriented learning culture in the researched
15 institution to maintain participants' hospitality to the research project and the applicability
16 of peer review in the research context. However, training aspects also varied from
17 different genres. For example, demonstration on argumentative essays also focused on the
18 persuasiveness of evidence to support viewpoints, letters discussing the formality of
19 language related to the purposes of letters (e.g., job application letters versus personal
20 letters), poetry concentrating on rhythm by reading aloud, and fictions attending to the
21 development of plots via idea mapping. Additional training for consecutive writing tasks
22 was provided by the tutor based on the researcher's of weekly analysis of peer feedback.
23 For example, training in providing feedback on organisation was provided in the fourth
24 peer review session due to its limited amount in the previous three tasks.

25 **2.3. Design of peer review for writing**

26 The tutor assigned each student with a number between 1 and 9 based on lines or rows of
27 where they sat and paired the students who received the same numbers (e.g. the students
28 who received the number 1 would be grouped as a pair). This aimed to group students
29 with a different partner in each session so that students could benefit comments from
30 different peers. This led to different constellations across tasks. Peer review involved

1 learners in providing written feedback individually for 15 minutes, followed by dyadic
2 discussions for 25 minutes. At the end of the class, the tutor collected students' drafts and
3 commented on them and peer feedback outside of class. The writing was returned in the
4 middle of the week before the next session so that students could revise drafts with peer
5 and teacher feedback outside class. Revised versions were submitted for final teacher
6 marks and feedback in the next writing class. The current study only examined peer
7 review prior to teacher assessment on student writing.

8 The procedure of integrating peer review and teacher feedback was co-decided
9 by the writing tutor and the researcher. The tutor viewed peer feedback as valuable
10 additional input to teacher feedback for revisions but was worried about the reliability of
11 peer feedback, thus insisting on checking the "correctness" of peer feedback. The
12 provision of peer feedback prior to teacher feedback meant that the focus of peer review
13 was decided by the problematic areas of student writing under review. In other words,
14 peer interaction was not biased by subsequent teacher feedback and teacher comments on
15 peer feedback. On the other hand, the coexistence of peer and teacher feedback on first
16 drafts made it impossible to examine the effects of peer feedback on redrafts which were
17 produced based on the calibration of peer feedback, teacher comments on peer feedback,
18 and teacher feedback.

19 **2.4. Data collection and analysis of peer interaction**

20 Peer interaction protocols were audio-recorded with digital recording pens. For each task,
21 two or three dyadic peer interaction groups were recorded, depending on the number of
22 volunteers. The students indicated their willingness to be recorded by raising their hands
23 at the beginning of each peer assessment session. The tutor gave priorities to those who
24 had not volunteered before, thereby maximizing the number of different students being
25 recorded across sessions. Students were aware of being recorded as they were asked to
26 switch off their recording pens when finished peer discussion. The reasons for recording
27 2-3 dyadic peer interaction were three folds. Firstly, a pilot study revealed the limitation
28 of class time for peer interaction (i.e., 25 minutes) could only allow students to finish
29 discussing two pieces of writing at most. Group discussion could impair the fairness of the
30 student whose writing was not discussed during peer interaction. Secondly, as most of the

1 classrooms were arranged in lines and rows due to the entrenched teacher-fronted
 2 teaching methods in the research context, paired interaction was more feasible than group
 3 discussion. Finally, as the tutor could only provide tutorials for six students for each task
 4 due to heavy workloads. To avoid disadvantaging any students, different students were
 5 chosen from volunteers for different tasks.

6 **Table 1: Construction of peer interaction data**

Date	Paired interaction	English proficiency level: in pair	Gender: in pair	Genre (of the assignments being discussed)
07/03	1.5	1: High/low 0.5: average/average	1: same 0.5: different	3: letter
21/03	2	1: high/low 1: high/average	2: same	4: poem
11/04	1.5	1: low/average 0.5: average/high	1.5: different	3: argument
25/04	1.5	1: average/low 0.5: high/average	1.5: different	1: fiction 2: argument
08/05	3	2: average/average 1: high/high	1: same 2: different	2: research paper 4: argument
16/05	1.5	1: high/average 0.5: low/low	1.5: different	3: argument
30/05	2	2: average/average	2: same	1: poem 3: argument
IN TOTAL	13	6: at the same level 7: at different levels	6: the same 7: different	1: fiction 2: research paper 3: letter 5: poem 15: argument

7
 8 Table 1 shows that in four tasks, the two students in a pair only managed to
 9 discuss feedback on one student's assignments due to the limited class time for peer
 10 interaction. Data from that pairs were counted as 0.5 pairs. The incompleteness of
 11 discussing two assignments with the allocated time suggested that a longer discussion
 12 period was desirable. Nevertheless, the heavy curriculum asked for a short turnaround
 13 time for each task so that learners could be ready for examinations (Zhao, 2018). Table 1
 14 also reveals that the data were derived from six pairs of learners at the same level of
 15 English language proficiency and seven pairs at a different level. The three levels of
 16 intermediate English language proficiency were decided by the final marks students

1 obtained in the writing module, calculated based on 70% of marks for the seven
2 assignments reported here and 30% of the mark for their final term paper. Students on the
3 high intermediate level obtained a final mark equal to or above 90 (out of 100), the
4 average intermediate level with a final mark between 80 and 90, and the low intermediate
5 level with a final mark below 80s. Six data sets were from pairs with the same gender and
6 seven were of different genders. As suggested by the number of assignments in different
7 genres in Table 1, the data were based on five genres resulting from self-selected topics,
8 with argumentative essays as the main genre for being the sole genre required in exams.
9 The variety of genres provided a relatively comprehensive picture of peer interaction in
10 writing instruction. English was predominantly used in peer interaction as required by the
11 tutor, although they resorted to Chinese occasionally when they could not explain
12 themselves well in English. Chinese was kept in the raw data as a mediating strategy,
13 following the finding from other studies (see 1.4). The peer interaction data were analysed
14 in terms of interaction patterns, mediating strategies, and the amount and focus of oral
15 peer feedback after verbatim transcription by the researcher herself.

16 **Interaction patterns** were examined to suggest the quality of other regulation
17 negotiated between peer reviewers and student writers. Storch's definitions of equality and
18 mutuality were adapted to help identify interaction patterns: equality in her study was
19 defined as authority over the task whilst mutuality was described as participants'
20 engagement with each other's contribution (Storch, 2002, p. 127). Engagement in this
21 study was adapting from Ellis' (2010) definition as "how learners respond to the feedback
22 they receive (pg. 342)" and referred to whether and how the two interlocutors responded
23 to each other's utterances during peer interaction. Active engagement brought out a high
24 level of mutuality with negotiation of meaning and revision solutions whilst high equality
25 was mainly achieved when participants co-decided the focus and progress of peer
26 interaction. It is worthy of noticing that the measurement of equality and mutuality was
27 relative not absolute in this study, based upon comparisons of the three interaction
28 patterns.

