

Comparisons of Student Perceptions and Evaluations of Using Wiki to Conduct Online Peer Response: An Interschool Project

Hsiao-chien Lee* & Pei-ling Wang**

Abstract

Recent studies have verified using wiki to foster collaborative writing in EFL (English as a foreign language) students. With the intention to expand the knowledge in applying CMC (computer-mediated communication) tools in peer response practice, this article reports an 18-week interschool study at two technological universities in Taiwan. The wiki group forums were set up as the medium for mixed groups of students to post reading responses and provide feedback to one another. This study adopted both qualitative and quantitative methods to collect and analyze data. To add new understandings to the prior research on peer response, the current study focused specifically on the comparisons of interschool student perceptions and evaluations of the online peer response activity. The research results suggest that student English proficiency levels, the locations of their schools, and their genders played important roles in affecting to what extent they enjoyed and participated in the wiki-based peer response activity.

Keywords: wiki, peer response, online collaboration

* Assistant Professor, Foreign Language Education Center, National Kaosiung Marine University.

** Associate Professor, Department of Applied Foreign Languages, National Kaohsiung University of Applied Sciences.

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比較兩校學生對使用維基論壇的跨校協同寫作交流活動 之觀感與評估

李筱倩*、王佩玲**

摘要

最近的研究已經證實：使用維基協同寫作，可幫助以英語作為外語的學生學習英文。為求進一步提供對於電腦輔助學習及同儕回饋學習方式之瞭解，本研究進行了一項為期十八週的跨校協同寫作交流活動。在本研究中，維基寫作論壇為兩所科技大學學生混組互動寫作交流之主要媒介，學生在論壇上相互針對英文寫作產品做出回應，並提供修改建議。本研究採用質化和量化兼用的研究方法來收集和分析數據，主要的研究目的，在比較不同學校的學生，對此線上同儕英文寫作回饋活動的看法和評價。研究結果指出，學生所具有的英語能力、兩所學校的地理位置、以及學生的性別，均影響了學生是否喜愛此項學習活動，及他們參與此活動的熱烈程度。

關鍵詞：維基、同儕回饋、線上合作學習、以英語為外語學習學生之寫作

* 國立高雄海洋科技大學外語教育中心助理教授。

** 國立高雄應用科技大學應用外語系副教授。

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Introduction

Background

Peer response, sometimes referred to as peer feedback, peer review, or peer editing, is an activity in which students take on the role of teachers, editors, or tutors to provide information on each other's writing either through a written, oral, or computer-mediated mode (Liu & Hansen, 2005). Grounded in the theoretical frameworks of sociocultural learning (Vygotsky, 1978) and process writing (Elbow, 1973/1998; Emig, 1994; Moffett, 1968), peer response in second language (L2) writing is considered beneficial because it encourages students in active learning (Hyland, 2000), allows students to write for authentic readers (Coit, 2004; Keh, 1990) and receive feedback from multiple sources (Bell, 1991), enhances student writing (Mendonca & Johnson, 1994; Paulus, 1999), and lessens writing teacher workload (Ferris, 2004).

Peer response has become a prominent feature of L2 writing instructions (Hu, 2005); however, researchers also acknowledge its limits. One common concern is that students make vague or superficial comments when required to edit the writings of their peers due to time constraints or the lack of capacity to discern peer performance (Liu, 1998; Min, 2007; Stanley, 1992). To mandate this drawback, L2 writing researchers have made concrete suggestions by advocating training for the revision process (Berg, 1999; Hansen & Liu, 2005; Min, 2006; Saito, 2008).

Student attitudes when engaged in the task are another concern. Students from collectivist cultures (for example, Chinese students) "may refrain from giving constructively critical comments to avoid tension and disagreement and to maintain interpersonal harmony" (Hu, 2005, p. 326; also see Ge, 2011). Meanwhile, disagreement among peers may create uneasiness and even hostility (Amores, 1997; Jacobs, 1987). Computer-Assisted Language Learning (CALL) has indicated an approach to overcome the possible downsides that the face-to-face peer-response approach may encounter in classrooms because it allows both synchronous and asynchronous interactions beyond time and space limits, and therefore, eases tension and negative feelings possibly caused by face-to-face oral feedback.

Many L2 teachers have perceived the value of using computer-mediated communication (CMC) tools, such as e-mails, blogs, chats, forums, and wikis, to involve students in collaborative writing activities. Among them, wiki is a relatively recent technology tool that has been used in higher education, with the potential to foster collaborative writing in L2 students as verified by recent studies (for example, the studies by Arnold, Ducate, & Kost, 2009; Coniam & Kit, 2008; Elola & Oskoz, 2010; Kessler, 2009; Lee, 2010; Liou & Lee, 2011). Mendonca and Johnson (1992) suggested, "because peer reviews have become a common activity in L2 writing instruction, researchers need to broaden our understanding of the nature of the interactions that occur during peer reviews and determine the extent to which such interactions shape L2 students' revision activities" (p. 745). Therefore, we consider it essential to expand the current knowledge of online peer response in L2 writing and explore the implication of the very recent CMC tool, wiki, in this area. Building on the growing body of research, we conducted an 18-week-long interschool online peer-response project by using the wiki forum function to engage students from two universities in Taiwan to respond to one another's writing.

