

Introduction

On behalf of the Online Learning Consortium (OLC) and our Editorial Board, I am once again pleased to invite you to enjoy a new issue of *Online Learning*, the official journal of OLC. In this edition readers will find original research from across the US and around the world. Issue 19-2 provides insights into Massive Open Online Courses in hybrid setting, large scale research investigating online learner outcomes, smaller scale case studies, and conceptual advances of some familiar constructs. Consistent with our mission, these investigations inquire into learning processes, pedagogical practice, and technology supports to better understand and promote quality in online environments.

In the first article of this issue Rebecca Griffiths, Christine Mulhern, and Richard Spies of Ithaca S+R and Matthew Chingos of the Brookings Institution provide an innovative approach to research in Massive Open Online Courses in their contribution titled “Adopting MOOCs on Campus: A Collaborative Effort to Test MOOCs on Campuses of the University System of Maryland”. In this piece the authors examine campus adoption of MOOC content in hybrid online environments, reporting on students outcomes and challenges to integrating elements of MOOCs in classroom course settings. This kind of research is a crucial next step in understanding how classroom educators can best use these materials, the potential for course enhancement through their use, the kinds of challenges we can expect, and how college classroom students react to MOOC content integration. Faculty adoption of MOOC materials holds promise in enhancing classroom coursework with lower cost yet high quality content and may promote additional investigation of online and blended learning among this crucial stakeholder group.

Recent research investigating faculty concerns about online learning indicate that many believe outcomes of online learning cannot be equivalent to classroom instruction. While numerous meta-analytic reviews of this question indicate no significant differences in outcomes between these modalities (e.g. Bernard et al 2004; Means, Toyama, Murphy, Bakia, & Jones, 2009; Zhao, Lei, Yan, Lai & Tan 2005) all such studies decry the methodological weakness of the distance-education/classroom-education comparative literature. Common concerns expressed by meta-analysis center around studies with small sample sizes that often focus on a single course, surveys of other small populations, lack of controls for initial differences between subject, or emphasizing measures of satisfaction rather than learning outcomes. The current issue contains a remedy to many of those concerns in the work of Joseph Cavanaugh and Stephen Jacquemin entitled “A Large Sample Comparison of Grade Based Student Learning Outcomes in Online vs. Face-to-Face Courses”. In this study the authors take pains to address methodological shortcomings identified in the literature with a dataset of 5,000 courses taught by over 100 faculty members over a period of ten academic terms. Multiple regression analysis was used to account for initial differences in student demographic and academic variables to generate a robust test for differences in learning outcomes attributable to course format. Net of initial differences outcomes between classroom and online courses varied by less than 0.07 GPA points on a 4 point scale. The primary influence on individual course grades was student GPA, not mode of instruction. Critical reviewers of the literature will find some solace here and should cite this methodologically rigorous study.

As online education becomes embedded across disciplines investigators are analyzing the development of course content and outcomes in increasingly specialized areas. For example, in this issue David Johnson and Chris Palmer investigate student experiences in classroom and online versions of numerous introductory linguistics course sections. As with many courses, teaching linguistics online can

bring its own special challenges and Johnson and Palmer outline these with regard to content, interaction, and the profiles of students who tended to enroll in each modality. Regarding the latter, the authors found that students in the online sections consistently had significantly lower GPAs and (perhaps consequently) lower outcomes on a range of measures than did their classroom counterparts. The authors include recommendations for addressing some of these challenges including pedagogical approaches that may be more supportive.

Recent developments in online learning research are reflected in more ambitious case-study investigations of longstanding constructs, for example *social presence*. An example of such a study can be seen in Aimee Whiteside's multi-year examination of coded online transcripts, observations of face-to-face courses, and interviews with two cohorts of students in her investigation of social presence in a blended learning program. The result of the research is a new five-dimensional social presence model that includes Affective Association, Community Cohesion, Instructor Involvement, Interaction Intensity, and Knowledge and Experience. The work is supported with considerable data yet one imagines that other researchers in related areas (CoI for example) may want to understand subsequent phases of this research agenda. Will the authors address next the instructional roles and measure of online engagement and learning currently represented by constructs such as teaching presence and cognitive presence? We are anxious to see future research on these topics.

