

Yào! iSí! Yes!

International Perceptions of Online Education

Jennifer A. Linder-VanBerschot and Elena Barbera

INTRODUCTION

When it comes to e-learning, Friesen (2009) notes that theory and research struggle to keep up with the continuous innovations of the Internet. Due to this rapidly developing state of technology, researchers, instructors, instructional designers, and students alike have questions and concerns about online education. In Bogdan and Biklen's (2007) description of qualitative research, they suggest that qualitative researchers construct "a picture that takes shape as you collect and examine the parts" (p. 6). The

purpose of this study is to further enhance the current picture we have of online learning through the analysis of instructor and student perceptions of knowledge acquisition and the ability to transfer learning in online education courses in three countries.

LITERATURE REVIEW

At the turn of this century, Shive and Jegede (2001) suggested that research should be distance education's next important initiative, contributing to global eco-



Jennifer A. Linder-VanBerschot,
Instructional Design and Adult Learning,
University of Colorado Denver.
Telephone: (303) 989-2391.
E-mail: jennifer.vanberschot@ucdenver.edu



Elena Barbera,
Director of Research and PhD program,
eLearn Center, Universitat Oberta
de Catalunya, Barcelona, Spain.
Telephone: 34.93.326.34.01.
E-mail: ebarbera@uoc.edu

conomic development. There have been great advancements in distance education research during the past decade—yet leaders in the field still call for further research with increased international focus (Uzuner, 2009; Wright, Dhanarajan, & Reju, 2009).

QUALITATIVE RESEARCH

The research study presented here explores the topic of online education in three countries using a qualitative approach. Qualitative research provides rich descriptions of people and places, not easily captured by statistical data. It allows researchers to operate under the assumption that “nothing is trivial, and everything has the potential of being a clue that might unlock a more comprehensive understanding of what is being studied” (Bogdan & Biklen, 2007, p. 5).

Now that distance education is viewed as a respected partner to traditional face-to-face education, it is time to look at the field critically (Mason, 2006; Visser, 2003) and determine which lessons we have learned and should share. In a qualitative study, Eastmond (1995) identified the main components that influence the distance learning experience: learner readiness, online characteristics, and the learning approach of the students. Despite his research being over 15 years old, these components are still at the top of the list (Agius, 2003; Aubteen Darabi, Sikorski, & Harvey, 2006; Tallent-Runnels et al., 2006). As collaboration tools have improved, researchers have determined that a sense of community is also important (Annand, 2011; Ke, 2004; Lapadat, 2007).

EDUCATIONAL OUTCOMES

Mayer (2002) listed two important educational goals connected to knowledge acquisition, the first of which is retention. Retention is similar to knowledge acquisition, or what content the student feels is important or beneficial, in that it requires

students to remember newly acquired knowledge. In an online environment, learners must take the responsibility of logging in to the classroom and working through the content (Smith, 2008). This greater sense of responsibility on the learner forces the instructor to become more accountable since he or she must create a clear direction and pathway for progress through the course (Smith, 2008). Palloff and Pratt (2009) recommend all online instructors identify competencies, as well as corresponding outcomes for each competency. Instructors should then design materials and determine assessments to determine student performance.

Garrison, Anderson, and Archer (2001) investigated the extent to which cognitive presence can be created and supported in an asynchronous online environment. Cognitive presence is similar to knowledge acquisition; in an online course, cognitive presence would be apparent in learners as they demonstrate an increased interest in a topic, appreciation of different perspectives, and construction of solutions to previous questions. The authors concluded that cognitive presence is strongly linked to instructor support. Instructors committed to bringing cognitive presence into the online classroom introduce relevant problems, connect new ideas to previous experiences, and determine practical applications for transfer (Garrison et al., 2001).

Mayer (2002) included transfer of learning as the second of the two most important educational goals. Transfer takes knowledge acquisition a step further and requires that students make sense of the new information enough to apply it to different contexts. Mayer explained that transfer of learning leads to a greater sense of meaningful learning, whereas students collaborate in the construction of knowledge to solve a problem and make sense of future experiences. Palloff and Pratt (2009) recommend the use of authentic assessments to encourage application of knowl-

edge in professional or other settings. Learner performance, therefore, should be evaluated under the same conditions and using materials as a real-world performance would present.

