An International Students' Perspective Toward Using Online Collaborative Platform to Enhance their Academic Learning Skills

Hanadi Mohammadmaki Bokhari

Umm Al-Qura University (UQU), Makkah, Kingdom of Saudi Arabia (KSA)

This exploratory case study explored international graduate students' views of online discussion boards (ODBs) as a collaborative platform in different online courses at a major Midwestern university. In addition, this study explored factors that influenced students learning skills, specifically academic writing skills. Data collection methods included students' artifacts, such as online discussion transcripts, submitted documents, and one-on-one open-ended interviews. Interviewing the international graduate students made it possible to identify the natural meaning of ODBs, as well as explore the key factors that improved their writing skills in the ODBs. Three major themes emerged in this study. The first theme inclusive learning environment, demonstrated how students perceived ODBs as a positive platform that helped them to increase their intercultural competence, construct their knowledge, and raise their confidence as well. The other two themes, constructivism/collaborative social practice and motivation/structure revealed what factors could improve students' writing skills. Students appreciated their learning from each other and asserted that the structure, feedback, and assessment are the factors that motivated them to develop their learning and writing skills. Further qualitative research is needed to analyze the content of the students' postings. In addition, it is recommended that the level of learning, writing skills, and sense of community among the forum members need to be examined. Broader perspectives are needed, as well as future research using ODBs as a collaborative platform in blended learning.

Keywords: online learning, online discussion board, learning skills, academic writing, writing skills

Introduction

Over the past decade, there has been a revolution of applications in computer education. Computer use is increasing day-by-day and takes many forms. Because the power of online learning lies in its ability to link people across vast distances and between different sources of information, adults have increasingly started to use it to pursue their education. This has required educators to change their teaching/learning and communication methods when delivering the course content. Thus, online discussion boards (ODBs) have been used as a stage for collaboration, exchanging information, communication, problem-solving, assessment, and reflection to support learning (Meyer, 2006; Zhou, 2015). In addition, ODBs enhance students' learning and improve their literacy skills (Shana, 2009). ODBs give students time to verbalize their thoughts and organize

Hanadi Mohammadmaki Bokhari, Ph.D., assistant professor, Department of Curriculum & Instruction, Umm Al-Qura University (UQU).

their writing structure before posting on the discussion boards. Learners' motivation to learn and write better is increased to deliver meaningful messages to their peers (Graham & Perin, 2007).

In view of the fact that, "In the 2011-2012 school year, international student enrollment at both colleges and graduate schools in the United States increased 6%" (Hopkins, 2012), there is a demand to understand international students' learning and writing experiences in different online courses by using discussion boards as a collaborative platform to enhance the teaching/learning process.

Researchers have explored how students' communication skills, critical thinking skills, and literacy skills improve through ODBs, but there is a lack of research focusing on international students' perceptions of fully online learning environments and how their academic writing skills improve using ODBs. More awareness in this area can help instructors to successfully integrate and design ODBs as a learning tool to enhance international students' learning skills, in particular their academic writing skills. It also could be an advantage for instructors in hybrid learning environments.

The purpose of this study is to explore what factors improve international students' learning skills, particularly in terms of their academic writing skills, and how they perceive ODBs as a collaborative platform in different online courses. Regarding the goal of the research, this study addressed the following questions:

1. How do international students perceive ODBs as a learning experience?

2. What types of activities improved students' writing in the ODBs?

3. How do students perceive the development of academic writing skills during the online discussion process?

4. How do discussion boards as a collaborative platform improve students' learning skills, particularly academic writing skills?

This exploratory case study was conducted at a College of Education in a major Midwestern university and the participants included four international graduate students from the College of Education who were in different phases of the program. Semi-structured interviews, student's artifacts and documents were used to collect the data. A basic interpretive approach was used to analyze the data.

Literature Review

Much research (O'Lawrence, 2007; Shana, 2009; U.S. Department of Education, 2009; Waycott, Bennett, Kennedy, Dalgarno, & Gray, 2010) has been conducted to explore the negative and positive factors of using online learning in higher education and the resulting changes in their writing. Other research (Balaji & Chakrabarti, 2010; Bassett, 2011; Du, Zhang, Olinzock, & Adams, 2008; Shana, 2009; Zhang, Goa, Ring, & Zhang, 2007) has examined and explored how students' communication skills, critical thinking skills, and literacy skills and their academic achievements improve overall through ODBs. Some research (Bliss & Lawrence, 2009; Peterson-Karlan, 2011; Kessler, Bikowski, & Boggs, 2012; Lin & Yang, 2011; Ritchie & Black, 2012; Wegmann & McCauley, 2014) has focused on discovering the importance of integrating discussion boards, online chats, and Wikis into the education process. In addition, they explored how students improve in their writing skills by using Web-based boards in English writing courses, and some in many-to-many/group-to-group collaborative writing.

