Expanding Access to International Education through Technology Enhanced Collaborative Online International Learning (COIL) Courses

Zhang Jie
Ann M. Giralico Pearlman
The College at Brockport State University of New York

In today’s global society, higher education institutions are charged with preparing students to be world citizens who possess holistic perspectives on diverse international cultures. Many colleges and universities in the United States of America actively seek international partners to offer technology enhanced collaborative online international learning (COIL) courses. All members, including faculty, instructional designers, information technology support staff, and administrators in the partner institutions play essential roles in developing and delivering internationally networked courses. In this paper, the researchers share the journey, offer a course development model and lessons learned as they sought international partners, collaborated globally, developed international curricula, and team taught with colleagues from diverse culture and linguistic backgrounds. The purpose of this paper is to introduce practices that can be implemented in technology integrated international networked teaching to help college students increase intercultural and diversity awareness, explore and develop cultural competencies, and gain experience in communication and civil engagement in a global context using a cost-effective pathway.

Keywords: World citizens, diversity, international, interdisciplinary, collaboration, technology, COIL

INTRODUCTION

In order to better prepare students to become world citizens and to meet the challenges caused by globalization, many colleges and universities in the United States of America actively seek international partners and offer technology enhanced collaborative online international learning (COIL) courses. During the process of developing and delivering
technology enhanced international networked courses, all members, including faculty, instructional designers, information technology support staff, and administrators in the partner institutions play essential roles (Zhang & Pearlman, 2017).

This paper reviews the existing literature regarding international learning, its benefits and current trend in higher education. It then introduces the means by which State University of New York (SUNY) and one of its campuses, a four-year public college (i.e., the College) in Northeastern United States, support faculty in order to develop and implement international networked courses. It examines a COIL course development model and examples of instructional materials and assessments used as they sought international partners, collaborated globally, developed international curricula, and team taught with colleagues from diverse cultural and linguistic backgrounds. It also discusses benefits, challenges and lessons learned through the process of course development and implementation. The purpose of this paper is to introduce practices that can be implemented in technology integrated international networked teaching to help college students increase intercultural and diversity awareness, explore and develop cultural competencies, and gain experience in communication and civil engagement in a global context using a cost-effective pathway.

INTERNATIONAL LEARNING AND HIGHER EDUCATION

Traditionally, the emphasis of learning is on the product, or “what” is learned. In a traditional classroom, the teacher is at the center of the learning activities, gives lectures, and focuses on the content; while students are the learners who study materials given by the teacher, and are evaluated by how much they have learned at the end of a course. The traditional higher education institutions are organized with “disciplinary boundaries” such as different schools and departments, and “campus organizational units” such as different divisions (Kahn & Agnew, 2017). They are set up with “time-honored governance structures” such as school years, semesters or quarters (Kahn & Agnew, 2017). They often adopt “traditional approaches to study” and have “anchored identities of educator and learner”, such as teacher-centered and content-focused approaches (Kahn & Agnew, 2017). In the 21st century, however, learning has shifted and is focused more on the process, or “how” students learn (Kahn & Agnew, 2017). Accordingly, the process of learning has become more engaging, interactive, applicable, collaborative, and international (Kahn & Agnew, 2017; New Zealand Council for Educational Research, 2009). To meet the changes, more effective approaches of learning have emerged, including but not limited to student-centered learning, applied learning, interdisciplinary study, learning community building, and international learning (Kahn & Agnew, 2017). In a 21st century learning setting, the identities of teachers and students may be less defined, since both are considered members of a learning community, within which they learn from each other, and grow together during the learning process (Zhang & Pearlman, 2017).

