

Exploring students' perceptions of integrating Wiki technology and peer feedback into English writing courses

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ABSTRACT: This study applied Wiki technology and peer review to an English as a foreign language writing class. The objective was to investigate whether this system, as a collaborative platform, would improve students' writing skills. The study gauged students' perceptions about integrating a Wiki writing course and peer feedback. The participants were 32 sophomore students in an English department at a college in Taiwan. The study used a socio-cultural theoretical framework to explore students' perceptions of the effectiveness of Wiki-based writing projects and experiences of social interaction in the process of writing, based on self-reported reflections about the project, observations of student learning, interviews and surveys. Findings revealed that most students explicitly stated that they felt positive about their ability to apply Wiki and peer feedback to writing instruction. Meaningful social interaction appears to play a significant role with regard to students' perceived benefits of this collaborative writing process. Students nevertheless encountered both functional and psychological obstacles to using the new tools, indicating the need to alter their traditional learning practices to embrace new, technology-enhanced learning systems.

KEY WORDS: Collaborative writing, peer review, Wiki.

INTRODUCTION

Recently, computer-assisted language learning (CALL) that integrates information technology and English writing has received more attention due to the rise in Internet-based learning (Fitzpatrick & Davies, 2003; Fotos & Browne, 2004). More than a decade ago, Lanham (1993) stressed the importance of incorporating computer technology into writing and pointed out that most students live in a world of electronic text, spending a large proportion of their time reading and writing on computers. Recently, scholars have also emphasised the use of computer technology in foreign language instruction. Warschauer and Kern (2000), for example, advocated network-based language teaching, while Schultz (2000) predicted the importance of computer technology in foreign language writing.

Among the innovative computer technologies that may be beneficiary to English writing, Wiki technology is particularly important. The term "Wiki" comes from the Hawaiian word "wiki" ("quick"). In 1994, Leuf and Cunningham proposed the concept of Wiki co-editing to provide a high-speed software platform in which users

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can freely create, upload and build Web content (Leuf & Cunningham, 2001). Simple Web-editing functions allow users to modify content and execute hyperlinks. The editing function, similar to “track changes” in Microsoft Word, permits simultaneous viewing of original and edited content, facilitating comparisons between old and new information. More recently, the tools and resources available on the Wiki Web 2.0 application serve as a motivating device and a natural platform for the development of English writing skills. Wiki also has social implications that make possible distributed participation and collaboration among learners who are second-language writers of English.

In recent years, peer feedback (sometimes referred to as “peer response”, “peer assessment”, or “peer editing”) has become an important pedagogical tool in English writing classrooms (for example, Hansen & Liu, 2005; Liu & Hansen, 2002). Peer feedback is supported by many theoretical frameworks, such as process writing (Hyland & Hyland, 2006), collaborative learning theory, Vygotsky’s concept of the Zone of Proximal Development (Hansen & Liu, 2005), and social scaffolding in collaborative dialogues (Donato, 2000; Swain, 2000). Thanks to its social implications, peer feedback allows students to interact with peers by providing comments on others’ writing, engendering a social space for communication and discussion. With the advancement of computer-assisted language learning, the integration of peer feedback and Wiki technology into English writing courses has become an innovative means of integrating teaching and learning tools in classrooms for writers of English as a second language. However, few studies have investigated students’ experiences and perceptions of employing Wiki as a collaborative platform and of peer feedback in the process of English writing.

This study applied Wiki technology and peer feedback to English writing to investigate students’ experiences and perceptions of these pedagogical tools. This paper begins with a review of previous research related to Wiki writing. It then describes aspects of peer feedback in the writing process. Next, it provides a description of the socio-cultural approach to online writing. The findings are then used to explore students’ experiences and perceptions of these innovative tools. Finally, the implications are discussed for English teachers as well as policy-makers in Taiwan.

