

A Global Learning Wiki Project for Pre-service Teachers

Chia-Ling Kuo

Kent State University

Email: ckuo@kent.edu

Abstract: In this study the author investigated 228 pre-service teachers' experiences with a global learning wiki project in an undergraduate educational technology course. The project connected pre-service teachers with students in 11 different countries on wiki sites, participants and their overseas partners posting questions about topics of interest to them and responding to one another's questions on the sites. The goals of this study were to determine whether the global learning wiki project (a) enhanced participants' knowledge of other cultures and competence in working with those who are culturally different and (b) benefited the participants professionally by improving their technology skills. Results of the study show that participants enjoyed this project and the contacts they made with educators and students in other countries. They gained knowledge of cultures and grew more comfortable working with people who speak another language; however, their responses were mixed about the professional benefits and enhancement of their technology skills.

Keywords: cultures, educational technology, global competency, global learning, international participants, pre-service teachers, technology, undergraduate, web 2.0, wiki

One of the goals of contemporary teacher education programs is to prepare pre-service teachers to become globally competent, appreciating not only the international dimensions of their subject matter but also gaining an awareness of cultural diversity and international issues, understanding other cultures and people who speak other languages, and grasping educational practices in other countries. The web, journal articles, magazines, and books are excellent resources for acquiring information about other countries, but with these materials learning is passive; and today's pre-service teachers need to be both comfortable with and skilled in establishing actual contact with educators and students outside the United States. In this study 228 pre-service teachers' experiences with a global learning wiki project were investigated; in this project pre-service teachers acquired information by making direct contact with students in another country instead of learning by traditional methods.

Review of Literature

Global connections are a reality in the 21st century. At the time of this writing, one in five jobs in the United States was tied to international trade. Working in isolation without some type of global connection is virtually impossible (Longview Foundation, 2008); therefore, educating students to be globally competent has become a priority in education. Mansilla and Jackson (2011) stated that globally competent students should be able to (a) investigate the world beyond their immediate environment; (b) recognize perspectives, others' and their own; (c) communicate ideas effectively with diverse audiences; and (d) take action to improve conditions. Global competencies, which do not comprise a set

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

of stand-alone skills, should be embedded into all coursework, course-related field experience, and every profession. Even among members of the general public, global competence is perceived as important. The results of public surveys conducted by the American Council on Education in 2000 and 2002 showed that over 90% of the general public agreed that knowledge of international issues will be important to the careers of the younger generations. The results of a 2007 Phi Delta Kappa/Gallup poll showed that 86% of American adults think learning a second language is very or somewhat important for students; furthermore, 70% of them indicated that foreign language instruction should begin in elementary school (Longview Foundation, 2008).

Multiple national and nonprofit associations, such as the National Lieutenant Governor's Association, the Council of Chief State School Officers, the National Education Association, the National Association of State Boards of Education, the Partnership for 21st Century Skills, the Committee for Economic Development, and the Longview Foundation, have called for educators to address the new era of global challenge (Longview Foundation, 2008). In 2012, the U.S. Department of Education announced a new international strategy for education, the main goal of which was to increase global competence in all U.S. students (U.S. Department of Education, 2012); but Schneider (2003) argued that despite significant attention to increasing international exposure in education, teacher education programs are the least internationalized programs on American college and university campuses. Strategies designed to internationalize teacher education have not changed much since earlier studies. Encouraging faculty travel abroad, admitting foreign students, and sending students on overseas programs are still the strategies most used at institutions of higher education in the United States. Revising curricula to include international content in teacher preparation courses was proposed by only 5% of Schneider's (2003) respondents. Studying abroad is a way to learn the values, languages, and cultures of other countries; but very few college students actually have the opportunity to do so. Furthermore, without critical planning and structures, studying abroad could become an ordinary trip instead of a meaningful cultural exchange experience (Patterson, 2014). The Institute of International Education (2012) reported that the number of students studying abroad for a single academic year represents only 1% of the total enrollment in U.S. higher education; moreover, study abroad is difficult for education students because of time constraints, already packed course requirements, and student teaching (Schneider, 2003).

The Longview Foundation (2008) proposed several strategies to prepare globally competent teachers, one of which involves technology; however, few studies on using technology in the field of teacher preparation have been conducted.

Using Technology in Global Learning

The classroom learning environment has changed with increased access to the Internet and a wide range of digital technologies, which not only support multimodal learning but also provide rich learning experience beyond classroom walls (Lock, 2015). With regard to global learning, asynchronous and synchronous communication technologies, web resources, social media, and web 2.0 technology were found to be used by teacher educators for the purpose of gaining cultural understanding and diverse perspective.

Merryfield (2000) used asynchronous online threaded discussions to promote equity, diversity and cultural understanding among students of her social studies and global education courses. She found that comparing to face-to-face seminar, online threaded discussions created a safe environment where

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

students in a diverse group felt comfortable discussing sensitive and controversial topics. She found more interactions in terms of responding to the discussions posted by people across cultural differences than in the face-to-face discussions.

