Engaging in Computer-Mediated Feedback in Academic Writing: Voices from L2 Doctoral Students in TESOL

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Nascent research into computer-mediated feedback has demonstrated its potential effectiveness for providing extensive and detailed feedback. However, a dearth of research exists on international doctoral students’ perceptions of online feedback. Thus, our exploratory qualitative study reported in this article investigated the use of Voice over Internet Protocol (VoIP) (e.g., Skype) software to provide feedback on academic writing to international doctoral students in a TESOL Education program at a large urban university in the US. Each student participated in six feedback sessions in which they engaged in think-aloud while reacting to feedback on their academic writing presented through several online modes. The think-aloud sessions were followed by semi-structured interviews. The themes of negotiated feedback and micro-mentoring emerged when the use of online communication technologies allowed the feedback process to become more bi-directional. Based on our findings, we concluded that VoIP-enabled feedback had the potential to facilitate the scaffolding of academic writing development of international graduate students.

Key words: computer-mediated feedback, academic writing, negotiated feedback

1. INTRODUCTION

With the ubiquity of technology in education, nascent research into technology-enhanced feedback demonstrates its potential effectiveness for providing extensive and timely feedback (Cope, Kalantzis, McCarthey, Vojak, & Kline, 2011; Hepplestone, 2014).

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Holden, Irwin, Parkin, & Thorpe, 2011; Pollock, 2011). For instance, Crook and his colleagues (2012) found that video feedback assuaged faculties’ doubts regarding the value of feedback. Likewise, graduate students in education courses in US universities reported that audio feedback on written assignments was clearer, more motivating, and easier to remember (Ice, Curtis, Phillips, & Wells, 2007). In the context of second and foreign language education, some studies revealed that computer-mediated feedback was likely to have a positive impact on second language (L2) learners’ writing development (Tuzi, 2004). However, little is known about what actually takes place when a student and a professor (reviewer) engage in computer-mediated feedback on student writing. Further, limited discussions exist regarding how students perceive their engagement with computer-mediated feedback practice. Thus, it is essential to explore students’ engagement with computer-mediated feedback in academic writing.

In terms of exploring computer-mediated feedback practices, L2 graduate students are worth attention because they are one group in particular who tends to face the widely acknowledged struggles with respect to adapting to the oral and written discourse cultures of academic contexts (Casanave, 2002; Morita, 2004) and who may benefit greatly from computer-mediated feedback on their work as they learn the complex conventions of academic genres in their L2, English. Further, the literature shows that there is a dearth of research on the international L2 (multilingual) doctoral students’ perception and practice of computer-mediated feedback on their academic writing. Equally important, few research has examined the feedback process and experience from both students’ and professors’ perspectives. Given that, it is important to examine how both international L2 graduate students and professors engage in computer-mediated feedback and how the affordance of computer-mediated feedback could help students improve their writing and help professors effectively provide useful feedback on academic writing.

Thus, this article reports the findings from qualitative research in which we investigated the computer-mediated online feedback practices of three international L2 graduate students in Teaching English to Speakers of Other Languages (TESOL) in a US university. The purpose of the study is twofold. The research aims to discuss issues and challenges with regard to computer-mediated feedback practice in academic writing from the perspectives of both L2 graduate students and professors. It also aims to broaden our understanding of how emerging technologies affect feedback practices and introduce new possibilities that have not been available to students and teachers through traditional venues of providing feedback. Three research questions guided our research reported in this article:
1. What do international L2 graduate students perceive to be the advantages and challenges of engaging in computer-mediated online feedback on their academic writing?
2. What do professors perceive to be the advantages and challenges of engaging in computer-mediated online feedback practice?
3. What takes place when an international L2 graduate student and a professor engage in computer-mediated online feedback on student writing?

Theoretical framework and the literature review in the subsequent section help us situate our research within the field of L2 literacy research and pedagogy.

2. BACKGROUND OF RESEARCH

2.1. Theoretical Framework

The research reported in this article is grounded within a sociocultural perspective of learning and teaching (Lantolf, 2000; Vygotsky, 1978). Two constructs, “social interaction” and “scaffolding” are especially important to examine what takes place in giving and receiving computer-mediated feedback on student writing. According to Vygotsky (1978), learning is a social practice and process. Social interaction is “jointly and dynamically constructed by individuals who use their linguistic resources to align themselves with others and to position themselves in the activity” (Lantolf, 2000, p. 90); importantly, learning “produces new, elaborate, advanced psychological processes that are unavailable to the organism working in isolation” (Vygotsky, 1989, p. 61). Thus, social interaction plays a fundamental role in the development of cognition and contribution to learning.