REVIEW OF THE LITERATURE

Wiki writing

With the advent of the Internet age, computer-assisted language learning (CALL) and computer-mediated communication (CMC) have become important pedagogical tools that integrate information technology with English writing (Fitzpatrick & Davies, 2003; Fotos & Browne, 2004; Warschauer & Kern, 2000). Wiki technology, in particular, has emerged as an innovative Web 2.0 tool that has been widely used by English-language teachers to facilitate students’ English writing (for example, Coniam & Lee, 2008; Lin & Yang, 2011; McPherson, 2006). On the Wiki platform, community members can edit, update or remove information easily and quickly, thanks to high usability and fast access (Richardson, 2006). Hyland (2003) argued that in addition to its mechanical functions, contributing to a Wiki webpage is an activity with social implications. In fact, one of the most significant features of a Wiki

environment is its social function because it allows for “distributed participation and collaboration” (Lankshear & Knobel, 2006, p. 80). Research on the emergence of Wiki-network learning communities has focused on the meaningful interaction among learners in the learning processes. As Achterman (2006) noted, the structure of a Wiki provides meaningful interaction among students, content and teachers. In other words, the Wiki collaborative environment provides an opportunity for students to learn how to work with others and how to create a community (Coniam & Lee, 2008). Wiki learning communities therefore provide flexibility and authenticity in that they allow a range of users to log in at the same time, each of whom can view or edit the work, contribute or upload new material (McPherson, 2006). While several mechanical and social functions have been proposed in Wiki-related writing studies, relatively few studies have provided adequate theoretical frameworks to describe the nature of social interaction on the Wiki platform.

Peer feedback

Peer feedback, in which students offer comments on one another's writing in written and oral formats through active engagement over multiple drafts, has become a common feature of process-oriented writing classrooms (Stanley, 2011). It has garnered increasing attention in second-language (L2) writing classrooms, as the activity promises to encourage negotiation about and construction of meaning as well as to help students develop new perspectives on writing (Ferris, 2003; Liu & Hansen, 2002; Liou, 2009). Previous research has generally supported the advantages of peer feedback, which has been shown to help students improve their writing quality and enhance their writing confidence (for example, Coniam & Lee, 2008; Lin & Yang, 2011; Liu & Hansen, 2002).

Just as peer feedback provides meaningful negotiation and construction for writing, Wiki learning communities also entail meaningful interaction among learners. The Wiki online writing mechanism provides an effective forum for peer feedback activities. Research supports the advantages of Wiki writing; it has been shown to provide interactions among participants for team-skill training (Coyle, 2007) as well as to have social implications (Hyland, 2003). The integration of Wiki technology and peer feedback is an innovative writing practice allowing for online construction of a piece as it progresses through a cycle of writing, peer feedback and rewriting. This process gives social meaning to writing, as the Wiki writing is produced for an audience and takes the form of a social activity with a real audience in mind rather than merely being an assignment given by teachers.

Theoretical concerns over Wiki writing and peer feedback

Peer feedback is generally supported by some theoretical frameworks, such as process writing, collaborative learning theory, Vygotsky's Zone of Proximal Development (Hansen & Liu, 2005), and Vygotsky-inspired socio-cultural and activity theory (Lei, 2008; Lin & Yang, 2011). A common theme in these theories is that learning takes place, not in an isolated individual mind but among people (Lin, 2008), in a society (Rogoff, 1990, Vygotsky, 1978), or within “communities of practice” (Lave & Wenger, 1991; Wenger, 1998). In terms of socio-cultural theory, learning occurs through participation in practice as people together engage in ongoing activity using the tools and resources of their cultural community (Rogoff, 2003). Other socio-cultural theorists, such as Donato (2000), Swain (2000), Villamil and de Guerrero

(1996), and de Guerrero and Villamil (2000), highlight peer assistance and mutual scaffolding in collaborative dialogues. Employing peer feedback on a Wiki online platform is therefore considered a cultural tool that shapes writing activities, so that an individual learner's action is always enacted by mediational means (Wertsch, 1991).

