Introduction to Section Two

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This issue of *Online Learning* contains five articles outside the Special Conference Section. This section of OLJ includes papers investigating faculty development, academic dishonesty, the community of inquiry model, online labs, sense of connectivity, and academic performance in an online program.

The first study is "Development of an Evidence-based Professional Learning Program Informed by Online Teachers' Self-efficacy and Threshold Concepts" by Kevin P. Gosselin of Texas A&M University Health Science Center and Maria Northcote, Daniel Reynaud, Peter Kilgour, Malcolm Anderson and Chris Boddey of Avondale College of Higher Education, in Australia. In this study the authors investigated self efficacy and threshold concepts teaching staff encounter when they learn about online learning and teaching and differences in these key concepts between faculty who are experienced and inexperienced with online teaching. Results in this third phase of their research, include that faculty presented a greater knowledge and appreciation of online teaching and institutional issues. The authors conclude that confidence and self-efficacy are the keys to making progress as an online teacher, and these are supported by understandings, skills, pedagogical knowledge, mentoring and developing a personal history of success.

The next paper in this section is, "An Integrated Approach to Preempt Cheating on Asynchronous, Objective, Online Assessments in Graduate Business Classes" by Daniel Sullivan of the University of Delaware. In this study the author investigated approaches to mitigating academic dishonesty in online courses. Utilizing both technological and social mechanisms the study concludes that the model implemented made cheating less practical, promoted effective evaluation, and improved teaching efficiency.

The third paper in this section is "A Comparative Structural Equation Modeling Investigation of the Relationships among Teaching, Cognitive and Social Presence" by Kadir Kozan of Purdue University. This study seeks to understand the nature of the relationships between the instructional, social, and cognitive processes described in the Community of Inquiry (CoI) literature. The author used the Community of Inquiry survey to model these relationships with 320 student respondents from 11 online graduate courses in the Learning, Design, and Technology Master of Science (MS) Program at a large Midwestern public university. Results indicate that, among this group of students, cognitive presence acts as a full mediator between teaching and social presence. Kozan suggests that instructors should therefore focus on increasing the cognitive presence of online learners, which would then enhance their social presence. The suggestion is that the design, facilitation of productive discourse, and direct instruction that

constitute teaching presence leads directly to the virtuous cycle of triggering events, exploration, integration, and resolution that constitute cognitive presence. This cycle is not an end in itself but in turn leads to the affective, interactive and cohesive dimensions of social presence. One would think that social presence and cognitive presence would be mutually supportive, but these results do not support such reciprocity between social and cognitive presence. Further study with a larger sample of students from a cross section of academic disciplines would be helpful in resolving some of the conceptual mystery of these results.

The next paper is "Comparing Physical, Virtual, and Hybrid Flipped Labs for General Education Biology" by Jin Y Son of California State University, Los Angeles. In this study the authors looked into costs, learner attitudes and learning outcomes associated with three different instances of a biology lab. The three designs included a traditional place-based lab, a fully virtual lab (with an in-person help center), and a hybrid lab where online labs alternated with in-person labs every week. Results indicated that, of the three formats, the virtual lab resulted in the lowest grades and that students in the hybrid version outperformed both the traditional lab and the virtual lab as measured by grades. Costs were lower in both the virtual and hybrid formats, and the hybrid format was associated with better attitudes toward biology. The authors conclude that carefully designed hybrid online labs can result in better student grades and attitudes towards science while lowering costs compared to traditional labs.

The final paper in this section is "Desired and Experienced Levels of Connectivity to an Asynchronous, Online, Distance Degree Program" by Shawnda Schroeder of the University of North Dakota Medical School. The authors studied perceived strength of connectivity using a survey instrument designed to reflect concepts of social presence and sense of community as described in the literature. The survey measured levels of affiliation to the academic program, other students, instructors, and advisors and was distributed to 100 graduate students enrolled in a Masters of Science in Special Education online program. Results indicate that the online students sampled wanted to establish and maintain a sense of connection first to their academic advisors, then to instructors, to their program third, and then, finally, to their fellow students. These findings suggest that students understand the crucial mediating role that advisors play in online education and that, like classroom students they know that instructors are essential to their success. The results also suggest that we may need to do more to develop online learning environments where students experience support for deep learning from peers in ways that are more salient and valuable to them.

References

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