The concept of scaffolding (Wood, Bruner, & Ross, 1976) is also important to understand how a teacher changes the level of support to suit the cognitive potential of a student. Scaffolding is the provisions of interactional support and the process by which adults mediate a child’s attempts to take on new learning. In our research, the professor continually provided international L2 graduate students with scaffolding during computer-mediated feedback sessions in order to clarify the professor’s feedback and find a way to incorporate professor’s feedback into their revision of their papers. This concept helps us investigate students’ and professors’ engagement in computer-mediated feedback practice.
2.2. Research into Technology-Enhanced Feedback in Academic Writing

In the fields of second language acquisition and L2 writing, extensive research on the effectiveness of oral and written feedback has contributed to our understanding of the value of corrective feedback practice on English language acquisition and learning (see Bitchener & Ferris, 2012; Ellis, 2009; Hyland & Hyland, 2006 for the detailed discussions). However, given that the discussion of the effectiveness of feedback is beyond the scope of this paper, this section focuses primarily on reviewing research on technology-enhanced feedback practices.

Studies of technology-enhanced feedback in academic writing have been evolving for some time in the contexts of second and foreign language education. In one early study, Boswood and Dwyer (1996) conducted action research to explore the feasibility of providing Audio-Taped Feedback (ATF) with undergraduate students majoring in science and technology in English communication skills classes in Hong Kong. Students were extremely positive about receiving ATF. For instance, one student commented, “in the past, I seldom read the written comments from my teacher. However, I found that I was interested to hear about the comments about my work this time” (p. 22). In addition, teachers’ experiences with ATF were very positive because ATF turned out to be more stimulating and engaging than providing written feedback only. The authors endorsed continued use of the audio-feedback method, but also acknowledged that ATF was rather one-sided and suggested that a conferencing component should be included.

More recently, some studies (Ciekanski & Chanier, 2008; Wang, 2006) have explored the use of computer-mediated online feedback (e.g., videoconferencing) and revealed several important advantages of engaging online feedback, such as the negotiation of meaning, the ability to communicate non-verbally, and the immediate feedback facilitated by the synchronous activity. In particular, facilitated negotiation of meaning through the synchronous modality has been a prominent finding from research on computer-mediated online feedback. For instance, Ciekanski and Chanier (2008) studied French-speaking beginners in an English for Specific Purposes course in France and the UK who used synchronous audio tools to collaboratively write a text online. They found that “the synchronicity of the device, combined with the communication component of the multimodal tools available through the software put the emphasis on the negotiation of meaning and forms” (p. 21). That is, the affordances of the technology enabled the language learners to engage in the negotiation of meaning and form.

A similar finding was revealed by the study of distance learners of Chinese in Australia (Wang, 2006). Wang reported, “videoconferencing-supported negotiation of meaning has its own distinct features in comparison to face-to-face interaction” (p. 140). Thus, not only was there a negotiation of meaning, but this negotiation was qualitatively
different from face-to-face meaning negotiation in at least one important respect. That was that online negotiation of meaning was characterized by greater frequency of language users’ modification of their output based on their interlocutor’s response to their initial utterance. The author contended that the increased frequency of reaction to response resulted from the “intensive” nature of the one-to-one interactions afforded by the videoconferencing practice. In addition, videoconferencing allowed the teacher to tailor instruction to the unique needs of individual learners through its ability “to provide immediate and specific responses to the indicators from the participants, thus catering for the differences in and special needs of individual learners” (p. 138). Despite such affordances of videoconferencing practice, the computer-mediated online environment “can place considerable pressure and strain on the teacher as well as the learner” (p. 139) because there are many resources to handle such as images, text and links. Thus, there is the time pressure of having to manage these resources efficiently in real time.

With respect to research methods, much of the computer-mediated feedback research to-date has employed a quantitative or mixed-method approach. Given that, it is timely to explore this phenomenon through qualitative research in order to gain a more nuanced and in-depth understanding of what kinds of interactions take place during computer-mediated online feedback practices.

3. METHODOLOGY

3.1. The Study

The larger study involved investigating affordances of four different kinds of computer-mediated feedback practices and tools during 18 feedback sessions held over a period of one academic semester (Autumn 2012). The four feedback tools included (a) voice-to-text software in Windows 7, (b) screencast software, (c) video-recording software, and (d) Voice-over-Internet-Protocol (e.g., Skype). More specifically, voice-to-text software (e.g., speech recognition program, “Dragon Naturally Speaking”) turned our verbal comments into text and thus our research participants were able to read written comments as track changes in Microsoft Word. With screencast software (e.g., “Active Presenter”), the first author recorded a video screen capture that showed his interaction with the student’s text on the screen through his recorded voiceover. With video-recording software, a brief lecture-type of feedback was given to participants and thus they were able to watch his feedback at their convenience. Finally, Voice-over-Internet-Protocol (VoIP) is a methodology to deliver video-supported voice communications and multimedia sessions over the Internet. The VoIP allowed professor
and learner to engage in video conferencing, text messaging and screen sharing for feedback sessions.