1 **Mediating strategies** were examined to substantiate how peer reviewers mediated the
2 negotiation of peer feedback with student writers. Since each turn contained more than
3 one mediating strategy, a move was selected as the unit of analysing the frequency and
4 type of mediating strategies. Villamil and De Guerrero's (1996) categories of mediating
5 strategies were used as the main basis for developing the coding scheme, considering
6 similar research focuses, the comprehensiveness of their categories and participants'
7 similar level of English language proficiency.

8 **The amount of oral peer feedback** was examined to suggest the frequency of
9 other regulation that was provided in each interaction pattern. Each feedback instance
10 contained a piece of advice on how to improve one problematic area in the writer's
11 writing. Gielen, Peeters, Dochy, Onghena, and Struyven (2010) stipulated that justified
12 peer feedback was superior to the accuracy of comments in improving the effectiveness of
13 peer review because the process of justifying feedback could generate the learning
14 opportunities for learners through scaffolding each other's contributions and knowledge
15 (Wigglesworth & Storch, 2012). Without the justification of feedback, learners could also
16 fail to understand the necessity of correct feedback for their revisions which decreased the
17 effectiveness of peer review for writing. In this sense, the amount of feedback that was
18 negotiated between learners indicates the number of opportunities for learners to improve
19 their writing quality and potentially develop their language proficiency (e.g., Swain, 2000;
20 Swain, Brooks, & Tocalli-Beller, 2002).

21 **The focus of oral peer feedback** was examined as another aspect of the quality of
22 other regulation as feedback on distinct aspects of writing generated different learning
23 opportunities. The focus of feedback consisted of local (i.e., grammar, wording,
24 mechanics and sentence structures) and global (i.e., organisation, content and style). Two
25 points need to be clarified regarding the definitions of feedback focuses (see Appendix A).
26 One, considering the difficulties of setting up a clear boundary of what grammar is,
27 instead of providing a definition, a list of grammatical aspects was created based on the
28 results of data analysis. Two, sentence structures have occasionally been viewed as an
29 element of grammar; however, this study disaggregated sentence structures from grammar
30 because when the sentence structure was taken as a facet of grammar, it was the least

1 frequently commented area compared to those listed in grammar in Appendix A. Listing
2 sentence structures as a separate category helped to capture and reveal this case.

3 The development and modification of the coding scheme of peer interaction were
4 carried out via NVivo10. The researcher herself conducted two rounds of data analysis at
5 a two-week interval with a perfect intra-rater reliability regarding feedback, equality,
6 mutuality and interaction patterns and 98% intra-rater reliability regarding mediating
7 strategies, based on simple percentage agreement between two sets of results on the two
8 occasions. Two colleagues who had extensive experience in classroom interaction
9 analysis were then asked to code two peer interaction protocols in terms of feedback,
10 equality, mutuality, interaction patterns, and mediating strategies. Full agreements were
11 achieved regarding the amount and focus of peer feedback, the degree of equality and
12 mutuality, and interaction patterns. Cohen's kappa was run to determine the agreement of
13 the nature of mediating strategies between the two raters in the two interaction protocols.
14 One interaction protocol contained 21 mediating strategies with Cohen's kappa (κ)
15 equalling to 0.95 ($p < 0.00$). The other interaction protocol contained 24 mediating
16 strategies with an inter-rater reliability of Cohen's kappa (κ) equalling to 0.91 ($p < 0.00$).
17 This led to an average of Cohen's kappa (κ) equalling to 0.93 across the two protocols,
18 suggesting a very high degree of agreement between the two raters. Disagreements solely
19 lied in the differences between clarification and justification which were further discussed
20 among the two raters and the researcher and solved via redefining the two categories as
21 shown in Appendix A.

22 **3. Results**

23 The findings of interaction patterns and mediating strategies were presented first,
24 followed by the examination of how mediating strategies and the amount and focus of
25 peer feedback varied from interaction patterns.

26 **3.1. Distinct patterns of interaction across peer review dyads**

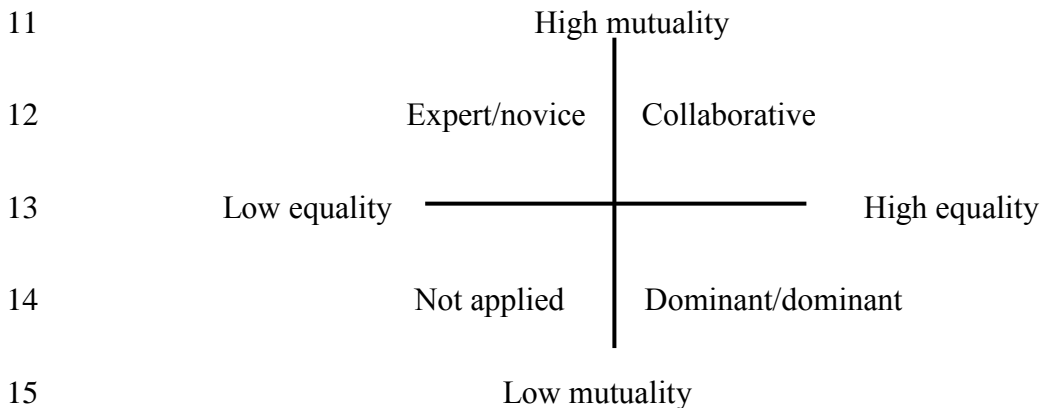
27 Three distinct patterns of interaction were observed among the 13 pairs, depicted in
28 Figure 1. Interestingly, different interaction patterns were observed within a pair when
29 they swapped their roles as reviewers and writers. This yielded 13 (50%) pairs of
30 collaborative interaction, seven (27%) of dominant/dominant interaction, and six (23%) of

1 expert-novice interaction. The passive/dominant pattern which was reported in Storch
 2 (2002) was not found in the dataset of the current study. A multinomial regression test
 3 was carried out to examine whether the gender and the language proficiency of peers in a
 4 pair and the genre of assignments could affect the patterns of interaction. The results
 5 showed no significant effects caused by the gender ($p=0.38$), the English language
 6 proficiency ($p=0.42$) and the genre of assignment ($p=0.59$) on interaction patterns.

Collaborative interaction pattern	Expert/novice interaction pattern	Dominant/dominant interaction pattern
<ul style="list-style-type: none"> jointly and equally contributing to the ongoing discussion, reflecting a high level of equality interactive and engaging negotiation of meaning and revision solutions, reflecting a high level of mutuality 	<ul style="list-style-type: none"> reviewers providing and explaining feedback whilst writers accepting peer feedback with few challenges, reflecting a relatively high level of mutuality but a relatively low level of equality similar to the teacher-learner classroom interaction 	<ul style="list-style-type: none"> writers and reviewers being self-centred without leaving space for collaborative talk, reflecting a high level of equality but a low level of mutuality a high level of disagreement and a low level of engagement in each other's utterances, reflecting a low level of mutuality

7
 8 **Figure 1** Three patterns of peer interaction

9 The features of the three interaction patterns fit well into Storch (2002)'s quadrants
 10 in terms of mutuality and equality as shown in Figure 2, further illustrated in Extracts 1-3.



