

Writing Collaboratively Via WIKI: An English Teaching Study

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Abstract. Based on the theories of collaborative learning, process-oriented writing, formative assessment and peer assessment, this study presents the author's empirical research on applying Wiki to teaching English writing. It further discusses the way of using Wiki to assist teaching English writing, and under its assistance, how learners' writing can be improved, and thus from what aspects it takes effect. The results turn out that writing on Wiki does take some effects in improving the efficiency of teaching English writing and enhancing learners' writing proficiency. With this empirical research, the authors hope this study provide useful implications for the relevant educators and teaching researchers to find out a new mode for teaching collaborative English writing.

Keywords: Wiki · Collaboration · Process-oriented writing · Peer assessment

1 Introduction

China's English Curriculum Reform in basic education brings forward that the overall objective is to develop students' comprehensive language skills. Writing, as one of the four basic language skills, plays a significant role in English teaching. However, the traditional method of teaching writing, the product-oriented method, only focuses on the accuracy of the final product and ignores the writing process which the students go through to reach the final goal [1].

While at the same time, autonomous learning has become an increasingly important concept in foreign language education [2]. Chinese New Curriculum also advocates enhancing students' autonomous learning ability [3]. For most teachers, one of the problems they are facing nowadays is how to provide a learning environment outside the classroom where students can learn autonomously at their own paces whenever and wherever they like to evaluate their own learning. What's more, they also need a space where students can learn collaboratively, allowing them the opportunity to communicate. Therefore, in the field of language learning, people not only pay attention to autonomous and self-directed learning, but also provide opportunities for learners to interact with each other [4]. With the development of social media, web tools like BBS, weblog and wiki are introduced into writing teaching. In the light of these applications, how to apply social networking into the teaching of English writing, by focusing on the

students' writing process, giving them the opportunity to collaborate with each other, thus to improve their English writing skills, is a challenging but meaningful issue for all the educators and teaching researchers.

As a kind of collaborative writing system, Wiki catches more and more attention of language teachers and provides direct enlightenment for the writing teaching innovation [5]. Theoretically, wiki meets both the requirement of process-oriented writing and collaborative learning. However, empirical studies on collaborative and process-oriented writing are still rare. Therefore, we need to carry out a study of Wiki's application and practice in the teaching of English collaborative writing to see its outcomes, methods and limitations.

2 Related Works

2.1 On Wiki's Application in Education

A wiki is a website which allows collaborative modification of its content and structure directly from the web browser [6]. As for its openness, simplicity and collaborative feature, wiki attracts quite a great application in education.

The application of wiki in education abroad can be summarized as follows: information sources, student assignment hand-in collaborative web-writing, problem solving, project spaces, anchored collaboration, focused discussions, case libraries, cross class/courses projects, for community building among students, for learning to collaborate, and so on [7]. For instance, the Uniwakka developed by CALPER has been well employed in the teaching of writing in Chinese, German, Russian, Spanish, Korean, and Arabic, as well as in the classes where English is used as the second language [8].

In China, the application of Wiki is mainly conducted in colleges or universities [9]. To sum up, the application includes: sharing resources, writing on-line dissertation, applying Wiki in teaching writing, providing teachers' teaching design platform, developing web-based curriculum, processing modification for treasury papers, functioning as knowledge base and others like education encyclopedia, providing environment for teachers and students to exchange online learning, collaborating to create, and solving problems, etc.

2.2 On Collaborative Writing

Collaborative writing becomes a popular research topic since the 1980s when researchers began to study its process [10]. Murray once questioned the notion that learning to write must necessarily be an isolated individual process, and he proposed an alternative strategy in which learners are required to collaborate in order to complete the writing task successfully [11]. Actually, in our daily life, most writing taken place is interactive or collaborative, such as project work, posters, etc. According to Wang [1], writing can be both collaborative and solitary.

Rachel Rimmershaw effectively generated the definition of collaborative writing as "any piece of writing, published or unpublished, ascribed or anonymous, to which

more than one person has contributed, whether or not they grasped a pen, tapped a keyboard, or shuffled a mouse” [12].

