Facilitating Online Learning Communities in Large-Enrollment Physics Courses

YASIME ELHADY, CHARLOTTE ZIMMERMAN, JARED CANRIGHT, ALEXIS OLSHO, SUZANNE WHITE BRAHMA, University of Washington Physics Education Group — Social isolation is a significant challenge for students in online instruction. When the University of Washington moved suddenly to online instruction at the outset of spring quarter 2020, instructors made earnest efforts to adapt their courses quickly. In a survey administered in introductory physics courses at UW, many students reported that they struggled to find motivation to fully engage with the courses, and that they lacked meaningful support or comradery from their peers. In response, we formed online learning communities of small groups of students, connected through Slack, which we dubbed “Learning Pods”. In the summer quarter Learning Pods became the organizing structure of the introductory calculus-based mechanics course. TAs mentored students to collaborate during synchronous Tutorials and asynchronous labs. Learning Pods were also piloted in Fall quarter in introductory experimental physics. Preliminary observations suggest an impact on student self-efficacy in learning physics, and lowered barriers for engagement with TAs and instructors, and that many students were able to connect with peers in various ways that felt more natural to them. I will describe the Learning Pod interventions, and present preliminary survey results in these settings.

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