15
 16 **Figure 2** Interaction pattern (adapted from Storch, 2002)

1 Extract 1 was a typical example of the collaborative pattern, culled from Wang
2 and Zhang's discussion about the use of the phrase 'as I recollect' in Zhang's
3 argumentative essay about parental love. She wrote:

4 As I recollect, it generally seems that parents always ask their children to eat the flesh of
5 the fish belly and leave the other parts to them, so that fish bones won't stick in the children's
6 throats.

7 **Extract 1** [Wang: the reviewer; Zhang: the writer]

8 1. Wang: And 'as I recollect', what is it? [clarification request]

9 2. Zhang: I found it in a Chinese-English dictionary. In my memory, or as I

10 3. remember, something like that. 在我的记忆力，在我的印象中(using Chinese).

11 4. Wang: Recollect, are you sure? [confirmation check]

12 5. Zhang: I learned it from a dictionary.

13 6. (Wang borrowed an English dictionary from a neighbour peer.)

14 7. Wang: Recollect, OK. Remember, as I recollect--- [resort to external resources]

15 8. (Zhang read aloud the explanation of recollect in the dictionary with Wang.)

16 9. Zhang: Oh, as far as I recollect.

17 10. Wang: Maybe in my recollection [providing direct feedback]. Recollect or remember

18 11. something, I think recollect needs [justifying]]

19 12. Zhang: Needs an objection. Remember/recollect something.

20 13. Wang: Yes [confirmation].

21 14. Zhang: Oh, I see.

22 Extract 1 was characterised by a high level of mutuality and equality between the two
23 collaborators who jointly decided the focus and progress of peer discussion about the
24 word usage (i.e., recollect). The peer assessor elicited information from the writer (Lines 1
25 and 4) before providing a revision solution with reference to a dictionary in Line 10-11.

26 The writer engaged in each of the reviewer's utterance by supplying information upon the
27 reviewer's clarification request in Lines 2 and 5, joining him to look up the word in Line 8,
28 completing his justification in Line 12, and confirming her understanding of the feedback
29 instance in Line 14. They reached agreement on the revision solution in Lines 13-14.

1 Extract 2 represents the expert/novice pattern between Liu and Shen about Shen's
2 argumentative essay on the responsibility of rock music. Multiple areas of Shen's writing
3 were discussed within the allocated 25 minutes.

4 **Extract 2** [Liu: the reviewer; Shen: the writer]

5 1. Liu: Generally speaking, it was written quite well. Some sentences are a little

6 2. ambiguous and I am not sure what you meant. Like this one, "say nothing of

7 3. this important and successful one" [clarification request].

8 4. Shen: Er, this means 更不用说 (using Chinese).

9 5. Liu: Oh, let alone [providing direct feedback].

10 6. Shen: Let alone. Oh, I think it is better.

11 7. Liu: And I think this part is not necessary, "unlike today, at that time" [providing direct

12 8. feedback]. And you can change to 'when' [providing direct feedback].

13 9. Shen: Oh, right.

14 10. Liu: And this quotation [noticing]. I think you put the author's name in the end, what

15 11. you mean is this person who said that? [clarification request]

16 12. Shen: Yes. It is a quotation.

17 13. Liu: Ye. So I think to put quotation marks. [providing direct feedback]

18 14. Shen: Oh, right.

19 In Extract 2, the reviewer probed writers' writing intentions of different problematic areas
20 (e.g., Lines 2-3, and 11), occasionally accompanied with explanations of the necessity of
21 revision (e.g., Lines 7 and 10-11). The writer provided clarification after the reviewer's
22 request (e.g., Lines 4 and 12); however, he accepted peer feedback with little challenge
23 (e.g., Lines 9 and 14). The pattern was characterised by a relatively low level of equality
24 (i.e., reviewers controlled the direction and progress of the task) compared to the
25 collaborative pattern but a medium to high level of mutuality (i.e., writers responded to

1 reviewer turn but uncritically accepted her revision solutions), compared to the
2 dominant/dominant pattern.

3 Extract 3 is an example of dominant/dominant interaction between Li and Hong about
4 long sentences in Hong's movie review including a sentence like:

5 He played to please people, to travel, to beat Jelly Roll Morton, the inventor of Jazz who was
6 determined to provoke the innocent boy who even didn't know what a 'duel' was, and, he played to
7 tell his love, his lost, and he even played soundlessly to say farewell to his life.

8

9 **Extract 3** [Li: the reviewer; Hong: the writer]

10 1. Li: One thing I want to point about your article is that there are really too many
11 2. commas. [providing indirect feedback] These commas make you sentences longer and
12 3. longer and it is really confusing for readers. Common readers cannot
13 4. understand it clearly [justifying]

14 5. Hong: Ye. I have considered it. Because commas can make me more emotional. I
15 6. just want to convey my emotion fully. If you make it more complicated, it will be
16 7. more logical I think.

17 8. Li: Ye, I see, I see. For writers, it is good. But for readers, it is difficult to
18 9. understand. I want to say about the readers not the writers. [restating] If...

19 10. (Interrupted by Hong)

20 11. Hong: You see. '1900, whole home was the ocean, never set foot on dry land',

21 12. (Interrupted by Li)

22 13. Li: Ye, I see. I can understand most of your words, but it is really hard for a

23 14. person who hasn't seen this movie to clearly understand your meaning with so

24 15. many commas. [restating] If you can use words properly, it is not necessary to

25 16. use so many commas. [providing indirect feedback]

26 17. Hong: Yes. Ok. I understand your meaning. This article is a little bit complicate

27 18. and I want to convey my emotions clearly and I think commas help to express

28 19. myself.

29 In Extract 3, the reviewer reiterated the confusing nature of long sentences from a reader's

1 perspective whereas the writer insisted on her reasons for using long sentences from a
 2 writer's perspective. It showed the peer reviewers' and student writers' low engagement
 3 with each other's utterance. In particular, in Lines 10 and 12, the two learners interrupted
 4 each other to restate their own viewpoints. No agreement was reached in the end. Extract
 5 3 was featured with a relatively higher level of equality (i.e., two learners took control of
 6 the focus and progress of discussion) than the expert/novice pattern but a relatively low
 7 level of mutuality (i.e., two participants insisted on their own viewpoints and resisted
 8 jointly working out revision solutions) compared to the other two patterns.

9 **3.2. Mediating strategies and their variation across interaction patterns**

10 Differed frequencies and varieties of mediating strategies reflected learners' engagement
 11 in peer interaction. A close look at the annotations of reviewer moves in Extract 1-3
 12 revealed that within a similar time span the collaborative pattern employed more varied
 13 mediating strategies than the expert/novice and dominant/dominant pattern (i.e., 6:3:3).
 14 The differences in mediating strategies across patterns were further examined via
 15 statistical analyses of the entire 26 sets of data from the thirteen pairs.

