

Article

The Impact of Collaborative Writing on English Continuation Tasks of Senior High School Students

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Abstract

This study aims to apply collaborative writing to the teaching practice of continuation tasks. More specifically, it attempts to explore: 1) The differences between texts produced by pairs and those finished by individuals; 2) The characteristics of collaborative dialogues during the co-authoring process; and 3) Students' attitudes towards the use of collaborative writing in continuation tasks. The collected data indicated that collaborative writing had a positive impact on the English continuation task of senior high school students, and that the effect of interactive alignment noticed in continuation tasks was greatly highlighted in the process of collaborative continuation. The analysis of the collaborative dialogues produced evidence that pair work offers students the chance to co-construct texts, pool their language and idea resources, and thus complete more linguistically complex and grammatically accurate texts. According to the survey of students' perceptions to collaborative continuation tasks, most of the students in the study had a positive attitude to their collaborative writing experience despite some reservations. Finally, pedagogical implications for adopting collaborative continuation are provided based on the study.

Keywords

Collaborative continuation, collaborative dialogues, co-authoring process, interactive alignment

1 Introduction

Although the study of collaborative writing has a long history, the research of collaborative writing in language classrooms is a recent phenomenon. As Storch (2005) noted, pairs and small groups were frequently adopted in communicative language classrooms, but writing was still considered a solitary and private activity, and collaboration was often restricted to brainstorming and revising periods in the writing process. In recent years there has been further research on students' interaction during collaborative prewriting discussions (Neumann & McDonough, 2015), ZPD-activated languaging (Mirzaei & Eslami, 2015) and collaborative revision (Hanjani & Li, 2014). These studies provide insights into collaborative writing in terms of various contexts as well as instruments.

However, few studies on collaborative writing in China could be found. Instead, "cooperative learning in English writing" has been a topic of debate in recent years. Studies on cooperative learning in

English writing (e.g. Yin, 2008) have shown that when students are asked to do peer review they tended to focus on errors at the sentence and word levels. However, the process of writing in these studies remains a private act, where writers are left to their own devices when making important decisions about their text. According to the definition of collaborative writing, students should collaborate throughout the writing process. Such collaboration in the true sense of the word means that students have joint responsibility over the production of the text. Strictly speaking, too, cooperative learning in writing cannot be equal to collaborative writing.

According to *Zhejiang's Reform Scheme*, the English continuation task made its debut in the College Entrance Examination in 2016. Students were required to write a passage of 150 words based on provided reading material of 350 words, five underlined key words and two given sentences. As a brand-new testing item and an effective way of language learning, the application of the continuation task will undoubtedly change the well-known traditional pattern of writing instruction. Although a growing number of studies have been done in recent years on the instruction of the continuation task (e.g. Deng, 2016) and its alignment effects (Wang, 2010), few studies have been carried out on using collaborative writing in the continuation task, specifically in the context of the Chinese EFL classroom.

This study seeks answers to the question: “What is the impact of collaborative writing on English continuation tasks of senior high school students?” It will thus explore these research questions:

- (1) What are the differences between the texts produced by pairs and those finished by individuals?
- (2) What are the characteristics of the collaborative dialogues during the co-authoring process?
- (3) What are the students' attitudes towards the use of collaborative writing in continuation tasks?

2 The Study

2.1 Setting and participants

The study was conducted in an intact class (taught by the author) in a high school in Zhejiang province using the *New Senior English for China* (NSEFC, PEP, 2007) student's book in which second-year students received regular instruction on how to write typical-genre compositions. Writing in a high school context is generally a solo activity carried out for formal, testing purposes. In most cases writing classes in the third academic year are guided by teachers. Instructors tend to explain and analyze the language, structures of different paragraphs or essays and then offer feedback on students' written text one-on-one or in class.

Table 1.

An Overview of the Participants' Information

Pair	Name Code	Gender	Proficiency level	Pair	Name Code	Gender	Proficiency level
1	A1	F	Advanced		D2	F	Lower intermediate
	A2	F	Advanced	6	B3	M	Upper intermediate
2	A3	F	Advanced		D3	F	Lower intermediate
	A4	M	Advanced	7	C1	F	Intermediate
3	A5	F	Advanced		C2	M	Intermediate
	A6	F	Advanced	8	C3	M	Intermediate
4	B1	F	Upper intermediate		C4	M	Intermediate
	D1	M	Lower intermediate	9	C5	F	Intermediate
5	B2	F	Upper intermediate		C6	F	Intermediate

As Table 1 shows, 18 students (9 pairs) were selected from the intact class. The pairs were organized according to students' writing proficiency and gender. All participants were approximately classified as advanced (A1–A6), upper intermediate (B1–B3), intermediate (C1–C6) and lower intermediate (D1–D3) in terms of the language proficiency test based on the ACTFL Proficiency Guidelines. To protect participants' privacy, the students' names in this study were changed into code names.