Distance/Online Learning

Given the fact that the information age has become the digital information communication technology age,

various academic institutions have provided online learning environments as a new educational style. It is a new opportunity for people from different places, cultures, genders, and ethnicities to communicate with others and achieve lifelong learning. Online education enables a large segment of members of the academic community to interact with others and pursue their education. Research by O'Lawrence (2007) stated, "It allows people to learn at their own pace, in their preferred medium, or in a more comfortable environment" (p. 6). Online learning creates a sense of equality. Researchers (Waycott et al., 2010) believed that online learning increases the possibility of communication between students without feeling hesitation, and between students and the university through the ease of communication and between these parties via boards, e-mail, and chat rooms. Their study findings showed that some students indicated that written electronic communication with lecturers was less intimidating than talking with them face-to-face (F2F) or over the phone. One student commented that when he emailed his professor, he was able to ask whatever he wanted and could organize his writing. On the other hand, when he called his professor, he felt that he missed something and did not know clearly what he wanted to ask.

Shana (2009) in her research on Arabic students stated, "Today's students are no longer the people our educational system was designed to teach" (p. 216). Today, students spend a lot of time using the Internet to communicate with others and collecting information in new ways. Thus, educators need to change their teaching and learning styles to suit students who live in the digital age. A study by the U.S. Department of Education (2010) indicated that although the online learning environment is a more inclusive and effective learning environment, offering collaborative courses in online learning does not improve students' performance. Accordingly, online learning courses should be designed well to allow for self-motivation and assessment. Thus, there is a need to expose the potential issues that may help produce an effective collaborative online learning environment.

Online Discussion Boards

In recent years, the use of online discussion as part of computer-mediated communication (CMC) has been increasing in higher education. In the online learning environment, ODBs is a collaborative platform that has been designed as an instructional technology tool to address a variety of educational needs (Meyer, 2006; Ruane & Lee, 2016; Zhou, 2015). Research has shown that incorporating technology as an instructional tool clearly influenced students' knowledge, skills, and attitudes in distance education courses (Bassett, 2011; Shana, 2009). In addition, the studies showed that students were satisfied with ODBs as compared to the traditional classroom. They felt that the ODBs was a more inclusive learning environment as it was flexible, convenient, motivating, timely, structured, and safe, and it prepared them to work together. It is a significant strategy that gives students access to complete their learning at any time and place. It provides online learners the opportunity to expand their learning through the process of discussion and enhances their understanding of the subject under study.

A study by Bassett (2011) highlighted that teachers need to provide students with a good structure, planning, and time management when using ODBs as a learning environment to improve students' learning skills. Additionally, Bassett (2011) found that students in ODBs felt less fear of participating in discussing their ideas versus F2F courses. Balaji and Chakrabarti (2010) investigated the relationship between interactions and perceived learning from the perspective of the media richness theory and found that the perceived richness of ODBs had a positive effect on students' involvement and interaction and learning when used as part of the F2F

classroom course. In addition, the role of instructors in facilitating a discussion forum and providing students with feedback had a great impact on students' interactions and learning during the process of ODBs. Research conducted by Zhang et al. (2007) demonstrated that the role of instructors in an online discussion forum influenced students' attitudes and promoted critical thinking in ODBs. ODBs have been seen as an alternative way to provide a space for students to express their thoughts, which might be limited in F2F discussion. Using ODBs, students can debate further content and topics covered in the classroom in their own time with other students and teachers (Du et al., 2008). More significantly, the potential of ODBs in recording and saving students' conversation transcripts makes it possible for the students to retrieve and review the subject content later.

Academic Writing

Academic writing is paramount in higher education. Students' writing achievement is not always where it is expected to be. International students face difficulties because they need to acculturate themselves to North American mainstream ways of writing. The study by Zhang (2011) focused on Chinese international graduate (CIG) students' voices and perspectives of how different epistemologies in various cultures and disciplines might influence their perception of academic writing. He found that students perceived difficulties related to technical writing skills, such as idiomatic ways of expression, word choices, sentence structures, and grammar. Students were more concerned about their technical language skills in terms of their English academic writing, because their grammar and structure were poor. However, when students overcome these surface language problems, they were able to reach deeper levels of epistemology in their writing.

