

Introduction to OLJ Volume 26, Issue 4

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In section II of this issue, we have 12 papers that have been reviewed through our regular submission process. These papers cover a variety of topics including argumentation in online discussion, project-based learning, authentic learning, belonging, professional development in online education settings, as well as systematic reviews of literature.

In “Online Verbal Argumentative Interaction (OVAI) in an Online Science Class during the Covid-19 Pandemic” authors Pablo Antonio Archila, Anne-Marie Truscott de Mejía, and Silvia Restrepo of Universidad de los Andes, Colombia, take on the importance of argumentation in promoting student-centered learning in online science instruction. These authors review research indicating that the transition to online learning caused by the pandemic opened opportunities to rethink how we organize and facilitate deep learning that moves away from instructor-centered approaches. They highlight the possibilities inherent in organizing online science instruction around authentic argumentation that promotes more productive interaction between students. In a science course, they develop a framework for online verbal argumentative interaction (OVAI) that investigates whether this provides students with explicit opportunities to co-construct reason-based and/or evidence-based arguments and counterarguments. They also assess student perceptions of this approach. They conclude that the OVAI framework can be implemented, that it does result in productive student discourse in a science setting, and that students have positive opinions about the OVAI sessions. This paper also includes helpful tips for creating learner-centered instruction and an evaluative framework for analyzing student argumentation in a science context.

While learner-centered instruction is one way to improve online learning, we should not lose sight of the role of the instructor in its implementation. The next paper, “The Community of Inquiry Perspective on Teachers’ Role and Students’ Evaluations of Online Project-Based Learning” by Pengyue Guo and Nadira Saab of Leiden University Graduate School of Teaching, The Netherlands; Danli Ren of Southeast University, China, and Wilfried Admiraal of Oslo Metropolitan University, Norway, focuses on the importance of the instructional role in implementing another learner-centered approach—online project-based learning (PjBL). In this paper the authors investigate graduate law students’ evaluations of online PjBL and how it is related to the role of the teacher at a Chinese university through the lens of the Community of Inquiry framework. Using survey research methods, the authors conclude that instructional design and organization played a different role in students’ perceived benefits of PjBL in different phases of the course. In the first four weeks, these aspects of teaching presence showed a positive influence on students’ perceived benefits in an assigned case analysis activity. This result revealed the importance of good design and organization in the early stages of the online learning process. These become less important as the course progressed, which may not be surprising as students need less guidance as they become familiar with a course. Overall, the authors found that various aspects of teaching presence and social presence have both direct and indirect effects on students’ evaluations of online project-based learning.

Investigating the role of the online instructor is continued in “Faculty as Designers of Authentic Learning Projects in Online Courses” by Victoria Abramenka-Lachheb of the University of Michigan and Gamze Ozogul of Indiana University Bloomington. The goal of this

study was to examine public health faculty's design and instructional practices that include authentic learning in a fully online graduate health program, and gain insight into how their interpretations of authentic learning are reflected in their courses. The study's participants include 10 faculty who engaged in both brief surveys and in-depth interviews that revealed both convergent and divergent conceptions of authentic learning. The faculty agreed that authentic learning is typically situated in real-world contexts and is relevant to learners' future careers. At a practical level connection between learning and future work therefore need to be designed into online coursework. Some divergent perspectives include a focus on authentic learning as personally meaningful in a subset of faculty interviewees and the need to reduce hierarchies between faculty and students in authentic learning environments. The authors conclude that considering its nuanced and complex nature, the term *authentic learning* has multiple interpretations and meanings. The paper also includes implications for research and practice.

The next paper in section II is "Making Sense of Crisis: Instructional Designers' Experiences with Emergency Remote Teaching" by Rhea Moreno, Lee Flood, Meredith Rausch, Arthur Takahashi, and Stacy Kluge of Augusta University. Supporting faculty through the stressful and often frightening early days of the pandemic was an immense responsibility for those instructional designers tasked with the abrupt shift to remote instruction. This qualitative study analyzes the experiences of the five members of an instructional design team at a small US university as they designed and executed three training courses during the summer of 2020 to prepare faculty for online instruction during the COVID-19 pandemic. The authors use a phenomenological frame informed by sense-making theory to gain insight into the lived experiences of the instructional designers (IDs). The authors report that through a combined narrative and thematic analysis, they were able to make sense of the IDs' individual perspectives as part of a shared account. That collective account emphasized creating order out of chaos, coming together despite challenges associated with infrastructure, making sacrifices, and in the end, completing a task that seemed nearly impossible. Further, they found that the unsustainable stress and workload reveals the reality of laboring in crisis mode and highlights the need to plan for future emergencies.

