

## Introduction to Section II

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In addition to the special section featuring research from the American Educational Research Association Online Teaching and Learning SIG, this issue also contains articles from our regular submission process. These papers address vital issues related to online and blended learning environments focusing on modalities, learning processes, motivation, satisfaction, and performance.

In the first of these studies, Andrew Cole and his colleagues from various campuses at the University of Wisconsin investigated the relationship between learner attitudes to instructor feedback, perceptions of teaching presence and their motivation toward online courses. The authors used data from 190 students to perform a hierarchical multiple regression. They found an interesting pattern in which positive ratings of teaching presence were negatively correlated with motivations toward online courses. They also found that the greater degree to which students react in a negative emotional way to instructor feedback, the less motivated they are toward online courses. The authors discuss measurement issues that differentiate these findings from prior research and this study may need replication with another, larger sample. Numerous prior investigations have found positive predictive relationships between the components of teaching presence (instructional design, facilitation of discourse, direct instruction) and other desirable outcomes such as student satisfaction, reported learning, and cognitive presence in online settings. These findings stand in contradiction to this body of research and through the authors speculate on possible explanations we are still left wondering why.

One explanation of these results may be found in the next paper by Rebecca Hoey of Northwestern College. In this study, analyzing 1625 instructor posts collected from 36 online sections of 13 graduate courses the author sought to understand the relationship between the qualities of instructor interaction and student ratings on a battery of assessments. These included perceptions of the quality of the instructor and course, students' perceptions of their learning, and students' actual achievement. Results indicate that the frequency of instructor interaction in discussion had no effect on student outcomes measured. However, instructor contributions that were "instructional" enhance students' perceptions of their learning, and posts that were "conversational" improve students' perceptions of instructor and course quality, as well as direct measures of academic achievement. The authors also found negative relationships on learner ratings and outcomes. Both positive and negative "evaluative" posts were associated with negative relationships with students' ratings of instructors, courses, progress, and overall evaluations. One might conjecture that the teaching presence demonstrated among the faculty in the previous study by Cole and his colleagues contained evaluative discourse associated with negative student perceptions and this may have undermined learner motivation.

The next paper in this section is by Helga Dorner of Central European University in Hungary and Swapna Kumar of the University of Florida in which they studied the Mentored

Innovation Model (MIM), an online collaborative mentoring framework implemented with 159 Hungarian pre-service and in-service teachers. The authors sought to understand the critical conditions that contribute to satisfaction with mentoring and how to improve mentoring for technology integration. Results indicate that communication is central in online collaborative mentoring for all and that mentors' activity was more important for the pre-service group, showing significant impact on pre-service teachers' overall satisfaction, perceived social presence, and communication in online collaborative mentoring. These results are important for the advancement of online teacher education and the integration of online tools by teachers supported through effective mentoring. Researchers in online teacher-education environments should take note.

In the next paper, using data from 167 Master's level students enrolled in 10 courses, Lin Carver, Keya Mukherjee, and Robert Lucio of Saint Leo University analyzed time on task in various activities within an online course and their connection to course grades. They sought to understand the nature of the relationship between the total amount of time graduate students spend within the course itself, course modules, a document repository, and synchronous online tools—and whether the student earned an A grade in the course. A logistic regression showed only time spent in voluntary synchronous online sessions was as a significant predictor of receiving an A in the course. While these results are suggestive, we need to know more about the nature of relationship. Are students scoring an A because they participate in synchronous discussions, or are more diligent, motivated students who might otherwise earn an A also more likely to engage for longer duration in these optional synchronous learning activities? Additional research employing a theoretical framework and with controls for pre-existing differences among subjects will help answer this question.

Synchronous interaction is also the topic of the next paper by Yvonne Earnshaw of Florida State University. While some believe that we will soon arrive at a point in which synchronous technology mediation will eliminate the boundaries of time and space associated with the physical classroom, anyone who has participated in a web-conference is familiar with the frequent technical issues that can inhibit smooth interaction in these settings. In this study, the author conducts a granular analysis of a frequent source of difficulty, turn taking, by students and instructor in the web-conferencing platform used in a graduate-level online course. In this paper Earnshaw seeks to document and classify the kinds of conversational repairs that occur in synchronous online learning contexts. The analysis reveals that the chat portion of the conferencing system serves as a support for audio based turn-taking when technical difficulties arise, and that the instructor plays an important role in facilitating the flow of synchronous discourse when there are such difficulties. These results have practical significance for preparing faculty to teach in online settings. The study suggests that faculty need to master the use of at least two channels of synchronous communication to be effective in this format, that ground rules for synchronous communication may improve efficiency, and that more research in different synchronous contexts is needed.

In the final paper in this section Kristian Spring and Charles Graham of Brigham Young University analyze the most frequently cited themes, research processes, practices, terminology, and foci that have emerged in global research on blended learning. Building on prior studies highlighting similar questions of North American scholars, this work extends this previous line of inquiry. In so doing the authors explore the contexts, methods, and focus of the most impactful BL research conversations taking place globally. The authors find that learner outcomes and instructional design are the most common themes and provide a more nuanced portrayal of these

and other results. Findings here provide a foundation for future researchers seeking to design studies that go beyond description and which seek deeper explanation as a research goal.

We hope that these articles and the issue as a whole are helpful to online instructors, instructional designers, administrators, and researchers seeking to understand and improve the quality of online and blended learning. As always, we encourage you to read, share, and cite these articles in your own work.