Asynchronous threaded discussion provides equal participation to all learners, offers time for students to comprehend the materials before posting their opinions, and enhances deliberate reflection gathered from the posts (Merryfield, 2000). In spite of all the positive findings Merryfield observed, learning seemed unreal and like a game for her students because of missing visual presences. She also raised issues about whether or not the convenience aspect of when and where to participate provided by asynchronous threaded discussion was truly beneficial to participants or merely a way to avoid the conflicts of differences in races, languages and cultures that occur in face-to-face interaction. In addition, the read-and-write nature of threaded discussion favored those who can express themselves better in writing than orally (Merryfield, 2000).

Designing an effective digitally mediated global collaborative project involves a series of considerations from determining topics and goals and careful selection of digital tools to an intentional plan on how to collaborate, what knowledge and information to exchange, and what activities to design (Manso & Garzon, 2011; Lock, 2015). Each of the steps could affect the success of a digitally mediated global project. Lock and Redmond (2011) implemented an inquiry-based, systematic approach that began with participants introducing one another in online discussion forums to establish familiarity, then moved from reading and discussing selected novels in relation to the topic of diversity with small groups to interacting in dialogue with in-service teachers as experts equipped with experiences, expertise and resources. The pre-service teachers in Lock and Redmond's study gained a rich understanding of diversity issues and pedagogical practices, which can be used in their future classrooms.

Using web-based resources is another way that many teacher educators incorporate instructions to teach diverse perspectives on events and cultural issues around the world. Despite the access to the information and primary resources originating in other countries that the web provides, Merryfield (2007) found that the U.S. teacher educators in her study were often tentative in selecting and using them. As a result of the convenience, efficiency, perceived safety and English language needed, teacher educators preferred to select and use the websites created by large American professional organizations, media or universities that contain information or links to other countries for their lessons. Merryfield (2007) further posted a concern on the influencing power those large American websites have on what teachers and their students should learn about the world.

Since video conferencing was introduced in schools, its benefits in offering real-time face-to-face interaction were quickly recognized and implemented in global learning. Video conferencing not only creates a virtual classroom in which students in different geographic locations can be together to learn but also opens new opportunities for students to gain international experience without physically traveling abroad (West, 2010). The use of video conferencing for international collaboration and cross-cultural understanding has been the subject of research by Chia, Poe, and Wuensch (2009); Mejia and Merasz (2011); and Seeberg and Minick (2011). If students are in the same time zone and virtual meetings can be arranged to connect them, then the videoconference is a good way to learn about one another's culture, educational system, and topics of interest. According to these researchers students found learning about other cultures through videoconferencing more appealing than learning the same information from a textbook (Mejia & Merasz, 2011); the insight they gained through direct

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

communication with international students was impossible to gain from books (Seeberg & Minick, 2011). The researchers found that after the videoconference, students' understanding of people from other cultures increased, enhancing American students' comfort level and desire to work with those who are culturally different (Chia, Poe, & Wuensch, 2009). The experiences they gained broadened their horizons, and they wanted more exchange of this kind in the future (Mejia & Merasz, 2011).

In a case of the U.S.–EU dual degree program at DePaul University, faculty used Skype video conference to advise students who were abroad and also created a Facebook community in which students could talk to others who had been in the program or their foreign colleagues. The Facebook community greatly reduced pre-departure anxiety and increased the comfort level of students about their destinations (West, 2000). Ausband and Schultheis (2010) used discussion boards, chats, blogs and online survey tools to connect American pre-service teachers with students in Germany, Bulgaria and Spain. The participants learned about topics and issues in education from peers from different cultures, improving their understanding of global relations through direct communication via multiple web 2.0 tools and the results of their study were extremely positive.

With global learning social networks, such as ePals and iEARN, people can gather around the world in an online environment and collaborate on a project or discuss any cultural issues of interest. Zong (2009) took advantage of this unique learning environment and conducted a study of pre-service teachers' understanding of the meaning and purpose of global education by using web-based threaded discussion forums through iEARN to discuss a range of cultural and global issues with students and teachers from over 20 countries. Maguth (2014) used an asynchronous email client (ePals) and Skype to connect his pre-service social studies teachers with a group of secondary students in Thailand to advance authentic cross-cultural interaction and global understandings. Zong's and Maguth's findings resembled those of Ausband and Schultheis (2010), who concluded that participants deepened their level of global understanding and interest in incorporating global components into their future classrooms. Participating in the authentic digitally mediated global learning opportunity helps pre-service teachers in their professional growth (Maguth, 2014).

A recent study of teens, social media, and technology done by the Pew Research Center (Lenhart, 2015) showed that among 13- to 17-year-olds, 92% of teens are online daily with 24% of them online almost constantly. Facebook is the most popular site among teens with 71% of all teens using the site. The Pew study indicated that a majority of young people are already involved in activities on the web. Because the web-based tools currently available are so user friendly, Peters (2009) suggested that educators should take advantage of students' built-in comfort level with the web to globalize their classrooms.