Though the larger study compared and contrasted the use of all four computer-mediated tools for feedback practices, in this paper, we focus mainly on the engagement with VoIP practice. We made this choice because VoIP feedback practice only, unlike the other three feedback practices, involves synchronous feedback practices between student and professor (reviewer), and as such enables us to answer our primary research question, “What takes place when an international L2 graduate student and a professor engage in computer-mediated online feedback on student writing?” Of various kinds of VoIP, we used Skype (http://www.skype.com) because all the research participants and researchers were already familiar with using Skype. More importantly, Skype is free and thus any potential reader (second and foreign language educators and students in a wide variety of contexts) will be able to integrate some of the findings from this study to their own context in a straightforward and cost-free manner.

3.2. Setting and Participants

The study reported in this article took place in a TESOL education program in a research university in the United States. We recruited participants in a TESOL education program mainly because we both had expertise in TESOL and were thus able to provide informed feedback on the content of student writing in addition to addressing general writing issues (e.g., organization and mechanics). Three Asian female doctoral students voluntarily participated in this study. They all were relatively early into their program (i.e., beginning their first or second year) and felt challenged for the writing demands of a doctoral program. Further, they were interested in exploring issues around L2 literacy (writing) and in improving their academic writing in English. Though all were familiar with receiving feedback on academic writing in both EFL and ESL contexts, none of them had previously experienced computer-mediated online feedback. More detailed background information of each participant is below in Table 1.

3.3. Data Collection

We collected data from multiple sources, including nine Skype feedback sessions (three sessions for each participant); observations during participants’ feedback sessions; 12 individual interviews (four interviews with each participant); each participant’s four reflections about engaging in computer-mediated feedback practice; researchers’ field notes; and artifacts such as participants’ writing samples and researchers’ feedback.

Prior to each scheduled Skype feedback session, each participant submitted a self-
selected writing entry to the first author. He then made comments on sentence-level structural issues, paragraph and text-level organizational issues, and the content of the writing and returned his comments to the student. During a Skype session (lasting approximately 30-45 minutes), the first author and a participant reviewed the paper and discussed each of the comments made by the first author. The first author observed participants’ reactions to feedback and technology (e.g., using Skype) as well as their engagement with their synchronous, computer-mediated online feedback practice.

**TABLE 1**

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<th>Background Information About Participants</th>
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<td><strong>Pseudonym (age)</strong></td>
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In terms of individual interviews, the second author conducted a 60-minute initial interview with each participant to learn about participants’ prior experience with and views about receiving feedback on academic writing. Further, the first author conducted 15-to-30-minute semi-structured interviews, immediately followed by each feedback session, and thus, participants were given an opportunity to express their perspectives of receiving feedback through Skype and to ask any question to the first author. All the feedback sessions and interviews were digitally recorded and transcribed.

After each feedback session, participants wrote a short reflection that spoke to helpful aspects of the feedback, future feedback they would like to receive, any kind of challenges (including technological) they faced, and any other commentary they wanted to share with us.

Finally, both researchers engaged in regular and frequent discussions about each feedback session, relevant research, emerging themes, and any challenges we faced throughout the study. Most of our discussions had been written in our field-notes. The first author wrote a reflection on before, during, and after the feedback session in the
field-notes, and the second author frequently read the field-notes and made comments on any seemingly interesting points written by the first author. We both constantly read and updated our shared field-notes.

3.4. Approach to Analyzing the Data

Our data analysis was an ongoing and iterative process in that we engaged in the cyclical process of data collection and analysis during this study. Our data were analyzed inductively and recursively throughout the study (Bogdan & Biklen, 2007). Though both of us regularly and frequently debriefed about our data, each of us separately conducted an initial data analysis and then shared our preliminary data analysis. While we separately listened to the audiotapes of feedback sessions and read all the transcripts and field notes, we made frequent notes in the margins in order to identify important statements and propose possible codes (e.g., perceptions of feedback practice). Then, we engaged in both descriptive coding (summarizing the topic of a passage) and in vivo coding (using participants' own words) in order to sort data into initial themes. We then collapsed together similar preliminary categories into our analytic codes that addressed the research questions. As the list of codes and categories grew through reflection and discussion, we began to organize the code and categories into a scheme that accounted for major themes or categories (Glesne, 1999). Those themes include perceived advantages of feedback, challenges for engaging in computer-mediated feedback, types of feedback, the negotiation of feedback between professor and student, and micro-mentoring for students.

