

# **A Case Study of Chinese Students' Attitudes Toward Their First Online Learning Experience**

---

*By Heng-Yu Ku and Linda L. Lohr*

---

□ Most universities offer a traditional face-to-face format to deliver their courses in instructional design; few offer them in online format. What concerns or suggestions did Chinese students have while taking an online course in instructional design? This study investigated the perceptions and attitudes of five Chinese students toward their first online learning experiences, and explored issues concerning cultural influences in the online learning environment. Suggestions for improving the design of distance learning environments for Chinese students are provided.

Distance education is rapidly becoming an important method of instructional delivery for

various educational contexts. Numerous studies have compared the performance of distance learners to that of traditional classroom learners (Moore & Thompson, 1990; Russell, 1998). The broad consensus among these performance studies is that there appears to be no significant difference in learner achievement between these two modes. Generally speaking, the attitudes of students have been very positive and supportive toward online instruction (Chang, 2000). Although existing research has focused largely on student achievement or technical issues, less attention has been given to student experiences (Hara & Kling, 2000; Schrum, 1998). There are even fewer studies that focus on the experiences of international students in the online learning environment.

The importance of cultural influence on human behavior has encouraged many researchers to incorporate the role of culture into psychological theories (Pepitone & Triandis, 1987; Yehuda & Sharon, 1987). Hofstede (1980, 1984) identified and labeled four dimensions of cross-cultural values: (a) *power distance*: the extent to which power, prestige, and wealth are unequally distributed in a culture; (b) *uncertainty avoidance*: the value placed on risk and ambiguity in a culture; (c) *individualism-collectivism*: the individualistic cultures stress the individual's goals while the collectivist cultures emphasize group goals; and (d) *masculinity-femininity*: the masculine traits include strength, assertiveness, and competitiveness while the feminine traits include affection, compassion, and emotionality. According to Hofstede (1984), the Taiwanese culture has larger power distances and stronger uncertainty avoidance, while the United States culture has smaller power distance and weaker uncertainty avoidance. Taiwanese societal norms were collectivism and femininity while the U.S. norms were individualism and masculinity. When East meets West, Asian and American differ in beliefs and values considerably.

In 1986, Heikinhimo and Shute reported that most Asian students who studied in the United States had problems understanding lectures, taking notes, answering questions, and writing essays as a result of language obstacles, and these findings are still true today. Most Asian

students have different learning styles and cultural backgrounds compared to their American peers.

Asian students are more comfortable with lecture-based learning than with online learning because the concept of online learning is still new in their countries. However, in recent years, there have been increasing numbers of Asian students enrolling in online courses at universities in the United States. These students need to deal with many layers of cultural novelty. *Cultural novelty* is a term that reflects the degree to which norms of the host culture differ from those of the international student's home culture (Mendenhall & Wiley, 1994). Students who are new to the country and enrolling in online courses have to deal with the issue of cultural novelty not only in daily life, but also in the online learning environment.

#### Research Focus

Instructional design, the analysis of instructional problems and their solutions, is a required course for all students majoring in the field of educational technology. In most universities, instructional design is offered in a face-to-face teaching format. For the first time, a course in instructional design was offered in an online format by the authors of this paper. The current study investigated Chinese students' attitudes toward this online learning experience to discover if these students would feel comfortable and learn effectively in the online environment. The primary research questions for the study were:

- What were the Chinese students' perceptions (expectations and experiences) and attitudes (likes and dislikes) toward their first online learning experiences?
- How did the online interactions experienced by Chinese students compare to their traditional classroom experiences?
- What suggestions can be made for future design of online learning environments for Chinese students?

#### Method

##### *Subjects*

A total of 23 graduate students, 18 American and 5 Chinese, were enrolled in the online instructional design course. Of the 5 Chinese students, 2 females are from China and 1 male and 2 females are from Taiwan. Two students were enrolled in the doctoral programs (educational technology and educational leadership) and 3 were enrolled in the master's program in educational technology. All of them had been studying in the United States for less than one year and none had previous experiences with online courses. To keep the results of this study anonymous, pseudonyms have been used.

