

Introduction to the Special Issue: Highlighting the Best Papers from the OTL SIG AERA 2019

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The American Educational Research Association (AERA) was founded in 1916 to improve education through the design, implementation, and dissemination of research on a variety of educational topics. AERA's more than 25,000 members from 96 countries are faculty, researchers, graduate students, and other distinguished professionals with rich and diverse expertise in education research. They work in a range of settings from universities and other academic institutions to research institutes, federal and state agencies, school systems, testing companies, and nonprofit organizations. Based on their research, they produce and disseminate knowledge, refine methods and measures, and stimulate translation and practical application of research results.

Each year the AERA annual meeting attracts thousands of students, teachers, and researchers to its annual conference to understand how to improve education through the design, implementation, and dissemination of rigorous educational research. The 2019 annual meeting was held in Toronto under the theme of “Leveraging Education Research in a ‘Post-Truth’ Era”. AERA has 12 disciplinary divisions and supports 154 special interest groups (SIGs). All of the former and most of the latter are represented at their annual meetings. One of the larger SIGs is the Online Teaching and Learning (OTL) SIG.

The Online Teaching and Learning Special Interest Group (OTL SIG) provides a forum within AERA for discussion and reporting on issues and research related to teaching and learning in online environments. The OTL SIG addresses all types of teaching and learning in all kinds of online environments including k-12 and higher education, and the development and implementation of ICT tools for teaching and learning online. For more information about the OTL SIG see: <http://www.aeraotl.com/>

At the 2019 annual meeting, the OTL SIG received 145 proposals from which 66 were selected to present. The articles in this special issue report on the research findings stemming from those proposals. It includes several articles concerned with quality in a variety of settings and from both instructor and student perspectives. Instructor perceptions of the development of community and faculty mentoring are also explored, and one paper examines what the instructors of award-winning courses believe makes them award winning. There are also several articles concerned with Massive Open Online Courses (MOOCs). We are also pleased to have the 2019 best paper recipient among the articles collected here.

Peter Shea and Temi Bidierano's article on the "Effects of Online Course Load on Degree Completion, Transfer, and Dropout Among Community College Students of the State University of New York" was the winner the 2019 OTL SIG best paper award. It explored the issue of whether or not community college students taking online courses are at greater academic risk than their peers who only take courses face-to-face. Previous research by the authors suggested that community college students taking up to 40% of their courses online were more likely to succeed while students taking more than 40% of their courses online were less likely to succeed. In this statewide study using data from the 30 community colleges in the State of New York system, they controlled for successful course completion to investigate the odds of successful degree completion. They found that students who attempted the majority of their semester courses online *but failed to accrue* credit for them were the most at risk. However, when controlling for successful course completion, the odds of degree completion increased for each additional unit of successful online study. The study concluded that when controlling for covariates known to impact degree completion community college students who successfully completed online courses, on average, nearly doubled their chances of earning a degree or transferring to a 4-year college.

The next two articles in this special issue looked at factors that predict success in online courses and a self-paced orientation designed to help students succeed online. Yu-Chen Yeh, Oi-Man Kwok, Hsiang-Yu Chien, Noelle Wall Sweany, Eunkyeng Baek, and William McIntosh report on findings from research on the structural relationships among achievement goal orientations, self-regulated learning strategies (SRL), supportive online learning behaviors, and expected academic outcome in various online courses in "How College Students' Achievement Goal Orientations Predict Their Expected Online Learning Outcome: The Mediation Roles of Self-Regulated Learning Strategies and Supportive Online Learning Behaviors." The results showed that two of the achievement goal orientations, mastery-approach goals (MAP) and mastery-avoidance goals (MAV), predicted the adoption of the self-regulated learning strategies and supportive online learning behaviors, which, in turn, predicted students' expected academic outcome for their online course. Specifically, students with higher mastery-approach goals were more likely to adopt different types of self-regulated learning strategies and supportive online learning behaviors to facilitate their learning experience. By contrast, students with higher mastery-avoidance goals were less likely to adopt self-regulated learning strategies and supportive online learning behaviors, which, in turn, led to lower grade expectations.

In "Evaluating Online Learning Orientation Design with a Readiness Scale," Juhong Christie Liu reports on research which studied the effects of a self-paced orientation course on student online learning readiness (SOLR) using a multi-year design-based research approach. There were three key findings. First, the self-paced asynchronous orientation improved students' online learning readiness in social, technical, and communication domains. Secondly, student perceptions of needing peer interaction on the pre-test merged with student-instructor interaction on the post-test; that is, students found that interacting with the instructor in the orientation satisfied their communication needs. Thirdly, the SOLR instrument (Yu & Richardson, 2015; Yu, 2018) served as an effective evaluative instrument for the design of the online orientation.

Four of the articles in this issue are concerned with MOOCs (Massive Open Online Courses): two explore tools for characterizing MOOC pedagogies, the Expanded Assessing MOOC Pedagogies instrument and the Course Scan rubric. Another investigates instructor perceptions of student learning in MOOCs and the last article investigates instructor and technology support for the development of students' self-monitoring skills for self-directed learning.

Rebecca Quintana and Yuanru Tan investigated tools and methodologies for describing MOOC pedagogies in “Characterizing MOOC Pedagogies: Exploring Tools and Methods for Learning Designers and Researchers.” To begin with, the researchers iteratively refined an existing instrument, the Assessing MOOC Pedagogies (AMP) tool to produce an Expanded AMP tool which they used to describe the pedagogies of 20 MOOCs. They then used cluster analysis to identify pedagogically similar courses and identified three factors that seemed to distinguish among clusters outside of the Expanded AMP characterization. Interestingly, initial analysis revealed that courses created by the same instructional design team, courses produced within the same time frame, and courses created as part of a single specialization were most likely to be grouped together.