To promote research validity, we conducted triangulation at multiple levels (e.g., data triangulation and investigator triangulation). In other words, we used multiple data sources to help understand a phenomenon. In addition, as Patton (2002) suggested, we employed “triangulating analysts - that is, having two or more persons independently analyzed the same qualitative data and compare their findings” (p. 560). Both researchers were very reflexive while constantly thinking about how our biases can potentially influence the process of the study. Finally, the second author conducted member-checking via email to see if the participants agreed or disagreed with our preliminary findings; the participants made some modifications or elaborated on our preliminary findings through member checking.

4. RESULTS

We begin this section by providing overall perceptions of engaging in computer-
mediated online feedback, especially with respect to perceived advantages and
challenges that both students and professors felt. Then, we describe three major findings
regarding *what takes place* while giving and receiving computer-mediated feedback.

4.1. Perceived Advantages and Challenges of Computer-mediated Feedback Practice

All the research participants addressed several perceived advantages of and challenges
for engaging in synchronous feedback practices. Most significantly, Voice-over-Internet-
Protocol (VoIP) software such as Skype seemed to provide the unique advantage of
*simultaneous interactivity* in that the students and a professor were able to engage in
dialogues around the paper and feedback immediately. For instance, Abby mentioned in
the interview as follows:

This one [VoIP] is more collaborative, more communicative way so in that sense I
feel more engaged in umm I think it is more Skype thing, there’s more
communication feedback, immediate feedback, so I feel like just talking
simultaneously conversation at the same time. I feel like I’m more personally
attached to feedback and writing. (11/28/2012)

In fact, it turned out that talking about their paper and sharing their ideas with a reviewer
(a professor) about the paper was an extremely valuable and meaningful activity to the
participants. A synchronous feedback practice made this possible as written in Jenny’s
reflection, “I could *communicate* with Dr. O. [the first author]. More specifically, I
could share my ideas and his ideas, and then negotiate for better writing…. I can see how
much I care about ‘communication’ between instructors and students” (11/15/2012). The
importance of the interactive and communicative nature of feedback practice was more
evident when we found that the students were often confused by professor’s feedback,
and they were unwilling or unable to act on feedback due to this confusion. In this
situation, computer-mediated feedback enabled the students to clarify some confusion
over the feedback. Similarly, from a professor’s point of view, “the best thing about this
feedback was that we [a professor and a student] could both seek further clarification and
give more explanation about what we meant” (field-notes, 11/6/2012). As such, the
student participants appreciated immediate and easy access to a professor; additionally,
both students and a professor praised the interactive and dialogic nature of the VoIP-
enabled feedback practices.

Several other perceived advantages of engaging in computer-mediated online
feedback practices are related to the technological aspects of practice. First, as Abby
noted, “With VoIP software, geographic distance between student and professor would not be any problem…. By using portable devices (e.g., iPod, iPhone, or iPad), students can be free of their physical presence in front of the computer” (interview, 11/7/2012).

As an example, one participant, Jenny, used her mobile phone to join a Skype feedback session once. Second, all three participants mentioned that not being physically present at a professor’s office allowed them to feel comfortable and have less “anxiety over receiving feedback” (Abby, 11/7/2012), thereby being more open to share their thoughts. Jenny stated that “the fact that the instructor is not in the same space makes learners less pressure” (Jenny’s reflection, 11/7/2012). Finally, Abby also pointed out the possibility of multitasking as an advantage of using Skype:

I can see your [reviewer’s] face and listen to your voice and interact with you and at the same time I can look at my paper on the screen…. Like we did, after I got feedback from you, I can change my structure or words in my paper right away. So that could be one good thing about using Skype. I really like that part. (interview, 11/7/2012)

Despite these perceived advantages of computer-mediated online feedback practices, both students and professors pointed out some challenges. For instance, we experienced some technological glitches though we all were rather familiar with using Skype. For instance, Abby mentioned that there was a time lapse and so she wasn’t able to see a professor’s marks or highlights until after a few seconds the professor actually corrected or highlighted in his screen. In addition, we discussed about our concerns of “time” spent in giving feedback. The first author noted in the field notes:

I realized that time is an issue for me. I feel like I don’t want to spend too much time giving extensive comments on a long piece [using track changes] when I know that I’m going to have to spend a lot of time going over each of those comments with her [through Skype]. I guess my concern is that this dynamic could cause me to not give as much feedback as I could or should be giving. (11/20/2012)

Apparently, engaging in computer-mediated online feedback requires a reviewer’s additional time to make comments before and during feedback sessions. This could become a major challenge for professors, which was in fact pointed out in previous research (Wang, 2006).
4.2. What Takes Place During Computer-mediated Feedback Practice?