16 Considering the small sample size and non-normal distribution of the frequency
 17 and variety of mediating strategies based on normality tests, Kruskal-Wallis H tests were
 18 carried out to compare mediating strategies across patterns. The statistical results revealed
 19 significant differences in the quantity [$\chi(2) = 7.12, p < .05$] and variety of mediating
 20 strategies [$\chi(2) = 7.32, p < .05$] among the three patterns. Specifically, Table 2 shows that
 21 the expert/novice and collaborative patterns employed over and nearly two times more
 22 and varied mediating strategies than the dominant/dominant pattern, respectively.

23 **Table 2: Kruskal-Wallis Test on mediating strategies across interaction patterns**

Patterns of interaction	N	Mean rank of the quantity of mediating strategies	Mean rank of the variety of mediating strategies
Collaborative	13	14.12	15.31
Dominant/dominant	7	7.71	7.00
Expert/novice	6	18.92	17.17
Total	26		

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30

The frequency of each mediating strategy was further examined via descriptive analyses as shown in Table 3. Due to the relatively big values of SDs considering the small sample size, medians were used as the central tendency indicators of each strategy. The results revealed at least three important messages regarding the variation of mediating strategies across interaction patterns.

One, the most frequently used mediating strategy across the three patterns was providing direct feedback (i.e., feedback with revision solutions), suggesting students' revision-oriented attitudes towards peer review. However, the collaborative and expert/novice patterns contained larger medians of direct and indirect feedback (i.e., feedback that indicates the necessity of revisions without providing revision solutions) instances than the dominant/dominant pattern. This indicated that the former two patterns generated more opportunities for writers to improve writing quality than the latter. The quantitative differences could be exemplified with Extract 1-3. In the Extract 2 featured by expert/novice interaction, discussion of each problematic area was short due to the lack of writers' attempt to negotiate feedback with peer reviewers. Contrariwise, the collaborative pattern in Extract 1 involved interactive negotiations of peer feedback between the writer and the reviewer. Consequently, within a similar time span (i.e., 25 minutes), more feedback instances could be generated in the expert/novice than the collaborative pattern. The dominant/dominant pattern in Extract 3 was featured with the reviewer and the writer restating similar utterances across the time span for peer interaction, leading to the least amount of feedback within a similar time span among the three interaction patterns.

1

2 **Table 3: Frequency and variety of mediating strategies across interaction patterns**

Mediating strategies		Collaborative pattern (N=13)	Dominant/dominant pattern (N=7)	Expert/novice pattern (N=6)
provide direct feedback	Median (SD)	3.0 (5.1)	2.0 (2.0)	6.0 (3.1)
provide indirect feedback	Median (SD)	2.0 (1.9)	0.0 (1.3)	1.5 (2.3)
restating	Median (SD)	2.0 (4.8)	1.0 (1.0)	3.5 (4.0)
Justifying	Median (SD)	2.0 (3.2)	0.0 (1.9)	3.0 (3.5)
clarification request	Median (SD)	1.0 (4.6)	1.0 (1.1)	3.0 (3.9)
confirmation check	Median (SD)	1.0 (7.2)	1.0 (0.8)	3.0 (3.7)
clarifying	Median (SD)	1.0 (2.1)	1.0 (1.2)	0.5 (1.6)
justification request	Median (SD)	0.0 (0.8)	0.0 (1.5)	1.0 (0.9)
confirming	Median (SD)	1.0 (3.5)	0.0 (0.0)	2.5 (3.8)
completing	Median (SD)	0.0 (1.0)	0.0 (0.0)	0.0 (0.4)
noticing	Median (SD)	0.0 (0.7)	0.0 (1.2)	1.0 (1.5)
employing external resources	Median (SD)	0.0 (1.1)	0.1(0.4)	0.5 (1.2)
employing L1	Median (SD)	0.0 (0.4)	0.0 (0.0)	1.0 (1.4)
reinforcement feedback	Median (SD)	0.0 (0.8)	0.0 (0.0)	0.0 (0.8)

3 Note: SD = Standard deviation

4 Two, various process-oriented strategies were adopted in the three patterns to facilitate
5 writers understanding the necessity of feedback for revisions. On one hand, restating (i.e.,
6 reviewers reading, repeating or paraphrasing their own or writers' proceeding utterance)
7 appeared to be one of the most frequently used process-oriented strategies in the three
8 patterns of interaction. On the other hand, variation in the frequency of using individual
9 process-oriented strategies could be observed across patterns. Reviewers in the

1 collaboration and expert/novice interaction frequently justified the necessity of feedback
 2 for revisions whereas few justifications were made in the dominant/dominant pattern.
 3 These differences were demonstrated in Extract 1-3: more justification could be observed
 4 in Extracts 1 and 2 than Extract 3 wherein little justification was made by the reviewer
 5 after his first attempt.

6 Three, the expert/novice and collaborative patterns employed more varied
 7 mediating strategies than the dominant/dominant pattern. They employed four more
 8 strategies, namely: confirming, completing each other's utterance, using the L1, and
 9 providing reinforcement feedback, to consolidate writers' understanding of feedback. The
 10 nature of the four strategies could be a good indication of a relatively higher level of
 11 mutuality between peer collaborators (e.g., completing each other's utterance) and peer
 12 reviewers' greater effort to facilitate learners' understanding of peer feedback [e.g., using
 13 the L1 to improve the quality of comment (Yu & Lee, 2014, 2016) in these two patterns
 14 than the dominant/dominant pattern.

