Exploring the roles of Google.doc and peer e-tutors in English writing

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ABSTRACT: This study explored college students' experiences with and perceptions of integrating both the Google.doc and peer e-tutors into an English writing course. This socio-cultural study employed online collaborative learning mechanisms with an attempt to develop students' English writing skills and motivation over the course of one year. Participants included a class of forty-four, 1st-year non-English majors from a college in southern Taiwan; eleven fourth-year English majors were also invited to assist with online, peer e-tutoring. The findings revealed that most students demonstrated positive attitudes towards using this online writing system and were satisfied with their meaningful interactions with peer e-tutors. On-line tutoring activity enhanced their English writing skills, and they reported a desire to engage in similar practices in the future. A few challenges emerged from using the Google.doc, including periodical missing data from the screen and an accidental lag that occurred during the course of writing online. Several conclusions can be drawn from the study, which have some implications for EFL teachers. Suggestions for future research are also provided.

KEY WORDS: English writing, online collaborative learning, socio-cultural, e-tutor.

INTRODUCTION

The influence of new information technologies has been noticeable in the field of education, particularly in higher education (de Smet, 2008). Over the last decade, computer-assisted language learning (CALL), which integrates information technology and English writing, has received increasingly more attention due to the rise in Internet-based learning (Fotos & Browne, 2004). In recent years, teaching in most Taiwanese higher education classrooms has also shifted from a solely face-to-face classroom environment to one that is either online or a blend of the two. Online environments continue to evolve as new technologies make more sophisticated e-learning possible. These online environments, such as Google.doc or Wikis, support communication, participation and collaboration and allow students to engage in authentic learning tasks (Goold, Coldwell & Craig, 2010); therefore, the traditional instructor-learner transmission model in the classroom is changing. A new model for learning that integrates information technology and English writing is largely taking place collaboratively online. This model provides a new form of social interaction that is both learner-empowered and facilitated and includes techniques such as peer feedback.

Peer feedback, sometimes referred to as "peer response," "peer assessment," or "peer editing," in which students offer comments on one another's writing in written and

oral formats through active engagement over multiple drafts, has become an important pedagogical tool in English writing classrooms (Lin & Yang, 2011). Vygotskian social constructivist learning theory suggests that learning takes place between people through participation in communities of practice (Lave & Wenger, 1991; Wenger, 1998) and is mediated by tools, such as computer technologies (Lin, 2008; Lin & Yang, 2011).

Online peer tutoring, an aspect of peer feedback among cross-age students, allows students to engage in online writing activities using the tools and resources of their cultural community. The research literature has widely agreed that this new learning model has been effective in generating meaningful social interactions that facilitate learning and development (for example, Lin & Yang, 2011; Woo & Reeves, 2007). As Warschauer (2000) argued, language learning theory has been marked by "a broadened vision of the desired product and a renewed emphasis on learning process" and "with this widening …has come an increased emphasis on classroom process" (p. 454). There is a growing awareness of the importance of the language learning process, especially in the research of peer feedback and its effects on learning. However, more studies must be performed to understand the learning process and student progress during online peer tutoring activities. In particular, which theoretical framework to use and whether its methodological framing will help to enhance our understanding of the learning process and progress are still under dispute.

This study applied a socio-cultural theoretical framework that considered students' learning during participation in online communities of practice. It aimed to explore college students' experiences and perceptions of the Google.doc and peer e-tutors, which were integrated into an English writing course. This one-year project employed online collaborative learning mechanisms in an attempt to develop students' English writing skills and motivation. This paper begins with a review of previous research related to peer feedback, online peer tutoring and its challenges. It then describes perspectives of Vygotskian socio-cultural learning theory and its relevance to peer tutoring in the writing process. The findings from this study are then used to explore students' experiences and perceptions of the online peer tutoring activities. Finally, implications of the findings are discussed and suggestions are given for future research.

REVIEW OF THE LITERATURE

De Smet (2008) argued that the influence of new information technologies has been noticeable in the field of education, particularly in higher education. Currently, students are predominantly living in a world of electronic text, spending a large proportion of their time reading and writing on computers. Incorporating computer technology into writing courses has become important in higher education, because it is widely agreed in the research literature that computer technology makes learning in online communities possible (Liu, Kalk, Kinney & Orr, 2012) and thus facilitates foreign language teaching and learning (for example, Schultz, 2000; Warschauer & Kern 2000). For example, peer feedback or online peer tutoring, which we investigate in the present study, has been considered to be an effective collaborative learning community.