In exploring research question 2—“What takes place when international L2 graduate students and a professor engage in computer-mediated feedback on student writing?”—we found three major findings that are described in this section.

4.2.1. Seeking clarification and suggesting a word or phrase

In terms of engaging in synchronous feedback practices, one of the most frequent types of feedback was the professor’s request for clarification regarding the participants’ word choice or phrasing. At times, he attempted to rephrase what he thought the participant was saying as a way of seeking clarification. He also frequently requested additional information or explanation asking participants to expand upon their ideas or he sometimes explicitly asked about what participants meant by words or phrases they chose as well as why they chose specific words or phrasing. This type of feedback allowed reviewer and participant to seek and provide detailed clarification about their intended meaning.

In addition to seeking clarification, suggesting a structure or phrasing of key ideas was another frequent type of feedback that occurred during sessions. The professor drew the participant’s attention to the word while explaining what his own reservations were with the word choice. He also sometimes elicited other possible words from the students and asked the students to reflect on whether they would be appropriate to the context. At other times, he requested examples to clarify what the participant was trying to convey. In addition, participants sometimes talked through what they were trying to say while the reviewer offered possible words or phrases. As such, the reviewer and students frequently engaged in seeking clarification for intended meaning and figuring out a better way to convey their intended meaning.

4.2.2. Negotiating over feedback

One of the most intriguing findings with respect to what actually happened during the feedback practice is that both the student and professor engaged in “negotiating over feedback” during the VoIP sessions. In fact, we were quite surprised at the fact that research participants at one point initiated negotiating the feedback given to them by a professor. We share one of the most salient examples of negotiation over feedback below. This example of negotiated feedback presented below takes the form of a participant’s (Tanya’s) suggestion for feedback that replaced the professor’s initial recommendation (comment). At this point in the interaction, Tanya and the first author, Dennis, discussed...
how to structure the final two paragraphs in Tanya’s essay in which she analyzed a book about writing instruction.

1. Dennis: So, you could do each paragraph, like, discussion of the problem the author mentioned, discussion of his solution, and then your critique of the solution.
2. Tanya: Yes, yes.
3. Dennis: So that’s one way to approach it. It just came to my mind. I don’t know, maybe you don’t like this idea. But if that’s okay [laughs], but I just thought I would tell you.
4. Tanya: [laughs] Yes, you are right. I guess here in this essay, I just tried to put as much as possible that’s why it’s, it’s the whole book I want to put a lot of information, but then it becomes problematic. It’s complicated so I should select ideas or uhm yeah and put it in an organized way.
5. Dennis: Well, no, I am not saying it’s not organized. I think it is organized, but I agree with you. With the last two paragraphs, like, if you ask me, “Dennis, how are you going to break those up?”, I really don’t know either [laughing]. I don’t have a good solution.
6. Tanya: Yeah, yeah, it’s confusing to me, too. Yeah I’m uhm.
7. Dennis: The only thing I might suggest actually now that I’m looking at it is instead of paragraph three and four, you could, maybe just because you said there is a lot of information in there, right?
8. Tanya: Right.
9. Dennis: If you don’t have to talk about everything, then you could take some of it out so you could just, do you know what I mean, you could focus just on paragraph three, and maybe flesh that out a little bit more, and then remove paragraph four. It seems like you are covering everything right? But the problem is in covering everything. It is hard to get really deep coverage to everything. Do you know what I mean?
10. Tanya: Yeah. That was my problem. Maybe that the third paragraph I just could only talk about people who he [the author] cited.
11. Dennis: Ah that’s true. That’s a good idea.
12. Tanya: Yeah, and then the last paragraph of will be about the activities that he is suggesting.
13. Dennis: That’s a really good idea actually. That’s a nice way to organize that.
14. Tanya: Okay, you know.
15. Dennis: Cause you could talk about you know it’s a really clear way to organize it when you just talk about the people or the ideas that he brings into
the book right? And then in your fourth paragraph then you could talk about at the classroom level, the practical activities.

(Feedback Session, 11/07/2012)

The series of interactional moves described above provide evidence of the negotiation of feedback afforded by the computer-mediated feedback. The reviewer, Dennis initially suggested one way to organize the third and fourth paragraphs in lines 1 and 3. But while they talked about the challenge of covering too much information within the two paragraphs, Dennis slightly changed his comment in lines 7 and 9 by suggesting to expand the third paragraph and eliminate the fourth paragraph. Tanya acknowledged the reviewer’s suggestion and immediately shared her own recommendation for how the third paragraph might be organized (in 10). In other words, from line 10, Tanya initiated the negotiation over Dennis’ feedback and suggested her own ideas about how to organize the third (line 10) and fourth (line 11) paragraph.

