

Introduction to Section II of the September Issue of the Online Learning Journal

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Abstract

In addition to the special section in this third quarterly volume, this issue also contains 8 articles from our regular submission process. These articles cover a broad range of related themes such as interaction, feedback, self-regulation, the COI framework, online STEM education and other topics.

We are very pleased to begin this section with a new article by Di Xu of the University of California, Irvine along with her colleagues, Qiuji Li of the National Institute of Education, Nanyang Technological University, Singapore; Gabe Avakian Orona of the University of Tübingen, Denmark; and Xuehan Zhou of the Institute of Economics of Education, Graduate School of Education, Peking University, China. In “Interaction-Oriented Instructional Practices Show Promise in Enhancing Overall Performance and Narrowing Racial Achievement Gaps in College Online Courses” these authors investigate the connection between six domains of interaction-oriented practices and student concurrent and distal success outcomes. Findings indicate a strong positive association between the overall usage of interaction-oriented practices and course completion rates, where instructor–student course managerial interactions play a particularly critical role in narrowing racial performance gaps. Dr. Xu, who has been a frequent co-author with OLJ’s Senior Associate Editor Shanna Smith-Jaggar, regularly conducts important analyses intended to address racial disparities and the current paper reflects her commitment to taking on challenging studies that advance our understanding in this arena.

In “Feedback is Integral: Using a Revised ICAP Framework to Achieve Active Learning in an Asynchronous Online Course” authors Vikki Pollard and Christine Armatas of the Centre for Education and Innovation, at Australian Catholic University adapt Chi and Wylie’s Interactive, Constructive, Active, Passive framework for use in asynchronous online settings. The authors introduce formative feedback to each ICAP level, concluding that the most active mode results in a student-produced artifact with evidence of having reflected on feedback. They use the revised framework to review a graduate level course of study consisting of eight asynchronous units recommending ways in which to apply the revised ICAP Framework to augment the level of active learning in the online mode.

In “Improving Community of Inquiry-Based Asynchronous Online Discussion through Improving Conceptual Knowledge by Information-Organizing Preparatory Activity with Kit-Build Concept Mapping” authors Lintang Matahari Hasani, Tsukasa Hirashima, and Yusuke Hayashi of the Graduate School of Advanced Science and Engineering, Hiroshima University, Japan, join colleagues Kasiyah Junus of the Faculty of Computer Science, Universitas Indonesia, Lia Sadita of Research Center for Data and Information Sciences, National Research and

Innovation Agency (BRIN), Indonesia and Ayano Ohsaki of Shinshu University, Japan to investigate online discussion based on the community of inquiry (CoI) framework. Encouraging learners to actively perform the inquiry process in an online discussion is challenging, particularly among novice students. To prepare learners to engage in effective problem-solving discussions, preliminary activities that focus on training the learners on how to elaborate and express ideas is helpful. Asking students to engage in summarizing key concepts can serve as an information organizing activity that prepares them for dialogue that is more productive. Alternatively kit-built concept mapping (KBCM) in which learners reconstruct teacher-created knowledge maps of key concepts from components and receive ongoing immediate feedback has been proposed. Previous research indicates that KBCM has the potential to improve upon summary writing in fostering cognitive presence, which includes triggering event, exploration, and integration, key indicators of advanced learning in the COI model. Results of the study indicate that KBCM is more effective for fostering exploration and encouraging transitions from integration to resolution compared to the traditional summary writing. This study does the hard work of advancing our understanding of a longstanding problem, how to promote significant learning through the lens of cognitive presence in the community of inquiry model.

The next paper in this section is “The Relationships Between Adolescents’ Academic Self-Regulation, Motivational Strategies, and Academic Achievement in Distance Education Process” by Tuğçe Gür of the Child Development and Education Department, Hacettepe University, and the Child Development Polyclinic, Turkey; and E. Helin Yaban of the Department of Learning, Motivation and Emotion at FernUniversität, Hagen, Germany. This study investigates a population gap in online education as most research is conducted on students in higher education settings, whereas this work examined self-regulated learning in a secondary educational context. Working with a sample of 311 adolescents attending public high schools from different socioeconomic levels in the Ankara, Turkey, the authors concluded that the effect of self-regulation on adolescents’ academic achievement in distance education was mediated through motivational strategies. These findings highlight the significance of motivational processes in adolescent academic success, shedding light on critical skills for thriving in distance education for this age cohort.