2.2 Research methods, instruments and procedures

The main research method adopted in the study was qualitative research. Specifically, the following research methods and instruments were adopted:

Recordings: Students writing in pairs were given a digital voice recorder to keep trace of their collaborative dialogues as they finished the continuation task. The talks were then recorded and transcribed.

Discourse analyses: All the completed texts (both co-authored and single-authored) were collected and analyzed.

Interviews: Students who worked in pairs were interviewed individually in the researcher's office about their experience of writing in pairs.

Questionnaires: These were distributed for the purpose of assessing students' attitudes to what they had experienced in the collaborative process of completing the continuation task.

The study was carried out in an experimental class in the fourth week of a 14-week semester (see Table 2).

Table 2.

Phases of the Research

Phases	Activities	Purposes
Phase 1 (week 1- week 3)	Teaching input was provided according to the requirements of continuation tasks. The input included choice of words, types of sentences, transitions, pre-writing, paragraph writing, editing, unity and coherence. The development of a story was also integrated into the classroom instruction, through which the researcher could encourage students to join directed discussions on the given topic. In addition, students chose their partners.	To familiarise the students with a more interactive classroom environment.
Phase 2 (week 4)	Continuation task skills were taught; an in-class continuation task (sample text) was assigned to the participants. Students finished the continuation task in self-selected pairs. In particular, the students collaboratively completed the entire process in pairs – reading the passage, analyzing character relationships, understanding the given paragraph sentences, coding the ending, organizing ideas and finishing the continuation task collaboratively.	To prepare students for collaborative writing for continuation tasks.
Phase 3 (week 5)	The collaborative writing of the continuation task was carried out. The students engaged in collaborative writing. The activity was conducted every two weeks. The students were required to complete the continuation task individually and then compose the same continuation task collaboratively in class.	To apply collaborative writing to continuation tasks.

Phase 4 (week 6)	All completed compositions (both completed individually and collaboratively) and the collaborative dialogues recorded were collected. Then within 1-4 days after the class, students who worked in pairs were interviewed individually about the experience of writing collaboratively. Informal interviews were also conducted individually to ensure privacy.	To collect data.
Phase five	Repeat phases 3 and 4 (When the study finished, the students were invited to complete the questionnaire in class)	

2.3 Data collection

In addition to the written texts and anonymous responses to the questionnaire, pair dialogues and interviews were recorded and transcribed from the digital voice recorder. Therefore, the data for the present study included pair/ individual works, statistics from the questionnaire as well as transcripts of the collaborative dialogues and of the interviews. The data were then separately and carefully analyzed.

2.3.1 Students' completed texts

As noted in the section on research procedures, the students received a sample continuation task (see Appendix 1) in Week 4 when a more interactive classroom environment was established, and the students were required to compose collaboratively. Since the task was assigned to prepare them for the collaborative writing of the continuation task, the co-authored texts were not marked, but they were reserved for reference after class.

Data collection took place in the fifth week of the semester. All the students' texts completed both individually and collaboratively were collected. That is, after being introduced to the collaborative continuation activity, all the participants were required to individually write a continuation task (called the draft) and then collaboratively composed the same continuation in pairs (called the final). The pairs were formed in terms of their personal preferences. To gather the information, all the 27 texts (nine completed in pairs and 18 composed individually) were collected.

According to a checklist for evaluating continuation tasks (see Appendix 2), the texts were graded in terms of content/ key words, logic and coherence, tone and style, and language and mechanics. To ensure reliability, the texts were graded by two English teachers. The author and the other teacher agreed on the scoring rubrics of the continuation task. Moreover, inner-rater reliability on the general assessment of five randomly chosen texts was checked, and there were relatively small differences between the two designated raters.

In addition to the qualitative scores collected from students' completed texts, extracts selected from their compositions were presented to reveal the differences between individual texts and the texts produced by pairs.

2.3.2 Students' collaborative dialogues

All the collaborative dialogues were collected and analyzed for the distinct periods of writing: planning, writing, and revision (see Table 3). The amount of time spent on these periods was marked.

All the dialogues were classified into corresponding episodes (see Table 4). All the episodes were measured by time and the total time taken on these aspects of writing was calculated.