This interaction is quite unusual for a number of reasons. First, the VoIP feedback provides the learner with an opportunity to hear the reviewer reflect on the feedback that he has given (see line 7). Most feedback on academic papers is simply presented in the form of comments that are never revisited by the reviewer. This uncommon aspect of this VoIP-mediated feedback event may have helped transform the feedback from reified comments to negotiable suggestions. Similarly, the student would not ordinarily have access to a reviewer comment such as an admission of his own difficulty with shaping a piece of text (in line 5). Importantly, such a comment and the reviewer’s acceptance of multiple alternatives to organizing the text (in line 3) seem to have emboldened Tanya to offer her own opinion on organizing the text.

Second, this interaction was quite unique in that the reviewer invited the student to see herself as an authentic collaborator in improving her academic writing. The student would not typically be invited to provide her own opinions about the feedback. This indirect solicitation of the participant’s opinion (as seen in line 3) may have informed Tanya that she had a legitimate say in the feedback process that gave her confidence to voice her views. These unique features of the VoIP feedback procedures may have contributed to Tanya’s seemingly uncharacteristic willingness to negotiate around the kinds of alterations to be made to the text. This dialogue demonstrates how the VoIP feedback practice allows for a bidirectional flow of information during a feedback event.

Another surprising aspect of negotiation over feedback was found when the reviewer voluntarily cancelled or revised his initial suggestion or feedback during the feedback sessions. For example, during one session, the reviewer suggested that Alice change a word. She responded by saying, “Okay. So then, I have a question. So, if um…if you would put the word here, what would you put? Non-mainstreamers?” He replied with,
“Oh, sorry, that’s a good question. Actually…can I…let me read the paragraph again…. You know what? Actually, you’re right. I don’t know if you could put another word in there…” Because of the ability to revisit and discuss the comments, the student was able to press a reviewer on the word choice and made him realize that her initial choice was probably the best option. Importantly, the negotiation process enabled a reviewer to reconsider feedback in light of the participant’s reaction.

Finally, what is so significant about the negotiation over the feedback is that research participants seemed to develop a scholarly voice, identity, and agency through this negotiation experience. When we shared with the research participant this emerging theme of the “negotiation over feedback” toward the end of the data collection, Tanya eloquently elaborated her view of offering her input into changing the reviewer’s comments as seen below:

Yes, it [having input into changing reviewer’s comments] is very interesting, at that time we are coming to a negotiation, it is good that we are discussing…. I still have an option to go back to do the changes and then maybe once this video conference is finished, I can go back and read the changes, and if I want to make change or to do another decision I can do it. I can accept or reject the changes, so that’s an advantage too. (interview, 11/14/2012)

This statement shows Tanya’s realization that the feedback is just suggestions that ultimately she decides to incorporate into her essay or not. This is a crucial insight that many student writers might not share. As Tanya develops as an emerging scholar and writer, she must take increasing responsibility for the decisions she makes as a writer. At some point during their academic apprenticeship, students have to move from following others’ direction to following their own. This insight may be a small move toward Tanya’s independence as a scholar as we can begin to see a sense of agency in her writing and her development of her scholarly voice.

4.2.3. Micro-mentoring through online feedback practice

In addition to the negotiation over feedback, another significant finding in this study is that micro-mentoring emerged when the reviewer and a student engaged in brief digressions from the feedback discussion to share information about other aspects of academic life. For instance, a reviewer and a student discussed some topics that were directly related to academic writing (e.g., writing for publication and using an online tool, like concordances, to improve academic writing). Other times they talked about more general issues around conducting research and living an academic life (e.g., potential
dissertation research topics, research methods, like mixed-methods and auto-ethnography, learning resources, work-and-life balance, the job search, and experiences as a professor and writer).

In fact, most intriguing examples of micro-mentoring came from a dialogue that took place during a discussion of Tanya’s papers given that Tanya as the most advanced doctoral student in this study had most experienced academic life and raised a wide range of questions related to academic life besides academic writing. For instance, Tanya and the reviewer once talked about the possibility of publishing a paper. The whole conversation stemmed from the reviewer’s suggestion that she should consider turning the paper into a publication. Then Tanya mentioned how she was interested in either doing auto-ethnographic research or investigating her colleagues as possible dissertation topics. Tanya continued to raise the question whether it might be acceptable to conduct research on graduate students in a department that has more of a K-12 focus. At this point, the reviewer suggested two other professors with whom Tanya could check if her dissertation research could focus more on graduate students. Tanya then explained how difficult it would be for her to gain entry to middle or high school given that she was not a K-12 teacher. The reviewer commiserated by saying, “Listen, I feel your pain. I really do. I was in the exact same spot as you when I was doing my dissertation… That logistical problem really was a challenge for me.” The reviewer further advised Tanya that doing K-12 research “keeps a lot of doors open” in terms of her job search in the near future. In addition, the reviewer suggested that Tanya could always investigate her colleague as teachers, which is another example of micro-mentoring that addressed Tanya’s problem of needing to conduct K-12 related research but being unable to get access to K-12 students. This interaction demonstrates how VoIP can stimulate conversations around the content of student’s writing that naturally led to other related topics of concerns to the student. In addition, VoIP uniquely affords these productive digressions because it enables the participant to pursue a line of thought in a way that is simply not possible through other unidirectional forms of feedback such as track-change comments.