In today’s global society, higher education institutions are charged with preparing students to be world citizens who possess holistic perspectives on diversity and inclusion. Through communication and idea exchanges, members within the international and multi-disciplinary learning community analyze their own identities, biases, and prejudices, and challenge existing perspectives and stereotypes, and reshape their worldview (Olson, Evans, & Shoenberg, 2007). Despite the benefits of international learning, however, there are many factors which may prevent college students from studying abroad, such as concerns about the cost and resources, work and family obligations, or just the fear of the unknown. The National Association of Foreign Student Advisors (NAFSA): Association of International Educators (2018) reports that only 1.6 percent of all students enrolled in higher education institutions in the United States take part in study abroad programs.
Thanks to the development and utilization of new technology, these days, learning does not have to occur within a certain physically bounded classroom. Instead, it can take place anytime, anywhere, and with anyone across disciplines and across nations (Kahn & Agnew, 2017). Data indicate an increasing demand and fast growth for the students’ use of technology. The National Center for Education Statistics (NCES, 2016) reports that about 70.6 percent of children ages 3 to 18 used the Internet in 2015, an increase of 8.8 percent from the year 2011. At the postsecondary level, Pew Research Center reports nearly 100 percent of college students access the Internet (Smith, Rainie, & Zickuhr, 2011). The NCES reports that among the students who were enrolled in degree-granting postsecondary institutions in Fall 2016, 31.7 percent enrolled in online or distance education courses and 15 percent enrolled exclusively in online courses, which increased 1.9 percent and 0.6 percent from the semester of Fall 2015 respectively (NCES, 2018).

New technology, pedagogy and methods of teaching provide tools for expanding access to international education. Technology implemented in the educational systems enables, supports and reinforces educational reform, impacts students’ academic performance directly (Kreijns, van Acker, Vermeulend, & van Buuren, 2014), enhances pedagogical effectiveness, and enriches learning and teaching experiences at local, national and global levels (Chen, McMurtrey, McCalman, Castillo, & Ligon, 2015). Technology in education makes it easier to access and manage knowledge, helps develop critical thinking and problem solving skills (Alghazo, 2006), and enhances students’ technological proficiency and communication competencies (Mac Calluma, Jeffrey, & Kinshuk, 2014).

A technology enhanced Collaborative Online International Learning (COIL) course could be one cost-effective solution for universities to internationalize curricula, develop new partnerships globally, and provide their students international learning opportunities and global competencies. COIL courses use technology innovatively to foster collaboration between faculty and students in partner institutions worldwide, and to facilitate student learning (the SUNY COIL Center, n.d.). As campuses systematically update classroom technology to include virtual exchange communication tools, usually, no additional technology is required. Instead, existing hardware and software available on the partner campuses as well and technologies housed in the instructors’ and students’ homes/dorms are used. Thus, when taking a COIL course, students do not need to make a huge commitment financially or in terms of time, compared to their peers who study abroad (Fowler, Pearlman, LeSavoy, & Hemphill, 2014). Instead, the students take the course in their current institution and use existing networking technology for communication and collaboration, which adds no additional cost (Zhang & Pearlman, 2017).

In addition to synchronous class-to-class video conferencing during face-to-face class time, instructors and students use online collaboration tools existing on partner campuses or available for free. Platforms include but are not limited to CourseSites, Moodle, Blackboard, FeedbackFruits, Blogger. Examples of online chats and video calls are Blackboard Collaborate, Skype, Facetime, Google Hangout, WhatsApp, Facebook Messenger, and Zoom. Examples of shared workspaces are Blackboard, Google Docs, Google Slides, YouTube, and examples of social media are Facebook and Twitter. Using these platforms, instructors and students share resources and exchange ideas (Andronie, 2014). These varied online collaboration technologies provide options for asynchronous and outside of the scheduled class time use, which help overcome the possible time difference across countries, enhance continuous collaboration at students’ own pace, and develop a learning community (Andronie, 2014). Students in COIL courses get the opportunity to collaborate with peers in the partner institution(s) on one or more projects facilitated by their instructors, through which they increase intercultural and diversity awareness, explore and develop cultural competencies, and gain experience in
communication and civil engagement in a global context (Fowler, Pearlman, LeSavoy, & Hemphill, 2014; Zhang & Pearlman, 2017).

**SUPPORTS FROM THE STATE UNIVERSITY OF NEW YORK (SUNY) COIL CENTER**

As one of the largest and most comprehensive system of public institutions of higher education in the United States, SUNY (n.d.) is composed of 64 campuses, more than 7,000 academic programs, and over 6 million students. In addition to hosting 20,000 international students on SUNY campuses and offering study abroad opportunities, SUNY encourages and supports their faculty to develop and implement Collaborative Online International Learning (COIL) Courses around the world (the SUNY COIL Center, n.d.).

