Intercultural online learning experiences of Chinese college students

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Abstract

This study uses a quantitative methodology to examine the feasibility of intercultural online learning in higher education. Post-course assessments sought to investigate students’ satisfaction with this course, including learner-learner interactions, learner-content interactions, learner-instructor interactions, learner-technology interaction, academic culture satisfaction, general courses satisfaction, and general program satisfaction. Researchers invited 19 college students who had never been exposed to higher education in the U.S. from one Chinese university from various grades and majors to participate in the study. The findings indicate the feasibility of future online courses as described in this project to be offered in higher education institutions in China. However, the student-centered teaching pedagogy and English proficiency presented challenges during their learning. The results shed light on the future practice of intercultural online learning in higher education institutions that provide optional academic language training courses and sufficient learning materials, such as articles, slides, and videos, to cope with language barriers and combine teacher-centered and student-centered pedagogies to improve students’ adaptability and enrich learning activities.

Introduction

Political and economic globalization had caused higher education institutions to recognize the significance of cultivating their graduates with intercultural competencies (Gregersen-Hermans, 2017). The most critical strategies for building and enhancing relevant competencies are providing opportunities for students to visit and communicate with individuals from other countries, creating a scholarly environment with international cultures, and internationalizing the college curriculum. By the end of 2019, there were more than six million international students worldwide who chose to pursue all or part of their higher education abroad and emigrate to another country to study (UNESCO Institute for Statistics, 2021). Among them, China ranks first in the number of overseas students (Textor, 2021).

Since 2008, China has been the largest source of international students to the U.S. (Institute of International Education, 2020), accounting for 35% of all international students in the United States (Opendoors, 2020). The number of Chinese students studying in the U.S. in the 2020-21 school year was 15% lower than the previous year due to the impact of COVID-19 but still ranked first among international students from all countries (Silver, 2021). Most of the drop was
among new students who had not enrolled in a program at a U.S. higher education institution in the past year (U.S. Immigration and Customs Enforcement, 2021).

The rapid development of online learning in various countries due to the impact of COVID-19 has provided college students with new opportunities to improve intercultural literacy through international communications (World Economic Forum, 2020). However, there are few studies on the influence of students who have never studied internationally via online learning and intercultural learning satisfaction. This study investigates the satisfaction of Chinese students who have never studied abroad with intercultural online learning and sheds light on future similar programs. The following research questions guide this study:

- How do students in higher education institutions in China evaluate LMS MOODLE for cross-cultural learning opportunities?
- How do students in higher education institutions in China evaluate online learning experiences in a cross-cultural learning opportunity?
- How does intercultural exposure influence students' online learning experience in higher education institutions?

**Method**

A quantitative survey research approach was used to investigate students’ perceptions of online learning, learning with LMS, and intercultural impact on online learning experiences. The researchers designed an 11-week micro-credential program consisting of two online courses (Project Management; Multimedia Learning) adapted from the courses taught at a university in the midwestern United States. During the 11 weeks, students were required to participate in weekly one-hour synchronized lectures via Zoom video conferencing software, participate in online discussions with their classmates and the professor, and complete individual and group projects. Course completers received a participation or achievement certificate based on their final grade.

To assess the learning experiences, researchers invited the enrolled students to participate in an online survey, which was adapted from Strachota’s (2003) *Student Satisfaction Survey* (Appendix 1), posted in the MOODLE classroom. The collected survey data were transferred to Microsoft Excel for analysis and calculated as percentages. All course instructional materials and the assessment survey were delivered in English.

19 participants were recruited with a convenience sampling method. Among them, there were 16 females and three males. Eighteen students were aged 17-24, and one student was between 24-36 years old. In terms of majors, seven of them were computer science, four were economics, three were information science, and one each in accounting, English, mechanical engineering, and logistics. In terms of college classification, the participants included two sophomores, ten juniors, five seniors, and two graduate students.

**Course Design**

The design of the two courses in the micro-credential program, used as the focus of this case study, followed Bosch’s (2017) Blending with Pedagogical Purpose Model. MOODLE LMS was the platform for carrying course contents and learning activities. Students log on to MOODLE to read academic journal articles and related websites and watch relevant videos uploaded by the
instructor and post on discussion boards to reflect students’ understanding of the reading materials and videos. The weekly synchronous Zoom Session provided social and emotional communication and connections between students and the instructor. During the Zoom sessions, instructors introduced the following week’s learning objectives and answered students’ questions. Instructors also provided students with the opportunities to ask questions freely during one Zoom session to help students better understand U.S. culture. Students showed tremendous enthusiasm and asked diverse questions, such as what life was like on a farm in the U.S. or what life is like as an undergraduate student at a university in the U.S.