Few researchers have focused on transfer in an educational setting. Given the importance of return on investments in the business setting, the majority of research on transfer of knowledge has been conducted in the context of professional training. Even then there is little agreement on nature of transfer, the extent to which it occurs, and the nature of its underlying mechanisms (Lobato, 2008). In the research that has been conducted in the training setting, the impact and transfer of learning from the classroom to the workplace is often contingent upon the nature of the transfer climate (Burke & Hutchins, 2007).

INTERNATIONAL RESEARCH

Through extensive research comparing work-related attitudes across more than 50 different cultures, Hofstede (1983) found that there is a close connection between values and communication. He initially established four consistent dimensions: individualism/collectivism, high/low power distance, uncertainty avoidance/acceptance, and masculinity/femininity. Although these dimensions provide a framework to talk about cultural differences, online researchers (Ess & Sudweeks, 2005; Hewling, 2005) argue they have limited application in online settings. Since his original study, other researchers have continued to apply the four dimensions to other cultures and contexts, and additional dimensions have since been suggested, such as long- versus short-term orientation (Hofstede & Hofstede, 2005). Furthermore, Hofstede and Hofstede (2005) included a discussion of the dimensions in different contexts, including the classroom.

When using Hofstede and Hofstede's (2005) dimensions to compare the three countries included in this study, there are

obvious differences. For example, the United States is one of the most individualist countries, whereas China is one of the most collectivist countries (with Spain being close to the middle). These differences impact the classroom. Students from individualist countries tend to speak up in class, whereas learners from collectivist countries speak up only when sanctioned by the group. Individuals from China tend to have higher power distance, meaning in the classroom they tend to have extreme respect for teachers and students only speak up when invited; individuals from Spain and United States have lower power distance. Individuals from China, Spain and the United States all tend to have similar middle-of-the-road scores for masculinity/femininity. In the school context, this means there is a relatively equal balance between ego and relationships.

Parrish and Linder-VanBerschot (2010) developed the cultural dimensions of learning framework as a tool for understanding the spectrum of cultural differences that impact teaching and learning. They explain, "The dimensions do not describe either/or conditions but spectrums along which both cultures and individuals vary" (p. 5). Unlike Hofstede and Hofstede's prescriptive dimensions, the eight key cultural dimensions in the cultural dimensions of learning framework are offered so that culturally based learning differences can be recognized during course design and development.

Demiray (2010) gathered stories from 42 universities in 39 countries in an attempt to examine the emergence and growth of e-learning, offering a comprehensive discussion of online education and societal development. Authors provided historical information on the country and state of education, and then proceeded to provide case studies. Yet data from students and instructors were rarely included. While numerous international studies exist (Agius, 2003; Hope, 2005; Uzuner, 2009; Wright et. al., 2009), few take the time to

capture the words of the learners and instructors, and compare them across cultures. Moreover, minimal research that focuses on the outcomes of online learning exists.

PURPOSE OF THE STUDY

This article reports the qualitative results on knowledge acquisition and learning transfer in distance education courses at three culturally different universities. We are primarily concerned with how students and instructors perceive knowledge acquisition in formal online courses, as well as their perceptions of transfer of learning. In addition, we address the extent to which learners and instructors from the three universities share similar perceptions.

METHODS

PROCEDURES AND INSTRUMENTATION

Two secure online surveys with closed- and open-ended questions were administered to students and instructors in three different countries (United States, Spain, and China). The questions used in this study were adapted from surveys used for prior research in an organizational setting (Gunawardena, Linder-VanBerschoot, LaPointe, & Rao, 2010). The online surveys and accompanying consent forms were originally written in English and subsequently translated into the official lan-

guage(s) of the university by an individual chosen by the researcher representing each university. The surveys sent to the Open University of Catalonia were translated into Spanish and Catalan, while the surveys sent to Peking University were translated into Mandarin. The surveys were then built using Opinio and hosted on the secure University of New Mexico Health Sciences application server.