15 **3.3. Amount and focus of oral peer feedback across interaction patterns**

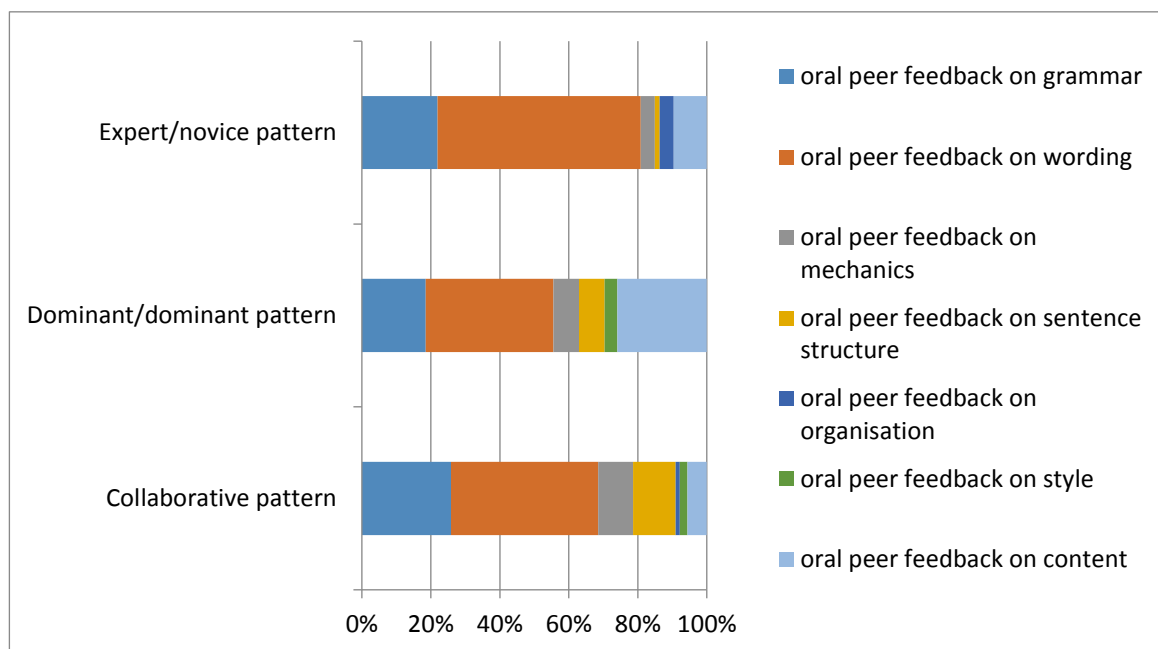
16 Kruskal-Wallis H tests revealed statistically significant differences in the provision of oral
 17 peer feedback on peers' writing across the three patterns [$\chi^2(2) = 6.69, p < .05$]. The mean
 18 rank scores in Table 4 further suggested that the expert/novice interaction generated the
 19 largest mean rank of peer feedback instances, followed by the collaborative pattern.
 20 Reviewers in the dominant/dominant pattern provided the least amount of feedback. The
 21 different mean ranks of feedback echoed the results regarding direct and indirect oral
 22 feedback during peer interaction: the expert/novice pattern generated the largest quantity
 23 of learning opportunities whereas the dominant/dominant pattern created the smallest
 24 quantity of learning opportunities among the three patterns.

25 **Table 4: Mean ranks of oral peer feedback across interaction patterns**

	Ranks		
	patterns of interaction	N	Mean Rank
the amount of oral peer feedback discussed	collaborative	13	12.69
	dominant/dominant	7	9.36
	expert/novice	6	20.08

1 When the focus of peer interaction was examined, Figure 3 revealed the prominent roles
 2 of wording and grammar across the three interaction patterns. It might be due to the
 3 essential role of language accuracy in examination essays and the prolonged examination-
 4 oriented culture of learning in China (Zhao, 2018). Nevertheless, Figure 3 showed that
 5 students also commented areas on the global level: organisation in the collaborative and
 6 expert/novice patterns, styles in the collaborative and dominant/dominant patterns, and
 7 content in all the three patterns.

8



9

10

11 **Figure 3:** Focus of oral peer feedback across interaction patterns

12

13 **4. Discussions and implications**

14 The current study explored the process of peer review from three main perspectives:
 15 interaction patterns, mediating strategies, and learning opportunities indicated by the
 16 amount and focus of oral peer feedback. It revealed three distinct interaction patterns and
 17 their associated different frequencies and varieties of mediating strategies, the varied
 18 amount and focus of oral peer feedback. The current study has revealed key information
 19 to develop our understanding of the dynamics of peer review for EFL writing.

1 Firstly, the distinct interaction patterns and mediating strategies suggest that
2 individual learners approach peer review differently. They could follow different patterns
3 of interaction and use varied mediating strategies to negotiate the provision and use of
4 other regulation (i.e., oral peer feedback) in redrafts. The variation of the process-oriented
5 strategies in the three patterns could reflect three distinct reviewer instances in them. Peer
6 reviewers in the collaborative pattern seemed to view themselves as a collaborator who
7 provided help attuned to writers' writing intentions (i.e., collaborative). Reviewers in the
8 expert/novice pattern appeared to regard themselves as the one supplying knowledge who
9 sought writers' clarification of writing intention prior to the provision of feedback and
10 their confirmation of understanding after the provision of feedback (i.e., probing).
11 Reviewers in the dominant/dominant pattern tended to identify problems without much
12 effort of negotiation of revisions with writers (i.e., prescriptive). The individual
13 approaches to peer review echo Storch (2002, p. 122)'s argument that simply assigning
14 learners to groups or pairs will not necessarily create conducive conditions for learning.
15 Instead, this study has shown that productive peer review requires reviewers and writers
16 to recognise and build their active learning agency. Peer reviewers need to take a
17 collaborative and/or facilitating stance and make efforts to employ varied strategies as and
18 when necessary to provide and negotiate oral peer feedback with student writers. Student
19 writers, on the other hand, need to actively seek clarification and justification from the
20 reviewers, engage with and make sense of peer feedback on their writing. In other words,
21 learners should be encouraged to get actively involved in peer review at a high level of
22 mutuality (i.e., engaging into each other's utterance) and with a variety of mediating
23 strategies to address peer writers' needs. This echoes the underlying ritual in the socio-
24 cultural theory that effective other regulation attunes to social interactants' needs and
25 facilitates successful negotiation between collaborators. A follow-up issue is then how to
26 promote the effectiveness of other regulation. Training in peer interaction is the key,
27 focusing on interaction patterns that engage collaborators, peer feedback that is
28 constructive for revisions and learning, and mediating strategies that are effective for

1 negotiation and comprehension of feedback. Training could involve students in watching
2 videos of peer review activities, comparing and discussing effective and ineffective peer
3 review so that conducive peer interaction to learning (e.g., collaborative/expert-novice
4 interaction) could be fostered and detrimental peer interaction to learning (e.g., hostile
5 dominant/dominant interaction) could be avoided.

6 Secondly, mutuality could substantially affect the dynamics of peer interaction and
7 consequently the efficiency of peer review for EFL writing. This was evidenced by the
8 contrasting difference between the collaborative and dominant/dominant patterns. The
9 collaborative pattern possessed the highest level of mutuality which had created learning
10 opportunities for both writers and reviewers, as shown in Extract 1. There, the writer
11 learned the word from reading the peer's writing (in Line 1) who then alongside the
12 writers achieved a better knowledge of the word usage as a transitive and intransitive verb
13 after interactive negotiation of meaning and usage of the word with the writer (Line 10-
14 11). The results have corroborated Lundstrom and Baker's (2009) finding that peer
15 reviewers develop their writing proficiency through providing feedback on peers' writing
16 and Nelson and Schunn's (2009) claim that writers learn from peer feedback through the
17 mediation of understanding the problems it underpins. By contrast, the
18 dominant/dominant pattern contained the lowest level of mutuality between the two
19 collaborators which generated a somehow hostile atmosphere and resulted in significantly
20 less oral peer feedback that was discussed and possibly understood. The contrasting
21 difference between the collaborative and dominant/dominant patterns suggests that
22 mutuality helps to bring about supportive and friendly peer discourse environment for
23 peer review, echoing the importance of co-construction and prompting for learning in
24 Foster and Ohta (2005).