Furthermore, peer feedback can also be conceptualised as a meaning-making process. Peer feedback on the Wiki online platform includes responding, negotiating internally and socially, arguing against points, adding to evolving ideas, and offering alternative perspectives in the process of solving authentic tasks (Lapadat, 2002; Lave & Wenger, 1991, Vygotsky, 1978). In other words, the Wiki online platform provides the context for meaningful interaction. Vygotsky highlighted the importance of meaningful social interactions between peers or between novice learners and more experienced others that support learning, arguing that cognitive functions originate in social interaction and that learning is not merely an assimilation or installation of new knowledge by the individual learners; rather, "it is the process by which learners are integrated into a knowledge community" (Woo & Reeves, 2007, p. 18). The individual learner's cognitive development is thus assumed to result from such meaningful interactions, which extend his or her knowledge of the task at hand from a lower level of understanding to a higher order of thinking through, with the assistance of more experienced social partners. Following Vygotsky's theory (termed "social constructivism"), Woo and Reeves (2007) argued that Web-based learning requires re-conceptualising online interaction in terms of meaningful learning. They suggested that to clarify the nature of interaction and learning processes, researchers need to understand how learners communicate actively with peers and teachers, how learners face conflict situations that arise during discussion, how they actively negotiate internally and socially to solve those situations, and how they arrive at some common understanding through these processes.

By considering social contexts, socio-cultural perspectives enhance our understanding of L2 or foreign-language learning, including speaking, writing and collaborative dialogue. With the support of collaborative learning and peer feedback activities, the Wiki online writing system is therefore conceptualised as a tool for mediated actions that engenders meaningful interaction. To understand participants' actual experiences and perceptions of using peer feedback and revisions as an addition to the writing process, this socio-cultural study sought to investigate the following three research questions:

1. What are students' experiences and perceptions of integrating Wiki and peer feedback in English writing?
2. Is there any embedded social meaning in Wiki writing practice?
3. What are students' perceived benefits and challenges of Wiki writing projects?

METHODOLOGY

Participants

The study was conducted over the course of one semester. The 32 participants were sophomores in a "Reading and Writing" course in the English department of a college in Taiwan. They passed an English proficiency test before enrolment. Most of them had achieved intermediate or higher levels in reading and writing on the local General

English Proficiency Test (GEPT) in Taiwan. The first author of this paper had been the instructor of the “Reading and Writing” class since the beginning of the 2008 academic year. Interaction with students was frequent and strong.

Research design

The study employed a socio-cultural research design that considers learning to occur through participation in practice as students together engage in ongoing activities using the tools and resources of their cultural community (Rogoff, 2003). The Wiki online writing system served as a tool for mediated actions and provided meaningful interactions among participants. A qualitative questionnaire was employed to explore students' actual learning experiences. The teacher's reflection logs were used to record observations about student learning. Semi-structured interviews and focus group interviews were also conducted. Following the completion of the project, a survey on participant perceptions of and attitudes toward the project was administered.

Research instruments

Wiki-based system

A Wiki-based system is a platform for online collaborative writing and learning. As a high-speed database platform, a Wiki online writing system, with its simple interface and functions, allows users to easily create, edit, modify and delete web content. Wetpaint, established in 2005, is similar to the concept of Wiki, and was adopted in this study. The name “Wetpaint” symbolizes natural human curiosity, referring to how people are tempted to touch surfaces marked with a “Wet paint” sign as well as the natural urge to leave a mark (Wetpaint, 2011). Building on this human curiosity and the power of collaborative thinking, Wetpaint allows users to form Wiki pages, blogs, forums, and social networks into a community. Wiki on Wetpaint allows participants to log on to create an individual page and to invite peers to conduct online writing and discussion. As shown in Figure 1, EasyEdit on Wetpaint helps users execute hyperlinks and edit, modify, add or remove web content without much effort.