Continuing with the theme of challenges during the pandemic is "College Students' Belonging and Loneliness in the Context of Remote Online Classes during the COVID-19 Pandemic" by Ashley Hansen-Brown, Sean Sullivan, Brianna Jacobson, Blake Holt, and Shaelyn Donovan of Bridgewater State University. The authors of this paper emphasize the longstanding literature on the importance of a sense of belonging for physical and emotional health and overall wellbeing. The pandemic was obviously a major challenge to cultivating a sense of belonging. The goal of this study was to document barriers to a sense of connection focusing on specific educational experiences in remote courses (e.g., use of camera, support from online faculty, and connection to classmates) as well as outside of higher education (e.g., job loss). Among a sample of 160 students, the authors identify significant correlations between online behaviors and students' sense of belonging, engagement, self-confidence, and loneliness. Perhaps most surprisingly, and contrary to the authors' predictions, belonging was negatively correlated with taking more synchronous classes in fall 2020. Another notable finding was that although interacting with peers in remote online classes had beneficial correlations for belongingness, it seems that interacting with professors may matter more. The paper includes a much deeper analysis than can be covered here, but overall raises important considerations for research, policy, and practice.

Another lens on student experiences during the pandemic is to examine the challenges faced by first-time online learners without any preparation. The next paper is “First-time Chinese Online Students’ Expectations of Their Instructor in Fully Online Learning Environments” by Xi Lin of East Carolina University, which examines the experiences of this group of learners in the context of China, where fully online learning was not commonly practiced prior to the pandemic. The challenges associated with under preparation for online learning are significant. Research indicates that first-time online students often experience a high level of anxiety, which may negatively influence their learning, undermining both confidence and motivation that sometimes results in dropout. Additionally, there are cultural considerations in this international context. In contrast to Western cultures, which are frequently characterized as individualistic, and with small power distance between instructors and students, traditional Chinese culture is characterized by greater collectivism with considerable power differentials between students and faculty. These cultural traits influence classroom management, communication, teaching and learning approaches, and teacher-student relationships. The authors of this survey research seek to understand what first-time online students in China expect of their online instructors. One set of findings suggests that some expectations change in the shift to online learning. For example, the authors suggest that first-time online Chinese students do not believe being authoritative is an essential online instructor characteristic. In contrast to traditional classroom expectations, online learners may expect their instructors to listen to them, understand them, and build good classroom rapport. We have good reason to suspect that fulfilling these expectations will result in better outcomes in online education.

Understanding outcomes in online education settings is the subject of the next paper, “The Role of Evaluation Methods in Health-Related E-learning: A Rapid Review” by Jason Stemp, Urooj Khan, and James Boyd of La Trobe University, Australia, and Debannita Ghosh of Australian Catholic University. These authors note that while a growing proportion of workplace training is now conducted online and while many research reports indicate no significant differences in outcomes between online and place-based training, no standardised methods to evaluate the effectiveness of online learning have been established. Focusing on health-related fields, this paper describes the state of research to determine what evaluation methods are being used in online health training, the assets and deficits of these approaches, and which evaluation methods are appropriate for measuring the effectiveness of online education. The study includes a review of 30 articles from a ten-year period ending in 2021—focusing on health-related fields—from authors distributed around the world. The review thus endeavors to summarize research in this area and identify relevant evidence to help organizations develop learning interventions and measure the impact of student performance over time. The authors found that evaluation methods included student participation, students’ reaction to the training program, self-efficacy, knowledge assessment, long-term performance, and the Kirkpatrick Evaluation Framework. They outline weaknesses associated with each of these and make recommendations for improving them. The authors conclude that while education evaluation tools and methods are helpful in assessing the efficacy of the training programs, the evidence reviewed here indicates that using any evaluation method in isolation is likely inadequate.

The authors of the next paper echo concerns about an over-reliance on a single method of evaluation to understand student performance in online education settings. In “Using LMS Log Data to Explore Student Engagement with Coursework Videos” authors Suzanne Maloney, Megan Axelsen, Linda Galligan, Joanna Turner, Petrea Redmond, Alice Brown, Marita Basson, and Jill Lawrence of the University of Southern Queensland, Australia, investigate the usefulness

of LMS log data as a reflection of student participation and engagement with video content in online education settings. The authors analyze and compare data from two platforms, an LMS (Moodle) and a video platform (Vimeo) used by the same courses. As in the previous paper, these authors find that the comparison shows differences in metrics and thus offers a caution to users relying on unidimensional metrics. The two different platforms used to collect student log data on video use (for the same video) often recorded quite different click counts. While the results support the view that log data do provide educators insights about student behaviors, the time and expertise in extracting, handling, and effectively using the data may be impractical for many online faculty.