The SUNY COIL Center provides networking and professional training opportunities to encourage and prepare faculty for planning, developing, and offering technology enhanced COIL courses with international partners. Faculty members who are interested in COIL first take an Orientation Course online to learn about COIL and the process of COIL course development, to network with other faculty, instructional designers, and technology support staff, and to build their own profiles with the potential courses or disciplines for collaboration. They then seek and identify a faculty member from another country as the partner and join the online SUNY COIL Academy to collaborate with the partner and prepare for the COIL courses at both institutions. Using technology innovatively, COIL courses help promote, integrate and enhance international learning experiences across cultures, languages, disciplines, and countries. In its first pilot circle of three years, 2010-2013, 21 U.S. institutions and 25 international partner institutions from 20 counties participated in the COIL Institute for Globally Networked Learning in the Humanities, which impacted a total number of 650 students and more than 100 faculty members (Rubin & Guth, 2015). The number of participating institutions, faculty, and students is growing continuously over years. The Center found campuses that engage in COIL use these courses as preparatory experiences leading to study abroad programs or as wrap-around courses with travel in the middle of the semester (Rubin & Guth, 2015). Since its establishment, the COIL Center has been devoted to engaging and supporting the SUNY campuses and their international partners with professional development and research-based practice (Forward, 2018).

**SUPPORTS FROM THE RESEARCH SITE, A FOUR-YEAR PUBLIC COLLEGE IN THE UNITED STATES**

The research site, a four-year public college (i.e., the College), is committed to preparing students to be world citizens. In support of this commitment, the College offers study abroad programs, hosts international student partnerships, participates and assists faculty in developing international networked learning SUNY COIL courses that partner the College and international institutions’ faculty and students. All these international learning opportunities provide students with experiences that prepare them with the skills to work in a global economy, including but not limited to developing relationships with international faculty and students, possessing deeper understanding of cross-cultural global issues, and being more open to and better prepared for enriched travel abroad experiences. By participating in online or blended COIL courses that include interacting with international faculty and peer students, the College’s students gain international learning experiences without enrolling in study abroad programs, which coincides with the mission of “creating a globally competent student body” (The Power of SUNY Strategic Plan, 2013; The College’s strategic plan: 2017-2022, 2016). The participation in COIL and
Global Learning will help “foster a diverse community through engaging faculty, staff and students” in “meaningful, purposeful, and rewarding educational activities” with global partners, facilitate “all members to go beyond the campus and uniquely achieve their maximum potential,” and support members’ transformation into a “deep, sustainable and meaningful change and growth” (The College’s strategic plan: 2017-2022, 2016). Table 1 compares the missions between SUNY, SUNY COIL, the College and its COIL Committee to provide evidence of their overlapping to each other on globalization.

Table 1. Alignments across the missions between SUNY, SUNY COIL, the College

<table>
<thead>
<tr>
<th>The College’s Strategic Plan</th>
<th>The College’s COIL Committee’s Missions</th>
<th>SUNY/SUNY COIL Missions</th>
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<td>Globalization</td>
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<td>Global Learning</td>
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<tr>
<td>Diverse Community</td>
<td>✓</td>
<td>Inclusive Society</td>
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<td>Transformation</td>
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<td>Transformation Mindset</td>
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<td>SLO – Cultural Competency</td>
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<td>Cultural and International Perspectives</td>
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The College’s faculty members are supported by grassroots Faculty Learning Communities (FLCs), which are established of the faculty, by the faculty, and for the faculty. An FLC is composed of six to fifteen faculty and professional staff across different disciplines to build a genuine community, make a year-long commitment, and engage in active and collaborative professional development conceived as learning (Cox, 2004; Zhang, LeSavoy, Lieberman, & Barrett, 2014). Despite the development of educational technology and the increasing demand from higher education institutions on online and blended teaching, the results of the survey of faculty attitudes on technology indicate that the old concerns still remain among faculty members regarding the role of technology in and outside of classroom (Jaschik & Lederman, 2014). From 2013, five FLCs, on Blended Learning, Mobile Learning, Online Tools for Teaching, Online Refresh, and COIL, have offered a safe, collaborative and interdisciplinary platform for faculty and staff members, on a regular basis, to exchange ideas and share experiences, pilot different technology tools and strategies of teaching, reflect and improve their teaching practices, and support each other to provide quality learning experiences with the ultimate goal of better facilitating student learning. With the combined support from SUNY, the College, and its FLCs, the College’s faculty and staff members who are interested in developing and implementing COIL courses are well supported financially, technologically, pedagogically, and through networking with other faculty and staff members (Zhang & Pearlman, 2017). Accordingly, the COIL Standing Committee, composed of faculty members who had experience with COIL courses, was established at the beginning of Fall 2018 to provide continued support and professional development opportunities to faculty members and to promote COIL on campus.