Collaborative writing accommodates the principles of social constructivism as proposed by Vygotsky. And according to Nagelhout, collaborative writing arouses learners’ awareness of writing as a process, and focuses on each of the phase of the writing process. Semones described the collaborative writing as a process built on action-reaction responses. He explained to us how the collaborative writing process works: in this communicative process, unskilled writers can learn from others to write, and skilled writers can benefit from exchanging ideas and comments to perfect their works [13].

Empirical studies on collaborative writing have found that collaborative writing can help learners to get several viewpoints and different expertise, to reduce errors and to obtain a better, more accurate text [10]. Experiments also suggest that collaborative writing can be possible to make knowledge explicit and to construct the collective memory of the learners [14].

Since collaborative learning mirrors the social nature of language and writing, applying collaboration to writing may be of great influence on improving learners’ writing skills. In order to have a clearer understanding on how collaboration takes effect on writing process, we also need to check out some theories on the process-oriented writing.

2.3 On Process-Oriented Writing

As one of the four basic language skills, writing is often regarded as a means to consolidate language that is recently studied. In recent years, both teachers and students donate importance to develop writing skills. Nevertheless, attention, for most of the time, is just paid to the final product of students’ writing task. The traditional product-oriented method of teaching writing may be fruitless because it pays great attention to the accuracy of the final product but ignores the process, during which students go through to reach the final goal. The process approach to writing in which writing activities serve to encourage a process of brainstorming, drafting, writing, feedback, revising and editing, is therefore recommended by many educators.

The process-writing mode was proposed by Graves in 1978, which advocated that teachers should help students to understand and assimilate the whole writing process. It is theoretically based on the process teaching theory and the communicative theory, regarding writing process as the communicative activity of a group [15].

According to Brown [16], the process approach to writing focuses on the process that leads to the final written product; helps student writers understand their own composing process; helps them build repertoires of strategies for prewriting, drafting, and rewriting; gives students time to write and rewrite; places central importance on the process of revision; lets students discover what they want to say as they write; gives students feedback throughout the composing process (not just on the final product) to consider as they attempt to bring their expression closer and closer to intention; it encourages feedback from both the instructor and peers; and it includes individual conferences between teachers and students during the process of composition. Many

empirical studies have been carried out on process-oriented writing, and most of which follow the mode as prewriting, first draft, revising/editing/teacher or peer conferencing, and final product.

3 The Study

This study focuses on the application of Wiki in teaching collaborative English writing. With the purpose of finding out whether Wiki can assist teaching English writing effectively, based on the theories of collaborative learning and process-oriented writing, the research questions are confined to the following aspects:

- (1) How to use Wiki to assist the teaching of English writing?
- (2) What benefits does it bring?
- (3) Under Wiki's assistance, is the writing skill of the students improved? And if yes, from what aspects does Wiki take effects?

This study at first involves 52 students in Class 14, Senior 1 in one middle school in Guangzhou China, with 25 students who participate actively in the experiment chosen for the detailed study. And 3 of these 25 are chosen at random for case study. When the experiment are being carried out, these students has been in Senior One for just one month, however, they all have reached a certain varied level in English.

The three students chosen for detailed analysis are distinguished as Student A, Student B, Student C. Among the 13 groups that the whole class is later divided into, Student A is in Group 4, Student B in Group 7, and Student C in Group 12.

We also randomly chooses 25 students from Class 15, Senior 1 in the same middle school as a control group, since the two classes are in the charge of the same English teacher and Class 15 is also a parallel class in the grade.

The study applies Wiki in the teaching of English writing, by asking the students to finish the collaborative English writing task after class. The data collected from the Wiki are studied and analyzed by adopting the quantitative approach and the qualitative approach.