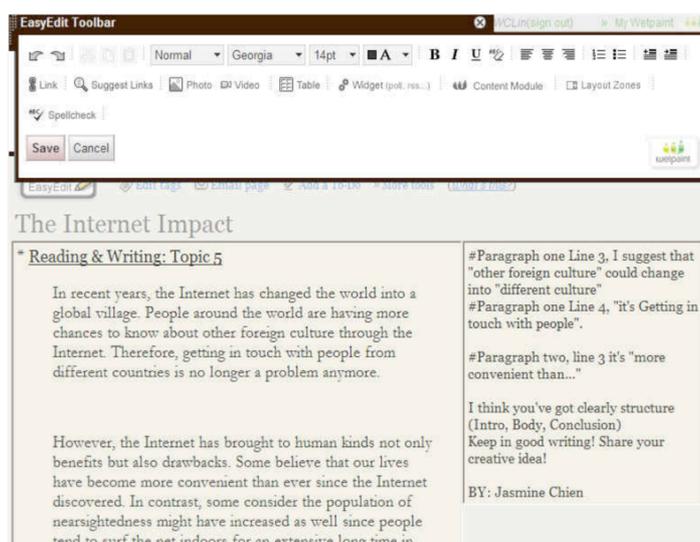


Figure 1. Wetpaint writing platform and webpage editing

It has a function similar to “track changes” in Microsoft Word, enabling users to view the original information, comment and add new content. This function helps users understand the differences between modified and original writing.

Wiki-based writing course feedback

After completion of the project, a survey was conducted to elicit information on the participants' perceptions of and attitudes toward the Wiki-based writing project. The survey comprised attitude and perception statements on the students' self-evaluation of their participation, their satisfaction with the Wiki activity, Wiki writing activity efficiency, perceived enhancement of language ability, and interface design. The participants were asked about the positive and challenging aspects of the course, and the perceived benefits of learning Wiki in a writing class.

Research procedure

At the beginning of the semester, the researcher obtained oral informed consent from students after explaining the research design to the class and providing students with written research goals. Students were also informed that their grades would not be based on their participation in the study or the data they provided. Then, an IT specialist teacher was invited to introduce the functions and operating environment of Wetpaint, a collaborative research tool, and to ensure students' successful registration on the Wetpaint platform. Groups of four or five students created accounts on Wetpaint and invited other groups and the researcher. Next, the online peer feedback activity was planned.



Figure 2. Wetpaint writing demonstration and experience sharing

After students became familiar with the Wiki online platform, they were invited to write a 120 to 150-word composition about topics pertaining to the textbook reading content on the platform. For example, after reading a topic entitled “The Impact of the

Internet”, participants were asked to write about their experiences and reflections about this topic. Members of the same group were invited to comment on one another’s work (see Fig. 1) and were then encouraged to engage in discussion on this writing platform. The researcher provided meta-comments and corrections alongside the final scores after students completed each peer-feedback activity. During the course of this writing practice, one student who had been active on the Wiki platform was invited to do a Wetpaint writing demonstration and experience sharing in the classroom, serving both to encourage online peer interaction at a later phase and to enhance familiarity with Wiki technology (see Fig. 2). Chinese students tend to be indirect and over-polite while writing feedback, so at the beginning of the semester, the researcher presented participants with some concrete examples of responses to certain error-types that they could use to provide relevant feedback with appropriate phraseology.

Data collection and analysis

Hammersley (1990) argued that in carrying out classroom ethnography, teachers should undertake field data collection through an attitude of collaboration, equality and mutual respect with student participants. With this attitude in mind, the researcher took into account the inevitability of “power relations” between teacher as researcher and students within the classroom setting. First, data from the Wiki online platform were collected and analysed. Data from the mid-term and final writing examinations were also collected to investigate students’ changing processes of writing practice. Based on the results of the data analysis, focus group interviews and case interviews were conducted to probe students’ perceptions of the effectiveness of Wiki-based writing projects and experiences of social interaction in the processes of writing.