Stanley (1992) asserts that peer feedback, in which students provide comments on one another's writing in written or oral formats through engagement over multiple drafts, has become a common feature of process-oriented writing classrooms. Existing research has commonly supported the advantages of peer feedback and has found that it helps student-writers to improve their writing skills and enhance their writing confidence (for example, Coniam & Lee, 2008; Lin & Yang, 2011; Liu & Hansen, 2002). Other scholars argue that incorporating peer feedback into second language (L2) writing classrooms will engender activities that encourage the negotiation and construction of meaning during the course of the writing process (for example, Ferris, 2003; Liou, 2009).

Just as peer feedback provides meaningful negotiation and construction during the writing process, online peer tutoring activities entail meaningful interaction among both same-age and cross-age learners. In an examination of the existing research literature on peer tutoring, de Smet (2008) found that the theoretical frameworks that explain tutoring in combination with computer-supported learning environments have a general focus on facilitating the learning process and learners' progress. The literature generally supports the advantages of online peer tutoring, which entails meaningful interaction and construction. However, there is a lack of empirical research to provide substantial evidence to establish both the theoretical advantages and effectiveness of peer tutoring (de Smet, 2008; Topping, 1996).

For example, the nature of interactions between tutors and tutees during the process of peer tutoring has been studied only to a limited degree (Jones, Garralda, Li & Lock, 2006). In addition, there is widely accepted agreement in the research literature that tutors need structured training to be empowered to produce effective tutoring (for example, de Smet, 2008; Falchikov, 2001; Parr & Townsend, 2002). An increasing number of researchers argue that peer tutoring is "less effective without a preceding training program" (de Smet, 2008, p. 3). Furthermore, qualitative research that investigates the perceptions of those who participate in a peer tutoring activity is also relatively limited (Solomon & Crowe, 2001).

As has been discussed previously, there is a lack of empirical research to provide substantial evidence for both the theoretical advantages and effectiveness of peer tutoring. Vygotskian socio-cultural learning theory highlights the importance of meaningful social interactions between peers, or between novice learners and more experienced others, that support learning (Vygotsky, 1978). Socio-cultural theoretical perspectives highlight the fact that cognitive functions originate in social interaction; therefore, learning is not merely a result of new knowledge by the individual learners (Nasir & Hand, 2006; Lin, 2008). Instead, "it is the process by which learners are integrated into a knowledge community" (Woo & Reeves, 2007, p. 18). An individual learner's cognitive development is therefore assumed to result from meaningful interactions in online communities of practice, which help to extend the learners' knowledge of the task at hand from a lower level of understanding to a higher order of thinking through the assistance of more experienced social partners (Wertsch, 2007).

Following Vygotsky's theory, we argue that the support of online collaborative learning and peer tutoring activities may add social meaning to the writing process and thus enhance students' progress. Using this framework, this study employed the Google.doc as a collaborative platform and utilised cross-age tutor assessments in an

English writing class to explore students' writing process and progress. The overarching research questions were:

1. What are students' perceived benefits or challenges regarding the integration of Google.doc into an English writing course?
2. What are the impacts of peer tutoring activities on students' writing process?

METHODOLOGY

Participants

The 44 participants in this study were non-English majors enrolled in a "Freshman English" course that was taught by the researcher in a college in southern Taiwan. All students at this college take an English proficiency test, the College Student English Proficiency Test in Taiwan (CSEPT), before enrolment. The minimum requirement for English proficiency upon graduation is a score of 260 on the CSEPT; this is equivalent to a score of 750 on the Test of English for International Communication (TOEIC) or a 520 on the Test of English as a Foreign Language (TOFEL). Participants were classified as Level Two (out of six levels), based on their English proficiency level, with average scores ranging from 120 to 150. Level Two is equivalent to scores lower than 400 on the TOEIC or lower than 450 on the TOFEL.

Eleven student tutors (9 females, 2 males), all fourth-year English majors from the same school, were invited to interact with the other participants in an asynchronous online environment. As English majors, these e-tutors had achieved average scores of 260 or above on the CSEPT and regarded this online peer tutoring activity as a significant service learning opportunity. The researcher had been the homeroom teacher for these student tutors since the beginning of the 2010 academic year; thus, the researcher's interaction with the students had been frequent and strong.