Overview of the Project

At the time of this writing, the author of the current study taught four sections of Educational Technology, an undergraduate course in the teacher education program at a large Midwestern University in the United States. The primary goal of this course was to develop the necessary technological competencies to successfully support pre-service teachers in their teaching professions. As a need arose to prepare pre-service teachers to become globally competent and culturally responsive and to be more knowledgeable on the use of technology to support global learning, a global learning wiki project was added to the curriculum as a course project. In the project, pre-service students worked in groups of six or eight, and each group set up a private wiki site as a space for sharing information,

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

ideas, thoughts, images and videos with a group of students in another country. Both sets of students posted questions about topics they were interested in learning about from the other group on the wiki website; then they responded to one another's questions. They collaboratively developed a wiki website filled with information, images and videos that helped each other learn about the education practices, school structures and cultures of their home countries. At the end of the project, the pre-service teachers presented their wiki sites to the whole class, sharing their learning experiences.

The author made arrangements with three or four international teachers and their students for each of the course sections she taught before semester began. The details of seeking international participants are described in the next section. Before the project began, basic details about each of the overseas classes, including the country, name of the school, name of the international teacher, the course he or she taught, and participating students' grade levels, were introduced to the pre-service teachers. They then chose the overseas class they wanted to work with for this project. In order to allow sufficient time for students from both countries to work on the wiki website, the global learning wiki project included three stages. The tasks required for the pre-service teachers in each of the stages are presented below as they were given to the students.

Stage 1: Set Up a Group Wiki Website

Each group of pre-service teachers builds a group wiki website.

Develop the home page of the group wiki website with a group photo and a well-written introductory statement that tells who you are, your majors, the purposes of the project, and your expectations for this project.

Discuss as a group and list what you know about the country and what you want to learn from the overseas students. Then, list questions, each one on an individual page of the wiki, which your group would like answered by the overseas class.

Provide responses from a U.S. perspective to each of your questions. For example, if a question for the overseas students is about their typical high school day, the pre-service teachers should share with the overseas students what a typical high school day is like here in the United States. The purpose of this step is to share perspectives on the questions raised by both groups. Students are also encouraged to add visuals or audio, such as pictures, videos and hyperlinks to web resources, to their responses.

Create a list of 10 usernames and passwords for the participating students overseas so that they can easily access the wiki website.

Send the wiki web address along with the usernames and passwords to the partner teacher overseas.

A 4-week break occurred between the first and second stages, so the international students could have enough time to work on the wiki websites. The U.S. pre-service teachers studied other course topics in the meantime.

Stage 2: Comment on the Responses to Your Questions and Respond to the Questions Posted by the Participating Students Overseas

Read the responses posted by your overseas partners, which could include written text, videos, pictures, and links to web resources from their home countries. Then, provide feedback or comments on the responses you received.

Read the questions posted by the overseas partners. As a group discuss how to respond to the questions raised by the overseas class.

Work collaboratively with other group members to answer the questions posted by the overseas class. The responses should include more than text. Students are encouraged to include pictures, hyperlinks, videos, audios and other types of media in the response.

Add any follow-up questions, if needed. Continue the communication with the overseas class on the wiki website until the project is closed. Stage 2 lasts for about 4 weeks.

Stage 3: Project Presentation and Closure

Pre-service teachers present their global learning wiki site to the whole class and share their learning experience.

Complete an online survey.

Seeking International Partners

Ausband and Schultheis (2010) indicated that the major challenge in conducting an international project is to find partners who can speak English; thus, the author contacted the International Leaders in Education Program (ILEP) operating at the university where she was employed in order to secure a pool of international educators, whose students would partner with hers. The ILEP is funded by the U.S. Department of State's Bureau of Educational and Cultural Affairs and administered by the International Research and Exchanges Board (IREX). Starting with the 2006–2007 academic year, the ILEP hosted 16 teachers from the Near East, South Asia, Southeast Asia, Sub-Saharan Africa and the Western Hemisphere at the university for one semester to learn and exchange knowledge and skills in educational methodology and policy. Most of the ILEP scholars were secondary education teachers and taught English as a foreign language in their home countries.

With the help of the director of the international and intercultural center at the university, the author invited ILEP alumni and their students to participate in the project. Before each semester began, the author set up a project schedule, listing the due dates for each of the stages and tasks to be completed by both the international students and members of the author's classes. An invitation letter (See Appendix A) with a project schedule attached to the email was sent to a listserv of ILEP alumni.

The majority of international participants in this project were students of ILEP alumni in their home countries. Some international participants were students of the author's acquaintances in other countries. These educators taught at the college level, were interested in global collaboration and wanted to provide more opportunities for their students to practice English. Since spring 2012, the

author has offered this project to students enrolled in the Educational Technology course every semester.