Internet-based Peer Response in L2 Writing Classrooms

Computer-assisted language learning has currently become an essential feature in L2 classrooms. Therefore, L2 writing researchers have started to compare the effects of peer response in electronic and traditional modes. Liu and Sadler (2003) used Moo (Multi-User

Domain Object Oriented application) to engage students in a technology-enhanced peer reviewing activity, and found that the overall numbers of comments and revisions the students made were larger than those by the traditional group. This indicated that the students found the Moo interaction more appealing. However, Liu and Sadler also noticed that face-to-face communication was more effective because it allowed nonverbal communication. Tuzi (2004) also compared the effect of electronic feedback and face-to-face meeting on the revisions of L2 writers. The results showed that students preferred oral feedback. However, e-feedback, as Tuzi noticed, had a greater impact on revision. DiGiovanni and Nagaswami (2001) selected interactive software (Norton Texta Connect) for students to interact with one another, both synchronously and asynchronously. Their findings suggested that students were more concentrated on task, teachers could monitor student interaction more closely, and students could rely on printouts instead of their memories (as in oral feedback) to revise their drafts. Although previous studies may not concord on which mode is more effective or motivating, they all suggest that electronic peer response provides a new form of revision and increases fruitful results when supplementing a face-to-face interaction.

Researchers have acknowledged the benefits of Internet-based peer response, leading to various computer-mediated communication tools used by L2 writing instructors to engage their students in meaningful peer response activities. Min (2007) introduced e-mail into a university level writing class and found that it made an immediate and positive effect on student motivation, participation, and interaction. Vinagre and Muñoz (2011) engaged their students from Germany and Spain to e-mail their counterparts and to provide error corrections. Their findings indicate that participating students were willing to correct their peers, and used different strategies and correction techniques to foster attention to linguistic forms.

In addition to e-mail, researchers also examined peer feedback in other asynchronous settings. Ware and O'Dowd (2008) investigated how and when post-secondary learners of English and Spanish provided corrective feedback in weekly asynchronous discussions using Blackboard, a password-protected course management system. After comparing and contrasting the perceptions and online transcripts of the students from Spain and the U.S., Ware and O'Dowd found students preferred focusing on language form in their feedback. Yet, unless encouraged, the students did not actively elicit such language feedback, possibly due to a lack of time, reluctance to switch the focus of the conversation, lack of confidence, or discomfort of assuming the teacher role.

Research has also examined the employment of synchronous medium, chat, in the peer-response activity. Honeycutt (2001) compared the effectiveness of e-mail and synchronous chat in grammatical correction when using both as vehicles for online peer response. Honeycutt found that the use of e-mail invited students to focus more on their contents and rhetorical contexts than chat did. Meanwhile, chat appeared useful for the formation of messages and immediate clarification, and therefore, led students to refer more to both writing and response tasks than when using e-mail. Honeycutt also observed that student preferences for individual media showed no significant differences, yet they perceived that e-mail was more formal and helpful than chat in terms of aiding revision.

Purposes of the Current Study

As discussed above, a large body of research suggests that integrating the Internet into peer response instruction is beneficial to L2 writers. However, many of the previous studies were conducted as intercultural projects. Students from two different countries (native speakers and non-native speakers of the target language) corresponded and provided language-focused feedback online (for example, the studies by Belz, 2003; Lee,

2004; Vinagre and Muñoz, 2011; Ware and O'Dowd, 2008). Few studies have explored student perceptions and learning experiences when mixed groups of students with diverse English capacities, different genders, and various academic specialties participated in the online peer response activity. Ge's research (2011) is among the limited numbers of studies investigating the online peer response experiences of students from the same class (in this case, Communications Engineering in China) but with varied English abilities. In his study, Ge found that students with higher writing abilities enjoyed the process of commenting as their confidence boosted; meanwhile, students with lower abilities might lose confidence, appearing to make the greatest progress among all the students. However, as Ge points out, the sample size of his study was small (36 students), so there is a need to expand the knowledge previously gained. Moreover, questions regarding how different groups of students perceive the learning experience, what factors affect their attitudes toward the experience, and whether different groups evaluate the experience differently or devote divergently to the learning activity have remained unanswered.

Although "online communication tools have been taken up eagerly by the foreign language teaching community" (Ware & O'Dowd, 2008, p.43), very few L2 writing instructors have employed the very recent CMC tool, wiki, in the peer response activity. Lee (2010) is among the limited number of researchers to investigate peer response experiences of students when employing wiki to facilitate the online interaction. The study results of Lee showed the positive effect of creating wikis on the development of student writing skills. She particularly noticed that scaffolding through peer feedback played a crucial role in the writing process as students helped each other organize content and made error corrections. Additionally, the study of Liou and Lee (2011) also showed that wiki-based collaborative writing tasks allowed students to learn from each other. The 18 EFL college participating students felt that these collaborative activities assisted their English writing. Because wiki is becoming a powerful tool to promote collaborative writing (Judd, Kennedy, & Cropper, 2010; Newuann & Hood, 2009; Ruth & Houghton, 2009), further investigation of its application in L2 peer response activity is necessary.