In “Synchronous Online Learning: Why Some Students Don’t Actively Participate” authors Helen Donelan, Karen Kear, Jon Rosewell, Ale Okada, Kieron Sheehy, Kevin Amor, Carol Edwards, Allan Mooney, Paige Cuffe and Tracey Elder of The Open University, UK analyzed data from more than 600 students and nearly 200 faculty to investigate lack of activity in synchronous online learning sessions. Survey data indicated that lack of confidence is a significant factor affecting student participation and that more than a third of students indicated that they experience stress when expected to take part actively in “live” tutorials. The study recommends various tools to lower stress levels including those that take the spotlight off individual students.

In “Teacher—Student Relationships in an Online Graduate Program: A Phenomenological Analysis” authors Eric Belt of the University of Maryland, Baltimore, and Norm Friesen, Patrick R. Lowenthal, Chareen Snelson, State University of Boise State

University argue that that students who perceive a sense of connectedness or closeness with teachers are more confident, less anxious, and perform better academically. However, less is known about how closeness develops in online environments, though the importance of relationships between faculty and students, especially at the doctoral level, can be crucial to student success. Consequently, the principal research question of this phenomenological study was: How do doctoral students experience the teacher–student relationship in a fully online doctoral program? Data for the study included transcripts from seven semi-structured interviews that revealed four categories that characterize the nature of faculty-student relationships. The paper provides thick description of the lived experience in detailing these four aspects including direct and indirect communication, student self-relational understanding, and teacher persona. The study explored how the emotional context of teaching interactions shapes the dynamics of teacher–student relationships in a fully online doctoral program, including moments of closeness, ambiguity, and perceived distance, adding crucial detail to our understanding of connections between online faculty and their doctoral students.

In the next paper in this issue is “Enhancing Online STEM Education: Impacts of Pre-Released Exam Materials and Remote Proctoring” by Mèta M. Landys of Oregon State University, the author provides evidence to suggest that online STEM environments can result in higher levels of attrition, especially among historically underrepresented classes of students in higher education. High-stakes timed testing situations can be partly to blame for this situation, leading the author to conclude that remedies found effective in used in classroom learning (i.e. pre-release of exam materials) might have similar benefits online. The author also investigates the use of remote proctors. The paper therefore seeks to answer three related research questions, “Do pre-released exams improve exam performance and socio-psychological factors relevant to the success of online STEM students?” and: “Do pre-released exams help reduce disparities in educational outcomes for students historically underrepresented in STEM?” and: “How do remote online proctors influence exam performance and key socio-psychological factors in online STEM students?” The answers to these questions are somewhat surprising and add nuanced insight into our knowledge of online assessment.

The final paper in this issue is “Revisiting the Interrelationships Between Social and Cognitive Presences in Asynchronous Online Courses: Insights from Epistemic Network Analysis” by Liu Dong, Chi-Jia Hsieh, Sunnie Lee Watson and Victoria L. Lowell of Purdue University, and Ji Hyun Yu of the University of North Texas. The authors note that learning in online environments is dependent on the effectiveness of asynchronous online discussions (AODs) and that analysis of online learning in AODs through the lens of the popular Community of Inquiry framework is somewhat methodologically limited. While many studies have investigated the interrelationships among the three presences in Community of Inquiry (CoI) studies, most rely on self-report CoI surveys and quantitative content analysis of discussion posts. However, these methods do not capture detailed information related to the dynamic interrelationships and the variations in interaction patterns. The purpose of this study is therefore to apply Epistemic Network Analysis (ENA) to investigate the dynamic interrelationships among CoI presences, especially social and cognitive presences, in AODs across classes with varying levels of activity and different instructional strategies. Accordingly, this study contributes to the

growing body of CoI research that uses advanced learning analytics and offers practical insights for enhancing the design and facilitation of online discussions.

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