FINDINGS AND DISCUSSION

This study focused on students’ perceptions of the value and efficacy of integrating a Wiki writing and peer feedback in an English writing course. Several themes emerged from the researcher’s observations and the learners’ writing, interviews and survey data, as discussed below.

Perceived benefits of Wiki writing projects

Survey responses, student interviews, and focus group interviews demonstrated that students perceived both benefits and challenges from the Wiki writing projects. Perceived benefits included immediate online responses from the instructor, lessons learned from the grammatical mistakes of others, and various learning opportunities, demonstrating the significant social meaning embedded in the Wiki writing practice.

Besides having immediate online responses from the instructor as one of the perceived benefits, many participants reported that they learned vocabulary, spelling, and phrases as well as sentence structure by reading the work of others on the Wiki pages and learning from the writing produced by their peers. For example, a student named Cathy revealed that she used to have problems distinguishing present and past tense. Other classmates helped her with tenses, and she noted, “... when I write my writing, I don’t know if it is correct grammar or correct writing structure...but if my classmates comment on my writing, I will see it...So I feel it is good” (see Table 1).

A student named Vivian noted that she received more help with grammar because she tended to make grammatical mistakes: “They will find out which part of my grammar is wrong which I do not figure out....I tend to have free writing.”

As shown in Table 1, the convenient interface design of the Wiki writing project provided students with additional learning opportunities that would not be possible in traditional writing practice. As one student pointed out:

I feel it is not necessary to do online writing...because traditional paper/pencil writing has already been a good method...but I feel I have learned a lot after using it. I can modify my own writing, make it better, and feel a sense of achievement. (Vincent, case interview)

It could be argued that students were accustomed to traditional paper/pencil writing and thus might not feel the need to employ any new method. However, as Vincent put it, he could “modify” his own writing online and improve it thanks to the convenient interface design of the Wiki platform. Furthermore, he felt “a sense of achievement”, indicating that this new learning opportunity had gone beyond traditional paper/pencil writing. Traditional writing is generally considered by most students to be homework and necessary to receive scores from the instructor, rather than having any social purposes, as detailed below.

Embedded social meaning in the Wiki writing practice

The emerging social meaning of Wiki writing appeared to have a positive impact on learning, perhaps because writing in Wiki pages is an activity conducted for a real audience (Hyland, 2003). In particular, the students showed positive attitudes toward peer comments on Wiki writing. They valued this social practice, associated learning with Wiki writing as a worthwhile activity, and acknowledged the benefits of providing and receiving peer feedback. For example, some students reported that they expected to use peers' work for inspiration and model learning, whereas others claimed they would write better as long as they knew someone other than the instructor would read it. These emerging social functions are consistent with the findings of previous studies on student satisfaction with peer review (Li & Steckelberg, 2004; Saito & Fujita, 2004; Venables & Summit, 2003) and the effectiveness of learning with Wiki (Kessler, 2009; Mak & Coniam, 2008).

It could be argued that giving feedback to peers is an effective approach to improving students' writing skills. In the focus group interviews, a student named Francis reported that: “I can learn lessons from someone's grammatical mistakes because such errors may happen in my own writing.” A student named Gale said that she would not expect others to read her own writing, “but will look forward to seeing someone's work for model learning. In traditional paper writing, amendment is not possible once the writing is printed out. But it is convenient to modify it on the Wikis.” (See Table 1)

These results indicate that learning from others' work and receiving feedback may allow students to enhance their spelling, grammar, style and quality of expression remarkably within a relatively short time. As Vivian revealed in a case interview:

On the Wikis, the instructor and classmates will give me more feedbacks. Then I improve my writing based on comments by others...Sometimes I thought I wrote a good composition but didn't get the grades I had expected. I didn't know why...If

many people correct my writing for me, then I know where I can make improvement. Just more input from others. (Vivian, case interview)

This finding supports the results of previous studies on student attitudes toward peer feedback, especially on the function of mediated scaffolding during online peer revision. According to Wang (2008), from a Vygotskian socio-cultural perspective, a novice learner's cognitive development is made possible through interactions with more skilled social partners. With the scaffolding provided by peer revision, novice students can progress from their initial writing capabilities to their potential level of development in the zone of proximal development (ZPD) (Vygotsky, 1978).