In an effort to compare the perceptions and evaluations of interschool students, we asked the following research questions about using a wiki forum for online peer response learning activities:

1. Is there any significant difference between student attitudes in the two universities toward the online peer response activity?
2. What factors cause different student attitudes?
3. Is there a significant difference between the two university students' evaluation of the impact of the peer activity on their English learning?
4. Is there any significant difference between the two university students' engagement in the peer activity?

Method

This study adopted both quantitative and qualitative methods to collect and analyze the data from various sources.

Participants

Considering the merits of a mixed levels of linguistic skills (Liu & Hansen, 2005; Zhu, 2006), the current study recruited a total of 103 sophomore students with diverse English proficiency from two universities in Taiwan. Forty-eight NKMU (National Kaohsiung Marine University) participants consisted of two different majors, including Shipping Technology (three females, 13 males) and Marine Engineering (32 males), while 55 KUAS (Kaohsiung University of Applied Sciences) participants (50 females, five males) all majored in English. Both groups were taking college writing courses and the two researchers were the instructors of the courses at individual schools. Both courses were required and had the same number of credits, meeting two hours weekly. Before beginning the project, students were asked to complete a pencil-and-paper essay and these pre-project writings were graded by two experienced EFL teachers, using the same scoring criteria. The result of the Pearson correlation test showed that inter-rater reliability was quite high ($r = 0.936$, $p = 0.000$). The mean scores of the two university students on their pre-project writings (10.87 vs. 2.91) revealed that the KUAS participants were much stronger English writers than the NKMU participants were. The independent t-test showed a very significant difference between the two schools ($p = 0.000$). Recruiting students with varied English competences from the two universities allowed a closer investigation into the differences of student perceptions and engagement, and hence a richer understanding was expected.

Context of the Online Peer Response Project

The online peer response project began in September 2010 and ended in January 2011, lasting 18 weeks. Students from the two universities were grouped into 17 teams. Each team had six to seven members, with equivalent numbers of students from both universities. Group members posted self-introductions and discussed their school lives on the group wiki pages to help build rapport. Both universities are located in Kaohsiung, a harbor city; therefore, it was relevant to have students write about ocean related themes. Because we were convinced of the benefits of integrating reading and writing in L2 teaching practices, students were asked to read three picture books of different genres (narratives, poetry, and letter), and to actively negotiate and construct meaning with their group members (Leki, 2001). The choice of picture books was based on the belief that they were short enough to be read in one sitting and contained thought-provoking concepts (Burke & Peterson, 2007; Murphy, 2009; Wilkins, Sheffield, Ford, & Cruz, 2008).

Student reading and writing tasks were organized into a three-week cycle: The researcher-instructors presented the picture book to the class in the first week; in the second week, students posted their reading responses on their group wiki forums; in the third week, group members responded to one another's writing on the wiki. This study assumed that peer response should go beyond giving feedback on grammar or stylistic concerns, and "when properly implemented, peer response can generate a rich source of information for content and rhetorical issues" (Hansen & Liu, 2005, p. 31). Therefore, the students were assigned two different tasks when responding to one another: to offer suggestions on the language form of their group members, and to comment on the

perspectives of their peers. At the end of the semester, students were asked to complete a thirty-item questionnaire.

Data Collection and Analysis

The Questionnaire

A self-designed questionnaire was administered at the end of the semester. Ninety-eight students took the questionnaire from an enrollment of 103 students. The questionnaire consisted of 30 questions related to student preferences for the use of wiki (Q1-2), their perceptions of the online peer response activity (Q3-Q8, Q18-19), their evaluation of the effect of the activity on their English learning (Q11-17), their reflection of their engagement in the learning activity (Q9-10), their reasons for their attitude toward the activity (Q20-21), their greatest benefit or frustration of participating in this activity (Q22-23), their expectations of themselves and suggestions to teachers (Q24-26), and their background information (Q27-30). Questions one to nineteen were measured on a five-point Likert type scale, ranging from “strongly agree” to “strongly disagree.” The internal reliability for these Likert scaled questions was estimated with the Cronbach’s alpha, which showed the questionnaire was quite reliable ($\alpha = 0.90$). Questions twenty to twenty-six were open-ended questions and were analyzed by the qualitative method. This study used an inductive research strategy (Merriam, 1998) by first reading through all the student answers to the open-ended questions, giving descriptive codes to each specific statement, and then determining assertions after identifying patterns that existed within and/or across each statement.

Descriptive statistics and an independent t-test were used to answer the first research question. Chi-square tests were applied to examine the second research question. For the third research question, descriptive statistics and the qualitative method were used. Finally, the fourth research question was examined by descriptive statistics, a t-test, Pearson correlation, and the qualitative method.

Wiki Forum Entries

The second instrument was the wiki forum entries of students, who were asked to post their weekly writing assignments and then to receive and give feedback to their team members on a password-protected wiki site (<http://www.wikispaces.com>). With the intention to have students focus on both lexical and discourse analysis, we asked students to comment on the grammar and content of their peer’s writings. Each student was required to complete six compositions and five feedbacks. (See the following example. Note that all the students were given pseudonyms in the article, while all the texts remained exactly how they appeared on the wiki pages). The researchers recorded and assessed individual student participation in the online assignments, as part of the course achievements.