Writing has changed from a paper and pen to being technology-driven. In recent years, scholars pointed out that the importance of integrating technology into teaching/learning to enhance students' English-writing skills. A study by Peterson-Karlan (2011) found that using technology to support writing can improve the writing process, such as planning, transcribing, editing, and revising by using technology tools, which include, but are not limited to, the word processor. In new technologies, such as ODBs, online chats, and e-mail or Wikis, collaborative learning is often recognized as contributing to a greater accountability for practicing and participating in the writing process (Kessler et al., 2012). Moreover, with technology, students have access to information utilizing different means, such as the Internet and search engines. Also, it enables them to interact with instructors and peers by sharing writing, reviewing others, and collaborating through text-communication. Research (Lin & Yang, 2011) has shown that integrating Wiki technology and peer-feedback as pedagogical tools in English as a second language (ESL) writing class would improve students' writing skills. They concluded that overall, the students experienced both benefits and challenges in applying Wiki-online writing practices and peer-feedback. Despite the fact that some students felt they had the capacity to apply Wiki and peer-feedback, other students preferred traditional writing activities and did not try to benefit from peer-feedback during the writing process. Findings from prior research support Lin and Yang's study investigating the public Internet discussion forum in an advanced writing class. Researchers (Ritchie & Black, 2012) found that the online public forum positively influenced students' argumentative writing skills and impacted students' intercultural competence when using their second language and interacting with native speakers. In contrast, the negative impacts of this public forum are the lack of interactivity and feedback from other participants. In addition, they have difficulty finding topics and knowing the number of participants who read what they wrote.

The reviewed studies were rich in addressing how to use ODBs in blended learning environments to improve students' learning skills, and they were more focused on English courses. They investigated how students perceived ODBs as learning strategy in terms of collaborative learning in writing courses, in addition to what factors impact the quality of ODBs. While those research findings have been valuable, limited attention is given to how international students perceive the use of ODBs in fully online courses. Similarly, limited concern is given to how students interact and learn by using ODBs in different fully-online courses. Moreover, they did not fully address the important factors that impact international students' learning and academic writing in ODBs. Thus, more research is needed. This study focused on these concerns to fill the gaps in previous studies.

Theoretical Framework

The idea of ODBs is generally supported by Vygotsky's socio-cultural constructivism theory (1978). This theory applies to the study, because learning of international students via ODB, involving writing and collaborative discussion. Writing in the ODB is conceptualized as a tool for mediated actions that produce meaningful interaction, which lead to cognitive learning development.

Methodology

Description of Site and Participants

The methodology selected for this study is an exploratory case study. According to Yin (2003), exploratory case studies are conducted in contexts in which the intervention being evaluated has no clear, single set of outcomes. This study was conducted using different fully online courses in the College of Education at a major Midwestern university. The sample included four participants who are all international graduate students and speak ESL. All four participants were doctoral students who were in different levels in the program, have the same major concentration, and whose ages range from 23 to 45 years old. Among the participants, there were three single Asian, African, and Europe female students who are from Taiwan, Somalia, and Russian, and there was also one married Middle East male student from Saudi Arabia. They were technology users and studying in an instructional technology program. An exploratory case study is appropriate for this study due to limitations associated with the small sample size of international students and is thus, not inclusive of international students from other regions.

Data Collection Procedures

Each participant was informed about the purpose of the study. In order for this study to be completed, two sources of qualitative data were collected. The first source was interviewing the participants individually by using a semi-structured interview protocol. The purpose of the semi-structured interview protocol was to understand the students' perceptions about online discussion and factors that improve their academic writing in English as a result of taking online courses. Each semi-structured interview was conducted F2F with a duration of 60 to 90 minutes and followed up with a meeting and e-mails as well as phone calls to validate information and the member checking process. The interviews were tape recorded and transcribed verbatim. All the participants were assigned pseudonyms to protect their identity. The memos were completed immediately after each interview. The memos were used to record reflective notes about what the researchers learned from the interviews. Additionally, the memos were used through the interview process to explore how the participants' stories related to each other. The open-ended questions were categorized to encourage a full, meaningful

answer, using the subject's own knowledge, and/or feelings to investigate students' perceptions of the value of ODBs as a collaborative platform. In addition, the factors that students perceived would help their academic writing and other learning skills (critical thinking, reading, and intercultural skills) change and improve over time because of their using ODBs. The second source was students' artifacts, such as students' posts in discussion boards, their reflection, and writing assignments. The assignment was available to students via the forum, and students were required to answer questions by creating a thread and replying to their peers by using ESL. Participants were also required to submit their writing assignment, along with their reflections, following the prompts provided by their instructor. Students were asked to interpret the visual messages by using a certain vocabulary, grammar, and syntax. At the end of each session, students were asked to e-mail their writing assignment and reflection to the instructor and the researcher. The purpose of submitting their writing assignment and reflection to the researcher was to have students' own words and language, which was used to confirm the information from the students' interviews (Creswell, 2012).