Mitigation of instructor's authority

The mitigation of teacher authority caused by peer feedback and Wiki writing seems to deconstruct the traditional student-teacher power relationship. Although students may regard a teacher's comments as more valid and trustworthy, some wrote that "students feel less pressure to see peer comments which match more with their ability level whilst teachers tend to have their own level of thinking and requirement." This comment highlights the mismatch of ability levels between student and teacher. In traditional paper/pencil writing practice, teachers are often too busy to provide enough feedback for students to make corrections and rewrite. Additionally, the asymmetrical relation of power and control between teachers and learners usually makes students hesitate to ask teachers for further assistance if they do not comprehend comments and suggestions. As one student named Helen wrote regarding the Wiki writing projects, the teacher's comments differed from her peers' comments, and students felt more comfortable with each other's comments:

...students have similar way of thinking whereas teacher tends to have his/her own. Therefore, decoding teacher's comment is tough and takes more time. We will encounter difficulties if we fail to figure out the comments.

Arguably, undertaking peer feedback in Wiki writing projects can engender a psychological spin-off, creating affective meanings between peers as social partners that may aid meaningful learning.

The challenges of Wiki writing projects

Training is needed for peer feedback

Despite the above-mentioned benefits, peer feedback seemed to be limited with regard to content and organisation in writing. Due to their lack of training in peer assessment, students' comments and suggestions tended to be restricted to certain features of writing, such as grammar, mechanics and style. It may be that editing mechanics and style require less effort and skill than does editing content and organisation. For example, one student named Doris disclosed that "I feel that very few will touch on the stuff of content; most of them will mostly comment on tense or spelling." Similar to the findings of previous studies (for example, Xiao & Lucking, 2008), our results showed that a few students were not satisfied with the quality and quantity of feedback provided by their peers. This result indicates that effective peer feedback instruction and training should be provided, as peer feedback or reviewing demands an array of skills and knowledge (Sluijsmans, Brand-Gruwel & Van Merriënboer, 2002).

The participants also faced challenges during the Wiki writing projects that can be characterised as either functional or psychological obstacles that hindered them from active participation. Functional challenges included difficulty using the new Wiki tool; psychological obstacles included an apparent reluctance to try new writing practice tools as well as the issue of “saving face” in peer feedback. These two emerging challenges are discussed below.

Perceived functional obstacles to using the Wiki tool

Despite the fact that most participants reported that they considered the Wiki tool to be convenient, some learners experienced difficulties using the tool. With every technology, usability is the key attribute for a positive user experience (Yang & Chen, 2007). The usability obstacles with the Wiki tool included unfamiliarity with the Wiki interface, no auto draft-saving mechanism, and the time-consuming nature of adjusting to the format. These major concerns indicate that the new tool disrupted the learning experience. In the early phase of this study, only very few learners agreed that the Wiki interface was easy to understand. They thought that the Wiki procedure was troublesome to learn, indicating a general unfamiliarity with the system at the outset. Some students revealed that they were more familiar with the editing functions in Microsoft Word, and they “sometimes spend lots of time sorting the editing format out on the Wikis” (Francis, Focus Group Interview), especially in the initial period of using the new tool.

Unfamiliarity with the new tool was somewhat ameliorated by problem-solving activities such as in-class peer demonstrations and having learners spend more time practising with the tool, but these innovative projects clearly did not proceed as smoothly as expected. Factors such as the limited research period, frustration, and personal or social issues limiting participant enthusiasm for the use of the technology deserve further investigation.