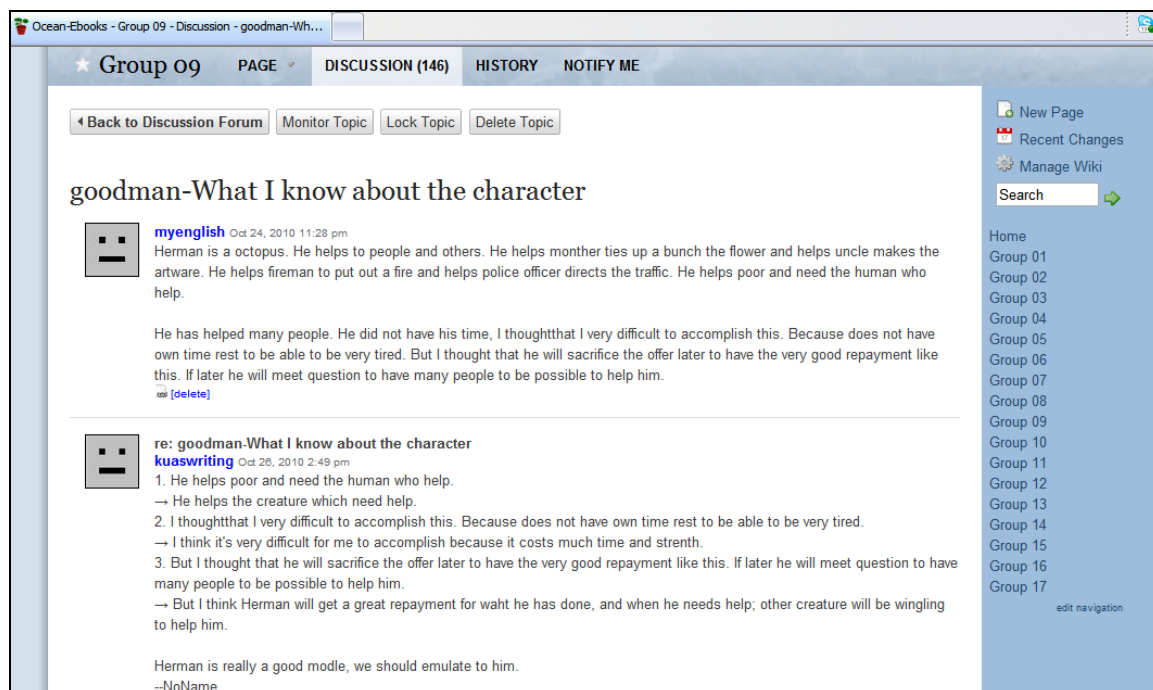


Figure 1 Student post entries on the group forum

We recorded and counted all the wiki forum entries of students and used descriptive statistics to find out the amounts and frequencies of student postings. The analysis of student wiki forum entries provided extra information in answering the fourth research question: “Is there any significant difference between the two university students’ engagement in the peer activity?”

Results and Discussion

Comparison of Student Attitudes Toward the Online Peer Response Activity

The NKMU participants demonstrated a more positive attitude toward the activity than the KUAS participants did. Among the ten question items (Table 1) regarding student attitudes, eight items showed this tendency, and six items achieved significant difference ($p < 0.05$). For example, 60.9% of the NKMU students enjoyed the online peer response activity, while merely 19.2% of the KUAS students agreed to this item (item 19). Although the overall percentage of student positive perceptions does not seem very high, it may be explained by considering that many students, especially the KUAS ones, held a neutral attitude to most items. Taking item one as an example, as high as 82.7% of KUAS students were unsure about whether they liked to write and interact with other students on wiki. This is understandable, because it was the first time for KUAS students to employ the CMC tool to accomplish a writing assignment. In contrast, NKMU students had spent one year prior to the study using an online discussion forum to share responses with their classmates. In terms of familiarity with the Internet environment and forming the habit of posting online regularly, KUAS students were apparently novices, while NKMU students were veterans. It is very likely that if KUAS students were to involve longer in such an activity, they would have a more positive perception.