In order to find out the answers to the research questions, the study is carried out in the following steps:

Step 1: Divide the students into 13 groups of 4 members. Introduce Wiki to the students, and teach them how to operate it online by entering the page of their own groups;

Step 2: Design the writing task, and ask the students to finish the task on Wiki after class; after reaching the deadline, study their first drafts carefully and copy them down;

Step 3: Give some guidelines to the students and ask them to go online again, editing, rewriting, assessing or giving suggestion to theirs or their group members' first drafts;

Step 4: Collect the edited version of the students and other data, and then give time to the students to study their edited version carefully, and in the mean time, give some comments or suggestions to their second drafts as well;

Step 5: Ask the students to finish a writing task again on the base of the first two drafts.

Step 6: Collect the students’ final products, get all the data and give feedback.
The procedure that the students involved in can be illustrated as follows (Fig. 1):

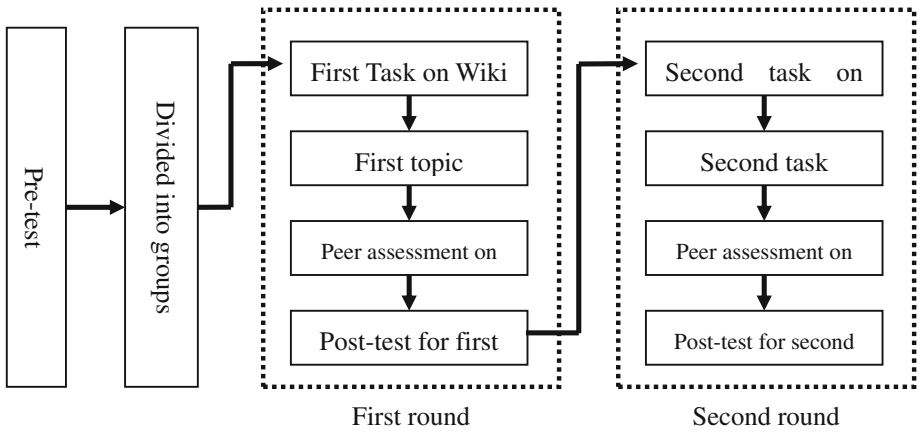


Fig. 1. Procedures of the study

4 Data Analysis and Discussions

According to the results of the students’ entrance exam and the interview of their English teacher, we can see that this experimental class is a parallel class among the whole 15 classes, and their English proficiency is relatively lower than other classes’. However, whether the experimental group’ scores have obvious difference from the control group or not needs to be analyzed. The study analyzes these two samples by using the Independent-Sample T-Test and gets the following result:

The result shows that the English proficiency of the two groups has no obvious difference before the experiment ($t < 1$, $p > 0.05$) (Table 1).

Table 1. Independent-sample T-Test of pre-test

Group	N	Mean	Std. deviation	<i>t</i>	Sig. (2-tailed)
Experimental	25	8.166	1.862	−0.394	0.214
Control	25	8.030	1.760	−0.053	0.230

* $p < 0.05$

Under the guidelines of the study, the whole group is divided into 5 groups, and each member of the groups puts up his or her first draft of the first writing assignment on the Wiki pages. The screen capture below is Student B’s first draft (Fig. 2):

On the basis of the first draft, the students learn from each other’s work, then edit and revise others’ works as well as their own. Below shows Student B’s revised versions (Fig. 3):

Where have you been? In the last summer holiday, my classmates and I went to shanghai. It was a big beautiful city. My friend and I went to many famous places to visit. Chenghuang Miao Temple is one of the most famous places. We ate many things, those were so delicious! Then in the evening, we had Huangpu River Cruise by ship. It was so beautiful to look at the buildings at night! In the ship, we tough to the foreigners and took many photos. In the talk, we knew that the foreigner went to shanghai to have a holiday with his family. Then he introduced his wife to us and told us they had two big houses, five cars, one daughter and one son. To our surprises, his houses were so big and just like two big villas! At last, we went to Jinmao Tower . But in the beginning, we wanted to visit The Oriental Pearl's Tower, the guide told us that the tower was too old to go to the top of the tower slowly. When the lift door closed, I felt the lift went very fast! I stood on the top of the Jinmao Tower , oh! The building was so high and I felt a little afraid! Shanghai was a beautiful city! That was a wonderful holiday in my life!