25 Thirdly, the frequency and quality of other regulation are interwoven into each other,
26 suggested by the reciprocal relationships between interaction patterns, mediating
27 strategies, and the amount and focus of oral peer feedback. On one hand, the varied
28 mediating strategies brought about more interactive peer discussions and more peer
29 feedback instances that were discussed and possibly understood. On the other hand, the

1 more interactive peer discussions could raise peer reviewers' impetus for resorting to more
2 varied mediating strategies, aiming at achieving more successful negotiation of
3 communication and revisions. The result develops the ritual of the socio-cultural theory
4 via demonstrating that the frequency and quality of other regulation should be examined
5 as two intertwined aspects.

6 Finally but also importantly, the role of culture could play an essential role in learners'
7 approaches to peer review. The more frequent occurrence of collaborative and
8 expert/novice interaction than the dominant/dominant interaction suggests that most
9 Chinese students in this study considered peer review as a good opportunity to learn from
10 peers. This echoes Confucius' belief that among any three persons, there must be one who
11 could be the teacher [san ren xing, bi you wo shi (三人行, 必有我师焉)]. In this study,
12 students in the collaborative and expert/novice patterns viewed their peers as the ones who
13 could be their teachers to facilitate them developing writing quality and proficiency. In
14 addition, as Cheng (2000) stipulates, knowledge, in Chinese, is called xue wen (学问).
15 Xue means learn whilst wen means ask. This implies that learning and asking are two
16 parallel steps in acquiring knowledge, thus enquiry which occurs during peer review
17 would be treasured as a part of the learning process by Chinese learners. Additionally,
18 Chinese culture as a collective culture which prioritises group harmony to individual
19 benefits might also bring about less frequently occurred dominant/dominant interaction
20 which apparently could harm group coherence. Similarly, the collective culture could also
21 lead to student writers' reluctance of challenging peer reviewers' feedback in the
22 expert/novice pattern. However, it would be risky to explain learners' approaches to peer
23 review solely with the Chinese culture as the students from the same Chinese culture
24 demonstrated different ways of conducting peer review. In other words, apart from
25 culture, the dynamics of peer review could also be influenced by the writing under
26 discussion, teacher support for peer review including training, learners' prolonged
27 teacher-oriented and examination-driven learning experience, and learner personal traits
28 (e.g., language proficiency, gender, personality).

1 **5. Conclusions**

2 This study has justified and substantiated the importance of exploring the process of peer
3 review for EFL writing. It has provided insightful information on how tertiary Chinese
4 EFL learners approach peer review for writing. The study has verified the socio-cultural
5 theory regarding the significance of investigating the frequency and quality of other
6 regulation for language development. It has substantiated that not all peer review groups
7 work as effectively as it is supposed to, due to the varied patterns of interaction, strategies
8 of mediating writers to understand feedback, and learning opportunities created by oral
9 peer feedback. The differences in these aspects could potentially lead to different learning
10 outcomes (Wigglesworth & Storch, 2012), substantiated by Storch's (2002) observation in
11 peer collaborative writing activities: collaborative and expert/novice dyads produced more
12 grammatically accurate writing than the dominant/dominant and dominant/passive
13 patterns. Future studies could explore the impact of peer interaction patterns on learners'
14 use and understanding of peer feedback in revised drafts. In addition, this study has
15 disclosed the reciprocal relationships among mediating strategies, interaction patterns, and
16 learning opportunities created by the amount and focus of oral feedback. It has echoed the
17 essential role of social interaction in understanding and addressing individual learners'
18 need for language development. In particular, it has substantiated the importance of co-
19 occurrence of a proximal level of mutuality and equality among collaborators for effective
20 social interaction.

21 The sample size in this case study research is small thus caution needs to be taken
22 when applying results to local contexts. However, the exploratory nature of the study and
23 the multiple perspectives of the process of peer review have generated important
24 indications for how learners approach to peer review and how this process could facilitate
25 or hamper the effectiveness of peer review for EFL writing. The design of the study and
26 the coding scheme have provided possible directions to examine the process of peer
27 review in other local contexts particularly those similar to the Chinese educational
28 contexts. Future studies could also explore how peer interaction patterns and mediating

1 strategies are related to the effectiveness of peer assessment for immediate writing quality
2 and ongoing language development.

3

4 **The research did not receive any specific grant from funding agencies in the public,
5 commercial, or not-for-profit sectors.**

6 **References**

- 7 Aljaafreh, A., & Lantolf, J. P. (1994). Negative feedback as regulation and second
8 language learning in the zone of proximal development. *The Modern Language*
9 *Journal*, 78(4), 465-483. doi: [http://dx.doi.org/10.1111/j.1540-
10 4781.1994.tb02064.x](http://dx.doi.org/10.1111/j.1540-4781.1994.tb02064.x)
- 11 Berry, R. (2011). Assessment trends in Hong Kong: seeking to establish formative
12 assessment in an examination culture. *Assessment in Education: Principles, Policy*
13 *& Practice*, 18(2), 199-211. doi: <http://dx.doi.org/10.1080/0969594X.2010.527701>
- 14 Chang, C. Y.-H. (2016). Two decades of research in L2 peer review. *Journal of Writing*
15 *Research*, 8(1), 81-117. doi: <http://dx.doi.org/10.17239/jowr-2016.08.01.03>
- 16 Cheng, X. (2000). Asian students' reticence revisited. *System*, 28, 435-446.
- 17 Cho, K., & MacArthur, C. (2010). Student revision with peer and expert reviewing.
18 *Learning and Instruction*, 20(4), 328-338. doi:
19 <http://dx.doi.org/10.1016/j.learninstruc.2009.08.006>
- 20 DE Guerrero, M. C. M., & Villamil, O. S. (2000). Activating the ZPD: Mutual
21 Scaffolding in L2 Peer Revision. *The Modern Language Journal*, 84(1), 51-68.
22 doi: 10.1111/0026-7902.00052
- 23 Ellis, R (2010) A framework for investigating oral and written corrective feedback
24 *Studies in Second Language Acquisition*, 32, 335-349.
- 25 Foster, P., & Ohta, A. S. (2005). Negotiation for Meaning and Peer Assistance in Second
26 Language Classrooms. *Applied Linguistics*, 26(3), 402-430. doi:
27 10.1093/applin/ami014
- 28 Gielen, S., Peeters, E., Dochy, F., Onghena, P., & Struyven, K. (2010). Improving the
29 effectiveness of peer feedback for learning. *Learning and Instruction*, 20(4), 304-
30 315. doi: <http://dx.doi.org/10.1016/j.learninstruc.2009.08.007>
- 31 Hu, G., & Lam, S. T. E. (2010). Issues of cultural appropriateness and pedagogical
32 efficacy: exploring peer review in a second language writing class. *Instructional*
33 *Science*, 38, 371-394.
- 34 Lantolf, J. P. (2000). *Introducing sociocultural theory*. Oxford: Oxford University Press.
- 35 Lantolf, J. P. (2003). *Intrapersonal Communication and Internalization in the Second*
36 *Language Classroom Vygotsky's Educational Theory in Cultural Context*.
37 Cambridge: Cambridge University Press.
- 38 Lantolf, J. P., & Aljaafreh, A. (1995). Second language learning in the zone of proximal
39 development: A revolutionary experience. *International Journal of Educational*
40 *Research*, 23(7), 619-632. doi: [http://dx.doi.org/10.1016/0883-0355\(96\)80441-1](http://dx.doi.org/10.1016/0883-0355(96)80441-1)
- 41 Lee, I. (2007). Feedback in Hong Kong secondary writing classrooms: Assessment for
42 learning or assessment of learning? *Assessing Writing*, 12(3), 180-198. doi:
43 <http://dx.doi.org/10.1016/j.asw.2008.02.003>