Table 2. Development of COIL at the College across years

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<th>2012</th>
<th>2014-2016</th>
<th>Fall 2017-2018</th>
<th>Spring 2019 (estimates)</th>
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<tr>
<td>Disciplines</td>
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<td>4</td>
<td>8</td>
<td>11</td>
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<tr>
<td>Faculty</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Courses</td>
<td>1</td>
<td>4</td>
<td>8</td>
<td>12</td>
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</table>
By the semester of Fall 2018, nine professors from nine departments have offered nine COIL courses that enrolled a total of 369 students at the College. Four more faculty members joined the team for training, and it is estimated that four more courses from three additional disciplines will be offered to benefit about 500 students from the College. Table 2 shows the development of COIL at the College through years.

COIL: A COLLABORATIVE PROCESS OF PLANNING, INSTRUCTION, AND ASSESSMENT

Collaboration is essential to the success of a COIL course, from planning to instruction and assessments. Faculty from both partner institutions work closely together to develop a joint syllabus during the planning stage. They discuss and reach an agreement regarding schedules, taking into consideration time differences, common student learning outcomes (SLOs), and joint assessments. The length of a COIL course ranges from four to fifteen (15) weeks. It could be embedded in 100% face-to-face courses, blended or hybrid courses, or 100% online courses, and the two partners do not have to be in the same course delivery mode for a COIL course to be offered. For example, one partner could offer a 100% online course while the other 100% face-to-face. Thus, it is also critical for the two instructors to discuss the course delivery and communication mode(s) in advance.

Figure 1. A COIL course development model

Typically, the College’s faculty and their international partners go through a course development model together with the support from the SUNY COIL Center and the local campus to plan, deliver instruction, and make assessments collaboratively. It starts with two 5-week-long online courses offered by the SUNY COIL Center, that is, the COIL Course Orientation (CCO) and COIL Academy, and supported by the COIL Standing Committee, Senior Instructional Designer/COIL Coordinator, Information Technology Service (ITS) & Audio/Video (AV) Support Professionals.
Service (ITS) and Audio/Video (AV) support professionals at the College. Together, the two instructors co-plan the COIL course syllabus, student learning outcomes, instructional materials, technology and platform, and assessments. Figure 1 shows the preparation and development process of a COIL course at the College.

The following is an excerpt example from a joint course syllabus co-developed by Pearlman at the College and her partner Fraile at Amsterdam University of Applied Sciences (AUAS) (Pearlman & Fraile, 2018a), which demonstrates the different course objectives yet the same student learning outcomes:

**Course Objectives:**
The College’s students: Explore the role and influence of advertising and mass persuasion in today's global society, theories of persuasion and persuasive techniques commonly employed in advertising and mass persuasion, techniques of persuasive manipulation and its neutralization, and ethics in persuasion.

AUAS students: Improve informative presentation skills by practicing with several deliveries and improving their cross-cultural communication in English while exchanging joint assignments in international teams.

**Goals:**
Students will develop intercultural competencies by critically analyzing the impact on consumers in a global economy through interaction, analysis, research, and design of cross-cultural marketing campaigns.

**Student Learning Outcomes:**
At the end of this course students will be able to:

1. Develop awareness and understanding of cultural similarities and differences after exchanging visual tangibles/deliveries, identifying diversity locally and abroad and engaging group online discussions.
2. Develop cross-cultural marketing strategies and advertisements.
3. Demonstrate Informational Presentation Style (Pearlman & Fraile, 2018a).

COIL courses provide teaching and learning experience across countries/continents, across disciplines, and often expose participants to different home languages (with English as default) and different cultures using a variety of materials, activities, and assessments. Usually, the two instructors from the partner institutions find mutual interest in topics and develop the assessments and rubrics together. The COIL course instructors could be in the same discipline or in different disciplines. For example, two professors of Special/Inclusive Education in the United States and Brazil offered a COIL course, which explored various topics of special/inclusive education in the two countries (Zhang & Capellini, 2018). Interdisciplinary COIL courses may inspire and profoundly impact participating students. For example, a professor of Special Education in the United States and a professor of Media and Culture in Sweden offered a COIL course, which focused on the topics of how individuals/groups with disabilities are portrayed in popular media and its impact to the society at large (Zhang & Glimäng, 2018). In both cases, the professors used the same assessment, reviewed all students’ work, yet evaluated and graded their own students’ work individually.