Data Analysis

Using open-coding, the interviews were first transcribed, then broken apart, and then coded. First, the field notes were read "line-by-line to identify and formulate any and all ideas, themes, or issues … no matter how varied and disparate" (Emerson, Fretz, & Shaw, 1995). Next, during the rereading and rechecking, the codes were refined and emerging themes were added. The patterns extracted from the data were examined for differentiation and similarity among the coded data to identify patterns and themes. The data were then categorized according to shared themes and relationships. During the coding process, memos were used to record and elaborate on any perceptions that occurred (Emerson et al., 1995). The students' postings in discussion boards and their reflection and writing assignments were analyzed along with their interview answers and used as supporting evidence to verify what they said. Ultimately, the research questions were used as a guide to organize the data into three common categories. Ongoing analysis allowed for continued reflection on the data generated from each individual interview as well as ongoing consideration of how the interviews related to each other. The results of the study were addressed after multiple readings of individual transcripts and ongoing review of the initial codes.

Findings

This exploratory case study focused on international students' perceptions of the value of using ODBs as a collaborative learning platform and the factors that influenced their learning skills, in particular their academic writing skills. Interviewing four international graduate students on the experience of using ODBs as a collaborative tool that would help them to improve their writing skills and made it possible to identify the natural meaning of ODBs, as well as explore the key factors that could improve their writing skills in the ODBs. Accordingly, three major themes emerged. The first theme demonstrated how students perceived ODBs. The other two themes revealed what factors could improve students' writing skills.

Inclusive Learning Environment

All four students valued the collaborative and social nature of an ODB and perceived it as a positive platform that helped them to increase their intercultural competence, construct their knowledge, and raise their confidence as well. According to the interview responses and written postings on ODBs, the participants found that contributing to these boards was the major concept that helped them to improve their culture

communication even more than their academic writing skills. For example, Abdullah 1, a male graduate student from Saudi Arabia who has a lot of experience with online learning, appreciated the social meaning of writing by using ODBs that improved his intercultural skills and formed his knowledge about others' thoughts. The following is an excerpt obtained in a personal interview with Abdullah 1.

All names of participants and research site have been changed to protect identity,

> I think as students ... online learning and especially ODB will let students know more about other gender .... I mean in the way how they think how they look or perceive things in different way from other gender .... I feel I can then know how to see something from different angles …. Actually, they learn more about their society or others' life in their society especially their peers from other gender, or even culture which, I think that would help students to make meaning of their learning, like when I was studying in Australia I used discussion boards. We learned more about each other's culture which is great. For example, I knew that attending school in Australia is compulsory for certain ages, which was something surprised me at that time. Also, the Medicare also is free.

Thus, Abdullah perceived ODBs as a meaningful environment that aided him by improving his understanding of gender differences and learning new knowledge about the other gender and cultures, which assisted him in learning from different angles about the same subject matter and obtaining new knowledge from other participants. Abdullah also articulated the meaningfulness of ODBs as a cultural exchange platform. Eva 1, a female graduate student from Russian who is studying in the Education Technology College, had the same positive statement about ODBs in terms of its social meaning that impacted her cultural communication. In the F2F interview, she pointed out:

> I learn more about other cultures and life …. I got more information from other experiences. Like, in one time during the discussion in our virtual pedagogy course, one student from Saudi Arabia mentioned about their learning system and how they separated from the other gender in all their educational levels depends on their cultural rule. So, I and other students wondered why this rule and I asked him and he explained it to us …. I learn new thing that I would not learn about it if this discussion is F2F …. I would not ask about why these rules ….

A female student named Lama 1 from Somalia perceived her writing in ODBs as a way to exchange her culture and experience with others and learn from others' experiences in addition to focusing on academic writing. In the interview, Lama stated:

> When I write in online discussion forum I do not really care about the grammar or writing in academic way, I think is more who am I … like I can express whatever I would like into the discussion forum about myself, my culture, and experiences. I do learn about others' cultures and experiences ... and that, when we need to answer the questions that relate to our experiences in work or education or in our general life as teachers or workers or even as younger sister or older ... That would help you sometimes in your social life.

Accordingly, ODBs are an inclusive learning platform, as it is a place for students to get more information and knowledge about others' cultures and experiences besides learning subject matter. Moreover, some students revealed that ODBs increased their confidence to express themselves and share their experiences with others. In a F2F interview, Eva reflected:

> ODB encourages me to express myself in a brave way … I am actually a shy person. In online discussion, I can express myself more and write more about my thoughts. Also, I can discuss others' ideas freely.