Countries Participating in the Project

Overseas participants represented different countries each semester. Some international teachers, especially those who taught in university settings, participated in the project almost every semester primarily because they had a different group of students each term, the proposed project timeframe worked for their academic systems, and it was more feasible for them to adjust their curricula to include a global learning project than those who taught in secondary schools. Below is a list of countries and grade levels of students participating in this global learning wiki project.

Fall 2012: Brazil (high school), India (middle school), Indonesia (high school), Lebanon (high school), Morocco (high school), Philippines (high school), and Taiwan (university).

Spring 2013: Brazil (language institute, high school to college level), Finland (university), India (high school), Indonesia (high school), Malaysia (high school), Canada (elementary school), Taiwan (university), and Tajikistan (university).

Fall 2013: Brazil (language institute, high school to college level), Finland (university), Indonesia (high school), Philippines (university), and Taiwan (university).

Before the project began, an online orientation video and a written wiki tutorial created by the author with specific editing and collaborating guidelines focusing on this project were sent to each of international participating teachers to be shown to their students. The online orientation video included a welcome statement, expectations and goals for the project, and an outline of the project procedures.

Participants and Methods

The author taught four sections of Educational Technology with 20 to 24 students in each section. The course was offered in fall and spring semesters each academic year. Approval was obtained from the Institutional Review Board for this study. A total of 228 pre-service teachers enrolled in the Educational Technology course from across the disciplines during three semesters volunteered and signed the consent form for this study. In fall 2012 semester, 78 students consented; in spring 2013 semester, 86; and in fall 2013 semester, 64. Participation rates were 87%, 97%, and 89%, respectively. Most of them were in their second or third year of study.

The online survey (See Appendix B) given at the end of the project included multiple-choice questions and open-ended questions about their learning experience. Participants responded to multiple-choice questions on 5-point Likert scales with the following answer choices: *strongly disagree*, *disagree*, *neither agree nor disagree*, *agree*, and *strongly agree*. The multiple-choice questions were used to measure participants' attitudes toward this project. Providing insight into the learning experience of the participants, the open-ended questions elicited what they knew about the country of their overseas partners before starting the project, the degree to which the project gave them new perspectives on their partners' country, their most challenging and rewarding experiences, the degree to which the project helped to enhance their confidence to work with overseas educators, the professional benefits they gained from the project, and the degree to which it enhanced their technology skills.

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

Research Questions

The purpose of the study was to help the instructor understand what students enrolled in the Educational Technology course thought about the global learning project, what they learned and how they used technology in the project. Specific research questions were as follows:

- What were students' overall experiences with the global learning wiki project?
- To what extent did the project enhance students' knowledge of other cultures?
- To what extent did the project enhance students' confidence to work with people who are culturally different?
- To what extent did the project benefit students professionally?
- To what extent did the project enhance students' technology skills?

Results

Results for each research question and results of the multiple-choice questions and answers to the open-ended questions associated with each research question appear below. A list of results of all multiple-choice questions is provided in Table 1.

Participants' Overall Experience with the Global Learning Project

Participants' overall experience with the global learning project was very positive. A total of 89.5% of the participants agreed or strongly agreed with the following statement: "I enjoyed participating in the global learning project." The majority of them stated that it was an eye-opening experience, fun and more interesting than merely conducting research to learn about a country or a culture. Furthermore, 87.7% of the participants agreed or strongly agreed with the following statement: "I was excited to have contact with an educator and students in another country." A total of 91.2% of the participants agreed or strongly agreed that "the learning activities were appropriate for pre-service teachers."

Their answers to the open-ended questions offered more insight into Research Question 1: What were students' overall learning experiences with the global learning wiki project? One student responded,

It was a really neat experience. I liked that it was hands on and I didn't have to just sit at the computer and look things up to find out more about the country—it was almost like I was right there in the classroom with the students! (Student 27, fall 2012)

The amount of information that participants gained from the overseas students varied across groups. A few students expressed some disappointment because their group did not receive as many responses as other groups did, but they still considered the overall experience good. One participant said, "Even though some of [the] responses were not as in-depth as I was hoping, it was still pretty cool to experience that communication from people so far away, and I learned a great deal from my classmates' presentations" (Student 46, fall 2013).

When participants were asked about their most challenging and rewarding experiences, many of them stated that thinking of questions to ask was the most challenging aspect of the project because they had never thought much about the overseas country or had no previous knowledge of what its culture was

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

like. Thus, they had trouble settling on what questions to ask. Some of them said they were trying not to ask questions, answers for which could easily be found online or might seem offensive. Another main challenge described by many students was the language barrier that students on both sides of the ocean experienced. They appreciated that all their overseas partners used English to communicate in this project, but participants sometimes did not quite understand what they were talking about and just tried their best to answer their questions. Participants thought the overseas partners might also have experienced the language barrier. One participant stated, "I noticed that they did not answer a few questions, and it could be because they did not understand what we were asking" (Student 32, fall2013). Communication without face-to-face contact was difficult because students could not determine what needed improvement. As for the most rewarding experience, most participants indicated that receiving questions and answers from the overseas partners and seeing the pictures they posted on the wiki site. Many statements similar to the following were made: "The rewarding experiences were being able to communicate with these students and learning from their point of view, not just the Internet" (Student 54, spring 2013).