At the beginning of their COIL course, Pearlman and Fraile (2018b) used “the Iceberg Concept of Culture,” adapted from Hall (1977), as an icebreaker activity, asking the students to share their knowledge, or sometimes assumptions, about the culture of their peers in the partner institution. Through discussion, the participating students in U.S. and
Netherlands learned about each other and broke down cultural stereotypes. The surface culture is defined as what people face at first when they visit the country, the second layer or shallow culture represents what is acceptable or desired behavior, and the deepest layer includes the unconscious rules invisible for people who are not familiar with the culture (Hall, 1977; Pearlman & Fraile, 2018b). This is one example of how COIL could help the development of intercultural competence and communication skills.

Technology is a critical component of the COIL course. The instructors from the partner institutions share, explore, discuss, and decide which technology tools are to be used in the course for course delivery, material sharing, collaboration, communication and assessment. There are many open access third-party technologies as options, yet there is no existing research on the security risks to student data and other private information using these technology tools. Also, some countries have restrictions on using certain virtual tools, which needs to be taken into consideration when planning the course. Ideally, the technology tool(s) should be selected for seamless interaction among the participants. For example, the students enrolled in a 100% asynchronous course in the United States and their peers enrolled in a 100% face-to-face course in Sweden completed a COIL course through a closed Facebook site and Google Docs (Zhang & Glimäng, 2018). In the coming semester, the students enrolled in a blended course combining both online and face-to-face sessions in the United States and their peers enrolled in a 100% face-to-face course in China are to complete a COIL course through skype during the selected class time and dates (Zhang & Bi, 2019).

DISCUSSION: BENEFITS, CHALLENGES, AND LESSONS LEARNED

The COIL courses offer college students a platform to enhance student-to-student interactions and emphasize experiential and collaborative learning. They engage students to learn course content through their own and the other’s unique cultural lenses, build knowledge together and develop diverse personal relationships through negotiation of meaning when working in virtual teams (Fowler, Pearlman, LeSavoy, & Hemphill, 2014). Accordingly, technology enhanced COIL courses help increase not only intercultural awareness but also online intercultural communicative competence, so that students are better prepared for work and civil engagement in a global context (Zhang & Pearlman, 2017).

In addition to the benefits to students, technology enhanced COIL courses offer professional development opportunity to faculty and staff members through networking and collaboration. It is a cost-effective pathway to internationalize curricula and an avenue to develop new partnerships globally (Fowler, Pearlman, LeSavoy, & Hemphill, 2014).

The planning and delivery of COIL courses is a process of collaborative team-teaching, which requires committed time for the instructors at the partner institutions to co-plan the instruction and assessments. It is a process of give and take among team members rather than using the sole direction of a given person. This collaborative process challenges the traditional way of individual planning, delivering the instruction, and assessing student learning. Collaboration is embedded in the curricula with the purpose to enhance the student learning and to reach the joint course goals. The development and implementation of COIL courses are time-consuming. Furthermore, it is an ongoing process which does not stop at the end of the COIL course. Instead, the instructors at the partner institutions record, analyze, and reflect the development and implementation of the course and student learning outcomes, identify and document any gaps between the desired goals and actual outcomes, and discuss the needed changes in curriculum, instructional materials, teaching strategies and assessments for improvement in the next cycle (Fraile, 2018).
Technology might be another obstacle. For example, some campuses may not use learning management systems such as Blackboard as their teaching and learning system, while others may not have access to certain free online collaboration tools. Lack of funding might prevent potential instructors from attending the necessary professional development events; course development, promotion and marketing; and COIL-related research. Lack of understanding and support, time, technology, funding and resources are all the possible challenges for the success of COIL courses (Zhang & Pearlman, 2017).

Despite the benefits technology enhanced COIL courses bring to American and international students, faculty, and institutions, it is important to point out the lack of pedagogical and instructional support, and on-going technological professional development for faculty who teach online (Bailey & Card, 2009; van Rooij & Zirkle, 2016). Thus, it is essential for the administrators to support and recognize the work of the participants. It is also worthwhile for higher education institutions to explore the possibilities for overcoming the challenges and offering faculty and students collaborative online international course experiences.

REFERENCES


York (SUNY), Brockport, NY, the United States of America, and Changzhou University, Changzhou, Jiangsu, People’s Republic of China.


