

Lessons Learned from an Online Course Taught for Chinese Undergraduates

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Background

In 2013, the University of Cincinnati (UC) and Chongqing University (CQU) in China created a joint program that allows students from CQU to earn undergraduate engineering degrees both from CQU and UC. The program of study is based on the program followed by students at UC including the mandatory co-operative education experiences that is required in that program. While students from CQU need to fulfill certain nationally-mandated courses, the curricula followed (courses and course sequence) is that of UC. One major characteristic of the program is to provide the Chinese students comparable education and experiences as the US students.

In order to obtain two degrees, half of the courses must be taught by CQU faculty and half must be taught by faculty from UC. All courses are taught in English. The structure of the program is that students spend the first six academic semesters in China at CQU and the last two academic semesters in the US at the University of Cincinnati. During the last two academic semesters, students receive one fourth of the courses; therefore another fourth of the courses must be taught by UC faculty while students are in China. Typically UC faculty travel to China to present the courses in person. Because of schedule and workload constraints, it can be difficult to identify faculty who can spend extended time in China to present courses in-person.

One solution to travel and schedule issues is to offer an online course. The number of online courses offered in the US is increasing and US students generally find the learning experience to be commensurate with traditional courses (US News, 2016; Babson, 2013). However, based on our interactions and planning for this program, Chinese students and universities do not have a favorable opinion of online courses. They generally view the courses as inferior to traditional courses.

ENGR 5110 Effectiveness in Technical Organizations is a course that is only taught in an online format at UC and it has been taught in an online format since 2008. This course was one of several that fit in the curriculum as a technical elective for the program of study for students in the program. Because faculty who taught other appropriate electives were not available to travel to China to teach in person, the decision was made to offer ENGR 5110 in the online format to CQU students. Since a significant characteristic of the program is to provide comparable experiences for US and Chinese students, it was concluded that Chinese students would benefit from having an experience with online learning.

Course Description

ENGR 5110 is an elective course taken by many students in the College of Engineering & Applied Science at UC (Rutz, 2010). The course is designed to help students develop awareness and some competency at professional skills and the course is presented in modules with each module focusing on a particular theme. The modules in the course are:

- Assessments and Background Materials
- Communication

- Global Work Groups
- Motivation
- Leadership
- Resilience
- Work / Life Balance

Content in the modules is presented through videos and readings available in a Learning Management System (LMS). Interaction in the course is facilitated through email and weekly discussion board posts. Students are required to write reflective papers approximately every other week. Three short online tests are also part of the assessment used in the course. There is no final examination, rather there is a final reflective writing assignment.

While all content, assignments, and instructions are available through the LMS, the instructor sends a weekly email message to all students informing them of the work for that week including content to cover, assignments and expectations for online discussions. Students are encouraged to contact the instructor with questions via email; if synchronous interaction is required phone or Skype are generally used.

Several modifications needed to be made to accommodate the students from CQU. Because they had restrictions on data usage, all the course videos were stored on media and distributed to students so they did not have to stream the content from the LMS. Since Chinese students have restrictions on access to web content, materials that were referenced from web sites other than the LMS were acquired (as permitted) and printed or the content was modified to not use the material students could not access.

The other major modification was to the course schedule. The academic year for CQU is somewhat different than that for UC. Likewise holidays, particularly the Chinese new year, require modifications to the academic calendar. The total number of academic days in the term for the US and China is quite comparable.

Student performance in the course was based on participation in discussion boards, homework in the form of the written assignments, and the three tests. Each week a discussion was posted and students were required to make contributions. The expectation for number of student contributions and the timing of those contributions was listed in the assignments section of the LMS and students received an email describing those same expectations. Students received points for their discussion board contributions if the posts were appropriate and sufficient and made according to the schedule.

The written assignments were graded on completeness (inclusion of all topics required by the assignment), clarity of thought, and timeliness. The Chinese students were instructed in English but that is not their native language. Students were not graded on punctuation, grammar or quality of writing for this course.

The tests were conducted online. Each test had 10 questions with questions pulled from a block of questions. Questions were presented one at a time and students were not allowed to backtrack

to previous questions. The questions were also asked in random order. Through these mechanisms the opportunity for students to copy from one another is diminished (Varble, 2014).

Student Performance and Evaluation

Performance of students is presented below for the spring semester of 2016 and summer semester of 2016. In both terms one section of the course was administered to students in the US and a distinct section to students in China. Final grades were dependent on participation (the discussion board posts), homework (written papers), and tests. The average scores for those areas and the final course grade are presented in Table 1 for the various sections of the course. The number of students in each section is also indicated.

Table 1 Student Performance in Course

	Spring 2016		Summer 2016	
	US n=51	China n=33	US n=50	China n=32
Participation	93.8%	94.5%	95.9%	76.4%
Homework	97.1%	91.0%	97.1%	89.4%
Tests	92.5%	82.0%	92.9%	87.8%
Final Grade	95.1%	91.1%	96.2%	86.3%

The college administers student surveys for every course taught in a term. The same survey is administered for all undergraduate courses. Partial results of those surveys are presented in Table 2 for each section of the class. The survey uses a Likert scale with 1 being strongly disagree or very poor, 3 represents a neutral response and 5 being strongly agree or excellent. The number of students who completed the surveys are also indicated. Course evaluations are completed before term grades are posted.