Role of the Project in Enhancing Students' Knowledge of Other Cultures

The author found that participants' knowledge of the country of the students with whom they collaborated was very limited before starting the project, with more than half admitting no knowledge of the country before the project. Some of them mentioned that their knowledge of the country was confined to geographic location on a map and religion practiced. Only those participants who collaborated with students in Canada or Brazil showed a little more knowledge for reasons such as close proximity to the United States or previous visits in the case of Canada and well-known athletes in the case of both countries.

After the project, 85.1% of the participants agreed or strongly agreed with the following statement: "The project enhanced my knowledge and understanding of another country." The answers to open-ended questions showed that a majority of the participants learned about the country, its culture, school structure and typical school day. Students pointed out that they learned about the individuals in that country as well. One student stated:

I really enjoyed the global learning project. I got to see perspectives of students in another country that I would not otherwise have gotten to experience. This project went beyond just what would have been available to us online and gave us insight in to what life in [the country] is actually like. (Student 35, fall 2013)

Not only did the project enhance the knowledge of participants about other countries, but it also changed their perspectives on them. New perspectives included the following: they found more similarities than differences; the country was different from what they expected; and they were generally impressed with the English ability of their international partners. Many participants indicated that the school structures, courses, and holidays in the countries of their partners were similar to those in the United States. One participant wrote, "Even though they are on the other side of the world, their schooling is somewhat similar to ours; and they do share and experience the same things Americans do in their classrooms" (Student 17, fall 2012). Through the pictures and videos posted on the wiki site by the overseas partners, the participants' perceptions about the country differed from their preconceived notions. Another participant said,

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

The picture of the school is not what I expected. It looked like a pretty big school and somewhat modern. They teach just about every subject we teach in the United States, and they use technology that we use in the United States. (Student 34, fall 2012)

The availability of technology surprised numerous participants, who had thought some of the collaborating countries had limited access to technology. Below is a representative statement:

Originally, my perspective on the country was that it was progressively getting more technologically advanced, but was still ages behind the United States. This school quickly proved to me how wrong my perspective was. These students were very technologically advanced and even had items in their classrooms such as smartboards, computers and laptops. (Student 67, fall 2012)

Language was a major issue of concern for the participants in this project, but all international partners' used English to communicate with them; in fact, their English ability surprised the participants. One participant stated: "I was amazed at their ability to read, comprehend and speak English" (Student 38, spring 2013)

Role of the Project in Enhancing Students' Confidence to Work with People Who Are Culturally Different

To most of the students, working with international partners seemed difficult because of a lack of experience and not knowing whether they could speak English. After working with the overseas partners, participants felt comfortable. In fact, 85.5% of them agreed or strongly agreed with the following statement: "I feel comfortable working with educators in other nations whom I have never met"; furthermore, 70.6% agreed or strongly agreed with the following statement: "I would like to have more contact with educators and students in another country."

They found that (a) English is a second language in many countries and (b) their international partners were very interested in learning from them and sharing their cultures with them. Many participants also pointed out that they did not realize how easy it was to connect to people overseas through technology. After engaging in this project, they felt much more confident in their ability and believed they were likely to do so again; in addition, most participants were open to and interested in working with international partners. One wrote, "I never even thought of working with overseas educators before, so this was a great way to show how I could use technology to relate to students and classrooms around the world" (Student 49, fall 2012). The confidence of one project participant, however, seems not to have been greatly enhanced. This participant stated, "It did enhance my confidence a little, but I still think that I need more experience before I can say I'm completely confident" (Student 48, spring 2013).

Role of the Project in Providing Professional Benefits to Students

With regard to the fourth research question—To what extent did the project benefit students professionally?—student responses were mixed responses. A total of 68% of them agreed and strongly agreed with the following statement: "Participating in the global learning project with the overseas educator and his or her students benefited me professionally." They stated that this project inspired and encouraged them to do a global project in their future classrooms; they became more appreciative of other cultures and more aware of their importance; the project helped them learn to be professional,

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

and they believed that they would be more marketable in their job searches. A total of 84.2% of the participants agreed and strongly agreed with the following statement: "I would recommend other pre-service teachers to participate in the global learning project." One participant commented:

I never even thought of trying to get in contact with another country, especially not in my classroom. Realizing how important it is to be culturally aware and open-minded, I think this could be a great way to integrate culture into my own classroom someday, by relating literature and other projects in class to real classrooms and places around the world. (Student 51, fall 2012)

Some participants, however, did not think this project was beneficial to them even though they agreed that it was a good learning experience. The author found that the disappointment that some participants experienced about not receiving in-depth responses to their questions affected their attitudes. Some students stated that learning about other countries or cultures is unnecessary. Those participants made statements such as the following: "It has nothing to do with my teaching" (Student 24, fall 2012); "I wouldn't get to try [dealing with students from other cultures] unless I taught abroad or did a foreign exchange program" (Student 67, fall 2012); and "I may have to go to another country someday, but I don't plan on leaving North America" (Student 28, fall 2013).