Research design

Inspired by Vygotskian socio-cultural learning theory, this study applied a research design that assumed that learning occurs through participation in communities of practice where cross-age students collaborate in online writing activities using the tools and resources of their cultural community (Rogoff, 2003). The Google.doc served as a tool for mediated activities and provided an environment in which meaningful interactions among participants could occur. The teacher's reflection logs were used to record observations of student learning. In the middle and at the completion of the project, the students' reflection logs (of both the tutees and the tutors) were used to record their perceptions of and attitudes toward the integration of the Google.doc and tutoring activities. Semi-structured interviews as well as focus group interviews were also conducted at the end of the project as a means of exploring relevant issues that emerged from students' reflection logs.

On-line Google.doc as a research instrument
In this study, online collaborative writing and learning were designed and exercised by using only one supported file format of Google.doc called Google Document (see Figure 1). Google.doc is fundamentally a wiki, within a web-based suite of Google

tools, such as Google Drive, Google Map and Google Calendar. Users can create My Drive on the Google clouds as home for files, which allows multi-users to co-construct the same file without time and space constraints. In fact, Google.doc basically functions as a web-based word processor where all participants and student tutors can easily access and collaborate with others by sharing the same document online. With a simple interface and functions, it allows users to easily create, edit, and delete writing content. By sharing the same document, students, tutors and the teacher are able to work together as collaborators. The roles of students, tutors and the teacher in the writing class are described in Table 1 below
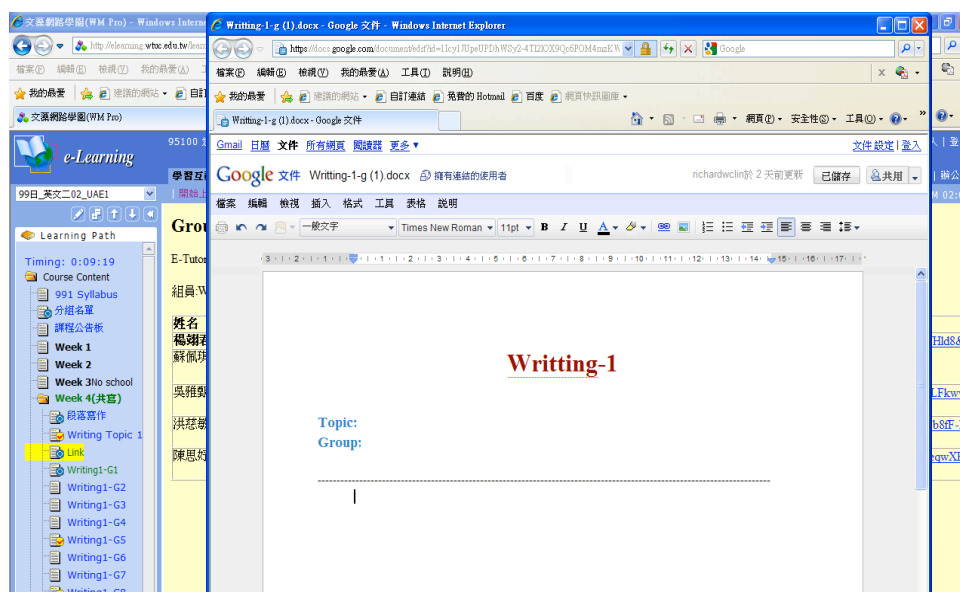

Figure 1. E-learning platform & Google.doc

For students	For tutors	For the teacher
Compose a group composition together with group members and discuss writing tasks with them.	Serve as facilitators to encourage students writing in progress.	Use Google.doc as a word processor to design instruction guides, and deliver instruction guides to students by using the publish function.
Receive teacher and tutors feedback, and/or ask for further explanation about the feedback when needed.	Monitor students writing in progress and provide feedback and comment.	Monitor students writing in progress and provide correction and suggestion to tutors feedback when needed.