Lama also had the same confident feeling toward the ODBs in terms of their flexibility. She said:

> It is online format where there is no interaction or immediate answer given by the professor. I like that kind of

> format … you put your answer whenever you want … you have time … you can always read the article, you can always ask your friend, you can always find sources online, you can always find a lot of ways to find answers … it gives you confidence, and then I can answer the question.

Lama found that ODBs gave her more time to think and formulate her writing before posting it on the discussion boards.

A female student from Taiwan named Emily 1 summed up the inclusiveness of ODBs in a F2F interview, she declared:

> ODB is a place that allowed people to discuss the same topic when they are far away from each other … it is more like a platform for communication and interacting with each other at any time, learning from each other's experiences and knowing others' cultures or societies ....

Despite Emily perceiving ODBs as an inclusive learning environment, at the same time, she mentioned one issue related to the lack of time of communication to understand others' personality. Also, in a F2F interview, Emily said,

> Because there is less time to communicate with each other, I think you can only know one side of that person in this special topic and that is it, but you do not know this person outside of this topic … that is what I think.

Hence, it is clear that the majority of students' perceptions indicated that ODBs were inclusive learning environments. It assisted their knowledge of other cultures through exchanging thoughts and experiences. Similarly, this learning environment helped students to share and interact with each other comfortably. Additionally, ODBs have a flexibility that offers students more time and space to read and respond to others from anywhere and at any time. According to their postings in the discussion board, there is clear evidence about the inclusiveness of ODB environments. All four students were able to express themselves to other peers in detail and share their experiences confidently. Also, they could respond to the same questions provided by the instructors at different times, giving them additional flexibility to complete their answers. Their postings showed that they had enough time to read, write, and organize their writing.

Constructivism/Collaborative Social Practice

The multifaceted opportunity to construct meaningful knowledge and increase learning and writing skills through using ODBs as a collaborative learning platform was appreciated by all four participants. They valued the collaborative and social practice as a worthwhile activity and recognized the benefit of receiving peer-feedback. They reported that they learned vocabulary, spelling, appropriate word choice, and sentence structure when working in groups with their peers or by reading other students' individual writing. For instance, Emily appreciated the constructivism and collaborative work in an online discussion forum. She defined how her learning and writing skills improved when she had a collaborative group project that included native speaker members. In a F2F interview, Emily stated:

> I had an online course where I had group project. I was so lucky, because my team has native speakers. I did take advantage of this I did not go to the Writing Centre. The group members proofread my paper for me. I can still see what kind of mistakes that I made. For example, the preposition (Of and For) I always confused that … when to add (The) when to add (A) I got confused on that too. Sometimes, my spelling like (cooperate) and (corporate), it is so easy to mixed up when typing. Then there is where others did correct my mistakes. I cooperated with two different team members online. We were very good, we put our ideas together, we do this online discussion, we break down the task like this task requires one, two, three, and four, and then everybody picked one part of this topic and then we wrote it and combined it together

and somebody. … Like just read through our answers … so that pretty good collaboration ….

Eva also reported that her writing improved when she had collaborative work with American students. In a F2F interview, Eva claimed,

> I collaborate with American classmates, where we finished all our assignments as a group. They helped me a lot to correct my mistakes and improved my grammar.

There was clear evidence of writing improvement in the postings of these two students in the ODB when they worked with group projects. It showed that they received some comments from other group members on their writing to help them correct their spelling and grammar. The group members proofread their writing as well as helped them to understand the subject. The group members responded to their questions in an online discussion forum to clarify the subject matter they worked on. Abdullah described how his learning and writing skills in general developed during the process of learning by using this collaborative learning platform/social practice:

> There are many things that an ODB can provide to me as a writer to improve my writing skills. For example, looking at different writing styles used by other students and the professor would help as well. Also, my spelling will improve using discussion boards frequently, when reading others' writing thread I can see how they construct some information and especially from my American classmates as they are the native speaker I could sometimes get some benefit from their writing ... I mean the way they explain or express some thoughts ....

Hence, Abdullah's last comment regarding the construction and enhancement of the content of his learning and writing skills demonstrated that the social practice in ODBs helped him to construct his knowledge about the writing process individually. Reading through his peers' writing and the meaningful dialogues between the professor and those students helped him to construct and improve his learning and writing skills. Eva agreed with Abdullah's perception as she mentioned that her writing skills also improved while cooperating with others in ODBs. She mentioned that her writing improved in terms of her writing styles and word choices, but not grammatically. When being interviewed F2F, she pointed out, "I can learn the writing skills from other classmates, especially American students". At the same time, she stated,

> I read peers' responses and that would improve my posts … I can learn some new words, but I do not improve a lot on my grammar from the posts in the discussion board.