Role of the Project in Enhancing Technology Skills

A total of 71.5% of the participants agreed or strongly agreed with the following statement: "I gained technology skills by participating in the project." Answers to the open-ended question associated with the fifth research question—"To what extent did the project enhance students' technology skills?"—showed that no matter how much experience the participants had with technology, using a wiki for international communication and collaboration was a new and positive learning experience for them. One participant wrote: "This project enhanced my computer skills but from a different aspect; this project enhanced the way I can communicate with individuals through technology and programs like this" (Student 64, spring 2013). Some participants considered themselves technology savvy or stated that they had used wikis before, so they did not think this project actually helped to enhance their technology skills but allowed them some practice with technology or provided them extensive practice with the tool. The participants who had never used wiki before stated that this project enhanced their skills; they learned how to use and manage a wiki and incorporate pictures, videos, and other types of multimedia into the wiki.

Very few participants, only 16.2%, "felt frustrated by the technical problems [they] experienced" basically when their content had been deleted or moved accidentally by their own groupmates or by the overseas students; but they were all able to retrieve it from the history of the wiki page, which is a wiki functionality.

Table 1 presents a list of multiple-choice questions and the percentage of participants who agreed or strongly agreed.

Table 1. *Results of Multiple-Choice Questions*

Question	%
----------	---

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

I enjoyed participating in the global learning project.	89.5%
I was excited to have contact with an educator and students in another country.	87.7%
I feel comfortable working with educators in other nations whom I have never met.	85.5%
I would like to have more contact with educators and students in another country.	70.6%
The project enhanced my knowledge and understanding of another country.	85.1%
I would recommend other pre-service teachers to participate in the global learning project.	84.2%
Participating in the global learning project with an overseas educator and his or her students benefited me professionally.	68%
I gained technology skills by participating in the project.	71.5%
I felt frustrated by the technical problems I experienced.	16.2%
The learning activities were appropriate for pre-service teachers.	91.2%

Discussion

The author found that pre-service teachers' knowledge of other countries was minimal, superficial, and even biased initially. Some of the participants stated that they could probably locate on a map the country of those with whom they collaborated; others were not even sure of the exact location, and still others had never heard of some of the countries. This result coincides with the report of the Longview Foundation (2008), which stated, "Today's educators rarely begin their careers with the deep knowledge and robust skills necessary to bring the world into their classrooms" (p. 3). One participant said, "I never was really interested in other countries, but once we got the project going, it was a lot of fun" (Student 22, fall 2013). Their lack of interest was merely a function of their lack of experience. Once they were offered a learning experience with partners overseas, they enjoyed doing the project, gained knowledge and understanding about other cultures, changed their perceptions of some aspects of the country, and felt more comfortable about working with teachers and students of other countries in the future. Many participants posted questions related to their majors to their overseas partners, which extended their knowledge of their own field outside the United States.

The international students participating in this project ranged from elementary school to university levels. Because of their age and English ability, topics they were interested in learning about differed from what interested U.S. students. In addition, the richness of information that participants received was not the same across groups. One participant considered working with international students of the same grade level as those in her own future classroom a rewarding experience. The participant stated:

It was rewarding, though, to get to talk to a group of students from another country, especially students in the grade range that I will be teaching one day. It was nice to start interacting with

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

the age group of students that I will be interacting with in the future, and it was even better to be more exposed to a different culture. (Student 68, spring 2013)

Not every participant, however, saw the project as a rewarding experience.

Participants who worked with college students in other countries generally received more information than the groups working with middle school or high school students, which influenced participants' views of their learning experience in this project. The author realized this limitation, so each of the groups presented their wiki website and shared what they learned with the whole class to maximize students' overall learning outcomes.

For some participants, their primary concern was how to teach their subject matter to future students; thus, they failed to see how this project contributed to teaching competence in their proposed subject area. Some participants thought knowing other cultures was unnecessary if they planned to remain in the United States and teach Americans. One participant stated: "I will end up teaching in America, so I find American teachers and classrooms more interesting and helpful to my future career than I find those of another country" (Student 9, fall 2012). Although these kinds of voices represented only about 11%–12% of the participants, their narrow views of global importance and awareness show how little attention some U.S. educators have paid to other countries and cultures. Systemic preparation for pre-service teachers to be globally competent individuals is essential throughout their years of study. In addition, similar to Zong's (2008) findings, the participants in this study tended not to choose critical cultural topics to ask about or express opposing views because they did not want to offend others; unfortunately, this mode of participation did not facilitate true cultural understanding.