Table 3.
Periods of the Continuation Task

Periods	Mini-steps	Tasks
Planning	Reading	Skim the key words and predict what will be discussed in the text. Read carefully to get the gist of the text, pay attention to the structure and locate the main characters.
	Analyzing	Understand the conflicts and relationships among the characters, familiarise the tone and style of the text, and make logical and linguistic preparations for continuation.
	Pooling	Think about possible versions of continuation, decide on the writing ideas according to the meaning delivered by the text, and choose words and sentence patterns adopted in the continuation task.
Writing	Drafting	Outline the main points, evaluate the pooling language resources, and then combine them together.
Revision	Evaluating	Digest the draft, negotiate with peers and improve the quality of the continuation.

Table 4.
Coding of Episodes (adapted from Storch, 2005)

Focus areas	Episodes
Task clarification	Students read or discuss the given reading material and instructions
Generating ideas	Students generate and reformulate ideas
Language-related episodes (LREs)	Students deliberate over lexical or grammatical choices
Structure	Students focus on the organization of ideas
Co-revision	Students reread the text they have composed and revise it together
Other	Students deal with issues such as writing pace and task management

Some critical incidents (collaborative dialogue fragments, similar to episodes) related to typical evidence which reveals the nature of collaborative dialogues was highlighted. Based on the discourse analysis, the author explored the characteristics of the mutual scaffolding in collaborative writing.

2.3.3 Questionnaires and interviews

To learn about student perceptions of their experience with collaborative writing, a modified questionnaire (consisting of both rating-scale and open-ended items) was adopted (see Appendix 3). The written questionnaire guaranteed the anonymous responses from the students and was designed to encourage them freely to express their opinions.

The first section of the questionnaire related to students' overall attitudes to collaborative activities. Question 1 was devoted to the usefulness of pair writing in class. The following questions concentrated on the co-authored texts for the purpose of exploring students' perceptions towards joint writing.

First, students were asked to give their global impressions of collaborative writing and the nature of the co-authored text. They were also asked to show whether they would have chosen to finish the continuation task in pairs or individually.

In the second section of the questionnaire (Questions 4–6) students were asked for their thoughts on the effect of collaboration on the nature of their co-authored texts. They were also asked about whether they enjoyed the potential benefits of pair writing activities (Questions 7–8).

The interviews on students' attitudes to pair writing were recorded by placing one digital voice recorder next to the interviewers. Recorded interviews were collected and summarized.

3 Results and Analysis

3.1 Comparing pair and individual work

Below (Tables 5 and Table 6) we can see the qualitative scores for compositions written by students in pairs and individually.

As can be seen in Table 5, collaborative continuation made an obvious difference to the overall quality of continuation work. This tendency was especially noticed in the second pair (A3/ A4) and the fifth pair (B2/ D2) because they made the most positive change over their original individual texts and improved the quality of their co-authored continuation texts. However, even if the ninth pair (C5/ C6) made improvements in terms of comparing co-authored final score and average score, they showed the least progress in comparing the final score and their individual draft versions.

Table 5.

Global Scores of Students' Texts

No. of Pair	1 A1/ A2	2 A3/ A4	3 A5/ A6	4 B1/ D1	5 B2/ D2	6 B3/ D3	7 C1/ C2	8 C3/ C4	9 C5/ C6
Draft	23/ 21	22/ 20	21/ 20	18/ 19	19/ 17	19/ 19	14/ 12	15/ 14	13/ 14
Average	22	21	20.5	18.5	18	19	13	14.5	13.5
Final	24	24	21	20	22	21	15	16	14

Students' texts analysis also showed positive changes at both global and local levels to a certain extent (see Table 6). However, some inconsistencies were noticed in the students' final continuation works. For example, it was observed that most pairs made positive changes to textual aspects of their texts and the majority of the pairs' content scores remained the same over their individual drafts.

In addition, six pairs showed overall progress over their individual works in terms of logic and coherence. Two pairs (A5/ A6 and C5/ C6) gained almost the same scores over their individual texts and, surprisingly, the final mark of the eighth pair (C3/ C4) regressed. On the other hand, in terms of language and mechanics, it seemed clear that in most pairs, students' pooling resources and language-related negotiations led to improvements in vocabulary and grammar accuracy. However, the seventh pair (C1/ C2) was an exception in that the final continuation score was lower than that of their individual texts.