A second case-study in this issue examines the benefits of adding synchronous activities to an asynchronous online course. In their study of student achievement, sense of social community and sense of learning community Joann Olson and Fawn McCracken added weekly synchronous lectures in one section of their course. The two sections ran during the same term and used the same syllabus, assessments, asynchronous discussion questions, and grading scale. Using Adobe Connect sessions, the instructor delivered content and facilitated real-time discussions related to assignments, discussed PowerPoint presentations and requirements closely related to assignments, asked for input from students, and answered question through a chat feature. Despite the significant investment in time and effort they found no significant differences between the two sections on measures of academic achievement, sense of community, or course satisfaction. They conclude that incorporating synchronous activities requires careful consideration of the impact of this effort on student achievement, student experience, and institutional investment. While these results are suggestive rather than conclusive (e.g. the small sample size limits generalizability) more research regarding specific conditions under which synchronous interaction may have a positive impact seems warranted.

While Olsen and McCracken did not find an increased sense of community as a result of online synchronous instructional activity, Mariam Abdelmalak investigated the same construct with other interventions - various social media - and came to different results. In this research the author employed Twitter, Google Docs, Skype, blogs, and wikis throughout the course to enhance students' sense of community. Confirming and extending Olsen and McCracken's results documenting limited success with synchronous supports Abdelmalak's study concluded that asynchronous tools such as Google Docs, wikis, blogs, and Twitter *did* provide students with a stronger sense of a learning community while synchronous tools such as Skype did not. Together these studies help extend our understanding of this familiar construct and point the way toward improved practice based on collaborative pedagogical strategies - asynchronous methods may be more effective in promoting learning community. However, we do need additional research with larger samples to improve generalizability to other contexts.

Further enhancing our understanding of rich technology use, Richard Ladyshevsky, Ronald Pettapiece contributed a paper titled Exploring Adult Learners Usage of Information Communication Technology during a Virtual Peer Coaching Students. Exploring in-depth a specific use of technologies for establishing purposeful connections to support peer-to-peer coaching and mentoring the authors document that student have difficulties selecting the appropriate technologies (including social media) and in using them effectively. These struggles had a negative impact of the class achieving the educational objectives set by the instructor. The authors conclude that students can benefit from having information on technology selection; tips on how to use the technology, and guidelines for virtual communication to ensure educational objectives are met. The authors sensibly argue that these considerations need to be integrated into course development and likely involve more training and preparation. Relative to the other case studies presented here there is a simple take-away. If the goal of social media and other technology use is to develop a sense of community known to support learning; students may need support to reach these agreed-upon outcomes.

A final example of more advanced approaches to familiar topics can be found in Chuck Dziuban's study of student satisfaction in online courses. Arguing that satisfaction is not a unidimensional construct, but rather one in which ambivalence may be a defining attribute; the author attempts to identify latent elements of student satisfaction in the context of overall course evaluations. Examining survey data from nearly 1200 students Dziuban identifies three such constructs through factor analysis. The underlying factors include *engaged learning*, *agency*, and *assessment*. The author concludes that students are providing important messages about satisfaction in online coursework vis-a-vis implicit contracts that exist within them. Dziuban argues that the survey factors reflect the following implicit desires students want to communicate: "facilitate my learning", "recognize my abilities and accomplishments" and "let me know where I stand". When these elements of the implicit online course contract are unattended, dissatisfaction will likely follow. These results provide an elegant and parsimonious description of the student satisfaction construct that will be of great value to subsequent investigators.

Please read, discuss, and share these new studies and please also consider contributing to the scholarly dialogue supporting the future of *Online Learning*.

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