Table 1
Comparisons of Students' Attitudes toward the Activity

Question Item	School	N.	Pos%	Mean	SD	t	p
1. I like to write and interact with other students on Wiki.	NKMU	45	54.4	3.47	0.94	2.568	0.012*
	KUAS	52	13.5	3.10	0.40		
	ALL	97	32.7	3.27	0.72		
2. I like to read my team members' writings on Wiki.	NKMU	46	58.7	3.52	0.96	1.153	0.252
	KUAS	52	42.3	3.33	0.70		
	ALL	98	50	3.42	0.83		
3. I like my team members to correct and respond to my writings on Wiki.	NKMU	46	47.8	3.54	0.95	2.430	0.017*
	KUAS	52	30.7	3.12	0.78		
	ALL	98	38.8	3.32	0.89		
4. I could understand my team members' corrections and responses to my writings.	NKMU	46	67.4	3.74	1.02	-2.390	0.019*
	KUAS	52	78.9	4.21	0.93		
	ALL	98	73.5	3.99	1.00		
5. I think the corrections which my team members have made to my writings are correct.	NKMU	45	73.9	4.00	0.76	5.694	0.000
	KUAS	52	28.8	3.12	0.75		
	ALL	97	50	3.53	0.87		
6. I like to respond to my team members' writings on Wiki.	NKMU	45	43.5	3.36	0.85	2.548	0.012*
	KUAS	52	25	2.92	0.81		
	ALL	97	33.7	3.12	0.85		
7. I benefit from my team members' corrections and responses to my writings.	NKMU	46	67.3	3.76	0.76	3.665	0.000***
	KUAS	52	42.3	3.13	0.90		
	ALL	98	54.1	3.43	0.89		
8. I benefit by responding to my team members' writings.	NKMU	46	58.7	3.59	0.83	1.617	0.109
	KUAS	52	50	3.33	0.76		
	ALL	98	54.1	3.65	0.80		
18. I think the assigned picture books are interesting.	NKMU	46	52.2	3.46	1.11	-0.931	0.354
	KUAS	52	65.4	3.65	0.98		
	ALL	98	59.1	3.56	1.04		
19. All in all, I like the activity of the online collaborative English writing learning on this semester.	NKMU	46	60.9	3.61	0.88	3.568	0.001**
	KUAS	52	19.2	3.02	0.75		
	ALL	98	38.8	3.30	0.86		

Note. Pos% = Positive (Strongly agree + Agree) percentage

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$

Factors Causing Different Reasons for Student Attitudes

The second research question asked about factors causing different reasons for student attitudes toward the project. We examined the factors of student schools and genders.

The factor of student schools.

The top three reasons of NKMU students for their positive attitudes were 1) "I can get acquainted with new friends," 2) "I can practice English writing," and 3) "Someone corrected my English mistakes" and "I can understand the ideas of students from another school." Students from KUAS responded that, 1) "The activity forces me to read

English books,” 2) “I can understand the ideas of students from another school,” and 3) “I can practice English writing” as the top three reasons. The findings suggested that NKMU students showed enthusiasm in having the opportunity to get to know students at KUAS. They also appreciated the English writing practices they were involved in and the help they received. The KUAS students seemed to appreciate the picture books more. As English majors, reading English in a different genre interested them. For example, one KUAS student, Pink (Note: All student comments in the article are translated from Chinese), wrote in the open-ended survey: “I read some picture books that I would never have read. Reading the simple passages and seeing the pictures made me think in a deeper way.” Although the KUAS students did not enjoy receiving English correction from their peers as much as the NKMU students did, they shared the same feelings about learning different perspectives from other students and practicing English writing skills.

The comparison in Table 2 shows significant differences between the two schools on items 20.1, 20.4, 20.5, 20.7, and 20.9. “Getting acquainted with new friends” (item 20.1) was 63% of the reason for a positive attitude in NKMU students; in contrast, only 42.3% of KUAS students agreed to this item. The reason, “Other students correct my English mistakes” (item 20.6), won 47.8% of NKMU student favors, while merely 13.5% of KUAS students held this belief. These results suggest that the factors of school location and student English proficiency level might affect student attitudes toward the online peer response activity. Because NKMU is located on a peninsula and it takes time to travel to the downtown area, the NKMU students were more isolated than the KUAS students were. As it might be more difficult for NKMU students to become acquainted with new friends, they welcomed the activity more warm-heartedly than the KUAS students did. The English ability of NKMU students is more limited compared to their KUAS peers; therefore, the help from more competent peers was appreciated. Based on the above-mentioned explanation, the online peer response activity is especially welcome to students whose school is in rural areas, and who need someone to solve their English problems.

Table 2
Different Schools' Reasons for Their Positive Attitude toward the Activity

Question Item	School	Yes		No.		Ch-sq	p
		N	%	N	%		
20.1 I could get acquainted with new friends.	NKMU	29	63.0	17	37.0	4.205	0.04*
	KUAS	22	42.3	30	57.7		
20.2 I could practice English writing.	NKMU	25	54.3	21	45.7	0.277	0.599
	KUAS	31	59.6	21	40.4		
20.3 The activity increases my English learning motivation.	NKMU	15	32.6	31	67.4	1.111	0.292
	KUAS	12	23.1	40	76.9		
20.4 The activity forces me to read English books.	NKMU	19	41.3	27	58.7	4.811	0.02*
	KUAS	33	63.5	19	36.5		
20.5 I could discuss my reflections with students from another school.	NKMU	18	39.1	28	60.9	3.876	0.052
	KUAS	11	21.2	41	78.8		

Question Item	School	Yes		No.		Ch-sq	p
		N	%	N	%		
20.7 I could help others to correct their English mistakes.	NKMU	6	13	40	87	8.090	0.004**
	KUAS	20	38.5	32	61.5		
20.8 I could understand the ideas of the students from another school.	NKMU	22	47.8	24	52.2	1.855	0.173
	KUAS	32	61.5	20	38.5		
20.9 The picture books are interesting.	NKMU	11	23.9	35	76.1	9.128	0.003**
	KUAS	28	53.8	24	46.2		
20.10 The activity boosts my self-confidence.	NKMU	8	17.4	38	82.6	3.715	0.054
	KUAS	18	34.6	34	65.4		