At the end of the two courses, students needed to submit an instructional video developed by the group based on the content of both courses. The final project included four parts—submission of proposal and storyboard, production of the first version of the video, peer evaluation and modification of the video according to suggestions, submission of the second version and final evaluation by the instructor. The final grades of the two courses were composed of the weekly discussion board postings and final project submission. Weekly Zoom session attendance was not part of the final grades.

Results

The survey responses revealed that seven (7) participants preferred face-to-face learning, three (3) preferred online learning, and nine (9) preferred hybrid learning. Four (4) participants rated their English proficiency as excellent, 12 moderate, and three (3) poor. Over 80% of participants evaluated the course content facilitated learning when evaluating the interactions between learners and learning content. All students agreed that the website, course documents, and assignments and projects provided in the two courses facilitated their learning (Figure 1).

Figure 1. Learner-content Interaction.

Participants rated most of the learner-instructor interactions positive. Nearly half (48%) of them expressed frustration because of lacking feedback from the professor, but around 90% of them
could receive timely feedback, gain attention from the professor, facilitate communication, and feel the professor’s presence (Figure 2).

**Figure 2. Learner-instructor Interaction**

Most participants believed the online discussion board was an effective tool for providing problem solutions to other students (90%) and opportunities for critical thinking with other students (79%), asking for clarification for peers (79%), and discussing ideas with peers (95%). A small portion of participants expressed that the online discussion board was a waste of time (31%) and that they did not receive timely feedback from peers (32%) (Figure 3).

**Figure 3. Learner-learner Interaction**
Most participants (89%) rated Moodle positively as a tool facilitating online learning, including ease to understand MOODLE features (79%), useful for fulfilling learning needs (95%), well organized to satisfy learning objectives (79%), and provide precise course content (84%) and flexibility to navigate among learning resources according to individual learning speed (84%). Fewer participants (68%) expressed the ease of using MOODLE for learning and willingness to use MOODLE in a future study. Participants explained that the open-ended questioning used in this study was sometimes slow in loading contents (Figure 4).

**Figure 4. Learner-technology Interaction**

![Graph showing learner-technology interaction](image)

In terms of the impact of academic culture on online learning experiences, most participants agreed that they have confidence about their English proficiency in communicating with professors (63%), reading and listening to the learning materials provided by the professor (74%), and accomplishing the course assignments (79%). However, over half of the participants (58%) worried about speaking up during weekly Zoom sessions in class discussions. Adapting to a different pedagogy style was the major challenge to learning and participating in the two courses (90%) (Figure 5).

**Figure 5. Academic culture satisfaction**

![Graph showing academic culture satisfaction](image)
All participants were satisfied with the two online courses. Most participants would like to take another similar online course (89%), recommend this course to others (89%), and believe they learned as much in the online courses as in a face-to-face course (74%) and felt it was as effective as face-to-face courses (79%). However, below half of the participants stated that the two online courses meet their learning needs (Figure 6). Participants in the open-ended questions explained their expectations on more oral communication, group projects, and richer learning content and materials.

Figure 6. General Course Satisfaction

In the assessment of the micro-credential program, most participants were satisfied with the program (90%) and would like to take other courses in the micro-credential program (78%) and recommend this program to others (89%). Most participants expressed difficulties with the course content and assignments (Figure 7).
For the open-ended questions, participants mentioned that their primary motivation to enroll in the micro-credential courses was to understand foreign cultures, experience western pedagogy, and improve their English proficiency through communication with an American professor. When discussing the program’s learning outcomes, participants described various ones, including a preliminary understanding of American culture, improved English proficiency, mastered practical skills, and changed thinking mode via experiencing different pedagogy.

Echoing the motivations, participants encountered challenges during online learning, such as inadequate English proficiency to interact with the professor and learning materials and incompatibility with a learner-centered learning approach. In response to the challenges, the participants suggested extending the weekly Zoom sessions to increase in-class discussions and improve oral English skills, providing course handouts for self-study after class, and increasing group assignments and practice opportunities.