In terms of the continuation length, both the texts (completed individually and collaboratively) were much longer than the minimum limit of 150 words (see Table 6). However, the comparison of

texts showed that error reduction could be observed in some pairs as a result of shortening of the pair's original version length, and it did not mean better quality of continuation (e.g. A5/ A6). In other words, fewer mistakes in some co-authored texts was not necessarily the consequence of the effective changes the pairs made in their texts but was caused by shortening the length of texts.

Table 6.

Length and Local Scores of the Texts

	Version	No of words	Score			
			content/ key words	logic and coherence	tone and style	language and mechanics
A1/ A2	Draft	231/ 213	23/ 21	23/ 20	23/ 22	23/ 21
	Average	222	22	21.5	22.5	22
	Final	240	23	24	24	25
A3/ A4	Draft	197/ 153	21/ 22	21/ 24	22/ 17	24/ 17
	Average	175.5	21.5	22.5	19.5	20.5
	Final	195	22	25	23	25
A5/ A6	Draft	190/ 221	20/ 21	22/ 20	20/ 19	22/ 20
	Average	205.5	20.5	21	19.5	21
	Final	171	20	21	20	23
B1/ D1	Draft	188/ 154	17/ 18	19/ 18	17/ 18	19/ 22
	Average	171	17.5	18.5	17.5	20.5
	Final	193	18	20	19	23
B2/ D2	Draft	178/ 158	18/ 21	18/ 21	19/ 13	23/ 11
	Average	168	19.5	19.5	16	17
	Final	185	21	22	21	24
B3/ D3	Draft	201/ 170	17/ 20	21/ 20	16/ 20	22/ 16
	Average	185.5	18.5	20.5	18.5	19
	Final	219	19	22	21	22
C1/ C2	Draft	190/ 226	15/ 11	15/ 10	13/ 13	13/ 14
	Average	208	13	12.5	13	13.5
	Final	230	16	17	14	13
C3/ C4	Draft	175/ 200	16/ 13	14/ 13	13/ 14	17/ 16
	Average	187.5	14.5	13.5	13.5	16.5
	Final	209	17	13	16	18
C5/ C6	Draft	167/ 147	12/ 12	15/ 15	11/ 11	14/ 15
	Average	157	12	15	11	14.5
	Final	179	13	15	12	16

A more detailed analysis of the data showed that texts composed by pairs were more likely to pay attention to vivid, detailed descriptions. Six of the nine texts produced by pairs included more picturesque

details describing people's words, actions, thoughts, looks and surroundings as well. This phenomenon was observed in the following extract (the vivid, detailed descriptions are underlined) from the first pair (A3/ A4):

Feeling scared and helpless, Jane sat beside a tree and held her shoulder in her arms to make herself warmer. Slowly, the sun hid himself behind the mountains, and it was hard to see anything. Looking through the thick darkness, Jane seemed to see Tom's smiling face. She said to herself for thousands of times that she would not leave Tom again.

In contrast, the texts completed individually included relatively less vivid detailed description. It could especially be noticed in individuals with lower writing proficiency level (the errors were underlined). The following extract from C6 is evidence of this:

Jane walked for a long time, she felt very tired, thirsty and hungry. She had to return (to) the stream. She drank and ate a few berries again, and had a rest. After a few minutes, she standed (stood) up and thought, "I can't give up. I must find the lake where we arrived first." She continued walked (to walk).

Thus, texts produced by pairs seemed better than those completed by students individually in terms of both accuracy and complexity.

3.2 Exploring the nature of pair interaction

The analysis of collaborative dialogues, as listed in Table 7, indicates that even though all the pairs spent a certain time on planning, this stage in most cases was brief (about 2 minutes and 30 seconds on average). Most of the time was undoubtedly spent on writing, but the time varied greatly, ranging from 24 minutes to 30 minutes.

Table 7.

Time Spent on the Different Phases of Writing

	Total time on task (mins)	Planning	Writing	Revision
A1&A2	34:40	3:10	27:00	4:30
A3&A4	38:50	5:00	28:40	5:10
A5&A6	27:30	0:50	24:00	2:40
B1&D1	33:40	2:40	27:00	4:00
B2&D2	42:40	5:10	30:00	7:30
B3&D3	36:40	3:00	29:40	4:00
C1&C2	38:50	7:10	29:50	1:50
C3&C4	37:10	1:40	30:00	5:30
C5&C6	31:30	2:50	24:00	4:40

The planning section, consisting of reviewing the content in reading and clarifying the ideas in the missing part according to the two given sentences, was in fact a preparation for collaborative writing. Since the students had familiarised themselves with the reading material, the idea-sharing and decision-making took up little time.