All surveys were beta-tested to ensure clear instructions, logical questions, accurate translations, and functioning links. Any substantive changes to surveys in one language were made to all corresponding surveys. Table 1 provides a list of the three open-ended questions that were included at the end of the second survey sent to both instructors and students during the last few weeks of the semester. The responses to these questions are analyzed in this article.

UNIVERSITIES

The University of New Mexico (UNM) is the largest university in New Mexico, located in Albuquerque with around 35,000 students in attendance each year. It serves as a significant knowledge resource for the state, offering more than 200 bachelor's, master's, doctoral, and professional degree programs in a myriad of fields. Being close to the Mexican border, UNM boasts a diverse student population, with 30% of the student population being Hispanic and 5% being American Indian. Dis-

Table 1. Open-Ended Questions Sent to Instructors and Students

Instructor Questions	Student Questions
What was the most beneficial component of the course?	What was the most beneficial component of the course?
What was the most important concept you presented in this course?	What was the most important concept you learned in this course?
How have you prepared students to approach work/school differently given what you have presented in this course?	How do you approach work/school differently given what you have learned in this course?

tance education has been offered for decades, due to the vast size of the state, and online education continues to grow each semester. The majority of online courses are taught using WebCT Vista. UNM hosted this study.

The Universitat Oberta de Catalunya (UOC) is a fully online university located in Barcelona (Spain) with around 53,000 students. The mission of the university is to facilitate access and life-long learning to adult learners through asynchronous communication tools. The university's methodology is based in formative evaluation built in a unique and specific platform that includes teaching, research and management issues due to the fact is only driven to online learners. The university's principal aim is to ensure that each student satisfies his or her learning needs, gaining the maximum benefit from his or her own efforts.

The University of Peking (PKU) is a comprehensive and national key university. It is the first national university in modern Chinese history. PKU has over 30,000 students in 31 colleges and 14 departments, offering 101 undergraduate programs, 224 postgraduate programs, and 202 doctoral programs. The university values research as well as training students in specialized fields. PKU aims to become an international center for teaching and research in diverse areas of learning including pure and applied sciences, social sciences, humanities, sciences of management, and education.

DATA ANALYSIS

Upon receiving all surveys, they were separated according to country. A researcher from each of the respective universities read through the open-ended responses and used qualitative principles to develop a categorization and coding scheme using situation codes (Bogdan & Biklen, 2007). These categories were shared, modified, and reworded as needed. Researchers shared sample

responses from participants at all universities and coded them together. Once researchers created a set of categories, with common definitions and examples for each category, the researchers returned to the original list of open-ended responses and used the categories to code the responses. Researchers counted the number of statements in each category, and compared those counts to other universities. Actual responses from learners and instructors were matched to each category, and then translated to English to be used in this article. All conversations were conducted in English, as it was the only common language between all of the researchers.

PARTICIPANTS

Students and instructors participated from three universities: UNM in the United States, The Open University of Catalonia (Universitat Oberta de Catalunya, UOC) in Spain, and Peking University (PKU) in China.

Basic demographic questions were asked to better understand the characteristics of the participants. Courses were primarily taught at the bachelor's degree level (82.2%); however, all levels of education were represented. The participants at UNM were enrolled as education, nursing, and literature majors. Participants at UOC were primarily enrolled in psychology, psychopedagogy, and e-learning programs. Students from PKU were enrolled in an educational technology program, and some participants were also taking courses in contract law and Chinese language. Table 2 provides a visual representation of the number of instructors and students who responded to the open-ended questions at each university.

Despite similar methods of recruitment at all three universities, there was unequal representation in the results. However, the percentage of respondents corresponds to the size of the online program at each university. Because the response number var-

Table 2. Number of Instructors and Students Who Responded to Open-Ended Questions

University	Number of Instructors Who Responded	Number of Students Who Responded
UNM	8	32
UOC	73	211
PKU	17	74
Total	98	317

ies between the universities, percentages are reported in the results.

RESULTS

Findings are reported for instructor and student responses and are organized to answer two closely related questions: How do students and instructors perceive knowledge acquisition in formal online courses? How do they perceive transfer of learning after such courses have ended?