##### *Online course format*

The instructional design course was offered as an entirely online course for the first time in the Fall 2001 semester. Two instructors cotaught the course using the Blackboard<sup>†</sup> Web-based course management system. The terminal objective of the course required students to choose a topic of interest and create a design document and self-paced lesson using the elements of an instructional design model to guide their process. In order to create an online community among students, instructors randomly assigned students to groups of three. All students were informed at the beginning of the semester that peer evaluation would be counted as 20% of their final grade. The instructors also developed weekly minilectures that synthesized important information for topics that were covered in the textbook. These minilessons were then posted to the Blackboard Website.

Within each group, individuals were required to work on the first draft of the weekly assignments, provide and receive feedback to and from their group members, revise their first draft based on the peer feedback, and post their second draft online. Following the posting of this second draft, both instructors would look over their revised assignments online and provide feedback to each student. Students would then revise their second draft based on the instructors' feedback. These same procedures were repeated for each assignment, and stu-

dents would compile all revised assignments together into a final design document. After all sections of the design process were completed, students would develop a self-paced lesson based on the design document that they had been developing. They would then conduct a formative evaluation to test the self-paced lesson on its target audience. Finally, students submitted the final version of the design document and self-paced lesson online at the end of the semester.

### Materials

*Student Attitude Survey.* During the last week of the Fall 2001 semester, students completed a 21-item Student Attitude Survey designed for this study to indicate their attitudes toward the course and the online learning environment. These items were 5-point Likert-type questions that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The KR-20 reliability coefficient for the 21 items was .89. Several open-ended questions, such as students' preferred delivery formats for this course, perceptions toward online learning both before and after taking this course, likes and dislikes about this course, and suggestions to improve this course, were asked.

*Focus group interview.* After the Student Attitude Survey data had been collected, coded, and analyzed, the authors identified patterns derived from the data and conducted a focus group interview with all five Chinese participants.

### Procedure

Each student participating in the study was part of a different group in the actual course. After completing the design document and self-paced lesson, all subjects filled out the 21-item Student Attitude Survey and answered open-ended questions at the end of the fall semester. The focus group interview with all subjects was conducted at the beginning of the following semester. The interview lasted approximately 90 min.

### Data analyses

Quantitative (Student Attitude Survey) data were calculated and ranked for each survey item and qualitative (open-ended questions and focus group interview) data were recorded, transcribed, and categorized. The findings are reported in the results section.

### Results

The results are reported in the sequence of student attitudes, student perceptions, and student interactions.

#### *Student attitudes (likes and dislikes)*

The mean attitude scores and standard deviations for five Chinese students' responses to the 21 statements on the 5-point Likert-type attitude survey administered after completion of the online instructional design course program are shown in Table 1. Responses were scored as 5 for the *most positive* response to 1 for the *most negative* response. The overall mean score across the 21 Student Attitude Survey items was 4.06, a favorable rating indicating agreement with positive statements about this course. The 3 highest-rated statements on the survey were "I liked seeing pictures of my instructors and classmates on Blackboard" ( $M = 4.80, SD = .45$ ); "I liked seeing short biographies of my instructors and classmates on Blackboard" ( $M = 4.80, SD = .45$ ); and "I liked the minilectures provided by the instructors" ( $M = 4.80, SD = .45$ ). The two lowest-rated statements were "I would recommend this online course to others" ( $M = 3.00, SD = 1.23$ ) and "I would take this course as an online course again" ( $M = 3.20, SD = 1.48$ ).

The authors asked students, "Do you think the content of this course would be better taught in an entirely face-to-face environment, in a half face-to-face and half online environment, or in an entirely online environment?" One student preferred to take this course in an entirely face-to-face environment, two preferred half online and half face-to-face, one preferred entirely online, and one indicated no preference.

The student responses concerning their likes and dislikes about this particular online course

Table 1 □ Student Attitude Survey scores.