Note. * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$

As for the reasons for a negative attitude in the two groups, NKMU students indicated, "It takes too much time" as their third choice, while KUAS students responded, "My team member discussions are neither interesting nor inspiring." It is interesting to observe that the top two reasons for the KUAS and NKMU students were exactly the same: "I don't have confidence in correcting the English mistakes of other students" and "It is frustrating that I cannot understand the English of my team members," even though the KUAS participants were English majors, and should be more confident in correcting the English mistakes of their peers. Apparently, without any prior training, KUAS students might be good at expressing themselves but found it challenging to help others with their English expressions. However, the KUAS students held a different reason for the two choices than the NKMU students. For example, Xenia wrote in the open-ended survey, "It took me a great deal of time to understand my peers' Chinese English" Felisa also wrote, "Oftentimes I did not understand what they tried to express, so I did not know how to help them. Neither could I understand their corrections in my writing." This also explains why the KUAS students did not find the writing of NKMU students interesting or inspiring, because they had difficulty comprehending their writings. In contrast, the NKMU student told a different story. Shinchung commented, "I need to rely on a translation machine to understand their postings" and Kay wrote, "It is not easy to detect their grammatical errors. I need to look in many reference books to find the right answers." Therefore, NKMU students were hindered by their English ability and troubled by the great amount of time they had to spend on the editing task when trying to comprehend the writings of KUAS students.

With respect to the reasons for student negative attitudes, Table 3 offers the differences between the two schools. Among the nine items, item 21.1 and item 21.4 show significant difference. To interpret these findings, we might have to consider the factor of student English proficiency again. As observed in Table 3, 23.1% of the KUAS students believed that the English ability of NKMU students was too poor to correct their English mistakes, while only 6.5% of the NKMU students challenged the English ability of KUAS students. In addition, 19.6% of the NKMU students were embarrassed to discuss English with strangers, while only 5.8% of the KUAS students had such a feeling. When students have better English skills, they will likely feel more confident discussing English with strangers.

Table 3

Different Schools' Reasons for Their Negative Attitude toward the Online Learning

Question Item	school	Yes		No.		Ch-sq	p
		N	%	N	%		
21.1 It is embarrassing to discuss English with strangers.	NKMU	9	19.6	37	80.4	4.323	0.03*
	KUAS	3	5.8	49	94.2		
21.4 My team members' English ability is too poor to correct my English mistakes.	NKMU	3	6.5	43	93.5	5.160	0.02*
	KUAS	12	23.1	40	76.9		

Note. * = $p < 0.05$

The factor of student gender.

The results of the Chi-square tests show that male and female students gave different reasons for their attitudes, and significant differences were observed in items 20.1, 20.4, 20.5, 20.6, and 20.9. Male students held a positive attitude due to the reason, “getting acquainted with new friends” (item 20.1, 62.5% vs. 42%, $p < 0.05$), the reason, “I can discuss my reflections with students from another school” (item 20.5, 39.6% vs. 20%, $p < 0.05$), and the reason, “other students correct my English mistakes” (item 20.6, 47.7% vs. 12%, $p < 0.001$). Female students were more positive because, “the activity forces me to read English books” (item 20.4, 35.4% vs. 70%, $p < 0.01$), and because, “the picture books are interesting” (item 20.9, 27.1% vs. 52%, $p < 0.05$). According to these findings, we may reasonably conclude that male students are more attracted by the benefits of getting new friends, discussing their ideas with peers, and having someone to assist in their English learning. As for female students, an urge to read more English books, especially interesting books, supported them to hold a positive attitude toward collaborative learning.

Regarding student reasons for their negative attitude, only one item (item 21.5) showed a significant difference between the two genders ($p < 0.05$). 12.5% of male students agreed their team member discussions were neither interesting nor inspiring, whereas 32% of female students felt peer discussions bored them. One possible explanation is that the English of the males, mostly NKMU students, was not proficient enough for their female peers to understand. Another possible explanation is that the female students, mainly KUAS students, tended to lose interest or patience when engaged in discussions with peers who did not “outperform” them in some way—in this case their English abilities. In the traditional Chinese culture, a man is expected to be stronger, smarter, and more capable than a woman is. A less proficient counterpart in English might disinterest female students.

Comparison of Student Perceived Benefits from the Activity

The third research question asked about student perceived effects of the project on their English learning. The results showed that 54.1% of participants agreed that they benefited from peer corrections and responses to their writings, and it was also beneficial for them to give feedback on the writings of their team members. In detail, they perceived the learning activity was helpful to increase their following abilities: organization (64.3%), creative thinking (64.2%), English writing (60.2%), expression (59.2%), grammar (57.2%), vocabulary (55.1%), and reading (49%).

Student perceptions of benefits from the online peer response activity were somewhat different between the two schools. For example, 71.7% of the NKMU students reported that their English writing ability improved, whereas only 50% of KUAS students

agreed to this item. Furthermore, 63.1% of NKMU students indicated that the activity assisted their English reading ability; however, merely 36.5% of KUAS students had this perception. Except for the abilities of “expression” and “creative thinking,” NKMU students perceived that their English abilities improved, compared to KUAS students. More than half of the NKMU students had a positive attitude toward the effectiveness of the activity on their English abilities; nevertheless, many KUAS students were uncertain whether the project was effective in enhancing their English reading ability (57.7%) or English writing ability (46.2%).

