

Sustaining Instructional Practices in Challenging Times

Nancy E. Kress Timothy J. Weston Tim Archie
University of Colorado Boulder University of Colorado Boulder University of Colorado Boulder

Jenny Valadez Fraire Sandra Laursen
University of Colorado Boulder University of Colorado Boulder

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Motivation and Overview

Durable change of instructional practices depends heavily on instructors' ability to sustain the use of new practices in challenging times, whether the challenges arise at the scale of society (e.g., Covid-19), institution (e.g., leadership turnover), or individual (e.g., life circumstances). The Covid-19 pandemic created unprecedented disruptions to people's routines, work, and lives. For example, in higher education, instructors had to move all teaching online on short notice, drawing on their personal teaching systems (knowledge, beliefs and practices) to shape their teaching in the online setting (Brunetto et al., 2022). Understanding how instructors adapted to pandemic teaching conditions over time provides insight into the durability of their use of evidence-based instructional practices during a challenging era.

Our mixed methods study uses larger contextual systems (Hora & Hunter, 2014) as framing to help us understand the work of undergraduate mathematics instructors' who are committed to improving their teaching and how they adapted to remote instruction. We sought to answer the following questions about how undergraduate mathematics instructors responded during the online instruction phase of the pandemic: 1) What instructional practices did instructors maintain, revert to, or attempt during this phase? 2) What technology and institutional supports did instructors find helpful for teaching online? and 3) When instructors attempted new instructional practices out of necessity, what, if any, of those practices did they hope to retain for in-person, post-pandemic teaching?

Methods, Results and Discussion

Data for this study were collected in spring, summer and early fall 2020 during the online teaching phase of the pandemic, from a sample of instructors who were already participating in professional development. We analyzed instructors' responses to multiple-choice questions about how much time they spent using a variety of instructional practices prior to the pandemic compared to during online instruction, and text responses to open-ended questions about professional learning, technological support and new instructional strategies used online.

This poster will share how instructional practices were different online compared to before the pandemic. For example, instructors reported being less likely to ask students to present problems in class, and more likely to answer student questions via email. Instructors reported posting recorded lectures more often online and they expected to continue this practice after returning to in-person classrooms. We interpret these findings in light of instructors' work within larger systems and consider how what worked for people during the pandemic may shed light on how they sustain—or not—the use of new teaching practices through challenging times.

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