<i>Statement</i>	<i>M</i>	<i>SD</i>
1. I liked seeing pictures of my instructors and classmates on Blackboard®.	4.80	.45
2. I liked seeing short biographies of my instructors and classmates on Blackboard.	4.80	.45
3. I liked the minilectures provided by the instructors.	4.80	.45
4. I liked the “file exchange” function on Blackboard.	4.60	.55
5. I liked the feedback that my instructors provided.	4.60	.55
6. I spent more time working on this course than my other courses.	4.60	.55
7. I liked the “announcement” function on Blackboard.	4.40	.89
8. I liked receiving feedback from my group members.	4.20	.84
9. I learned a lot from this course.	4.20	.45
10. I would like to meet with my instructors and classmates face-to-face some day.	4.20	.84
11. The grading was fair in this course.	4.00	1.00
12. I liked the group format in this course.	3.80	.84
13. I liked having two instructors (coteaching) in this course.	3.80	.84
14. I liked this course.	3.60	1.67
15. I liked the on-line environment of the course.	3.60	1.67
16. I liked providing feedback to my group members.	3.60	.89
17. This course was easy.	3.60	.55
18. I liked the textbook that we used in this course.	3.40	1.52
19. The amount of the work required was fair.	3.40	1.34
20. I would take this course as an on-line course again.	3.20	1.48
21. I would recommend this on-line course to others.	3.00	1.23
Total	4.06	.52

*Note.* Responses ranged from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*).

are summarized in Table 2. Their likes fell into categories of convenience, flexibility, self-regulated learning; and dislikes felt into categories of lack of interactions and the complexity concept of instructional design.

#### *Student perceptions (expectations and experiences)*

Students were asked to indicate their perceptions toward online courses before and after taking the online instructional design course. Students had quite different expectations and experiences, ranging from excitement to fear before taking the course and from liking the on-line environment to never wanting to take on-line courses again at the end of the course. Student responses are summarized and shown in Table 3.

#### *Student interactions*

When students were asked to compare their interactions with American peers and instructors for the online course and traditional classroom environments, they indicated that both formats have their advantages and disadvantages. Their comments are summarized in Table 4.

#### Discussion

This study investigated the cultural influences on the online learning environment and explored issues of concern to international students who are planning to take online courses. Online instructors should take the needs of international students into account and develop appropriate strategies to assist them when teaching and designing online courses.

Table 2  Student likes and dislikes toward on-line learning.

<i>Likes</i>	<i>Dislikes</i>
<p><i>Convenience</i>            Could get everything done at home.            Did not need to worry about arriving in class late, finding a parking space, or driving to school on cold snowy days.</p> <p><i>Flexibility</i>            Enjoyed not having a fixed meeting time.            Did not feel stressed out or develop a fearful attitude toward this course.            Could choose the right time to study when highly motivated.            Read course materials at own speed.            Could easily access the class Website.</p> <p><i>Self-Regulated Learning</i>            Liked to work on individual project.            Liked learner-centered approach.            Encouraged self-study and learning.            When the actual project was done, it felt like a baby was born!</p> <p><i>Others</i>            Liked to see different topics and ideas that other students posted on-line.            Enjoyed feedback provided by instructors and other group members.</p>	<p><i>Interaction</i>            The interactions among students and instructors were not sufficient.            Lacked immediate feedback.</p> <p><i>Instructional Design Concept</i>            The difficult nature of the course.            The difficulty of gauging if things were done correctly.            The process of completing the project was labor intensive.</p> <p><i>Others</i>            The evaluation structure was too rigid.            Experienced technical problems while posting files online.</p>

Table 3  Student Perceptions Toward On-Line Learning

<i>Student</i>	<i>Before</i>	<i>After</i>
1	Sounded interesting. Felt excited.	Would never take on-line course again. This course was too demanding. Lacked instant interactions. Struggled alone.
2	Would be informal. Would only supplement part of traditional courses.	Made a good choice. Had to do my best on the projects and provide feedback to peers. Received great feedback from peers and instructors for further revisions.
3	Would be easy. Would be very cautious.	Spent plenty of time on this course. Valued the experience.
4	Sounded extremely high-tech. Felt uneasy. Feared unknown.	Liked the on-line learning environment. Interface was user friendly. Was easy to access class materials. Had plenty of interactions with peers and instructors. Felt comfortable emailing the instructors with questions.
5	Provided good opportunity to experience something new.	Enjoyed the on-line learning environment.

Table 4 □ Student interactions in online versus traditional classroom learning.