The result suggests that when mixed groups of students provide comments and edit help to one another, the less capable English learners seemed to benefit more than the more advanced ones. The NKMU students declared that they had benefited in both English reading and writing, while KUAS students did not feel the same way. Although helping the NKMU students might still inspire the KUAS students to self-improve their English skills and become more meta-cognitive toward English writing strategies, the more proficient KUAS students did not necessarily find the activity to substantially help them in their English learning.

This study also examined student answers to the open-ended question, “I think the greatest benefit of participating in this activity is... because...” Student answers revealed that NKMU students focused more on specific language aspects, such as vocabulary and grammar. Twenty-two NKMU students made comments such as, “I learned a great amount of new vocabulary,” and “I learned a lot of grammatical rules.” Among them, Jack wrote, “I learned many sentence structures and new words, because I spent a lot of time correcting the sentences of my peers. By doing so, I learned about word usage and how to construct a sentence.” Jack’s comment represented most of the 22 NKMU students, who considered that their vocabulary and syntax knowledge improved by participating in the project.

However, the gains for KUAS students seemed to be more global. Among the 11 students who thought this activity helped them with their English learning, six stated that their writing improved. Sara wrote, “I had the opportunity to write in English and therefore my English writing skills improved.” Mikan also wrote, “Because I needed to correct the writing of others, I had to make efforts to find where the problems were. In this way, I learned about my own problems in writing.” The comments of KUAS students showed that they paid more attention to how their writing skills improved rather than how many new words or grammatical rules they acquired. In sum, this collaborative activity seemed to help beginning learners build up their fundamental English knowledge while providing opportunities for more advanced learners to master the language.

Another interesting distinction is that seven KUAS students felt this activity helped boost their confidence. Joy commented, “I felt that I had not learned English in vain since I could detect and correct English mistakes of my team members.” Sharon also wrote, “I realized that I started [similar to my NKMU peers] by thinking in Chinese when I first learned to write an essay. Now I have made progress, and feel good about it.” Apparently, KUAS students gained confidence in their English proficiency because they felt that they were able to assist NKMU students and because they saw their peers going through a stage where they used to be but now had moved on to the next stage. All these realizations brought them a sense of accomplishment. In contrast, NKMU students did not express such a strong belief in their English ability. Rarely did they mention that the project had boosted their confidence in learning English.

In addition to improved English ability, students also expressed that the activity offered them an opportunity to learn from their peers. Eight KUAS students stated that by participating in the activity, they could see different perspectives. Meanwhile, NKMU

students stressed that they learned more about English from their KUAS peers. Therefore, although NKMU students, the less proficient English learners, did not help their more advanced peers to improve their English, they still contributed to provide a different point of view and therefore expanded the thinking of their peers. This is similar to what Mika, a KUAS student, commented: “I see that different people hold different opinions toward one thing, and there is no definite right or wrong opinion.”

Comparison of Student Engagement in the Online Peer Response Activity

Our fourth research questions asked about student engagement in the project. 64.3% students reported they were diligent in writing their reflections, and 60.2% reported that they worked industriously at responding to the reflections of their team members. The KUAS participants were even more attentive to the work of posting (67.3% vs. 60.9%) and giving feedback (65.4% vs. 54.4%) than the NKMU participants were.

Counting student posting entries helped to see to what extent individual students were engaged in the learning activity. Table 4 shows that NKMU students were far more diligent to post their reflections and give peer feedback than KUAS students were ($p < 0.001$), although NKMU students were quite humble to evaluate their own engagement in the tasks, compared to the KUAS students. One possible explanation for the greater engagement of NKMU students is that they had prior experiences of posting and reading responses online, so this activity had become a routine of their learning practices. Another possible explanation is that NKMU students were more geographically isolated than the KUAS students were (as mentioned earlier). Therefore, they might spend more time working online than their KUAS peers, who could easily participate in various after-school activities. In addition, cultural factors should also be taken into consideration. In this culture, male students are more likely to make friends with girl students while girl students tend to be more reserved to do so.

Table 4

Different School Students' Self-reported Engagement vs. Actual Engagement

School	Self-reported engagement in writing reflections (Q9)				Self-reported engagement in responding to peer reflections (Q10)				Actual students' posting entries			
	M	SD	t	p	M	SD	t	p	M	SD	t	p
NKMU (N=46)	3.65	0.94	-1.3	0.89	3.59	0.97	-0.73	0.46	10.72	0.50	18.04	0.000 ***
KUAS (N=52)	3.67	0.61			3.71	0.69			6.40	1.55		

Note: *** = $p < 0.001$

Table 5 reveals a positive relationship between student self-reported engagement in writing reflections and their actual posting entries. That is, those who reported that they diligently wrote reflections on the assigned picture books indeed sent more entries to the website; however, the correlation did not achieve a significant level ($p < 0.05$). Furthermore, a negative but not significant correlation between students' self-reported devotion to responding to peer reflection was observed. In other words, students seemed to slightly boast about their devotion to responding to team member postings. This echoes our discussion earlier that the students found it challenging to give feedback on the writing of their peers.