Accordingly, Eva's previous comment regarding her developing writing skills illustrated that ODBs enhanced her writing in terms of the meaning and developing her vocabulary, but she felt that she still had some grammatical issues. Equally, this perspective of ODBs as a collaborative social platform that improved the meaning of the students' writing was repeated in another interview with a graduate student. Lama described herself as an international student who took advantage of ODBs to improve the content of her writing and her word choice rather than her grammar. When interviewing her personally, she said:

> I do not think I improved in my grammar … I think I improved on other things … I do see how people responded then I learned the new words like I agree with your opinions, I like your argument, I understand your view, I really enjoy your post, I learned that kind of stuff in writing … that is all about it … maybe from my point I learned how to respond to a question.

Findings from Eva and Lama's posts in the online discussion forum support their previous statements. While their writing was very clear and understandable to other peers and the professor, they had some

grammatical issues in their posts.

In this way, ODBs are considered fairly useful as a collaborative social practice and constructive platform. In some cases, an online discussion forum improved some students' learning in terms of their learning and writing skills as a whole. It improved the rest of the students' writing in terms of the content and spelling of their writing as well.

Motivation/Structure

All four participants remarked on the structure of the learning, including the guidance and feedback and assessment experience, as an encouragement to enhance their learning and writing skills. Eva had positive feelings about the structure of the course she enrolled in. She believed that the good course structure motivated her to put in more effort and encouraged her to develop her learning and writing skills. In a F2F interview, she said,

> Our professor gave us very clear instruction and guidance for the answers. The professor gave a clear instruction and provided us with different sites to look at to answer the questions. She also assigned the writing style and word number that we had to include in our response. We had weekly assignments and my professor gave us questions starting from easy to difficult level. This instruction encouraged me to express my ideas in a clearer way. I also went to the writing center to improve most of my answers before I posted them.

The well-structured courses with clear guidelines from the instructors were cited as an important element in an online discussion forum to develop students' learning and writing skills. Lama confirmed that the clear instructions from the instructor increased her awareness of her writing. During the F2F interview, she stated,

> Usually, when the professor posted the questions, she asked us to summarize the article in formal writing and then post it and read the students' responses and then keep going in our discussion from there. She asked us to refer back to the reference and the requirement was to write a paper like maybe two pages or three pages with APA style … I felt like I needed to have very formal writing like I had to have the right punctuations and chose the right word for that ... I really paid attention to my grammar and wording choices. I asked my American friend to proofread it for me.

Students enjoyed the way that their professors constructed the course and assigned the writing requirements, which motivated them to work more on their writing and seek help from the Writing Center or other American friends in order to make their writing more understandable to other peers.

Mediated feedback and advice from instructors to students during the discussion boards in online courses were pronounced as a factor to increase students' learning. Some students appreciated the professors' constructive comments to enhance students' writing skills in the online discussion forum. Emily indicated that the positive feedback from instructors helped her to construct her learning and writing. In a F2F interview, Emily declared, "I would love to say I improved in my learning and writing from my professors' helpful feedback". One student mentioned another issue related to mediated feedback, namely that it often included lack of grammatical comments. In a F2F interview, Eva said,

> Actually the professor did not give us comments on our grammar … she just focused on our ideas and content.

However, she highlighted professors' grammatical feedback as an important issue for enhancing her writing as an "international student".

The participants reflected on the assessment or grade of the ODBs, it was part of the structure and noticeably motivated students to improve their writing skills. Abdullah 1 indicated in the F2F interview that the

grade for the ODB prompted him and increased or decreased his interest in developing his writing.

> To be honest, sometimes, if this discussion is not graded I will not put more effort on it. Some professors did not really look at what you wrote ... or sometimes they do not care about your word choice or how you construct your answers … so they just look if you post the answer and responded to other peers and that is it. So, I will not care much about it ....

Emily referred to the assessment of online discussions boards as an imperative fact that it encouraged her to increase her writing skills. In the personal interview, Emily stated,

> I do have my priorities with the discussion board and it also really depends on … if it is not a lot of the total grade and if the grammar is not the major thing and the major thing will be your concept … I will not go to the Writing Centre because of that or ask friends to proofread. Otherwise, I will put more effort.

Abdullah concluded from his previous experience that he believed that well-structured courses and the professors' positive feedback and assessment were crucial factors to increasing students' motivation to learn and write better. When he was interviewed F2F, Abdullah concluded,

> Our professors provided us with a meaningful sources and helpful assessments and immediate constructive feedback as well. Actually, the professor solved students' writing grammatically by adding comments and sending back useful feedback. We had enough time to rewrite and read more. We put more effort to improve our writing.