As Table 7 shows, only three pairs (A3 & A4, B2 & D2, and C3 & C4) spent more than five minutes on the revision stage (even though it was procedurally required), and most of the pairs deliberated about language use for the duration of the composing process. However, one pair (B2 & D2) spent considerable time (7 minutes and 30 seconds) in collaborative revision.

Table 8 presents the time taken for the different activities (mainly about generating ideas, LREs and structure) involved in the collaborative continuation task. Considering the little time spent on task clarification and co-revision (of which some activities could not be included in the main activities, such as social negotiations and the writing itself), these episodes were marked as “other” in the table.

Table 8.

Time Spent on Different Activities of the Continuation Task

	Generating ideas	LREs	Structure	Other
A1&A2	10:30 (30%)	15:00 (40%)	2:00 (6%)	07:10 (21%)
A3&A4	07:50 (20%)	09:10 (24%)	5:00 (13%)	16:50 (43%)
A5&A6	08:10 (30%)	11:30 (42%)	1:30 (5%)	06:20 (23%)
B1&D1	07:30 (22%)	12:00 (36%)	5:00 (15%)	09:10 (27%)
B2&D2	15:00 (35%)	15:30 (36%)	4:30 (11%)	07:40 (18%)
B3&D3	09:00 (25%)	14:00 (38%)	2:00 (5%)	11:40 (32%)
C1&C2	18:10 (47%)	05:20 (13%)	7:40 (20%)	07:40 (20%)
C3&C4	11:30 (31%)	14:00 (38%)	1:50 (4%)	09:50 (27%)
C5&C6	12:00 (38%)	11:20 (36%)	0:30 (2%)	07:40 (24%)
Average	31%	34%	9%	

Table 8 presents the time spent on the different activities and their corresponding percentages of the time. Apart from the time involved in “other” activities, the most time-consuming activities were generating ideas (an average of 31% of the time) and LREs (an average of 34% of the time). Although most of the pairs spent time on language and idea deliberations, the time spent greatly varied. Some pairs (e.g. B2 & D2 and C5 & C6) spent as much time on language deliberation as on generating ideas, while other pairs (e.g. C1 & C2) spent very little time on language. Table 8 also indicates the time spent coping with structure of the text was relatively small, probably because of the nature of the continuation task.

There seemed to be some correlation between time spent on different activities of the continuation task and grammatical and vocabulary accuracy. For instance, the pair (e.g. B2 & D2) who spent more time on language deliberations tended to achieve higher language (and grammatical) accuracy scores. In addition, the pairs (e.g. C1 & C2) who achieved high logic and coherence scores spent a relatively large proportion of time generating ideas.

Informed by Long’s interaction hypothesis, the unit of analysis is generally the turn. Turns are coded for the kind of negotiation moves identified by Long’s (1983) taxonomy of negotiations: confirmation checks, clarification requests, comprehension checks and recasts. As suggested by Storch (2013), the unit of analysis tends to be an LRE in research on collaborative writing. Considering the nature of continuation task, an idea-related episode should also be included.

Excerpt 1. Generating and co-constructing the ideas

A1: Let’s share our ideas on the development ... of the story.

- A2: *I had made a map ... like a storyline ...*
- A1: *Let me see. The angry ... anger ... caused by the quarrel ... is the beginning, then, ...*
- A2: *(She) became frightened ... getting lost you know ... then helicopter ... brought hope, but disappeared soon ... Then I have no idea ... what's your idea about (the) ending?*
- A1: *You notice (the key word) "yellow blouse" in the last paragraph ... It must be (a) hint for us ...*
- A2: *Reasonable! And you see ... helicopter ...*
- A1: *Then the ending should be ... positive ... positive.*
- A2: *Right ... positive energy!*
- A1: *Then the two paragraphs ... will talk about ... (her) struggle and ... good luck.*
- A2: *Yeah, paragraph 1 ... Jane struggled in the forest ... paragraph 2 ... she was rescued ... and met her husband ... Wonderful!*

Excerpt 1, from the data of A1 & A2, showed the process of co-constructing ideas. Within these five talk-turns, the students offered their input in the process, pooling their ideas, adding to each other's understanding or mutually contributing to the final agreement. More specifically, as we can see in Excerpt 1, A2 spoke of her understanding of the incomplete story, showing her self-made storyline to A1 (turn 1). A1 seemed to be interested in A2's creative idea by saying "Let me see", and in turn 2 she was unexpectedly asked to offer insights on the ending of the story ("What's your idea about the ending"). In response, A1 gave special attention to the words *yellow blouse* in the last paragraph (turn 3), reminding A2 of the hints in the passage. Accordingly, A2 noticed the word *helicopter*, believing that the ending of the story would be positive (turn 3). Finally, by saying "Wonderful", they arrived at a better understanding of the story and felt more confident about finishing the continuation task (turn 4 and turn 5).