Table 1. Uses of Google.doc in the writing class

Research procedure

As an integral part of the "Freshman English" course taught by the researcher, a four-stage writing investigation was conducted each semester over the course of one school year. During the course of this study, there were 12 writing tasks altogether, including 4 writing exams, the mid-term exam, and the final exam. At the beginning of the first semester, the researcher obtained informed consent from the students after orally explaining the research design to the participants, including both the "Freshman English" class and the e-tutors. It was assured that the potential subjects understood

the study and its risks and benefits, and certify their willingness to participate. They were informed that their grades would not be based on their participation in the study or on the data they provided. The researcher introduced the functionality of the Google.doc, a collaborative research tool, to participants; this was followed by the students' successful registration on the Google.doc platform. The participants were randomly divided into eleven groups, with four students in each group. Each group shared a Google.doc with one e-tutor for online writing feedback and interaction (see Figure 2). Finally, the online peer feedback activity was planned.
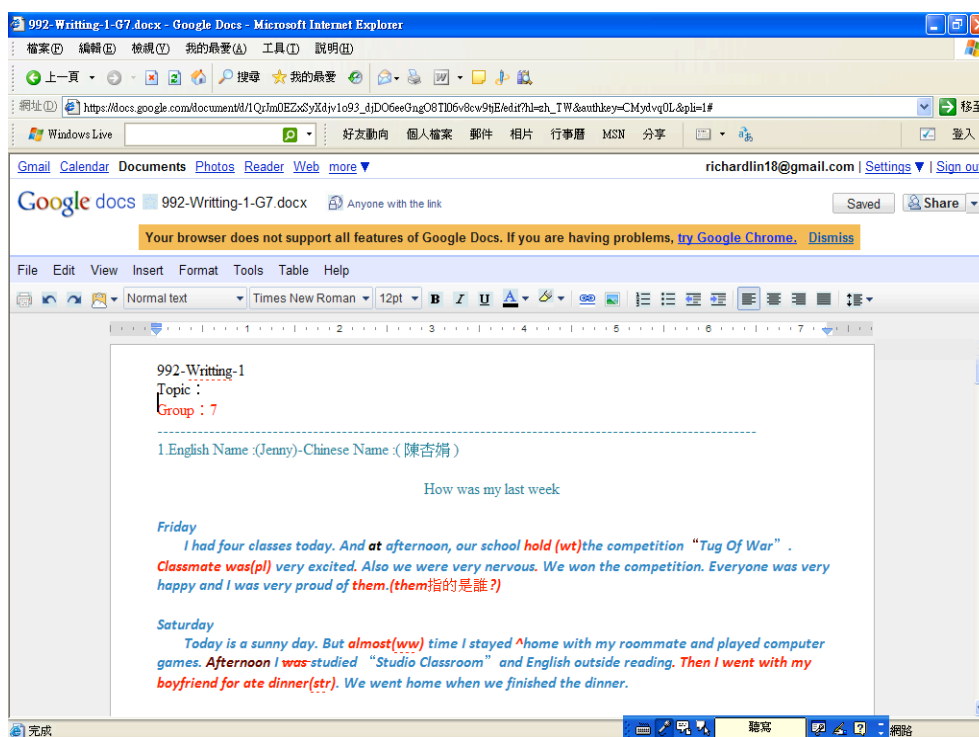

Figure 2. E-tutor's revision on Google.doc

After students became familiar with the Google.doc at the beginning of the semester, they were invited to participate in a 100 to 120-word online writing activity pertaining to their current learning tasks that was derived from textbook content. For example, after learning a grammatical task related to the use of the past tense, participants were asked to write about their experiences and reflect on a topic entitled: "How was my last week" (see Fig. 2 above). The e-tutors for each group were invited to comment on the tutees' work. In a later phase of this project, during the second semester, the e-tutors were encouraged to engage in discussion with their tutees using this writing platform. The researcher provided final comments and corrections (with final scores) after students completed each peer feedback activity.

It is worth noting that the classroom setting was a computer lab, where students conducted their writing tasks online during class. During the course of the writing process, the researcher provided on-site scaffolding, including individual direction and whole-class instruction in real time based on the common types of errors noted in the students' work. In addition, certain students who had used the platform were invited to do a writing demonstration and share their experience in the classroom. Moreover, Min (2005, 2006) suggests that peer-feedback training is needed for e-

tutors to provide effective scaffolding to novice peer learners. Informal and non-structured training was carried out in two ways. At the beginning of the semester, the researcher presented the e-tutors with several concrete examples of responses to specific types of errors whereby they could provide relevant feedback with appropriate phraseology. Second, after observation of the e-tutors' corrections and suggestions, the researcher held group discussions with the 11 e-tutors that took place after the monthly homeroom class meetings during the school year.