Findings from students' posts in ODBs showed that the students had to respond to 10 threads. Out of the 10 threads, there were three threads that had no grade, and students did not respond in one or two of these non-graded threads.

Discussion, Conclusions, and Implications

The current study explored how students perceived and valued ODBs as an inclusive learning environment and the factors that influenced their learning and writing skills. The study provides three important findings:

First, as confirmed earlier, all participants perceived ODBs as an inclusive learning environment. It developed their intercultural competence and awareness, which is important to be employed in effective communication with others (Hanna & de Nooy, 2009; Ritchie & Black, 2012; Ruane & Lee, 2016). Similar to findings from previous studies (Bassett, 2011; Shana, 2009), it also offered students an opportunity to increase their confidence and expand their understanding through the exchange of thoughts with a more flexible learning environment. Students felt less shy and had more time to complete their learning anytime and from any place. Bassett (2011) clarified that this flexibility may limit the naturalism of reaction and response, but it is important for international students to clarify their thoughts and cooperate with others comfortably. However, one student had an experience with one online course where she felt that even though this learning environment is inclusive, there is still a little issue related to less time for communication, which prevented her from knowing others outside the subject under study.

Second, in this study, students appreciated learning from each other and focused on collaborative and social practice in an online discussion forum. Some students felt that their learning and writing experience improved in the online discussion forums when they worked as a group, especially when they had native speaker members. The results of the study by Lin and Yang (2011) supported the finding that students had a positive attitude toward peer-feedback and appreciated other group members' comments. Like a previous study by Kessler et al. (2012), this study showed that students helped each other in editing, revising, and developing

ideas through collaboration in ODBs. According to Du et al. (2008), interaction between novice learners and more skilled social partners helped individuals construct and share their knowledge with their learning peers. In the ODBs, students were required to interpret and clarify and prove their understanding of others' ideas in a written way. Thus, reading and looking carefully at other learners' writing, especially American students helped them to construct their learning and develop writing skills.

With the third finding, all four students affirmed that the structure, feedback, and assessment are the factors that motivated them to develop their learning and writing skills.

Students valued the structure, including the guidance in ODBs. As Bassett (2011) pointed out, good structure and clear guidance are obvious factors that influence students' learning and collaboration. In this study, these two factors facilitated students' learning and motivated them to develop their learning and writing skills. This supports Zhang et al.'s (2007) finding that students need to understand the requirements before using ODBs to help them improve their writing skills. Similar to the results from the prior study (Balaji & Chakrabarti, 2010), students in this study stated that the professor's constructive comments are an effective factor that encouraged them to improve their writing skills. Thus, instructors in ODBs need to inform international students of their progress and clarify serious mistakes in students' writing assignments/posts, such as their grammatical mistakes. As with findings in the previous studies by Balaji and Chakrabarti (2010), this study verified that assessment in ODBs influenced students' motivation to learn and write better.

The present study is significant in showing that ODBs offer international students an innovative and collaborative environment to nurture their learning and English writing capabilities. This study will help instructors understand the needs of their second language learners, how they learn what they expected to learn from their professor and what factors may affect these students' academic writing progress.

The study limitation is that there were only a very small number of participants in the research who were from Asian, African, and Europe countries and only one from Middle East. In this regard, this study cannot be generalized on the online learning experiences of all international students. Thus, for future research, more participants from different countries with a larger sampling size are needed in order to get enormous perspectives and capture the general experience confronting international students in an online environment. Hence, generalize the trend of international students' perspectives on the ODBs, and then generalize the study about the online learning experiences of international students who come from diverse countries. Further, qualitative methods, as used in this research, are needed to analyze the content of the postings. In addition, it is recommended that the level of learning, writing skills, and sense of community among the forum members need to be examined. Broader perspectives are needed, as well as future research by using ODBs in blended learning.

Because ODBs are a vital part of interaction in fully online courses, the study provided some suggestions to instructors who plan to use them. Instructors need to consider time, flexibility, students' previous experiences, and relevant instructional content before using ODBs. Instructors should know how to promote group dynamics and student initiative to motivate learners to participate and develop their learning and writings activities.

References

Balaji, M. S., & Chakrabarti, D. (2010). Student interactions in online discussion forum: Empirical research from "Media Richness Theory" perspective. *Journal of Interactive Online Learning, 9*(1), 1-22.

Bassett, P. (2011). How do students view asynchronous online discussions as a learning experience? *Interdisciplinary Journal of E-Learning and Learning Objects, 7*, 69-79.

Bliss, C. A., & Lawrence, B. (2009). From posts to patterns: A metric to characterize discussion board activity in online courses. *Journal of Asynchronous Learning Networks, 13*(2), 15-32.