<i>On-Line</i>	<i>Traditional Classroom</i>
<p><i>Advantages:</i>            Required “real” participation with peers.            All interactions were very focused.            Fewer language barriers existed in the on-line environment—no speaking and listening, only reading and writing skills are required.            Still could arrange to meet with group members in person.            Worked on own project and ideas.            Interacted “more” with American students (intellectually but not physically).</p> <p><i>Disadvantages:</i>            Felt isolated and lonely.            Some people did not provide constructive feedback.            Teammates would disappear for a while in cyberspace.            Lacked language and cultural exchange.</p>	<p><i>Advantages:</i>            Could receive immediate interactions. Had more “what’s up, dude” “how are you” types of causal conversations.            Could view body language and/or verbal cues.            Could improve English listening and speaking skills.            Had greater opportunity to learn language and understand culture. (For example, American students would put their feet on the chair, eat in the classroom, and challenge their instructors.)            Could sense the class atmosphere, listen to jokes from the instructor, and observe American teaching and learning styles in the classroom.</p> <p><i>Disadvantages:</i>            Would usually sit quietly, nod head, or simply smile.            Would feel ashamed to express opinions because of strong accent.</p>

It is interesting to note that in the Student Attitude Survey, the highest-rated statements were “I liked seeing pictures of my instructors and classmates on Blackboard” and “I liked seeing short biographies of my instructors and classmates on Blackboard.” It seems that Chinese students liked the idea of building an online community among peers and instructors in this course, an expression consistent with the collectivist-femininity cross-cultural value (Hofstede, 1984) inherent in the Chinese culture. Chinese students’ neutral opinions regarding the two lowest-rated statements, “I would recommend this online course to others” and “I would take this course as an online course again.” however, suggest that the online experience could be improved.

Interestingly, the statements with the two highest ratings concerned technical features of the course but the two lowest ratings indicated that students are still ambivalent about taking online courses. Comments made by subjects (see Table 2) provide insight into these findings. Subjects mentioned “the difficult nature of the course” as well as “the difficulty of gauging if things were done correctly.” Chinese students come from a culture where an instructor is an authority figure. When the nature of the course content is nonlinear and the quality of peer feed-

back is skeptical, Chinese students would feel uncomfortable. Their feelings exemplify Hofstede’s (1980, 1984) uncertainty avoidance dimension of cross-cultural behavior.

Findings in this study also illustrate Hofstede’s (1980, 1984) other three dimensions as well (power distance, individualism-collectivism, and masculinity-femininity) and are described in the following suggestions. These suggestions reflect the authors’ experiences teaching this online course to Chinese students.

*Initial support.* The course designer should attempt to increase student self-confidence and motivation at the beginning of the course, perhaps by slowly scaffolding the skills required for success. One student stated, “In the online environment, the initial support provided to students needs to be strong because I have always had traditional classroom experiences since kindergarten in Taiwan.” Another student expressed that “I think that the grades that I received on the first two assignments were not fair because I was not used to the different class format. The instructor should give more time for students to become familiar with the interface at the beginning of the course.” Early on, instructors might provide a clear description of teacher and student roles, emphasizing the less

authoritative role assumed by the instructor. Hofstede's (1980, 1984) power-distance dimension is related to this suggestion, given the equal distribution of power in the learning environment between teachers and students.

*Group format.* The course designer should consider assigning students to small groups for the purpose of providing feedback to each other on individual projects. Hofstede's (1980, 1984) individualism-collectivism value was strongly communicated by the subjects during interviews. The Chinese students in this study preferred to work within a small group (preferably three people) to provide or receive feedback, but preferred to work individually on their projects (rather than working on a group project). One student said, "When we discussed a topic in the traditional classroom, I would let American students express their opinions first because I did not have good communication skills nor did I know how to express myself well. But in the online environment, everyone is equal." Another student mentioned, "When working with American students in the traditional classroom, if I had an idea and wanted to participate, I usually kept silent and would give in to the ideas of the American students. I do not know why. I just gave in . . . however, when working individually online, I would stick with my own idea and finish it." Hofstede's (1980, 1984) masculinity-femininity dimension is evident in this statement. The student expresses confidence and assertiveness in a learning environment where the ability to reflect prior to posting one's thoughts provides students with greater power and confidence in their communication.

Most students supported the idea of providing feedback to their group members. In that way, they felt that they were "forced" and were responsible to read the chapters and minilectures ahead of time so they could provide constructive feedback. They felt that since this is an online course, most of the feedback they provided or received was very professional sounding and right to the point. However, they suggested that instructors should state criteria for peer feedback because some group members only provided superficial feedback to them.

They also expressed that they would prefer not to be assigned to the same group with other international students in this online course.