Discussions

For years, various scholars have discussed higher education online learning (Anderson, 2004; Dumford 7 Miller, 2018; Hiltz & Turoff, 2005) and cultural competency (Frawley et al., 2020; Helms, 2003; Rogers-Sirin & Sirin, 2009). The continuous development of information technology and the global COVID-19 pandemic provide new opportunities and challenges for the two widely discussed topics. This study combines the two to observe the intercultural impact of online learning by offering courses to Chinese college students who had never been exposed to higher education in the U.S. through an online learning platform. Students who participated in the survey gave positive feedback on the program and the courses. They expressed their willingness to enroll in similar online courses and recommend them to others. As an initial exploration, this present study indicates the feasibility of future online courses such as these described in this project to be offered in higher education institutions in China based on participating students’ reported satisfaction.

It is essential to support online learning by providing students with sufficient course-related learning materials, such as readings (e.g., textbooks, websites, journal articles), videos,
PowerPoint slides, and handouts, on the platform of an LMS. Due to the difference between cognitive academic language competence and language used in social situations (Cummins, 1980), terminologies appeared in the subject courses, and relating learning materials may be difficult for students who speak English as a second language to understand (Cuevas, 1984). Therefore, students need to reflect and deepen their understanding after class by looking at, and translating into their first language, if necessary, readable learning materials consistent with the content of the synchronous discussion.

Most higher education institutions in the U.S. apply student-centered pedagogy that emphasizes teamwork, class participation, critical thinking, independent learning, and student perspectives (Gu, 2008; Kingston & Forland, 2008; Parris-Kidd & Barnett, 2011; Yan & Berliner, 2009). On the other hand, Chinese universities apply more teacher-centered pedagogy, emphasizing the teacher’s authority in the classroom (Li et al., 2014). It leads to Chinese college students being unable to adapt to western pedagogy and face academic challenges at the beginning of the program. Even though being familiar with western pedagogy was one of the main motivations of the students who participated in the program, they still expressed discomfort with the pedagogy and obstacles to their learning process.

Awacorach et al. (2021) proposed an approach to combine the two pedagogies and enhance students’ understanding of knowledge, interest in learning activities, and teamwork abilities through community-based group practice activities combined with the instructor’s continuous indoctrination of knowledge from textbooks. Take the group assignment of the program as an example, which asked students to work in groups to make an instructional video. Based on Awacorach’s (2021) suggestions, in future programs, group assignments can be designed as, for instance, asking students to create an instructional video about smart devices use for community seniors according to interview results, Zoom lectures, and reading materials (e.g., multimedia design principles). Students can transform their efforts into social knowledge wealth, provide convenience for the community, and understand classroom knowledge comprehensively. It also meets the learning needs expressed by students about more variable group projects and learning activities.

Echoing Yi’s (2001) and Griner and Sobol’s (2014) findings, the primary purposes of students participating in the micro-credential program were to experience foreign cultures and different pedagogies. However, students in the program also have their peculiarities, such as the potential relatively insufficient English proficiencies, compared with those who traditionally emigrate to other countries for part or all of higher education. It explained why the students also attend the program to improve their English skills, expect more opportunities for oral English communication during learning, and believe English was one of the academic obstacles. Meanwhile, it further emphasized the significance of providing students with consistent reading materials during the online synchronous sessions. Also, many universities in the U.S. often offer English training programs to international students with insufficient English proficiency before entering regular undergraduate or graduate programs to facilitate students’ academic success (Andrade, 2006; Sherry et al., 2010). Future online interculture programs can also take similar measures to meet students’ learning needs and reduce relevant academic barriers.

**Limitations and Conclusions**

Limitations of this study lie in the uneven distribution of participants’ gender, which may lead to the lack of representativeness of survey results and bias. The diversity of participants’ majors

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and their inconsistencies with the courses offered by the micro-credential program may also lead to bias in their perceptions of the program. The smaller sample size may also lead to the results’ lack of generality.

COVID-19 has a negative impact on cultural and academic communications among students in higher education institutions by visiting and participating in foreign universities and relevant academic activities. However, the rapid development of information technology has provided new opportunities for online academic and cultural communications. This study indicated that participating students rated the micro-credential program positively, were willing to recommend it to others, and participate in similar academic programs in the future. During future programs, instructors can provide students with rich learning materials to help them understand the content and combine student-centered and teacher-centered pedagogy to improve students’ learning outcomes.
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