Unlike micro-mentoring for Tanya described above, sometimes micro-mentoring directly addressed the issue related to academic writing practices. For instance, when Alice expressed her difficulties with distinguishing between subtle distinctions in word meaning, the reviewer recommended her to use online learning resources, that is concordances and learner’s dictionaries in order to improve choice of more accurate and precise words.

The importance of micro-mentoring during the feedback practice was evident when we shared this finding with the research participants during the member-check. Of the three research participants, Tanya was most explicit about the micro-mentoring aspect of
During the member-check, she provided an extended comment on her mentoring experience during the feedback sessions. She remarks:

One striking revelation...which I have is that the whole sessions seemed like more than just a feedback; I realized that Dr. O acts like an academic coach or a mentor, an advisor, and a friend.... His comments focused not only on the content, organization, macro and micro issues; but also his feedback addressed more general issues on becoming socialized into the academia. It seems like he does not view giving feedback only as a response to the paper, but he considers the big picture about being a professional in the field.... I find his approach useful; he, as a researcher, considers me as a whole person (with feelings, needs, or as a student having a different viewpoint about the world as I come from a different culture, or just being an individual by myself). (12/13/2012) [emphasis added]

This statement highlights how Tanya perceived the reviewer to have a mentor role throughout the project and how his feedback has also addressed general issues of becoming socialized into academia. Tanya also mentioned how the reviewer “considers the big picture” and she added that she found this approach to be useful.

As such, the VoIP-enabled dialogues discussed above allowed participants access to another perspective on their dilemmas. Further, engaging in stimulation conversations seemed to help international graduate students learn more about North American academic culture. These interactions highlight the power of VoIP to afford the instructor brief intervals when he or she can assist a student in unanticipated ways. If the participants only had written comments in these situations, they would have missed this potentially beneficial guidance and the academic socialization opportunity that it provided.

5. DISCUSSIONS AND CONCLUSION

Providing writing feedback through VoIP software presented some challenges but it also opened up some exciting new possibilities in terms of advantages and unconventional interactions that it enabled. The main advantages that it offered were interactivity that allowed for immediate student/professor dialogue around the writing and feedback. Secondly, students stated that VoIP helped eliminate their feeling of geographic distance between them and the professor. These findings were generally in accord with previous research that identified affordances of audio-visual feedback as being clearer, more
motivating, and easier to remember for students (Ice, Curtis, Phillips, & Wells, 2007). Challenges included some technological glitches despite all users’ familiarity with VoIP and the additional faculty time commitment to prepare for and participate in VoIP feedback sessions. These findings concurred with Wang’s (2006) conclusion that these tools also present several unique challenges for both reviewer and student. She noted pressure on the teacher and learner to manage images, text and links in real time while we contended more with technical and time concerns. In general, VoIP offers unique affordances for providing writing feedback to second-language graduate students but faculty interested in using this tool also have to be conscious of the challenges they present with respect to managing the software, time commitment and patience with potential glitches.

Our second question explored what occurs during computer-mediated feedback sessions; we found that three types of interactions took place. These included the interactants (professor and students) using VoIP to seek and provide clarification on writing and feedback, interactants ability to negotiate over feedback, and micro mentoring interactions. All of these types of interaction demonstrate that the VoIP software created a venue for professor and student to begin to engage in dialogue around writing feedback. Regarding the ability to seek and receive clarification, other research reports students perceived that online audio feedback tools offered them the extensive and detailed feedback (Hepplestone et al., 2011). Likewise, other scholars also noted the advantage of online audiovisual feedback allowing the teacher to tailor instruction to the unique needs of individual L2 learners (Develotte, Guichon, & Vincent, 2010; Wang, 2006).