Table 2 Student Evaluation of Course

	Spring 2016		Summer 2016	
	US n=20	China n=8	US n=18	China n=18
The course was well planned	4.8	4.1	4.8	4.5
The professor was approachable to discuss problems related to the course	4.8	3.8	4.7	4.3
Class assignments and exams were relevant to the course material	4.8	3.9	4.8	4.5
The grading was fair	4.7	3.8	4.9	4.3
Overall, how do you rate this course?	4.5	3.1	4.6	4.0
Overall, how do you rate this professor?	4.6	3.5	4.8	4.1

The evaluations also provide an opportunity for students to provide open-ended feedback. The following are representative of the comments received from students:

- “He was well organized, provided pertinent information, and his passion for his work really shows through in his efforts. I thoroughly enjoyed this course and I feel like this instructor did an excellent job.” UC student
- “The professor did an excellent job preparing and organizing the material for this course; it was extensive, thorough, very relevant to the course topics, as well as easy to understand.” UC student
- “Professor was always available and responded to questions in a timely fashion. Well organized and transparent about grading.” UC student
- “Kept the class very engaged despite being an online course. Excellent experience for my first class online.” UC student
- “This course is online and (I need to) learn by myself, so maybe I need to take time to do an interaction with the professor.” CQU student
- “Although the course is online, I am still impressed by the professor.” CQU student

Discussion

On average, the students from CQU did not perform as well as students from UC in this course based on data in Table 1. The reasons vary though from the spring term to the summer term. In the spring term CQU students’ homework and test grades were lower than UC students. In the summer term the participation grade, and to a lesser extent the homework grades, were the main reasons for the lower course grades.

Briggs (1994) and Chan (1999) have described the cultural considerations of Chinese students’ participation in classroom settings. This course requires significant participation through online discussions and in general, students did participate well. There was a drop in participation grade from spring to summer which was not expected. Conversations with UC faculty who have taught in-person in China and from administrators of the program indicate that the students have a strong network and share their experiences with their fellow students. The lower grades in participation for the summer were the result of students not making contributions per the instructions. It is unclear why this situation occurred.

The content of students’ written assignments and test results suggest that the format and expectations of this course are different than most, perhaps all, courses the Chinese students have taken. CQU students had a harder time connecting ideas from the course material and their personal experiences, or perhaps had a more difficult time articulating those connections. The CQU students were also more prone to not addressing a portion of an assignment. If an assignment asked students to discuss five specific topics, a number of students would address only four of the topics.

One issue that was encountered that affected performance in the course was communication with students. All assignments are posted on the LMS and a weekly email was sent via the LMS describing work for the week. CQU students however prefer to receive communication through QQ, an instant messaging software very popular in China. Because of this strong preference, it became clear that some students were simply not looking at messages from other domains on a weekly basis. When this situation was discovered, the solution was not that students learned to check other messaging systems, rather they had the other systems forwarded to QQ.

For the spring semester, students from CQU rated the course with significantly lower satisfaction than students from UC. In the summer semester however, the satisfaction indicated by students was much more comparable between the two groups of students. Nothing in the course content, grading or communication changed from the spring to the summer. Far fewer students from CQU completed the evaluation in the spring as compared to the summer. Despite the Chinese students achieving lower overall course grades in the summer, their satisfaction with the course was significantly improved.

This course provided an opportunity for the CQU students to experience a different mode of instruction and interaction, but a mode that is common in the US. Moreover, the format can help students be more self-directed and take greater responsibility for their learning than traditional face-to-face courses (Ruey, 2010; Wuensch et al, 2008). Since the students will be coming to the US for the last two academic semesters, providing this experience before they arrive was seen as helpful to their development and future success in the US. In particular, practice at conveying thoughts through writing will help these students in their senior design projects and other coursework.

Lessons Learned

Based on this experience, the following lessons learned are provided to assist others who might be offering a distance learning course to students in another country:

- Understand students' access to content and communication mediums. Limitations or differences in technology can require content to be made available through different means. Specifically it is important to check on restrictions to web-based materials and not to assume unlimited access is available.
- Academic advisors and program coordinators, if available locally, can help inform students regarding expectations, reassure students facing a new challenge, and direct students toward appropriate behaviors that will facilitate success in the course.
- Be clear on expectations regarding written assignments. Before the course was delivered, the expectation was that grades on the written assignments would consider grammar, sentence structure, spelling, etc. While grading the first set of assignments the instructor concluded that the task of grading for these would be overwhelming. While the course provided an excellent means for Chinese students to develop better writing skills, the university had not prepared adequately to support this. If possible, feedback on writing should be provided. It may or may not be appropriate to grade based on grammar, etc. depending on the goals of the course.
- Be clear about communicating expectations and let these expectations be known through multiple channels. If the course is being offered solely to provide content and learning experiences associated with the course topic, it is likely appropriate to adopt the students preferred method of communication. However, if the course fits within a program it is useful to require the students to modify their behavior to adopt the communication methods prevalent in the program.

- Significant time difference between two countries requires that any synchronous communication be well planned. It also requires forethought on time sensitive activities such as online tests that are only available for a limited time frame. Contingency plans should be made to deal with time sensitive activities.
- Issues of academic misconduct may be understood differently in the two cultures, particularly plagiarism. Rules regarding academic misconduct must be provided and must be reinforced multiple times. The consequences of academic misconduct must be established and made available to the students and then consistently applied. Explanation of these consequences when they occur should reinforce the understanding of appropriate behavior (Shei, 2005).
- If student satisfaction surveys are used to determine faculty performance, the relative scoring and performance between traditional student groups and the international groups should be considered.

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