Perceived psychological obstacles to using the Wiki tool

Some students were reluctant to try the new writing approach at the outset because they were used to traditional writing methods. “I feel it is not necessary to do online writing recommended by the instructor because traditional paper/pencil writing has already been a good method,” as Vincent reported above (Table 1). Students' preference for traditional writing instruction may result from the high time commitment associated with learning the new approach, or represent certain students' need for additional guidance within their zones of proximal literacy development, and for longer time to adapt to the environment. In a similar vein, more scaffolding may be needed to help passive learners become self-directed.

Categories	Selected student interview responses
The benefits of Wiki writing projects	
<i>Immediate online response from instructors</i>	“...We need to consult Instructor for help if we make mistakes in traditional writing. But this online tool makes it possible for us to throw inquiries on the web anytime and wait for teacher's response...”
<i>Learning lessons from the grammatical mistakes of others</i>	“...In terms of writing, I think someone's mistakes may happen in my writing...we can identify errors easier from others' work...” “...when I write my writing, I don't know if it is correct grammar or correct writing structure ...but if my classmates comment on my writing I will see it...So I feel it is good.”

<i>Convenient interface design</i>	<p>“...I feel it is not necessary to do online writing...because traditional paper-pencil writing has already been a good method...but I feel I have learned a lot after using it. I can modify my own writing, make it better and feel a sense of achievement.”</p> <p>“...I will throw away traditional writing work once it's completed instead of saving it...but Wiki can help reflect my own writing stuff and the processes.”</p>
<i>Benefits of peer review</i>	<p>“...I will look forward to seeing someone's work for model learning. In traditional paper writing, amendment is not possible once the writing is printed out. But it is convenient to modify it on the Wikis.”</p> <p>“...I will write better once I know it's for someone to read, and take advantage of the peer comments to improve my writing...it's useful because we can comment on each other's work.”</p>
<i>Less authoritative peer reviews</i>	<p>“...I think everyone has different ability level in English...students feel less pressure to see peer comments which match more with their ability level whilst teachers tend to have their own level of thinking and requirement.”</p> <p>“...There are differences between teacher's comments and students'... students have similar way of thinking whereas teacher tend to have his/her own... We will encounter difficulties if we fail to figure out the comments.”</p>
The constraints of Wiki writing projects	
<i>Functional obstacles</i>	<p>“...Because the functions of Wiki are all in English, I feel confused at the outset...just don't know how to use it...”</p> <p>“...I feel troublesome in the very beginning...because of the unfamiliarity with the Wiki interface...everyone is playing Facebook, not Wiki”</p> <p>“...The weakness is that it has no auto draft-saving mechanism...I'll have to type everything all over again if the computer is down by accident...”</p>
<i>Psychological obstacles</i>	<p>“...My early thought is that it's troublesome to learn a new thing...but I feel it's a very handy stuff as long as I learn how to use it...”</p> <p>“...I feel that very few will touch on the stuff of content; most of them will mostly comment on tense or spelling.”</p> <p>“...most of the peers try not to critique directly...instead of directly pointing out where the problem is...they tend to say it would be better if (you) could write in certain ways...”</p> <p>“...I want to be more polite...and I feel that writing is something others come up with through hard working...I tend to be more indirect...I am afraid of the feeling of embarrassment among classmates.”</p> <p>“...I feel very nervous...because I am pretty afraid that if I provide wrong suggestions on grammar...so I do not point out many errors...I like to use a polite tone of voice to comment in order to make people feel that I am not looking for troubles.”</p>

Table 1. The benefits and challenges of Wiki writing projects

The desire to “save face” may also help explain why grammar mechanics and style were perceived by participants as having improved more than organisation and content. As mentioned above, some students felt that few peer comments addressed content; most comments were focused on simple corrections of grammar, style and spelling. Students tended to remain “polite” to avoid hurting the feelings of others. As a student named Eva pointed out in an interview:

...most of the peers try not to critique directly...instead of directly pointing out where the problem is...they tend to say it would be better if (you) could write in certain ways.