*Self-regulated learning.* The online environment should have a strong self-paced format because of its learner-directed and learner-centered design. All participants strongly supported the learner-centered approach in the online environment and agreed that students should be responsible for their own learning. Several students expressed that in the traditional face-to-face classroom environment, they only need to sit quietly or nod their head when agreeing with something, even pretending to know something. In contrast, the online environment required real participation, especially considering that peer feedback was part of the grade.

*Language and culture issues.* The course designer should provide plenty of reading and writing opportunities for international students, and also encourage them to interact with their American peers and instructors in person when possible. The subjects felt that it was easier for them to communicate better with their group members online since there was no English speaking or listening involved in that environment. One student expressed, "I thought [an] online course would be easier for me because my English speaking skill is not good and I do not need to 'speak' in the online environment. Since I was only required to read and write in this course, I had much more confidence." Another student also expressed that "I liked the threaded online discussion because I had time to think first and then respond, unlike in the discussion in the classroom where I have to react and participate instantly." However, many of them stated that they felt isolated sometimes and would like to have face-to-face interactions with American peers to improve their English and to learn more about American culture.

## Conclusion

In some respects, many of the Chinese students' attitudes toward their online experiences are no different than those of their American peers.



American students express feelings of isolation and frustration over the lack of nonverbal cues, as well as being challenged by dealing with more verbally assertive group members. Appreciating the self-paced format, the ability to take a class without parking or travel hassles, and the opportunity to reflect and compose thought-out verbal responses are considered positive aspects of online learning by most students.

International students, however, have additional challenges in each of these areas because of cross-cultural differences in values, language barriers, and learning format preferences. Future online courses can take the challenges experienced by international students in this course into account in several ways:

- Attempting to increase the self-confidence and motivation of students early in the course through progressive scaffolding of needed skills.
- Providing the opportunity to work in small groups for the experience of giving and receiving feedback.
- Maintaining a self-paced, self-directed design of the learning environment.
- Providing multiple opportunities for reading and writing.
- Encouraging face-to-face interactions or meetings with group members and instructors when possible.

The challenges of designing effective online learning environments will continue for all nationalities, including Americans. As we move toward a global economy, the need to provide effective distance-learning environments across cultures will be increasingly important. □

## References

- Chang, C.S. (2000). *The effect of attitudes and self-efficacy on college student performance in online instruction*. UMI ProQuest Digital Dissertations, AAT 9994597.
- Hara, N., & Kling, R. (2000). Students' distress with a Web-based distance education course: An ethnographic study of participants' experience. *Information, Communication and Society*, 3(4), 557-579.
- Heikinimo, P.S., & Shute, J.C. (1986). The adaptation of foreign students: Student views and institutional implications. *Journal of College Student Personnel*, 27, 399-406.
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Sage Publications, Beverly Hills, CA.
- Hofstede, G. (1984). *Culture's consequences: International differences in work-related values*. Sage Publications, Newbury, CA.
- Mendenhall, M.E., & Wiley, C. (1994). Strangers in a strange land: The relationship between expatriate adjustment and impression management. *American Behavior Scientist*, 37(5), 605-619.
- Moore, M.G., & Thompson, M.M. (1990). *The effects of distance learning: A summary of literature* (ACSDE Research Monograph No 15). University Park, PA: The Pennsylvania State University, The American Center for the Study of Distance Education.
- Pepitone, A., & Triandis, H. (1987). On the university of social psychological theories. *Journal of Cross-Cultural Psychology*, 18(4), 471-498.
- Russell, T.L. (1998). *The "no significant difference" phenomenon*, 4th ed. Raleigh, NC: North Carolina State University.
- Schrump, L. (1998). On-line education: A study of emerging pedagogy. In S. Imel & B. Cahoon (Eds.), *Adult learning and the Internet: New directions for adult and continuing education, No 78*. San Francisco, CA: Jossey-Bass.
- Yehuda, A., & Sharon, I. (1987). Are social psychological laws cross-culturally valid? *Journal of Cross-Cultural Psychology*, 18(4), 383-470.

---

Heng-Yu Ku [heng-yu.ku@unco.edu] is an Assistant Professor and Linda L. Lohr [Linda.lohr@unco.edu] is an Associate Professor in the Educational Technology Program, College of Education at University of Northern Colorado, Greeley, CO, 80639.