The next article in this section is “Student Perceptions of Hybrid Courses in Higher Education” by Sanne Unger, Carrie Simpson, Alanna Lecher, and Shara Goudreau of Lynn University. The objective of this paper was to assess student perceptions of in-class and out-of-class assignments in hybrid courses. The authors sought to understand what students value most about these aspects of blended instruction. From a practical standpoint they also wanted to recommend ways to optimize advantages and limit disadvantages of each. Using longitudinal data with 191 students from multiple semesters the study concludes, in part, that students most value timely feedback and the ability to interact with classmates while in the classroom and the flexibility of online sessions. The authors also include implications of these results for practice in hybrid learning settings.

Learning can be described through a variety of psychological, emotional, and social processes and our next paper focuses on the latter of these three categories. In “Systematic Mapping of the Social Construction of Learning (2015-2020): Challenges for Online Learning Environments,” authors Ruth-Elizabeth Minga-Vallejo of Universidad Técnica Particular de Loja, Ecuador, and María-Soledad Ramírez-Montoya of Tecnológico de Monterrey, Mexico, conduct a review of a variety of social dimensions of learning. Using a systematic review process, the authors identified 187 studies covering frameworks from communities of practice, communities of inquiry, to learning communities and more. The study maps when and where these articles were published, methodologies employed, who the authors are, and the citations they have generated, and concepts employed in addition to other dimensions of this important body of literature. Overall, this review provides the contours of an enormous and growing body of research highlighting the importance of socially interactive forms of online learning at various educational levels internationally.

The authors of the next paper, “The Role of Prior Online Learning Experience on Student Community of Inquiry, Engagement, and Satisfaction Scores by” Mohammad Shams Ud Duha, Jennifer C. Richardson, and Yukiko Maeda of Purdue University and Sevda Kucuk of Ataturk University, Turkey, also take on socially interactive forms of online learning as their topic. The Community of Inquiry (COI) framework seeks to describe, explain, and predict various instructional, social, and cognitive processes in interactive online environments. These authors hypothesize that learning to learn online is an important factor shaping student satisfaction and that prior online learning experiences might explain online student satisfaction and engagement, as well as ratings of the dimensions of the COI model. Some evidence suggests that prior online learning experience is correlated with increased student satisfaction, self-efficacy, motivation, and other variables important to learning, but other research finds that online learning experience can negatively influence student perceptions of course quality. This contradictory research suggests that students may become either more comfortable (positive) or more discerning (negative) as they become more familiar with effective course design. Using a sample of more

than 800 online learners, the authors find that online course experience has only a small association with specific subscales of the factors that were analysed – i.e., social presence and emotional engagement. The authors conclude that student satisfaction and perceptions of cognitive and teaching presence are not meaningfully related to prior online course experiences. Future research might investigate whether mediating variables influence this relationship. For example, does course quality shape the relationship between online experience and other outcomes? Perhaps more experienced students can better recognize a well-designed and facilitated course and are more satisfied in these than they are when enrolled in courses of lower quality design and facilitation.

The final paper in this section focuses on online language teaching. In “Learning How to Teach Languages Online: Voices from the Field,” authors Carla Meskill of the University at Albany, State University of New York, Gulnara Sadykova of Kazan Federal University, Russian Federation, and Natasha Anthony of Hudson Valley Community College, investigate how online language teachers learn their craft. These authors note that while opportunities to engage in formal instruction in online language pedagogy are available through educational institutions and commercial agencies, research investigating the effectiveness of this instruction is limited.

Through a combination of survey and interview methods with a sample of 171 online language instructors, the study reveals that respondents sought out learning with peers, through formal instruction, and through reflection to inform their online teaching. The study concludes that the social rather than technological nature of professional development for online language instruction should be a focus of future research and practice in this area.

We hope that these new investigations provide helpful insights for researchers and practitioners seeking understanding about how students and faculty learn, teach, and assess in online environments. We invite you to read, share, and cite this work and consider submitting your own rigorous original research to OLJ.