The survey results associated with the question of enhanced technology skills were unsurprising. Those participants who had not used Wikispaces before gained considerable skills. Because many participants had used wikis in the past and were also familiar with the procedures of sharing multimedia materials, such as photos, videos and music online, this project did not help them gain new technological skills; however, it successfully demonstrated how easily and effectively using technology connects the people of the world. In this project, technology was a bridge to connect students to people in other countries. Other web-based collaborative tools such as Google Docs, blog, and VoiceThread can be introduced to this project to maximize students' knowledge on the use of web-based tools to support global learning.

The international students had no other problems collaborating with their U.S. partners on the wiki websites; in other words they were all able to navigate, manage, and use wikis successfully. Peters (2009) stated that "the challenge of breaking down cultural barriers that one time might have impeded any kind of meaningful collaboration is now considerably eased" (p. 11). His statement proved to be true in this project, where participants had few technical problems and were able to focus on collaboration. The new challenge was how to design a learning experience that would foster greater global awareness and understanding and also make sure that students learn or collaborate (Lock, 2015).

Some improvements and new avenues should be taken into account in future projects. First, practicing English was one of the purposes for the international participants in this project. The students of ILEP alumni were English language learners, and the international college students had some level of proficiency in English. Although it was unintentional, the entire project was communicated in English language. Even the videos and hyperlinks provided by the international participants about their

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

countries were mostly in English. Using English for the global project certainly favored the U.S. students. What if the U.S. students needed to use a language other than English in this type of global learning project? Would they still have positive learning experiences and enjoy the project? Would technology be helpful?

Second, the instructor did not require students to conduct research about their collaborating country during the first stage of the project when each group of students listed what they already knew about the country. Although some students quickly searched online for information about their country, the information they found was very basic. The major challenge indicated by the participants was not knowing what questions to ask, which might be reduced or eliminated if they were provided opportunity and time to engage in a more in-depth study of a given country before starting a global learning project.

Third, the truly *online* interaction and excitement between U.S. pre-service teachers and international students began from Stage 2, when the U.S. pre-service teachers saw pictures of their international partners, questions, and responses to their questions on the wiki websites. Both groups of students may want to post their pictures and introductions at the beginning of the project to build a familiarity of each other, friendship, and commitment to the project.

Finally, not all the questions posted by the pre-service teachers were answered. We did not know whether they chose not to answer a question because they did not understand it, lacked the knowledge necessary to respond to the question, felt offended by the question, or did not answer for some other reason. Further communication with the international students about the questions that were not answered should be required. The reasons behind the unanswered questions might have helped students develop another level of cultural understanding of other countries.

Conclusion

This study shows that participants were satisfied with the global learning project and the learning outcomes. They not only gained more knowledge about other cultures and became more comfortable working with people in different cultures but were also interested in incorporating global components into their own classrooms one day. The use of wikis in the project demonstrated a great way to collaborate and work with educators and students in other countries when synchronous face-to-face communication is not feasible.

Answers to the open-ended questions show that participants enjoyed learning about a country and its cultures directly from the people who live there instead of by conducting research because the former constitutes active learning; however, finding international participants is challenging. The author suggests that instructors who wish to implement global education in the classroom use the resources of the international office or global education office at their institutions. In addition, global social networks are also appropriate places to initiate this type of global learning project. The truth is that many overseas educators also want to provide their students some kind of international experience.

Future researchers might conduct pre- and post-surveys to compare and to examine the learning outcomes of both groups of students. The results show that the global learning project was successful and should be offered to future pre-service teachers. Many professors in teacher education programs

have sought ideas about this kind of global learning project. The current project could be an example for them and encourage them to call for more global learning projects in teacher preparation programs.

References

- Ausband, L. T., & Schultheis, K. (2010). Utilizing web 2.0 to provide an international experience for pre-service elementary education teachers—The IPC project. *Computers in the Schools, 27*, 266–287. doi: 10.1080/07380569.2010.523886
- Chia, R. C., Poe, E., & Wuensch, K. L. (2009). Attitude change after taking a virtual global understanding course. *International Journal of Social Sciences, 4*(2), 75–79.
- Institute of International Education. (2012). International education exchanges are at all-time high, strengthening economies and societies around the world [Press release]. Retrieved from <http://www.iie.org/Who-We-Are/News-and-Events/Press-Center/Press-Releases/2012/2012-11-13-Open-Doors-International-Students>
- Lenhart, A. (2015). Teens, social media & technology overview 2015 [Report]. *Pew Research Centre: Interne, Science & Tech.* Retrieved from <http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015/>
- Lock, J. V. (2015). Designing learning to engage students in the global classroom. *Technology and Education, 24*(2), 137–153. doi:10.1080/1475939X.2014.946957
- Lock, J. V., & Redmond, P. (2011). International online collaboration: Giving voice to the study of Diversity. *One World in Dialogue, 1*(1), 19–25.
- Longview Foundation. (2008). *Teacher preparation for the global age: An imperative for change.* Silver Spring, MD: Longview Foundation. Retrieved from http://www.longviewfdn.org/index.php/download_file/force/10/
- Maguth, B. M. (2014). Digital bridges for global awareness: Pre-service social studies teachers' experiences using technology to learn from and teach students in Thailand. *Journal of International Social Studies, 4*(1), 42–59.
- Mansilla, V. B., & Jackson, T. (2011). *Educating for global competence: Preparing our youth to engage the world.* New York, NY: Asia Society.
- Manso, M., & Garzon, M. (2011). Designing effective global collaborative projects. *Learning & Leading with Technology, 39*(3), 32–35.
- Mejia, R. M., & Merasz, J. (2011). Video conferencing: A global alternative for educating majors to learn from their peers. *Insights Journal, 2011*(1), 3–9.
- Merryfield, M. M. (2000). Using electronic technologies to promote equity and cultural diversity in social studies and global education. *Theory and Research in Social Education, 28*(4), 502–526.