KNOWLEDGE ACQUISITION

When instructors were asked to identify the most beneficial component of the course, their comments fell under two categories: application of course material and interaction in the classroom. For example, instructors at PKU said the most beneficial component was that they “create an atmosphere of learning together” and “learners can communicate with one another.”

Of the instructors from UOC, 27% (20) said the most beneficial component was the application of course material and 24% (18) said it was interaction in the classroom. Instructors at UOC felt interaction in the online classroom was important for providing a space where students could share experiences and thoughts, as well as work together. Half (four) of the instructors who responded at UNM said the most beneficial component of the course was the individual work which provided students with an opportunity to better understand

the material. For example, one instructor said, “individual journals on topics and mindmaps were valuable tools to visually understand concepts.” Similarly, 29% (five) of the instructors at PKU said learning activities and their subsequent feedback on the activities were most beneficial.

When students were asked what the most beneficial component of the course was, they shared several concepts—which fell into three broad categories: learning different content, social interaction in the online course, and personal evolution. One student said, “All components were beneficial and built upon prior skills/learning.” Twenty-seven students mentioned the online tools were the most beneficial component—one student from UNM said on this topic: “I think the most beneficial aspect of the course was how it was put together, the class chats, the quizzes, how the tests worked ... everything seemed to be really cohesive in order to provide a great learning atmosphere.”

Students at UOC said the most beneficial components were personal evolution (20%) and social interaction (20%). The category of personal evolution was comprised of comments on reflection, effort, self-criticism, adopting a more global view, and the metacognitive process. One student explained how the online interaction inspired personal evolution: “Group work; knowing how to organize oneself with other people who have a life pace different from my own.” Comments coded as social interaction included promotion of working

in groups to share/display different views on the subject of the study, critical comparison of perceptions, and participation in debates and forums.

Students at UNM said the most beneficial components were learning content (17%) and interaction for educational purposes (17%). Learning activities (11%) and research (11%) were also frequently mentioned. Again, the students at PKU responded similarly to the students at UNM in that 44% of PKU students (34) said the most beneficial component was learning about the content of the course.

Five students had negative critiques, typically in regards to the amount of course content. One student at UNM said, "The class was designed very well although there was too much material for one semester," while a student at PKU requested additional opportunities for reflection during learning process: "The students should have chances to correct their homework after being checked by teachers." These responses were similar to comments mentioned by the instructors, particularly when comparing instructors and students from the same university. The greatest difference is that students emphasized interaction and students' personal evolution after the online learning experience more than the instructors.

When instructors were asked to identify the most important concept of their online course, their responses primarily fell into two categories: education and learning, and metacognitive skills and methods. A majority of comments referenced concepts related to the focus of the course being taught. There were also comments from all three universities regarding learning about research and teaching methods.

When students were asked about the most important component of the course, their responses lined up similarly to the instructors from the same university. The two most common categories overall were concepts related to psychology and education. Six students who responded to the

question said they learned so much that they could "not pick one."

Some categories did not have a high number of comments, but still provided insightful feedback. For example, 18 students said the most important concept was learning new information related to technologies. One student from UNM said: "The evolving dynamics of distance education and where it could be heading in the future was a very important concept I learned." Comments from 22 students fell under the category of learning skills. One student explained what he or she felt was most beneficial: "Discipline and responsibility, it was important to always stay on top of the reading assignments and quizzes for my benefit, which is how a career seems to grow." This comment indicates that the student was already thinking of how this student could use skills he or she had learned in the course in a different context. Similarly, 35 students felt the most important component was personal skill development. Another student from UNM said he or she learned, "That sometimes even when a subject does not move you personally you have to stick it out."

The students' responses fell in the exact categories cited by the instructors at the same university. Of students at UNM, 19% (six) said the most important concept was related to education, such as the application of distance learning, teaching across cultures, and/or the future of the educational world. Similarly, 70% (51) of students from PKU said the most important concept was related to education, with topics including teaching materials and principles and behavior assessment. At UOC, 29% (61) of the students reported the most important concept as being related to psychology. Although these are the same topics cited by the instructors at each university, a greater percentage of students listed noncontent specific concepts, such as learning skills, using new technologies, research, and personal skill development.