Excerpt 2. Language-related episode

- B3: *What's your sentence?*
- D3: *(showing the sentence to B3) It was very quiet in that surrongings.*
- B3: *Surroundings, wrong spelling ...*
- D3: *Oh, I see ... (Correcting the spelling)*
- B3: *Next...*
- D3: *Jane became more and more fear...*
- B3: *Fear? Here need an adjective...*
- D3: *Fear is not ... then what?*
- B3: *I don't know the right form of fear ... Er, we can use other ways to say ... like afraid...or frightened... Right, I like the word "frightened".*
- D3: *Well, then Jane became more and more frightened.*

Excerpt 2 was an example of peer scaffolding. Scaffoldings enable individuals with lower language proficiency to perform beyond their former existing level of linguistic expertise. In this case, B3 pointed out the wrong spelling of the word *surroundings*, and D3 immediately realized her mistake (turn 2) and acknowledged it ("Oh, I see"). Also, such evidence could be found in the following sequence. For instance, when D3 misused *fear* as an adjective, B3 suggested that D3 change the form. In response, D3 raised a question ("Fear is not ... then what?"). Interestingly, B3 offered another word, *frightened*, in place of the noun *fear*. D3 accepted this.

Excerpts presented above show evidence of generating an idea and language-related episodes in

collaborative writing. The process of collaboration pushed the students to go beyond what they could reach on their own in terms of generating ideas, sentence structure or language accuracy.

3.3 Students' perceptions on collaborative experiences

First examined are the students' reactions to the collaborative continuation that they completed and their overall attitudes to pair writing. In general, the students in the study held a positive attitude to their collaborative writing according to their anonymous responses to the first three questions in the questionnaire. Questioned on whether they found writing in pairs helpful for foreign-language learning, most offered a positive answer. As shown in Table 9, 16 of the 18 students in the study regarded pair writing as either "extremely helpful", "very helpful", or "helpful"

Table 9.

Students' Views on Pair Writing

		Students in pairs (n=18)
Writing in pairs in class is	Not helpful	2
	Helpful	3
	Very helpful	10
	Extremely helpful	3

Asked about their experience with collaborative continuation, the students were also quite positive. In reaction to question 3, only three out of 18 said they would have chosen to finish the continuation task individually. More specifically, according to the questionnaire, some students expressed their preferences for writing in pairs by giving written descriptions. The following two comments revealed their positive attitudes.

Comment 1: I think writing in pairs is a good way to learn English. First, I can practice my oral English with my partner. Second, I can get help when I have difficulties in words and grammars. For example, when I forget how to spell a word, my partner will help me out. Also, we can work together to find a better sentence structure. Sometimes we have more creative ideas.

Comment 2: Writing in pairs makes me have more chance to learn and speak. We have our own advantages in knowledge and ideas. By sharing our ideas and knowledge we learn from each other. We enjoyed an active atmosphere, and we try our best to improve the quality of the continuation.

Furthermore, the students' responses to Questions 4–8 in the questionnaire were collected. In this section of the survey the students were asked to consider the benefits of working in pairs and the impact of collaborative writing on lexical and grammatical accuracy and the content of the completed continuations.

Table 10 shows that most of the students assumed that pair writing had a positive effect on both the grammar and the vocabulary of the compositions. In fact, only one of the students assumed their compositions would have been better in terms of vocabulary if they had worked alone, and only two believed their compositions could have been more grammatically accurate if they had individually finished the writing. Interestingly, the benefits of pair writing were less evident for the students in terms of content and organization.

Table 10.

Students' Perceptions of the Impact of Collaboration on the Nature of the Continuation

		Students in pairs (n=18)
If I had written the text individually, its content would have been	Better	4
	The same	3
	Worse	11
If I had written the text individually, its vocabulary would have been	Better	1
	The same	1
	Worse	16
If I had written the text individually, its grammar would have been	Better	2
	The same	3
	Worse	13

About 60 percent of the students (11 out of 18) said they believed the content of their continuations had been positively affected by peer collaboration. When working in pairs, they said, they would have more ideas to choose from, thus making the continuations more creative and cohesive. The following provides evidence of this:

Comment 3: It is not easy to make up a good story. I am not very creative. For the lack of imagination, I cannot think of great plots. But when I have someone else to talk about different ideas, I work better with the plot and we can better organize the text in a more coherent way. Two minds are better than one.

