GOING VIRTUAL

FACILITATING ACTIVE LEARNING ONLINE IN THE AGE OF COVID-19

How iClicker's mobile app fosters active learning at a community college

Product Used:
iClicker Mobile App

Institutional Context:

Merced College is a state-supported community college offering more than 80 associate degree programs and 50 certificate programs across two campuses. Servicing nearly 17,000 students in California's Central Valley city of Merced, the college's average class size is 23 students. Student demographics in the Fall of 2017 were reported as 61% Hispanic/Latino, 21% white, 10% Asian, and 3% Black or African American and 3% two or more races. The majority (65%) of students are under 25 years old.

(citations: Merced College 2017-18 Fact Sheet and College Profile)

Instructional Context

Dr. Brandon Tenn has taught chemistry and math at Merced College since Spring 2011. In addition to implementing active learning pedagogies in his classes, Dr. Tenn facilitates active learning focused professional development workshops for faculty at Merced College. He also served as a community editor for FlippedChemistry.com and the founding coordinator for three popular Active Learning Conferences for Central California higher education faculty (ALC2018, ALC2019 & ALC2020). Dr. Tenn received his undergraduate degrees in math and chemistry from the University of Hawaii at Manoa and his Ph.D. in Chemistry from UC Davis.

Dr. Tenn has used iClicker in his face-to-face classes for four years and decided to continue to use iClicker when classes pivoted online amid the COVID-19 outbreak in March of 2020.

Pre-COVID-19 Course Usage

Prior to pivoting to teaching online due to COVID-19, Dr. Tenn conducted formative assessments by having his students use iClicker's student mobile app to respond to in-class polls. He also used iClicker as a way to foster in-class engagement and peer-to-peer connections. As Dr. Tenn explains, "I also used iClicker [mobile app] as an in-class communications tool to collect questions from students at various points through the class period and to mediate class discussions." Even in smaller classes, Dr. Tenn notices that there can be great variances in students' willingness to participate in class discussions or answer questions posed in class. He finds that iClicker can help 'democratize' class participation, explaining "iClicker is a great tool to ensure all students are equally represented in question/answer sessions and discussions."

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Challenge

Like many colleges across the nation, classes at Merced College quickly transitioned online amid the outbreak of COVID-19 in March 2020. While Dr. Tenn's work over the course of a decade had created very active, engaged in-person classes, he worried about how to keep students engaged and help them learn not only in a new online environment, but also amid the change and uncertainty. "My biggest concern transitioning to teaching online in the middle of the spring semester was the abrupt nature of the transition and how students would be able to maintain their studies despite the chaos of the pandemic," says Tenn.

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iClicker Implementation During Virtual Class

Dr. Tenn's concern about student focus proved to be well-founded as the pandemic caused many students' schedules to completely change. The juggling of work and family responsibilities with school work that many students always had to manage in some ways became more pressing. Dr. Tenn began to notice an increase in conflicts with "scheduled" class times, so made the decision to deliver the online classes asynchronously. In some ways Tenn's commitment to 'flipping' his in-person class helped students transition to asynchronous learning online. "Since my classes were flipped prior to the pandemic, students were already used to preparing for class on their own by reading and watching videos," explains Tenn.

However, the asynchronous model did require rather significant alterations in how Tenn utilized iClicker as a learning tool for students. Tenn directed his students to answer questions using the iClicker app, and during the synchronous office hour sessions he would share the solutions to the iClicker questions posed to students. "I originally intended to use iClicker during office hours as an extra problem session, however, only a very small fraction of students showed up. So ultimately, iClicker became a means to share solutions to problems during office hours." According to Tenn, flexibility and organization are critical to successfully delivering classes online. His advice to teachers planning to deliver courses online or in a hybrid model due to COVID-19 is to set aside time to think through specific student needs when instruction is delivered online. Tenn explains, "Teaching online requires much more organization than teaching face-to-face and takes much more time to manage."

"Teaching online for the first time often requires more organization than teaching face to face."

Plans for Fall 2020

As the COVID-19 pandemic continues, fall 2020 classes at Merced College will be delivered online. Dr. Tenn will continue to use iClicker in his online classes and is particularly excited about a new iClicker product feature designed to provide flexibility for students to answer questions at their own pace, whether in-person or online: iClicker's Assignment feature. Launched in July 2020, the Assignment feature enables instructors to administer asynchronous, low-stakes assessments that can be used to enhance flipped learning, whether in person or online. "Rather than relying on the LMS quizzing features, which takes time to program, I hope that iClicker's new Assignments feature will enable me to spend less time programming the LMS and more time helping students and creating online content."

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Study Limitations

The findings of this case study are specific to the instructor who participated. They cannot be generalized to all institutions who use iClicker. The results are also descriptive and should not be used to infer causation.

For more on how iClicker can be used to support connections that foster deep learning in online classes, please visit
iclicker.com/going-virtual-fall-2020