LEARNING TRANSFER

The final open-ended question asked instructors how they had prepared students to approach work/school differently given what they had presented in the online course. Of the instructors who responded to the survey, 93% (65) responded positively to this question. The most common method of transfer identified by the instructors was learning strategies; instructors felt that the learning strategies they presented—such as using critical thinking skills, multiple perspectives, and different tools and strategies to learn—would help students in future courses and life experiences.

Half (four) of the instructors at UNM said that they prepared students by providing learning strategies that students could apply in a variety of settings. One instructor described his or her approach with this comment: "It was a very interactive course ... [one] that requires a lot of active engagement and use of a variety of different tools and strategies to help them in applying these [tools and strategies] to their nursing education concentration and practice in teaching." A different instructor explained how she *hoped* she had prepared students: "I hope I have enabled them to be better critical thinkers, problem solvers and negotiators while understanding the sociocultural context in which they function."

Instruction of learning strategies was also the most common response from instructors at PKU. One instructor said he or she wanted students to "consider questions from different aspects," while another instructor explained it in a simple phrase: "To learn is to use." At UOC, 98% (50) of instructors at UOC answered positively that they believed they had prepared students to approach work and school differently based on what was presented in the online course. Unfortunately, the Spanish and Catalan question did not include the word "how," so very few instructors from Spain gave examples.

Nevertheless, one instructor explained how she had prepared students through her approach to teaching: "Yes, we have started it [transfer of learning] by promoting the practical side of the content."

Of students at all three universities, 94% responded that they felt they approached work and/or school differently given what they learned in the online course. A majority of the comments fell into the category of application of course material and personal enrichment. Different from the UOC instructors, more UOC students provided examples on how they approach work/school differently based on what they learned in the online course, although the word "how" was also not included in their survey.

The students' responses were similar across cultures. At UNM, 30% (nine) of students listed methods of application of the new material. For example, one student said, "I will apply what I have learned to every aspect of teaching. I can also apply it to how I approach learning." Thirteen percent described how application of what they had learned would enrich their lives in a more personal way, such as organizing time differently and being more open-minded and thoughtful.

Similarly, 28% (78) of students at UOC listed ways in which the material assisted in their personal evolution, including through increased security and curiosity, being more optimistic, and having a greater capacity to overcome obstacles. Twenty-six percent (71) described methods of application of course material, including applying their new knowledge to real situations and examples. One student from UOC said, "This course helped me know how to search for new information if I need it, and to not make a wrong diagnosis." Although the course was taught online, the student was able to recognize how to apply the material on the job.

Finally, application of course material and personal enrichment were the most common responses for students at PKU,

representing 47% and 37% of the responses, respectively. One student described how he or she will apply the new knowledge in a practical way: "I will improve my work efficiency with education and technology."

Several students' comments were not included in these categories, but were insightful all the same. One student from UNM described how her perspective of reality has changed due to the online experience: "I am more open to look deeper into e-learning and its potential for closing a gap between rich and poor. Though I am not 100% convinced, I am more open to explore based on taking this course." Another student explained how he or she has changed his or her approach to learning:

I'm more willing to review material over and over again until I understand a particular subject whereas before if I did poorly on a test I would just skip the material and try harder on the new information, but this class has taught me to stay focused and learn all that I can.

Eight students (representing all three universities) wrote that they will continue their academic career because of the positive experience they had in the online course. One student from UNM expressed the change he or she experienced:

This is one of the best courses I have ever taken. It has confirmed my interest in this subject and inspired me to apply to graduate school for further study in this area. I am grateful for Dr. X's obvious devotion to her students' learning.

Across the three universities only 6% of students said their approach to work/school had *not* changed much or at all and 1% of those said it has not changed *yet*. For example, one student from UOC said: "At the moment it has not changed because there has been no opportunity for practical application."