Eva also reported that a lack of English ability did not cause her to hesitate to comment on the work of her peers, but rather, she felt:

...very nervous...because I am pretty afraid that if I provide wrong suggestions on grammar, which may misguide them to write such wrong stuff afterwards...it's nerve-breaking, so I do not point out many errors...I like to use a polite tone of voice to comment in order to make people feel that I am not looking for troubles.

Although the polite tone of voice used in peer feedback is euphemistic, some students tended to give general suggestions because they were afraid that the comments they provided would embarrass others. Students were worried that their classmates would “hate” them. As a result, students tried to be inoffensive and avoided providing solid revisions because the Wiki writing task was something others “come up with through hard work,” as Eva pointed out. Previous studies (for example, Carson & Nelson, 1996) have found that Chinese students value harmony in the peer-review process. They are reluctant to claim authority, and often are afraid to criticise or give negative feedback to peers. Overcoming such reluctance and raising students' comfort levels with having their work evaluated by others should be considered in the design of peer feedback training. One possible solution is to give students the option of using pseudonyms instead of real names in peer reviews to ensure anonymity. Explaining the value of collaborative peer feedback, describing the procedures, establishing a supportive context, and creating a scaffolding framework may contribute to student development of important attitudes and skills.

CONCLUSIONS

In this project, a study on a small group of college students in a writing class was conducted to investigate students' experiences with and the perceived efficacy of integrating Wiki technology and peer feedback into an English writing course. From a socio-cultural theoretical approach, the authors took a critical point of view as teachers and researchers to probe the processes of conducting Wiki-based English writing courses with peer feedback at the college level. The findings revealed both advantages and challenges in employing this Wiki online writing practice.

Initially, students reported they perceived more progress in grammar mechanics and style than in organisation and content. The analysis of learner accounts and open-ended surveys suggested that most learners felt positive about their ability to apply Wiki and peer feedback to writing instruction despite encountering some obstacles in using this new tool. The results also showed students' positive attitudes toward peer

feedback. Most learners valued this meaningful social interaction as a worthwhile activity and acknowledged the benefits of providing and receiving peer feedback. Compared to traditional, vertical learning processes in which students write compositions independently, the collaborative and horizontal learning process of Wiki-based English writing projects may not only improve grammar and writing skills but also encourage students to reflect upon themselves through peer interaction.

While most students enjoyed the innovative writing project, challenges of employing this Wiki online writing practice also emerged, as some students may prefer traditional teacher-led, paper/pencil writing activities and did not make the effort required to benefit from the peer feedback in the writing process. Given that students bring different perspectives to English writing, learners with negative attitudes toward peer feedback and Wiki writing require careful guidance from teachers to adapt to this approach. Helping students understand how Wiki and peer feedback writing differs from the traditional writing approaches is a critical consideration. Moreover, it is important to make students aware that this technique demands new learning strategies; for this, autonomous learning may be a useful first step. Instructors should emphasise to students that beneficial intellectual and collaborative experiences depend on their own engagement, efforts and interest. Teachers can promote amicable group dynamics and student initiative to amplify learner confidence and motivation to participate in peer feedback activities.

Although the study was significant in showing that Wiki technology provides an innovative and collaborative way to nurture students' English writing ability. The study revealed some weaknesses in the original course design; these weaknesses should be used as a guide for future curriculum development and for designing online activities to foster collaboration, interaction, and reflection. Given the time limitation of four months and the fact that the study was the instructors' and students' first attempt at Wiki writing, there is still much to learn about integrating peer feedback and the Wiki writing practice. Future research will shed light on how to scaffold learners' effective use of Wiki-writing systems and encourage engagement in interactive, reflective and constructive writing.

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