Buraphadeja, V., & Dawson, K. (2008). Content analysis in computer-mediated communication: Analysing models for assessing critical thinking through the lens of social constructivism. *American Journal of Distance Education, 22*(3), 130-145.

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson.

Du, J., Zhang, K., Olinzock, A., & Adams, J. (2008). Graduate students' perspectives on the meaningful nature of online discussions. *Journals of Interactive Learning Research, 19*(1), 21-36.

Emerson, R., Fretz, R., & Shaw, L. (1995). *Writing ethnographic field notes*. Chicago, IL: The University of Chicago Press.

Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools.* Retrieved from http://www.all4ed.org/ publications/WritingNext/index.html

Hanna, B. E., & de Nooy, J. (2009). *Learning language and culture via public Internet forums.* New York: Palgrave Macmillan.

Hopkins, K. (2012). International students continue to flock to U.S. colleges, grad schools. *U.S. News.* Retrieved from http://www.usnews.com/education/best-colleges/articles/2012/11/12/international-students-continue-to-flock-to-us-colleges-grad-schools

Institute of International Education. (2012). *Open doors 2012 report on international educational exchange.* Retrieved from http://www.iie.org/en/Research-and-Publications/Open-Doors

Kessler, G., Bikowski, D., & Boggs, J. (2012). Collaborative writing among second language learners in academic Web-based projects. *Language Learning & Technology, 16*(1), 91-109.

Lave, J., & Wegner, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge, England: Cambridge University Press.

Lin, W. C., & Yang, S. C. (2011). Exploring students' perception of integrating wiki technology and peer feedback into English writing courses. *English teaching: Practice and Critique, 10*(2), 88-103.

Meyer, K. (2006). The method and madness of evaluating online discussions. *Journal of Asynchronous Learning Networks*, *10*, 83-97.

O'Lawrence, H. (2007). An overview of the influences of distance learning on adult learners. *Journal of Human and Education Development*, *1*(1), 1-9.

Peterson-Karlan, G. R. (2011). Technology to support writing by students with learning and academic disabilities: Recent research trends and findings. *Assistive Technology Outcomes and Benefits, 7*(1), 39-62.

Ritchie, M., & Black, C. (2012). Public Internet forums: Can they enhance argumentative writing skills of second language learners? *Foreign Language Annals, 45*(3), 349-361.

Ruane, R., & Lee, V. (2016). Analysis of discussion board interaction in an online peer-mentoring site. *Online Learning*, *20*(4), 79-99.

Shana, Z. (2009). Learning with technology: Using discussion forums to augment a traditional-style class. *Educational Technology & Society, 12*(3), 214-228.

U.S. Department of Education, Office of Planning, Evaluation, and Policy Development. (2010). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies.* Retrieved from http://www.ed.gov/about/offices/list/opepd/ppss/reports.html

Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University press.

Waycott, J., Bennett, S., Kennedy, G., Dalgarno, B., & Gray, K. (2010). Digital dividing: Student and staff perceptions of information and communication technologies. *Computer & Education, 54*(4), 1202-1211.

Wegmann, S. J., & McCauley, J. K. (2014). Investigating asynchronous online communication: A connected stance revealed. *Journal of Asynchronous Learning Networks, 18*(1), 1-17.

Yin, R. K. (2003). *Case study research: design and methods* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Zhang, T., Gao, T., Ring, G., & Zhang, W. (2007). Using online discussion forums to assist a traditional English class. *International Journal on E-Learning, 6*(4), 623-643.

Zhang, Z. (2011). A nested model of academic writing approaches: Chinese international graduate students' views of English academic writing. *Language & Literacy, 13*(1), 39-59.

Zhou, H. (2015). A systematic review of empirical studies on participants' interactions in Internet-mediated discussion boards as a course component in formal higher education settings. *Online Learning, 19*(3), 181-200.

Appendix

Interview Questions:

1. Would you please tell me about yourself?

2. Would you please tell me about your experiences in using technology in your education?

3. How do you define online discussion board?

4. Tell me about your experience with online discussion board?

5. Describe activities that were used during online discussion board in courses that you enrolled in? Provide a specific example. (Writing activities)?

6. Explain how one or more strategies you like was/were used in discussion board in any course that you took?

7. What are your thoughts about the way that your instructor designed or used the writing activities in online discussion board? (That you like or do not like)?

8. Tell me about your writing experience?

   a. In general;

   b. During online discussion board.

9. How you describe your writing skills in online discussion board?

10. Describe the design of online discussion board that prompted you to be good writer?

11. What do you think you might need to learn from/during the process of online discussion board to be a good writer?

12. Tell me about your writing skills today. How have they improved since coming to NIU?

13. Is there anything else you'd like to share with me?