Another kind of interaction that became apparent during VoIP sessions was the negotiating over feedback. Traditionally, feedback has tends to flow in one direction from the feedback giver to the receiver. Margin comments on a students’ paper exemplify this unidirectional feedback flow. In contrast, the VoIP software tool appeared to open up a space where learners are able to give feedback to the teacher as well. For instance, the learners in this study could inform the teacher when they did not understand particular feedback comments as well as when they disagreed with the teacher’s evaluation. They could also argue for why they believed they were right. This bi-directional feedback is similar to the kind promoted by Kumar and Stracke (2007).

Others have discussed how the negotiation of meaning afforded by multimodal videoconferencing software similar to VoIP might improve second language learners’ language acquisition by encouraging modification of their output based on their interlocutor’s response to their initial utterance. This modified output may in turn enable acquisition of new linguistic forms (Ciekanski & Chanier, 2008; Wang, 2006). Tasks that fostered negotiation of meaning through videoconferencing software were also found to have a powerful effect on learner motivation (Jauregi, de Graaff, van den Bergh, & Kriz, 2012). Findings from our study reveal that besides the negotiation of meaning, these tools
can also support the negotiation over the actual content of the feedback messages. That is, these advanced-level participants were negotiating over the content of reviewer suggestions regarding the kinds of changes deemed necessary to improve their writing. Additionally, they are trying to create their own voice as apprentice scholars by learning how to reflect on their ideas as well as defend the logic of their arguments and their linguistic choices. The negotiated feedback demonstrated in this paper reveals that VoIP feedback sessions can provide a site where international graduate students begin to negotiate over their scholarship because they will have to engage in these negotiations when they begin disseminating their work (Kubota, 2003).

Lastly, we identified occasional brief digressions from the intended feedback session as instances of “micro-mentoring”. Many of these asides related to reviewer advice for navigating various aspects of academic life. These micro-mentoring sessions could be viewed as a form of academic socialization in that participants were being apprenticed into understanding the unspoken expectations of North American academic contexts. Previous research into the uses of videoconferencing software for providing feedback did not discuss its mentoring potential. Nevertheless, micro-mentoring may be particularly useful to help international graduate students cope with the pressures they face such as isolation and discomfort in becoming accustomed to academic culture in a new country (Kuwahara, 2008). Clearly, “students entering academic institutions have different amounts and kinds of prior experience with academic discourse, even when their home language is the same as that of the educational institution” (Duff, 2010, p. 176). Thus, those students moving into advanced academic contexts need as much support as possible.

Educational implications of these findings include the investigation of a formative assessment tool to assist teachers and learners in higher education contexts. This information can support teachers as they begin to consider which computerized feedback tools might most effectively develop their learners’ academic writing skills. Teacher and student perspectives on some of the affordances and constraints presented by these digital feedback tools can offer insight into potential pitfalls of ill-considered adoption of this technology.

Scientific implications include exploration of using VoIP software to scaffold academic writing with a previously understudied group of international graduate students. This kind of information becomes increasingly valuable as the numbers of international students in North American higher education institutions continues to grow. This research also helps to expand current conceptualizations of feedback to include previously unconsidered varieties such as micro-mentoring and negotiated feedback. These nuanced feedback conceptualizations provide both scholars and practitioners with a more accurate representation of the complexity and interactivity of a feedback process that incorporates digital tools. More specifically, the notion of negotiated feedback highlights the
opportunity for VoIP software to take L2 users beyond only meaning negotiation and language acquisition. We found that advanced learners could also begin to collaborate with reviewers to influence the kind of feedback they received. As well, micro-mentoring enabled by VoIP provides a unique space for international graduate students that allowed them to have access to faculty perspectives and advice on aspects of the local academic culture that might otherwise be invisible to them. This kind of informal guidance could be particularly helpful for international graduate students who often lack a great deal of the background knowledge that local students take for granted.

The main limitations of this study related to the number of participants, the context and the feedback procedures. Only three learners participated in this research and their reactions to the software may have been idiosyncratic and not representative of the majority of international graduate students. Secondly, this research took place in one setting that may not be representative of other graduate school contexts. Readers teaching in other contexts should use careful judgment when considering the applicability of the results to their own circumstances. Lastly, one participant noted that if she had the opportunity to revise her writing after receiving the feedback she thought it would give her a better sense of how helpful the feedback really was for her. Thus, it is difficult to ascertain the usefulness of the feedback because the participants did generally not have the opportunity to act on the feedback they received.

Future research could take a number of productive directions. For instance, scholars might further scrutinize micro-mentoring events to determine whether there might be different kinds of mentoring that take place during VoIP sessions. This knowledge could help researchers learn more about the nature of socialization opportunities that might be afforded by digital tools. Likewise, it may prove fruitful to investigate the various ways feedback is negotiated in order to understand how VoIP could help emerging scholars learn to cultivate their scholarly voice. Lastly, future research could explore whether these simultaneous online feedback sessions actually improve writing competence.

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