Fig. 2. Student B's first draft of the first writing task

where have you been?
~~It~~ In the last summer holiday, my classmates and I went to shanghai. It was a big and beautiful city. My ~~friend~~ friends and I went to many famous places to visit. ~~Chenghuang~~
Chenghuang Miao Temple is one of the most famous places. we ate many things, those were so delicious! Then in the evening, we had Huangpu River Cruise by ship. ~~It~~
It was so beautiful to look at the buildings at night! In the ship, we ~~tough~~ talked to ~~the~~ foreigners and took many photos. In ~~the talk, we~~ conversation, we knew that the ~~foreigner~~ foreigners went to shanghai to have a holiday with his family. Then he introduced his wife to us and told us they had two big houses, five cars, one daughter and one son. To our ~~surprises, surprise,~~
~~At~~ At last, we went to Jinmao Tower . But in the beginning, we wanted to visit The Oriental Pearl's Tower, the guide told us that the tower was too old to go to the top of the tower slowly. When the lift door closed, I felt the lift went very fast! I stood on the top of the Jinmao Tower , oh! The building was so high and I felt a little afraid!
 Shanghai was a wonderful holiday in my life!
31

Fig. 3. Student B's revised version

Table 2. Quantity of errors in writing task II

	Student A	Student B	Student C
Errors in the translation works	9	8	10
Errors having been revised on Wiki	14	17	20

During the second writing task, students are asked to revise the sample writing on Wiki which contents 27 errors. These errors are of the same types that the students made in their former writing. Table 2 shows the quantity of errors each student made in the respective writing version for the second writing task.

For Student A's first draft of the second task, he makes 9 errors. However, in the error correction on Wiki, he and his group-mates revise 14 of the 27 correctly. Student B's group finds out 17 errors and corrects them. The total number of errors which Student C and her group-mates find out and correct is 20. From the data we can see that the students start to be sensitive to the errors in the writing. And by finishing the tasks on Wiki with their group mates, they can learn from each other and correct the errors they made before.

After two rounds of experiments on Wiki, all students are required to take part in the mid-term exam that can be considered as an evaluation for the students' writing skill after the experiment. We study their English writing proficiency by analyzing the data of this exam. By using SPSS, the result of the Independent-Sample T-Test for analyzing the two samples which are respectively the writing scores of the 25 students in class 14 who participated actively in the experiment and the writing scores of the control group is as follows (Table 3):

Table 3. Independent-sample T-Test of post-test (mid-term exam)

Group	N	Mean	Std. deviation	<i>t</i>	Sig. (2-tailed)
Experimental	25	9.860	2.0183	2.881	0.005
Control	25	8.613	1.8145	2.812	0.007

* $p < 0.05$

We can see from the figure, mean of experimental group is higher than that of the control group ($9.860 > 8.613$). The result shows that, the English proficiency of the two groups has obvious difference after the experiment ($p = 0.005 < 0.05$). It can be safely concluded that in the mid-term exam, the writing proficiency of the 25 students in Class 14 is obviously higher than the control group.

From all the results above, we could find out that, with the help of Wiki, students of the experimental group are making progress. And their writing proficiencies are obviously being improved. We should also point out that, since the experiment is carried out in limited time, the effects of Wiki may not be obvious enough. And only about 25 students play an active role in the experiment, so only the scores of these 25 students can reveal the truth. That's why we chooses to do the T-test between the scores of these 25 students and the control group, but not between the whole Class 14 and the control class.

5 Discussion

The adoption of Wiki in teaching English writing should be determined by Wiki's own characteristics. Since the assignment is to be finished online, the writing task should be well designed in advance. An interesting and familiar topic can always motivate students to have much more to write and cooperate more closely. Because of Wiki's openness, everyone can go online and see the content. The teacher must make a detailed group arrangement and give guidelines. In order to keep the privacy, students can use their student numbers to log in. Everyone can edit the Wiki page, so it needs to arouse students' awareness of respecting each other's works. The process of writing on Wiki is a process for students to cooperate with each other and learn the writing skills from each other, so collaboration is important. At the same time, showing respect for the comments or correction from peers is also the essential element to the normal operation on Wiki. The teacher should also give feedback regularly so as to help students write effectively.