- 1 Lee, M.-K. (2015). Peer feedback in second language writing: Investigating junior
2 secondary students' perspectives on inter-feedback and intra-feedback. *System*,
3 55(Supplement C), 1-10. doi: <https://doi.org/10.1016/j.system.2015.08.003>
- 4 Lei, Z. (2017). Salience of student written feedback by peer-revision in EFL writing class.
5 *English language teaching*, 10(12). doi: 10.5539/elt.v10n12p151
- 6 Lockhart, C., & Ng, P. (1995). Analysing talk in ESL peer response groups: stances,
7 functions and content. *Language Learning*, 45(4), 605-655. doi:
8 <http://dx.doi.org/10.1111/j.1467-1770.1995.tb00456.x>
- 9 Lundstrom, K., & Baker, W. (2009). To give is better than to receive: The benefits of peer
10 review to the reviewer's own writing. *Journal of Second Language Writing*, 18(1),
11 30-43. doi: <http://dx.doi.org/10.1016/j.jslw.2008.06.002>
- 12 Nelson, G. L., & Carson, J. G. (1998). ESL students' perceptions of effectiveness in peer
13 response groups. *Journal of Second Language Writing*, 7(2), 113-131. doi:
14 [http://dx.doi.org/10.1016/S1060-3743\(98\)90010-8](http://dx.doi.org/10.1016/S1060-3743(98)90010-8)
- 15 Nelson, M. M., & Schunn, C. D. (2009). The nature of feedback: how different types of
16 peer feedback affect writing performance. *Instructional Science*, 37(4), 375-401.
17 doi: 10.1007/s11251-008-9053-x
- 18 Rahimi, M. (2013). Is training student reviewers worth its while? A study of how training
19 influences the quality of students' feedback and writing. *Language Teaching*
20 *Research*, 17(1), 67-89. doi: 10.1177/1362168812459151
- 21 Ruegg, R. (2015). The relative effects of peer and teacher feedback on improvement in
22 EFL students' writing ability. *Linguistics and Education*, 29(Supplement C), 73-
23 82. doi: <https://doi.org/10.1016/j.linged.2014.12.001>
- 24 Storch, N. (2002). Patterns of Interaction in ESL Pair Work. *Language Learning*, 52(1),
25 119-158. doi: 10.1111/1467-9922.00179
- 26 Swain, M. (2000). The output hypothesis and beyond: mediating acquisition through
27 collaborative dialogue. In J. P. Lantolf (Ed.), *Sociocultural theory and second*
28 *language learning*. Oxford: Oxford University Press.
- 29 Swain, M., Brooks, L., & Tocalli-Beller, A. (2002). Peer-peer dialogue as a means of
30 second language learning. *Annual Review of Applied Linguistics*, 22, 171-185.
- 31 van Zundert, M., Sluijsmans, D., & van Merriënboer, J. (2010). Effective peer assessment
32 processes: Research findings and future directions. *Learning and Instruction*,
33 20(4), 270-279. doi: <http://dx.doi.org/10.1016/j.learninstruc.2009.08.004>
- 34 Villamil, O. S., & DE Guerrero, M. C. M. (1996). Peer revision in the L2 classroom:
35 social-cognitive activities, mediating strategies, and aspects of social behaviour.
36 *Journal of Second Language Writing*, 5(1), 51-75. doi:
37 [http://dx.doi.org/10.1016/S1060-3743\(96\)90015-6](http://dx.doi.org/10.1016/S1060-3743(96)90015-6)
- 38 Villamil, O. S., & DE Guerrero, M. C. M. (1998). Assessing the Impact of Peer Revision
39 on L2 Writing. *Applied Linguistics*, 19(4), 491-514. doi: 10.1093/applin/19.4.491
- 40 Villamil, O. S., & DE Guerrero, M. C. M. (2006). Socio-cultural theory: a framework for
41 understanding the socio-cognitive dimensions of peer feedback. In K. Hyland & F.
42 Hyland (Eds.), *Feedback in second language writing: contexts and issues*.
43 Cambridge: Cambridge University Press.
- 44 Vygotsky, L. S. (1978). *Mind in society: the development of higher psychological process*.
45 Cambridge: Cambridge University Press.

- 1 Weissberg, R. (2006). Scaffolded feedback: tutorial conversations with advanced L2
2 writers. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing:*
3 *contexts and issues.* Cambridge: Cambridge University Press.
- 4 Wigglesworth, G., & Storch, N. (2012). What role for collaboration in writing and writing
5 feedback. *Journal of Second Language Writing*, 21(4), 364-374. doi:
6 <https://doi.org/10.1016/j.jslw.2012.09.005>
- 7 Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving.
8 *Journal of Child Psychology and Psychiatry*, 17(2), 89-100.
- 9 Yang, M., Badger, R., & Yu, Z. (2006). A comparative study of peer and teacher feedback
10 in a Chinese EFL writing class. *Journal of Second Language Writing*, 15(3), 179-
11 200. doi: <http://dx.doi.org/10.1016/j.jslw.2006.09.004>
- 12 Yang, Y.-F., & Meng, W.-T. (2013). The effects of online feedback on students' text
13 revision. *Language Learning & Technology*, 17(2), 220-238.
- 14 Yu, S., & Lee, I. (2014). An analysis of Chinese EFL students' use of first and second
15 language in peer feedback of L2 writing. *System*, 47, 28-38. doi:
16 <http://dx.doi.org/10.1016/j.system.2014.08.007>
- 17 Yu, S., & Lee, I. (2015). Understanding EFL students' participation in group peer
18 feedback of L2 writing: A case study from an activity theory perspective.
19 *Language Teaching Research*, 19(5), 572-593. doi: 10.1177/1362168814541714
- 20 Yu, S., & Lee, I. (2016). Exploring Chinese students' strategy use in a cooperative peer
21 feedback writing group. *System*, 58, 1-11. doi:
22 <https://doi.org/10.1016/j.system.2016.02.005>
- 23 Zhang, S. (1999). Thoughts on some recent evidence concerning the affective advantage
24 of peer feedback. *Journal of Second Language Writing*, 8(3), 321-326. doi:
25 [http://dx.doi.org/10.1016/S1060-3743\(99\)80119-2](http://dx.doi.org/10.1016/S1060-3743(99)80119-2)
- 26 Zhao, H. (2010). Investigating learners' use and understanding of peer and teacher
27 feedback on writing: A comparative study in a Chinese English writing classroom.
28 *Assessing Writing*, 15(1), 3-17. doi: <http://dx.doi.org/10.1016/j.asw.2010.01.002>
- 29 Zhao, H. (2014). Investigating teacher-supported peer assessment for EFL writing. *ELT*
30 *Journal*, 68(2), 105-119. doi: 10.1093/elt/cct068
- 31 Zhao, H. (2018). Exploring tertiary English as a Foreign Language writing tutors'
32 perceptions of the appropriateness of peer assessment for writing. *Assessment &*
33 *Evaluation in Higher Education*, 1-13. doi: 10.1080/02602938.2018.1434610
- 34 Zhu, W., & Mitchell, D. A. (2012). Participation in Peer Response as Activity: An
35 Examination of Peer Response Stances From an Activity Theory Perspective.
36 *TESOL Quarterly*, 46(2), 362-386. doi: 10.1002/tesq.22