TRUSTWORTHINESS OF THE RESEARCH

Rigor in qualitative research can be determined by its level of trustworthiness. Lincoln and Guba (1985) established four criteria to determine the trustworthiness of qualitative research: credibility, transferability, dependability, and confirmability. Credibility was established through triangulating data both in terms of participants and methods. Open-ended and closed-ended input were gathered from instructors and their students at three different universities. Rich description of the processes used to conduct research between three universities was documented, thus establishing the potential for transfer of research outcomes to additional research settings. Although an external audit was not conducted, a steady audit trail has been maintained to confirm the research that we describe here actually took place. All instruments have been saved, data and coding files been securely stored, and e-mail correspondence has been logged.

Creswell and Miller (2000) discuss the importance of embedding validity during the planning and analysis of the research. In the spirit of research reflexivity, researchers acknowledged biases in the belief of distance education as an excellent learning opportunity and did their best to not allow opposing viewpoints to be lost in the analysis. Furthermore, the regular and in-depth discussions between researchers helped establish a meaningful coding schema to be used across data from different universities.

IMPLICATIONS

An important implication of these findings is represented in the similarities within and between cultures. Students and instructors within each culture responded similarly to questions, particularly when asked to identify the most important concept of the online course. Despite being from three different cultures (with substantial differences in Hofstede and Hofstede

ede's [2005] cultural dimensions), there were similarities between groups of students and instructors. For example, instructors across cultures felt that application of material was the most beneficial component of the course, whereas the students felt the content was most beneficial. In fact, students rarely referenced application of material when asked about the most beneficial component of the online course.

An interesting difference between the instructors and learners was that instructors tended to refer directly to the course and learning objectives, whereas students were more likely to include comments outside the realm of formal education. For example, students referred to personal skill development, social interaction, and personal evolution as they responded to questions about the most important and beneficial concept of the course. This is interesting, as there is minimal substantive research to support the impact of social interaction on the distance learning experience (Annand, 2011).

However, the most important implication of this study is found in the power of online education courses. As the discussion continues on the quality of distance education programs (Hope, 2005), it is encouraging to read the words written by instructors and students, describing the impact of the content and delivery of distance education on their academic, personal, and professional lives. Valuable quotes such as, "I learned to hear different perspectives and value them without thinking they are more or less (nor superior or inferior) to my opinions and knowledge," allow us as researchers to understand the power of online learning.

LIMITATIONS

This article is one piece of a larger study. The data were so dense that it was determined the quantitative and qualitative sections needed to be analyzed separately, so

as to not overlook essential information. The limitation of describing only this section of the analysis is that the reader may not understand the larger research picture. However, the aim of this article was to report the qualitative results. Barbera and Linder-VanBerschot (2011) provide a detailed analysis of the statistically significant differences found in the quantitative data.

The students and instructors who participated in this research study were located in three countries, representing three cultures. However, this also created challenges. For example, the *how* was dropped from the open-ended question sent to instructors at UOC. While we are confident in the translation of material, we understand the complexities of language and culture, and recognize that translations cannot possibly capture the entire meaning of the original statement. This posits a limitation that we are willing to accept so that we can provide an international set of results.

The final limitation is the difference of response rates between universities. Despite using the same recruiting strategies, there were not equal numbers of students and instructors at the three universities. This caused unequal representation in the data. However, findings were reported for instructors and students at each university, in order to highlight the differences. Most importantly, the percentage of respondents at each university was representative of the percentage of students taking online classes at the respective university.

SUGGESTIONS FOR FUTURE RESEARCH

Friesen (2009) suggests that different types of research have different purposes, pose different questions, and thus yield vastly different contributions. We agree and therefore recommend further research on student and instructor perceptions of

knowledge acquisition in formal online courses, as well as their perceptions of transfer of learning. Because the methods for this study were outlined with great detail, we propose that it is repeated in additional international settings and including K-12 and university students in formal/informal online environments.

However, additional approaches might be used to answer similar research questions. Student and instructor interviews would provide rich descriptions of the online learning experience. Furthermore, an extended observation of the online classroom would provide additional data from which to respond to research questions. Higher-level quantitative analyses would allow for claims of correlation and causation.