The application and practice of Wiki in teaching Collaborative English writing shows that Wiki helps to solve the traditional problem in teaching English writing. Firstly, it saves the teacher a lot of time in correcting the compositions. By asking the students to do peer assessment on Wiki, teacher has no need to go over all the first drafts carefully. From the revised version and the history record, the teacher can immediately know how well the students have done and give feedback in time. Secondly, it increases the efficiency in teaching English writing. Students just need to go over several pieces of writing of their group mates. So peer assessment is usually more detailed since they have more time relatively than the teacher. Students as the readers of their peer's writing can find out more detailed problems if their English proficiency reaches a certain level. With Wiki's assistance, the first drafts and the revised versions are shown clearly with different color, so the teacher can quickly know whether or not that the students have realized the problems in the writing and revised them correctly by referring to the history record.

For the students, writing online would allow them to proceed at their own rates. Wiki provides them an environment for collaboration. Correction and collaboration through modeling create a low-anxiety atmosphere. In the process of writing, students learn how to cooperate with each other. And collaboration helps to activate their minds and they can share more ideas. With more readers, they are motivated to write actively and carefully, so as to present their best works to their peers. Writing on Wiki is a long process, students need to revise and review their writing from time to time to make it perfect. By practicing, students can also form a good habit in the process-oriented writing. The formative assessment here can be realized by assessing students' participation on Wiki, the improvements on their writing and their contribution to others' works. So students no more worry about failing in the course caused by failing to achieve a good mark for only one writing task. This relaxes them and encourages them to write.

The results of the experiment on Wiki show us that, to a certain degree, the students' English writing skill has been improved.

Basically, by collaborating on Wiki, students help each other to avoid basic language errors, like misspelling of words, abuse of punctuation, neglect of capitalization, etc.

Furthermore, practicing on Wiki encourages students to write correct and appropriate sentences according to grammar rules. Since it allows students to edit and revise their writing, they are no longer afraid of making errors, and they write down bravely whatever comes to mind. Process-oriented writing gives the learners opportunities to revise their writing again and again so as to make it perfect. In such a process, the participants learn through the frequent making of errors in an online non-threatening environment. Actually, errors are encouraged because they can help with learning by enforce students' impression. By reading others' writing, they may find out the errors they have made and then correct it. This can also help to deepen the impression of grammar rules. The revising records provided by Wiki also give students a clear overview map for their own writing process, so as to guide their future writing.

For the longer term, by writing on Wiki, students can share their ideas and writing skills. This activates their minds. They form the habit to think creatively and gradually develop their thoughts. They may come to different sentence structures or

transformations, and may have more choices of words and phrases. So they need to learn to select, organize and order the relevant information.

As many researches support, writing is interactive and is improved by feedback from both teachers and peers. Peer assessment enabled on Wiki is important for exposing students to more readers, comparing with the traditional writing course that teacher is expected to be the only reader. Learners build the confidence as writers and cultivate the ability to manipulate phrases and sentences and use language. Comments and correction from peers are impressed and easily absorbed. When students become the readers, they go through the pieces of writing with critical thinking. Discovering other's errors in the writing brings them a sense of achievement, at the same time, they will intend to avoid such errors and use the correct form of the target language in their own writing.

6 Conclusion

In this study, we prove that collaborative learning can be realized by the participants at different time in different places. This kind of learning encourages students to learn outside classrooms. By applying Wiki in teaching collaborative English writing, teachers ask students to finish the writing task online collaboratively. In such an environment, learners provide assistance to each other, share their ideas and develop more positive peer relationship and higher self-esteem, even academic achievement. Collaboration also enhances learners' social communicative ability.

The study is carried out on a process-oriented basis. With Wiki's characteristics, students' writing process is presented clearly. And the target language is learnt through student's repeated working and reworking. However, process-oriented writing always takes students quite a long time to finish a task. So how to keep the enthusiasm of the students and what kind of topics suit this writing mode best are still to be discussed.