Table 5
Correlation between Students' Self-reported Engagement and Actual Engagement

		Self-reported engagement in writing reflections (Q9)	Self-reported engagement in responding to peers (Q10)	Actual students' posting entries
Self-reported engagement in writing reflections (Q9)	r	--	0.462**	0.027
	p		0.000	0.789
Self-reported engagement in responding to peer reflections (Q10)	r		--	-0.102
	p			0.318
Actual students' posting entries	r			--
	p			

Note. ** = $p < 0.01$

The current study also coded student answers to the open-ended question: "I think the greatest frustration or failure in participating in this activity is... because..." By examining student answers to the question, we learned the reason why not all students were engaged in the activity. The NKMU students were most hindered from participation by their limited English ability. Fifty-four percent of the students made comments related to their insufficient English knowledge or skills. For example, Mat wrote, "I do not feel confident about my English. I have memorized a great deal of vocabulary, but my grammar is poor and I am not good at writing." David wrote, "Some vocabulary is strange to me, and I have to Google search their translations." The lack of capability of English led to the frustration and occasional feeling of losing face in NKMU students. When NKMU students could not find the right words to express their thinking and had to spend a great amount of time comprehending the writing of their peers, they were discouraged and therefore would not devote themselves to the project.

What hindered KUAS students most was their inability to understand the writings of their NKMU peers. Because NKMU students relied heavily on the translation tool for word-by-word translation help, their writings were oftentimes difficult for KUAS students to comprehend. As a result, 21 out of 55 KUAS students (38%) made such statements as, "I don't understand their English," and "I am not sure what they are writing about." KUAS students felt frustrated because they could not understand the writings of NKMU students but were still required to offer responses and corrections. Olive wrote, "Sometimes I don't know how to help them edit. I am not sure that what I comprehend is exactly what they are trying to express. So I am stuck there." Although six KUAS students were concerned about their lack of ability to perform peer editing, most frustration for KUAS students came from the intelligible English writings of NKMU students. This frustration may explain why they could not participate with more engagement as expected.

Conclusions

Using wiki as a medium to engage students in an online peer response activity provided them with an opportunity to extend classroom-writing practices. Students had

more chances to brush up on their English writing skills when writing for a real audience and gained access to perspectives of other school students. After participating in the project, students generally expressed a positive attitude toward the learning experience. However, several factors affected the extent to which students were devoted to the learning activity and how much they thought the project benefited them in their English learning.

The results of this study reveal that student genders, English ability, and the location of their schools affected their learning experiences and perceptions of the activity. The biggest factor was the English proficiency levels of students. The English reading and writing skills of the two groups greatly varied; therefore, the less proficient group seemed to benefit more because they received help from their more capable peers. One possible drawback was that the less proficient group might feel a sense of inferiority and therefore discouragement from participating in the learning activity. In contrast, the more proficient group did not consider the online peer response activity as beneficial as their counterparts did. Some unexpected benefits, such as the opportunity to read interesting picture books and viewing different perspectives, were most valued by the group, rather than the responses they received from peers. Therefore, for the more proficient group, the “side-effects” could be the factors supporting them, while the challenge of comprehending the intelligible writings of their inferior counterparts could discourage them from participating.

As a result, one implication based on the understanding of the study is to have more careful grouping techniques. When students of equivalent English proficiency levels are grouped together, students may find the online peer response activity beneficial. However, a further investigation regarding this aspect is necessary to verify the assumption. Although an arrangement of mixed genders might not necessarily contribute solely to the positive attitudes of students toward the project, we found it helpful to motivate the male students in this study. Therefore, we suggest considering a mixed gender strategy when students collaborate online.

We also consider formal writing instructions and peer editing training as essential to achieve more successful peer response outcomes. In the current study, the English ability of one group was limited, while the editing skills of the other were insufficient. Given more teacher guidance and support, students involved in such an activity would be more equipped with appropriate knowledge and strategies, and therefore able to contribute to a greater degree. This study also suggests the importance of giving student lessons in the editing functions of the wiki pages, so that students can have a smooth start with the innovative wiki forum form.

Self-regulation is always an influential factor in online learning. Students in this study exaggerated a little when reporting their engagement in the activity. Therefore, we find it necessary to create a course syllabus with more specific and mandatory requirements. Wiki pages allow teachers to easily monitor the writing progress of their students and track their contributions. Therefore, for an online peer response activity, wiki pages serve as a perfect tool for teachers who plan to constantly and regularly monitor the collaborative writings of their students.

This study focused on comparing and contrasting student perspectives, evaluations, and self-reported engagement in online peer response between two universities. We found this approach helpful in gaining more detailed understanding of participant learning experiences and the reasons behind student attitudes, which led to a new realization of the potential gains or hindrances such an activity can cause. However, many aspects still need investigation, such as what type of responses different groups prefer, in what aspect the writings of different groups of students are affected, and to what extent their personality

traits or social inclination influences their contributions to the activity. This study initiated a small step in exploring the online peer response experiences of mixed groups of students. Future research could conduct further productive discussions with other L2 writing instructors worldwide.

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