Any one of the central findings could be further investigated. Potential questions to be explored include:

- To what extent do learners choose to continue their education in an online setting? If given the choice of face-to-face classrooms or online classrooms, what do they prefer and why?
- To what extent does the introduction of social media impact learner and instructor perceptions of knowledge acquisition and transfer in online learning?
- What are the cultural factors within each country that impact the extent to which learners can acquire and transfer their learning?
- How do instructors (and researchers) know that learners truly understand the content and can apply the material outside of the classroom?

Furthermore, the limitations of this study provide potential for future research. Minimal research is available on the process of conducting international research. We must continue to develop an international research agenda to guide this continuously evolving field (LaPointe & Linder-VanBerschoot, 2012). A longitudinal

study would be interesting to capture the evolution of online learners as they gain experience and confidence in a formal online learning environment.

CONCLUSION

Overall, students and instructors from each university tended to respond similarly to the questions. Instructors felt the most beneficial component of the online course was that students were given the opportunity to apply information taught. Students, on the other hand, reported valuing the content they learned in the course and did not mention application as frequently. Students and instructors alike felt the most important concept in the course was education and learning. This finding echoes the quantitative data with students averaging 3.17 out of 4 that they agree their knowledge had increased because of the online course, and instructors averaging 3.13 out of 4 that their students' knowledge had increased because of the course (Barbera & Linder-VanBerschoot, 2011).

Students and instructors overwhelmingly reported believing students will approach work and school differently based on what they learned in the online course. One student from PKU said, "I will improve my work efficiency with education technology," while another student from UNM said, "I will apply what I have learned to every aspect of teaching. I can also apply it to how I approach learning." These findings echo the quantitative data, with students and instructors averaging 3.14 out of 4 in agreement that they were able to transfer their knowledge, and instructors averaging 3.17 out of 4 in agreement that they felt their students would be able to transfer their knowledge (Barbera & Linder-VanBerschoot, 2011).

Through reviewing the qualitative comments of students and instructors, we were able to hear about their perceptions of knowledge acquisition and transfer of learning in their words. We recommend

sharing this survey, with both open- and closed-ended questions, with universities that serve students speaking other languages and representing different cultures. This would allow further comparison of research across cultures to determine patterns in learner satisfaction, knowledge acquisition, and transfer of learning in online learning environments.

Acknowledgment: The authors would like to acknowledge the extensive work of Deborah K. LaPointe (1952-2009). She led this study and organized a lasting partnership between UNM and UOC.

REFERENCES

- Agius, B. (2003). Students' readiness for online learning: A case study from the faculty of education, University Of Malta [Electronic Version]. *Journal of Maltese Education Research*, 2.
- Annand, D. (2011). Social presence within the community of inquiry framework. *International Review of Research in Open and Distance Learning*, 12(5). Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/924/1855>
- Aubteen Darabi, A., Sikorski, E., & Harvey, R. B. (2006). Validated competencies for distance teaching. *Distance Education*, 27(1), 105-122.
- Barbera, E., & Linder-VanBerschoot, J. A. (2011). Systemic multicultural model for online education: Tracing connections among learner inputs, instructional processes and outcomes. *Quarterly Review of Distance Education*, 12(3), 167-180.
- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Boston, MA: Pearson.
- Burke, L. A., & H. M. Hutchins. 2007. Training transfer: An integrative literature review. *Human Resource Development Review*, 6(3), 263-296.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, 39(3), 124-130.
- Demiray, U. (Ed.). (2010). *Cases on challenges facing e-learning and national development: Institutional studies and practices*. Eskisehir, Turkey: Anadolu University.
- Eastmond, D. (1995). *Alone but together: Adult distance study through computer conferencing*. Cresskill, NJ: Hampton Press.
- Ess, C., & Sudweeks, F. (2005). Culture and computer-mediated communication: Toward new understandings. *Journal of Computer-Mediated Communication*, 11(1), 179-191.
- Friesen, N. (2009). *Re-thinking e-learning research: Foundations, methods, and practices* (Vol. 333). New York, NY: Peter Lang.
- Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence and computer conferencing in distance education. *American Journal of Distance Education*, 15(1) 7-23.
- Gunawardena, C. N., Linder-VanBerschoot, J. A., LaPointe, D. K., & Rao, L. (2010). Predictors of learner satisfaction and transfer of learning in a corporate online education program. *The American Journal of Distance Education*, 24(4), 207-226.
- Hewling, A. (2005). Culture in the online class: Using message analysis to look beyond nationality-based frames of reference *Journal of Computer-Mediated Communication*, 11(1), 337-356.
- Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, 14, 75-89. Retrieved July 21, 2006 from http://www.mty.itesm.mx/etie/centros/cia/comp_org/archivos/Cultural_relativity.pdf
- Hofstede, G., & Hofstede, G. J. (2005). *Cultures and organizations: Software of the mind* (2nd ed.). New York, NY: McGraw Hill.
- Hope, A. (2005). Quality, accreditation, and recognition: Issues in the delivery of transnational education. In Y. L. Visser, L. Visser, M. Simonson, & R. Amirault (Eds.), *Trends and issues in distance education: International perspectives* (pp. 23-34). Greenwich, CT: Information Age.
- Ke, F. (2004). *Forming virtual learning community within online course: Students' perspectives*. Paper presented at the Association for Educational Communications and Technology. Retrieved from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1b/a6/bb.pdf
- Lapadat, J. C. (2007). Discourse devices used to establish community, increase coherence,