In this study, formative assessment is realized with the help of Wiki. Assessment for students' learning of writing shouldn't be done only by the final products. Instead, we assess learning through the students' writing process. With Wiki's assistance, the author know what the students have learnt in the writing process and whether they have improved their learning or not. Peer assessment also turns out to be a rewarding feature of Wiki. Revisions, comments and suggestions from peers can help learners to find out problems of their own writing, thus improve their writing skills.

Nevertheless, Wiki now has not been widely used for teaching English writing. That's because there're still some limitations of applying Wiki to teaching. On one hand, to apply Wiki to outside-classroom teaching requires students to own personal computers and have Internet access; but at present, not every family can afford this. On the other hand, there are still some limitations on Wiki itself, since working on Wiki is not yet as convenient as on other text-editing software like Word, and the history-record function of Wiki needs to be improved to make it more orderly and clearly. However, with the development of modern technology, the popularity of computer and the efforts of all the educators and relevant researchers, the author believes that all these problems will be well solved.

To conclude, the application of Wiki to teaching English writing gives learners the opportunity to collaborate with each other, thus to improve their writing ability and the competence of using the target language. However, writing on Wiki is a learning process which consumes time and energy. To take effects, it needs both teacher and learners to participate patiently for a long term, especially, with the writing task and administration of Wiki to be well designed.

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References

1. Qiang, W.: A Course in English Language Teaching. Higher Education Press, Beijing (2006)
2. Benson, P.: Autonomy and its role in learning. In: Cummins, J., Davison, C. (eds.) *International Handbook of English Language Teaching*, pp. 733–745. Springer, US (2007)
3. Lin, C., Qiang, W., Xiaotang, C.: *Understanding English New Curriculum*. Jiangsu Education Press, Nanjing (2004)
4. Ken, B.: *Teaching and Researching Computer-Assisted Language Learning*. Pearson Education, London (2003)
5. Liqin, J., Hui, X.: Application of Wiki in writing teaching. *J. China Educ. Technol.* **228**, 46–49 (2006)
6. Wikipedia. <https://en.wikipedia.org/wiki/Wiki>
7. Hui, X., Hupin, Y.: A study on comprehensive practice activity based on Wiki. *J. Softw. Guide* **7**(4), 20–22 (2008)
8. Xiangyun, W., Lihua, D.: New internet technologies and their uses in FLT abroad: blog, Wiki and podcasting. *J. Shandong Foreign Lang. Teach.* **28**(1), 41–44 (2007)
9. Dongjie, Y., Weiqian, W., Dali, N.: Wiki and collaborative english language teaching project: a case study. *J. Comput. Foreign Lang. Educ.* **159**, 28–33 (2014)
10. Noël, S., Robert, J.M.: Empirical study on collaborative writing: what do co-authors do, use, and like? *Comput. Support. Coop. Work (CSCW)* **13**(1), 63–89 (2004)
11. Nunan, D.: *Collaborative language learning and teaching*. Cambridge University Press, Cambridge (1992)
12. Rimmershaw, R.: Collaborative writing practices and writing support technologies. In: Sharples, M. (ed.) *Computers and Writing*, pp. 15–28. Springer, Netherlands (1992)
13. Yeh, S.-W., Lo, J.-J., Huang, J.-J., Fan, Z.-Y.: A synchronous scaffolding environment for collaborative technical writing. In: Hui, K.-C., Pan, Z., Chung, R.C.-K., Wang, C.C., Jin, X., Göbel, S., Li, E.C.-L. (eds.) *EDUTAINMENT 2007*. LNCS, vol. 4469, pp. 829–840. Springer, Heidelberg (2007)
14. Peres, P., Pimenta, P.: An experiment in collaborative writing. In: Mendes, A.J., Pereira, I., Costa, R. (eds.) *Computers and Education*, pp. 53–62. Springer, London (2008)
15. Guangken, H.: *An Introduction to English Teaching Methodology*. Jinan University Press, Guangzhou (2011)
16. Brown, H.D.: *Principles of Language Learning and Teaching*. Regents/Prentice-Hall, Englewood Cliffs (1994)

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