“Instructional Quality of Business MOOCs: Indicators and Initial Findings” by Marc Egloffstein, Kristina Koehler, and Dirk Ifenthaler similarly focuses on MOOC pedagogies, but focuses on quality as assessed by Margaryan, Bianco, and Littlejohn’s (2015) Course Scan instrument. A pilot study of 101 business MOOCs revealed rather low overall instructional quality. While most aspects of structuredness and clarity were rated high across the MOOCs studied, but the implementation of instructional design principles within them generally fell notably behind. The implications from this study point towards a learner-oriented notion of instructional quality and individualized learning and increased learner support in business MOOCs. The results suggest that there is ample room for improvement in MOOC design, in particular in the direction of individualized learning and increased learner support. The authors also argue for the development of specific measures that embody a learner-oriented notion of instructional quality,

Meina Zhu and Curt Bonk’s article, “Designing MOOCs to Facilitate Participant Self-Monitoring for Self-Directed Learning,” investigated how instructors design and deliver their courses to develop students’ self-monitoring skills for self-directed learning as well as technologies used to support the same. It reports that to foster student self-monitoring, instructors helped students learn to use cognitive and metacognitive processes to produce internal feedback. To facilitate cognitive processes, MOOC instructors provided quizzes, tutorials, learning strategies, learning aids, and progress bars. For metacognition, they provided reflection questions and attempted to create learning communities. In addition, MOOC instructors, teaching assistants, and peers provided external feedback for students’ self-monitoring. Across these findings, technology played a central role in supporting students’ self-monitoring. MOOC instructors mentioned that a variety of technologies were used to facilitate students’ self-monitoring, including synchronous communication technologies, asynchronous communication technologies, and feedback tools.

Another way of assessing MOOC quality is to consider the quality of student learning within them. This is the approach taken by Jacob Askeroth and Jennifer C. Richardson in “Instructor Perceptions of Quality Learning in MOOCs they Teach.” In this case study, the authors completed semi-structured interviews with three MOOC instructors to explore their perceptions of the quality of learning in the courses they teach. Course and document reviews were implemented to observe concrete examples of those perceptions in practice. The findings suggest that instructors do believe that quality learning can take place within a MOOC, which they generally see as being accomplished through social constructivism (manifest in discussions dialogues, negotiations and collaborations) and self-regulated learning (evidenced as learners accomplish their intended goals).

Indeed, instructor perspectives provided the data for three additional studies included in this special issue, and student perceptions provided the data for another two. Swapna Kumar, Florence Martin, Kiran Budhrani, and Albert Ritzhaupt's article "Award-winning faculty online teaching practice: Elements of award-winning courses," reports on the perspectives of eight award-winning online faculty on what made their courses superior and the differences between expert and novice online instructors. The five main areas that emerged from interviews were: authentic and relevant course materials connected to practice, the use of multimedia resources, student creation of digital content individually and collaboratively, student reflections on learning, and the instructor's explanation of the purpose of activities, technologies and assessments in the online course. Award-winning faculty also emphasized the importance of using data and evaluation practices and reflecting on course offerings. Faculty described expert online instructors as being experienced and comfortable in the online environment, using a wide range of strategies, being willing to learn, using data and analytics, and engaged in continuous improvement.

Sharla Berry likewise focuses on faculty perspectives in "Faculty Perspectives on Online Learning: The Instructors' Role in Creating Community". This qualitative case study builds on a previous study of students' perspectives on community in an online program. The findings suggest that while online students' sense of community was influenced by their interactions in class, in study groups, and at in-person social events, online faculty saw their role in cultivating community as limited to the classroom. Professional and personal obligations as well as the academic reward structure limited faculty engagement in the online community. The findings have interesting implications for developing distance programs that support both student and faculty needs.

In "The Impact of the Cooperative Mentorship Model on Faculty Preparedness to Develop Online Courses," Larisa Olesova and Susan Campbell explore the efficacy of a cooperative mentorship model from the perspectives of the faculty being mentored. A purposive sample of eleven faculty were interviewed concerning their perceptions of the program and the factors influencing successful cooperation between themselves and the instructional designers. Results indicated that faculty perceived their relationships with instructional designers to be effective because they were able to align resources and instructional strategies with learning outcomes, they used time efficiently, and they were also able to apply acquired skills to the development of online courses. The major factors they believed affected the success of these relationships were motivation, open-mindedness, and a focus on work. The study also found evidence that cooperative mentorship relations between university faculty and instructional designers can lead to the development high quality online courses.

Student perceptions are the focus in Ayesha Sadaf, Florence Martin, and Lynn Ahlgrim-Delzell's article, "Student Perceptions of the Impact of Quality Matters—Certified Online Courses on Their Learning and Engagement". Quality Matters (QM) is one of the most widely adopted sets of standards for best practices in online courses to promote student learning. In their study, fifty online graduate students completed a survey developed based on the 43 rubrics in the QM instrument. Among the eight categories into which the rubrics are clustered, students rated Course Activities and Learner Interaction as having the highest impact on both student learning and engagement. "Clear expectations" loaded as the highest factor for both learning and engagement. These results will help instructional designers and online instructors understand the impact of individual QM design standards from students' point of view to design online courses that effectively contribute to their learning and engagement.

We would like to extend our special thanks to OLJ editor-in-chief Peter Shea, OLJ managing editor Sturdy Knight, OTL SIG chair AnaPaula Correia, OTL SIG program chair Mary Rice, and all our authors for their help in bringing you this special issue. We hope you enjoy the articles as much as we did and find them useful.

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