As for vocabulary use, 16 out of 18 who composed in pairs believed their continuations had been positively affected by peer collaboration. They all accepted that collaboration improved the lexical diversity and accuracy of the final continuations because different students shared different vocabulary and grammar resources to solve lexical and grammatical problems. However, 13 out of 18 noticed a positive effect of pair working on grammatical accuracy, slightly fewer than the number of students who saw a positive influence on vocabulary.

Finally, the students were examined on whether they noticed the effect of pair writing not only on continuation task performance but also on foreign-language learning. Overall, the students' views were positive. As shown in Table 11, most of the students said they found pair writing helpful for both vocabulary and grammar learning. In fact, 15 out of 18 students who regarded the collaboration as extremely helpful, very helpful, or helpful for vocabulary acquisition were able to list many words they had learned from their partners, such as *bury*, *murmur*, *frustration* or *satisfaction*.

Table 11.

Students' Perceptions of the Effect of Pair Writing on Learning

		Students in pairs (n=18)
For improving my vocabulary knowledge, this collaborative writing task was	Not helpful	3
	Helpful	5
	Very helpful	8
	Extremely helpful	2

For improving my grammar knowledge, this collaborative writing task was	Not helpful	4
	Helpful	7
	Very helpful	6
	Extremely helpful	1

In terms of grammar, most of the students (14) working in pairs thought of the collaborative activity as an occasion to consolidate former knowledge. However, one sixth of the students (3 or 4) felt pair writing could not help them improve their lexical or grammatical knowledge. The following typifies the expression of that view:

Comment 4: Although collaborative writing provides a fun atmosphere with potential opportunities (like speaking), I could not see the positive impact of pair writing on vocabulary and grammar. We are on a similar level, and my partner does not have the ability to help me when I have trouble. Anyway, I find it hard to correct my partner's mistakes because I am afraid it will do harm to our reasonable relationship.

These students saw opportunities to improve their fluency and oral English, but they were unaware of the fact that they could learn grammar or vocabulary when writing with other students of the similar proficiency.

To provide some supplementary data, within 1-4 days after the collaborative continuation, students who worked in pairs were interviewed individually in the researcher's office about the experience of writing collaboratively. Although most of the students held a positive attitude to pair writing, some believed pair work is more acceptable when doing oral activities rather than in performing writing tasks. Furthermore, several students expressed negative attitudes about the experience.

4 Conclusions

4.1 Major findings

The study findings confirm that the application of collaborative writing exerts a positive influence on continuation tasks.

First, the study found that the texts produced by pairs were overall better than those completed individually, especially in terms of language and ideas. The comparison between texts showed that collaborative continuation made a positive difference to the overall quality of co-authored continuation tasks. More specifically, positive changes were seen in textual aspects at both global and local levels, but some inconsistencies were also noticed. As for language and mechanics, because of students' pooling resources and language-related negotiations, most of the texts finished in pairs seemed to achieve higher accuracy (with an exception of the pair C1/ C2). A similar result was seen in terms of tone and style. Although the length of the texts was not necessarily the result of texts' higher scores, co-authored texts tended to be much longer than ones completed individually in terms of the continuation length. Furthermore, texts composed in pairs contained more vivid, detailed descriptions than those completed by individuals.

Second, the students involved in collaborative writing tended to pool their linguistic resources and creative ideas, cope with disagreements and better co-construct the shared texts. Writing in pairs the students were more likely to solve problems by negotiating with their partners. Languageing, as a means of solving problems, is also served as a process of co-constructing new language knowledge or new understandings. In that way the students' language and cognitive competence tended to develop through

frequent interaction with others. When interacting with others, the students were exposed to different ideas. Conflict required that their partners provide explanations to make their suggestions convincing. These requests pushed the students to compose a clearer and more coherent text and in the process enhanced their own understanding of how to write properly. Analysis of the collaborative dialogues produced evidence that pair work provides students with opportunities to co-construct texts and pool their linguistic resources, and thus complete more linguistically complex and grammatically accurate texts.

Third, despite having reservations, the majority of the students who took part in the experiment had a positive attitude toward collaborative continuation. Most of the students in the study had a positive attitude to their collaborative writing experiences according to the survey of students' perceptions on collaborative continuation tasks, they believed a pair could create an atmosphere in which they felt motivated and comfortable. Furthermore, the students who expressed a preference for pair writing felt that this arrangement produced more ideas and knowledge and more opportunities to help peers and to receive help from them. The interviews with the students revealed similar results.