- and negotiate agreement in an online university course. *Journal of Distance Education*, 21(3), 59-92.
- LaPointe, D. K., & Linder-VanBerschot, J. A. (2012). International research: Responding to global needs. In Y. L. Visser, L. Visser, M. Simonson, & R. Amirault (Eds.), *Trends and issues in distance education: International perspectives* (2nd ed., pp. 5-22). Charlotte, NC: Information Age.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: SAGE.
- Lobato, J. (2008). Research methods for alternative approaches to transfer: Implications for design experiments. In A. Kelly, R. A. Lesh, & J. Y. Baek (Eds.), *Handbook of design research methods in education* (pp. 167-194). New York, NY: Routledge.
- Mason, R. (2006). The university: Current challenges and opportunities. In S. D'Antoni (Ed.), *The virtual university: Models and messages* (pp. 49-69). Paris, France: UNESCO.
- Mayer, R. E. (2002). Rote versus meaningful learning. *Theory into Practice*, 41(4), 226-232.
- Palloff, R., & Pratt, K. (2009). *Assessing the online learner*. San Francisco, CA: Jossey Bass.
- Parrish, P., & Linder-VanBerschot, J. A. (2010). Cultural dimensions of learning: Addressing the challenges of multicultural instruction. *International Review of Research in Open and Distance Learning*, 11(2), 1-19.
- Shive, G., & Jegede, O. (2001). Introduction: Trends and issues in open and distance education in Asia and the Pacific. In O. Jegede & G. Shive (Eds.), *Open and distance education in the Asia Pacific region* (pp. 1-24). Hong Kong, China: Open University of Hong Kong Press.
- Smith, R. (2008). *Conquering the content*. San Francisco, CA: Jossey Bass.
- Tallent-Runnels, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Ahern, T. C., Shaw, S. M., & et al. (2006). Teaching courses online: A review of the research. *Review of Educational Research*, 76(1), 93-135.
- Uzuner, S. (2009). Questions of culture in distance learning: A research review [Electronic version]. *International Review of Research in Open and Distance Learning*, 10. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/viewFile/690/1305>
- Visser, J. (2003). Distance education in the perspective of global issues and concerns. In M. G. Moore & W. G. Anderson (Eds.) *Handbook of distance education* (pp. 793-810). Mahwah, NJ: Erlbaum.
- Wright, C. R., Dhanarajan, G., & Reju, S. A. (2009). Recurring issues encountered by distance educators in developing and emerging nations [Electronic version]. *International Review of Research in Open and Distance Learning*, 10. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/viewFile/608/1181>



VISUAL COMMUNICATION

Flexible, easy-to-use visual communication solutions help bring learning to life. Learn what grant options are available for your distance learning program.

Request your FREE customized funding analysis —
contact grantservices@tandberg.com

www.tandberg.com

TANDBERG

See: passion