Data collection and analysis

To answer the two research questions, data were collected using the teacher and student reflection logs, group interviews, documents and class observation. In addition, data from the mid-term and final writing examinations were also collected and analysed. Content analysis (of the reflection logs and interviews) and discourse analysis (of the writing tasks) were both employed as analytical tools. Part of the analysis focused on how the students perceived the benefits or challenges of the integration of Google.doc and peer e-tutors into the English writing course. As another part of the analysis, the effectiveness of online writing projects and the social interaction experiences between the tutors and tutees on Google.doc were analysed to examine changes in the students' writing processes and the progress of their writing performance. To protect the participants' identities, all the names used in the present paper are pseudonyms.

FINDINGS AND DISCUSSION

As argued by many scholars, "reflection" as an activity is central to both second language learning and language learning in general (for example, Grabois, 2008). The analysis of student and tutor responses to peer tutoring on the Google.doc revealed certain themes that help explain their learning processes during the peer tutoring activities targeted towards English writing. In this paper, we focus on the following two themes: e-tutor reflections of this project, and challenges of the Google.doc. Each theme is discussed in greater detail below.

E-tutor reflections on peer tutoring

E-tutors' self-reports from the first and second semester consistently revealed that the online tutoring activities were an important language learning experiences. They frequently reported improvements in English grammatical concepts, confidence, interpersonal skills, patience and a sense of achievement. Certain themes relating to both cognitive and affective issues are illustrated below.

1. Learning and development
The online tutoring project is an integral part of the service-learning scheme at the participants' college. Not only did the tutees improve their English language skills, but the tutors also reported that they gained as much from the process as did the tutees and that they developed an open attitude toward learning. The following reflections from one tutor suggest that the e-tutors had moved beyond classroom learning, which usually aims to fulfil course requirements, by expanding their learning outside of the classroom, thus contributing to the tutor's own English learning and personal development. As one of the students, Amy, reflected:

During the course of this service learning project, I found <u>I can always learn something from others</u>, even from the tutees. In the writing articles, they sometimes used vocabularies which I did not know or ideas that I have never had. Through online tutoring activities, <u>I feel I have learned how to use grammar in sentences</u>. In order to comment on tutees' writings, I have to read grammar books and thus correct my false grammatical concepts by coincidence… As a result, <u>I have not only made some progress in English but also gradually built up confidence in becoming a teacher</u> in the future. I have been learning English for so many years. Before I took part in this peer tutoring activity, I did not know the fact that, because time is changing, some English linguistic expressions and grammar usage are different from what I have been taught… Besides,<u> I learn to know that learning can be done at any age level</u>. We can learn something from these freshman tutees. It does not mean we are always correct only because we are senior students… Therefore, <u>I feel that we should keep open to new information in order to enhance learning</u>. By doing so, we can avoid being obsolete and stubborn ("shi-gu-bu-hua").

2. *Affect and learning*

In addition to an improvement in their English language skills, tutors consistently revealed how this service influenced their affective relationship to language learning itself. One of the common themes that tutors reported was the development of a growing confidence in teaching English during the course of this project. For example, one of the tutors, Jean, reflected that:

During the second semester, I found these tutees were working as hard as last semester. They may have the same tiny errors in writing, but their devoted learning attitude makes me happy. What really excited me more was the little thank-you notes for me written by two of the tutees. <u>Their positive feedback and appreciation warmed me greatly</u>… <u>We were actually learning from each other</u>. This service-learning project had a huge influence on me. Before participating with this project, I was not confident in helping others learning English. I was also afraid of passing wrong information to them. Therefore, <u>I would verify what I wanted to share was correct before passing it over to them</u>. Now <u>I feel more confident in teaching English </u>after reading the tutees' positive feedback.

3. *Contribution and communication*

Furthermore, the tutors also revealed how this service contributed to the tutees' English language learning and influenced their personal communication skills. For example, one of the tutors, Zoey, reflected that:

I am very happy to help others learning English. This reminds me of those who helped me while I was learning English. <u>I am so happy that I am able to be helpful</u>. Service-learning greatly influenced my learning of English. For instance, while correcting tutees' writings, I would spot some minor grammatical errors that I would make in my own writing. This increases my own awareness of not making the same mistakes in the future. <u>This project also allows me to learn how to communicate with others</u>. For if I provide feedback with overt negative critiques while tutoring, tutees may feel under pressure and thus lose confidence or interest learning English. Therefore, I have to be very careful phrasing my comments… <u>Helping others brings me a sense of psychological satisfaction</u>, which is not easily gotten from doing things other than helping others.