Appendix A Coding scheme for mediating strategies

FOCUS OF ANALYSIS	CATEGORIES	DEFINITION	EXAMPLES
Focus of oral peer feedback	Grammar	Refers to singular/ plural form, adjective/adverb, conjunction, preposition, imperative, first person, transitive/intransitive verb, direct/indirect object, agreement, antecedent, article	Jin: In the first sentence, you say 'it'. Does 'it' refer to 'the question' or does it refer to something else'?
	Wording	Refers to the choice of words, phrases, or idioms	Yin: SOLICITOUS is the one you would want.
	Mechanics	Refers to: spelling, punctuation, capitalisation, indenting, double space, typography, abbreviation and the format of particular genres such as letters or poems	Jin: It is a spelling mistake, should be par-T-ner. (the writer spelled it as parner)
	Sentence structure	Refers to: <ul style="list-style-type: none"> ● Grammatical arrangements of words in sentences; ● the word order, the relationship between words, word classes and other sentence elements 	Ren: And maybe this should be 'but I also have the necessary skills and ability for being an English teacher'.
	Organisation	Organisation refers to: <ul style="list-style-type: none"> ● the logical development of ideas; ● structuring between sentences or paragraphs; ● paragraphing, the order of sentences and cohesion and coherence 	Yao: The next paragraph is about parental love. Why don't you change these two sentences? Maybe the second sentence you can paraphrase this and prove this sentence after the second sentence. This sentence is more close to the paragraph.
	Style	Style refers to: <ul style="list-style-type: none"> ● a particular word, sentence or passage which is not the most effective although grammatically correct for a particular writing task; ● register (e.g., formal or informal), tone (e.g., stress) and voice 	Ji: It is true that, why use definitely true? It is true that I don't have the talent of English.
	Content	Content refers to: <ul style="list-style-type: none"> ● what is written about ● ideas expressed, evidence or examples used in writings 	Yan: What do you want to express by using WIND? [The writer used wind as an image of her childhood in her poem.]

FOCUS OF ANALYSIS	CATEGORIES	DEFINITION	EXAMPLES
Mediating strategies	Clarification request	any expression by reviewers <ul style="list-style-type: none"> designed to elicit clarification of the writings or proceeding utterance(s) by writers beginning with what, how, where, and when, I don't know/understand or I am not sure and answered with details 	Yin: Ok. <u>What is 'thoughtless children'?</u> Li: En. Careless, something children who never think about others' feeling.
	Clarifying	any expressions by reviewers designed to clarify <ul style="list-style-type: none"> feedback proceeding utterances understanding of the writing 	Zhang: Is there any difference between job and position? A: <u>Yes, job is an informal word and position is a formal word.</u>
	Justification request	any expressions by reviewers <ul style="list-style-type: none"> designed to elicit justification of writers' writings or proceeding utterance(s) beginning with why, I don't know why, or what is the reason 	Zhang: <u>I don't know why you use TOWARDS here.</u> Luo: I mean an angel shows respect to the glory of the God...
	Justifying	any expression by reviewers designed to justify their feedback by: <ul style="list-style-type: none"> clarifying the problem of the writing point clarifying the effects of using their provided feedback 	Shuang: Er--- actually, I cannot understand a lot of your meanings. I think to improve this sentence here and just cross it. Shen: What is the reason? Shuang: <u>Because you see here, I see you have demonstrated here and here I see it again.</u>
	Confirmation check	any expressions by reviewers immediately following an utterance or the text by writers <ul style="list-style-type: none"> designed to elicit confirmation that the utterance or the text has been correctly heard or understood usually in interrogative forms and often answered with yes/no 	A: In America, accommodation refers to what you do you do for people who are handicapped, for people who are blind, or deaf, or in wheelchairs. <u>Is that what you mean?</u> Ren: No.
	Confirming	any expressions by reviewers designed to confirm the correctness of <ul style="list-style-type: none"> the proceeding utterance(s) by the writer based on feedback the proceeding utterance(s) by the writer clarifying their own writing 	Li: I thought the next sentence say 'I smiled, like a shy girl'. Then this sentence means--- A: Ok, I see. <u>You are right.</u> I think that does help explain.

FOCUS OF ANALYSIS	CATEGORIES	DEFINITION	EXAMPLES
Mediating strategies	Providing direct feedback	any expressions by reviewers designed to <ul style="list-style-type: none"> point out the problem AND provide the solutions to the problem 	Wang: Here, you could say something like this... <u>you could say as habit becomes second nature, children gradually take it for granted that---</u>
	Providing indirect feedback	any expressions by reviewers designed to: <ul style="list-style-type: none"> indicate the possible necessity of revisions but do not provide revision solutions 	Dong: I think there maybe something here (pointing to the word 'requiring')
	Completing	any expressions by reviewers design to supply words or phrases appropriate to complete or expand upon proceeding utterance(s) by writers	Jin: Well, I just mean it's-- <u>A: Rapid and fast</u>
	Noticing	any expression by readers designed to direct writers' attention(s) to the problematic points in the writings by using positioning words such as here	Wei: Here. Many times people consider failure as a shame, I don't understand why?
	Restating	any expressions by reviewers <ul style="list-style-type: none"> reading, repeating or paraphrasing their own or writers' proceeding utterance(s) usually in a form of a restatement (a question will be referred to as confirmation check) 	An: Beside the lake. <u>Shu: Beside the lake.</u>
	Employing external resources	Reviewers using symbols, dictionaries, teachers, colleagues, classmates or the researcher	Zhang: Since graduation, it is very--- Dong: Don't care. <u>We leave to him (referring to the writing tutor).</u>
	Using the L1	Reviewers using the first language to help writers understand their previous utterances	Yao: 'Passes on'. Do you want the active mood? Jin: Yes? <u>Yao: 就是主动语态 (C).</u>
	Reinforcement feedback	any expressions by reviewers <ul style="list-style-type: none"> designed to reinforce feedback by restating their feedback or confirming with writers about their understanding of the feedback provided provided ONLY AFTER the writers expressed their acceptance of or disagreement with the feedback, or it was referred to as confirming 	Wu: How about this, each year's new students? Yan: Yes <u>Wu: Each year's new students. That would work.</u>

Note: The strategy is illustrated by the underlined word(s).