4.2 Implications and suggestions

Based on the findings above, some implications on the instruction of continuation tasks were put forward as follows.

To begin with, collaborative writing promotes both linguistic and idea deliberations between pairs, facilitating interactive negotiation. As the study showed, collaborative writing requires students to agree not only on what to say, but also on why and how to say it, thus pushing them to deliberate about their choices of language and ideas. In such deliberations students engage in cognitive processes. They verbalise gaps in their interlanguage, formulate and test hypotheses, and make decisions on ideas and language alternatives. These processes occur because writing is a more natural task for encouraging students to pay more attention to form and logic than tasks that require only oral interaction. Furthermore, in these deliberations about language and ideas, students take advantage of their partner's linguistic and idea resources and generally come up with superior resolutions of language issues.

Furthermore, the effect of alignment noticed in continuation tasks is highlighted in the process of collaborative continuation, which opens up a possibility for continuation instruction. The continuation task combines reading with writing, builds creative use of language on imitation and enables students immediately to put what has been learned into use. Since previous studies (e.g. Jiang & Chen, 2015) showed the advantage of using continuation to improve language output performance in terms of accuracy and complexity, the practice of combining the collaborative writing and continuation task provides an insightful way to learn foreign languages. As the study suggested, the effects of levelling and synergy noticed in continuation tasks are dramatically highlighted in the process of collaborative continuation. In the process of alignment, students with lower language proficiency benefit from the levelling effect caused by synergy of both reading materials and superior partners.

Lastly, writing in pairs can also cultivate students' reader awareness. In other words, collaborative continuation makes the concept of readership real because in the activity there is an inbuilt audience, and this may be particularly beneficial to novice writers. Less successful writers tend to produce a writer-based text, believing that the reader will follow their intended meaning. In collaborative writing, such writer assumptions may be frequently questioned. The students interviewed said they had learned from the collaborative experience. They felt that they had gained a lot from the process of writing, such as how to deliberate on language, how to evaluate the ideas, and how to write from the reader's perspective.

To exert the positive impact of collaborative continuation on language learning, suggestions coping with the potential challenges are presented.

On one hand, one challenge the teacher may confront is resistance from students. Faced with such a challenge, teachers should carefully consider the following advice:

- (1) Become aware of students' attitudes to collaborative continuation and their attitudes to it. It is a good idea to use a brief questionnaire through which responses are collected before carrying out the activity. In that way teachers will prepare themselves for any student reluctance.
- (2) Give the students freedom to choose whether to write collaboratively or individually. Whether or not it is the first time carrying out collaborative continuation in class, such a choice should be offered. After students have observed other students writing in pairs they can be allowed to reconsider their choices. If they want to change, let them do so.
- (3) Inform students of the purpose and principles for collaborative continuation. Since collaborative continuation is a novel and unfamiliar activity, teachers need to clearly explain its purpose and principles. If the students are convinced of the merits of collaborative continuation they are more likely to be positively inclined to it.

On the other hand, assigning students to write in pairs does not necessarily lead to their effective collaboration. To help students establish collaborative relationships, the following ideas are suggested:

- (1) Use modelling collaborative interaction. The modelling can be researcher/ teacher modelling collaborative dialogues or a short video clip showing how to cope with disagreements and negotiate on language. Such modelling has been shown to encourage students to adopt a collaborative pattern of interaction, in L2 contexts with adult students (Kim & McDonough, 2011).
- (2) Check the quality of students' interactions. Where there is collaborative continuation, there is a teacher monitoring the process. If necessary, the teacher may encourage students to change their partners in case some patterns of interaction are not very conducive to learning.
- (3) Evaluate mutual efforts rather than individual achievement. Students are more likely to engage in collaboration task when the task is graded on the basis of the collaborative effort. Thus, sharing ideas and providing feedback to each other may require a re-conceptualisation of classroom teaching and assessment practices (Storch, 2013).

4.3 Limitations

As an experimental study, this thesis has explored the impact of collaborative writing on the English continuation tasks of senior high school students. With the help of the study, the quality of co-authored texts, the collaborative dialogues and students' reactions to this experience were collected and objectively revealed. However, the results drawn from the small sample in this study call for further experiments on a large scale. The main research method adopted was qualitative research, which added to the limitation of this study. Since the application of collaborative writing in continuation tasks is still in its infancy, more research is needed.

Acknowledgements

This work was supported by Zhejiang Provincial Educational Science Foundation Committee (Project No 2019SC109) and the Chinese Ministry of Education Project of Humanities and Social Sciences (Project No 17YJA880081).

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