- Merryfield, M. M. (2007). The web and teachers' decision-making in global education. *Theory and Research in Social Education*, 35(2), 256–276.
- Patterson, T. (2014). On the modern Silk Road: A case study of the limits and promise of international in-service teacher professional development. In B. Maguth & J. Hillburn (Eds.), *The state of global education: Learning with the world and its people* (pp. 63–77). New York, NY: Routledge.
- Peters, L. (2009). *Global education: Using technology to bring the world to your students*. Washington, DC: International Society for Technology in Education.
- Schneider, A. I. (2003). *Internationalizing teacher education: What can be done?* Washington, DC: U.S. Department of Education. Retrieved from ERIC database (ED480869)
- Seeberg, V., & Minick, T. (2011). Enhancing cross-cultural competence in multicultural teacher education: Transformation in global learning. *International Journal of Multicultural Education*, 14(3), 1–24.
- U.S. Department of Education. (2012, May 3). Broadening the spirit of respect and cooperation for the global public good [Speech]. Retrieved from <http://www.ed.gov/news/speeches/broadening-spirit-respect-and-cooperation-global-public-good>
- West, C. (2010). Borderless via technology. *International Educator*, 19(2), 24–33.
- Zong, G. (2009). Developing pre-service teachers' global understanding through computer-mediated communication technology. *Teaching and Teacher Education*, 25(2009), 617–625.

Appendix A

Invitation Letter

Dear Educator,

I am Dr. Chia-Ling Kuo, assistant professor of instructional technology at Kent State University. I would like to invite your participation in a Global Learning Project with my students enrolled in Educational Technology.

In this project, groups of my students will set up a wiki site as a space for sharing information, ideas, thoughts, images, videos, audios, and documents with an overseas teacher (and his or her students). We will use this wiki site to post and respond to one another's questions. I believe this project is beneficial to both groups of the students in terms of partnership, collaboration, international perspective, and much more.

Here is a list of requirements for the overseas participants.

- Actively participate in the wiki site that the KSU students set up for the project during the project time frame.

- Post at least 5 questions on the wiki for KSU students to answer.

- Respond to the questions posted by the KSU students.

- Post some pictures (and audios, videos, and links, if possible) on the wiki site.

If you decide to participate in the project with us, please email me at ckuo@kent.edu **by September 30, 2012**. In your reply email please provide me a short introduction, including the subject or grade level you teach so that I can introduce you to my class.

Project time frame: Beginning of October till end of November 2012

If you have any questions regarding the project, please contact me. I am looking forward to working with you.

Best regards,

Chia-Ling

Chia-Ling Kuo, Ph.D.
Instructional Technology Program
College of Education, Health and Human Services
Kent State University
Email: ckuo@kent.edu
Phone: 330-672-0599

Corresponding author email: ckuo@kent.edu

©2009/2018 International Assembly Journal of International Social Studies

Website: <http://www.iajiss.org> ISSN: 2327-3585

Appendix B

Global Learning Project Survey

Multiple-choice questions

1=strongly disagree 2=disagree 3=neither agree nor disagree 4=agree 5=strongly agree

- 1 2 3 4 5 I enjoyed participating in the global learning project.
- 1 2 3 4 5 I was excited to have contact with the educator and students in another country.
- 1 2 3 4 5 I feel comfortable working with educators in other nations whom I have never met.
- 1 2 3 4 5 I would like to have more contact with educators and students in another country.
- 1 2 3 4 5 The project enhanced my knowledge and understanding of another country.
- 1 2 3 4 5 I would recommend other pre-service teachers to participate in the global learning project.
- 1 2 3 4 5 Participating in the global learning project with the overseas educator and his or her students benefited me professionally.
- 1 2 3 4 5 I gained technology skills by participating in the project.
- 1 2 3 4 5 I felt frustrated by the technical problems I experienced.
- 1 2 3 4 5 The learning activities were appropriate for pre-service teachers.

Open-ended Questions (Explain with specific examples)

- How much did you know about the country you worked with before starting the project?
- Did the results of the project give you different perspectives on the country?
- What were the most challenging and rewarding experiences?
- Did this project enhance your technology skill?
- Did this project enhance your confidence to work with overseas educators?
- Did this project benefit you professionally?
- Describe your overall experience with the global learning project.