As indicated in the example above, several common themes emerged from the e-tutor reflections on online peer tutoring. First, "mutual learning" seemed to be salient over the course of cross-age peer feedback. When tutors were not sure about their grammar in writing, they would search for the correct information from a dictionary or grammar textbook. Interestingly, they tended not to do this when working on their own papers, but because they considered tutoring others to be a very serious matter, they would verify some of the existing false grammatical knowledge while correcting the tutees' work. Second, the e-tutors appeared to be influenced by the younger peer students' different thinking patterns while reading their writing samples. As Amy put it, "I feel that we should keep open to new information in order to enhance learning… we can avoid being obsolete and stubborn." It could be argued that being willing to keep an open mind may not only be considered a form of "mutual learning"; it may also help the e-tutors' personal "development".

Third, the interaction between the e-tutors and tutees on the Google.doc appeared to be meaningful to the student participants. In particular, because the e-tutors were college English majors who tended to be oriented towards future English language teaching careers, their development of "confidence" in teaching the target language was crucial. Finally, Zoey reported that this project allowed her to "learn how to communicate with others". When given more positive feedback, the tutees may have felt less pressure in English writing. As a result, Zoey learned to be careful when phrasing her comments on the writing platform. Another tutor, June, similarly remarked that "…this experience gave me the most real life communication with another person… I try to measure the phraseology in order not to hurt the tutees."

From a social constructivist perspective, Woo & Reeves (2007) argued that meaningful interaction in web-based learning might enhance learning. The Google.doc in the present study afforded a new form of meaningful social interaction between e-tutors and tutees possible, thus enabling both English language learning in general and affective impacts, such as an open attitude, confidence and motivation.

Challenges of the Google.doc

During the course of this online tutoring project, some students complained about the instability of the Google.doc, including periodic missing text from the screen and an accidental lag that occurred while writing online. As one of the male e-tutors, Tom, explained, "...after working on the Google.doc writing system, not only tutees but also e-tutors have some complaints about the system." For example, Carissa, another e-tutor, complained in the focus group interview:

> First of all I would like to address the difficulty of using Google.doc…then maybe we spend more than two hours correcting their (tutees') writings, but end up spending four or five hours completing the task thanks to the trouble of using the platform.

It could be argued that the Google.doc writing platform is not particularly designed for academic use (that is, a school writing course). Future writing practice and research in school settings may employ different online systems such as wikis (for example, Wikispaces or Wetpaint) as alternative systems, where students can engage in meaningful social interaction while writing online (for example, Lin & Yang, 2011).

CONCLUSION AND SUGGESTIONS

This one-year socio-cultural study was an integral part of the "Freshman English" course taught by the researcher. It aimed to explore college students' experiences with and perceptions of integrating the Google.doc and peer e-tutors into the English writing course. Our findings were twofold. On the one hand, the e-tutors reflected that the Google.doc provided them with meaningful peer interactions, which would not have been easily achievable using the traditional writing technique. Their reflections demonstrated that this tutoring activity, as a form of service learning, was significant in enhancing students' personal development and English language learning. On the other hand, despite the benefits of this on-line tutoring activity, challenges emerged while using the Google.doc. Periodic missing data from the screen and an accidental lag that occurred during the course of writing online appeared to have hindered student tutors and tutees to a certain extent. In addition, some e-tutors seemed to have problems tutoring others due to either being busy with school-related work or lacking tutoring skills. Effective tutor training is therefore a critical issue for future language teaching practice and research.

Drawing on the teacher's reflections on this online tutoring activity, certain themes emerged that may be taken as suggestions for future research and practice. For example, we found that the emerging meaningful social interactions on Google.doc helped students' English language learning and development, especially for the tutors. Nevertheless, tutor training may help empower tutors to foster productive interactions in collaborative online settings, as has been widely suggested by the research literature. Even though this socio-cultural study showed that information technology provides a potentially innovative and collaborative way to nurture students' learning, more investigations are still needed to elaborate the progress in English writing process.

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