ACCESS AND ENGAGEMENT

Fostering Connection for Deep Learning Whether In-Person or Online

UNIVERSITY OF LOUISVILLE®

PRODUCT USED	iClicker Mobile App and Perusall
STUDY DESIGN	Evaluation study with descriptive analyses

How iClicker's mobile app and Perusall foster active learning during in-person and online learning experiences at a large four-year university

Institutional Context

The University of Louisville is a four-year state-supported research institution offering associate's, bachelor's, master's, and doctoral degrees. The undergraduate population of almost 16,000 students attends one of three campuses in the metropolitan area of Louisville, Kentucky. The university has an admittance rate of 72% with a student-to-faculty ratio is 14 to 1. Student demographics are 71% white, 12% black, 5% Hispanic/Latino, 4% Asian and 6% two or more races. The majority (84%) of students are under 24 years old and 79% are from Kentucky. In 2018-19, the university conferred 178 bachelor's degrees in psychology. (citations: U of L website and NCES).

Instructional Context

EDNA ROSS, PhD, is a veteran psychology professor with more than 30 years teaching experience at University of Louisville. Dr. Ross teaches three courses: Introduction to Psychology, Lifespan Development, and a seminar for majors on the History of Psychology. She also serves as the Course Director for the large Introduction to Psychology course, which involves advising students, arranging the course materials and details with her co-teachers, and troubleshooting issues. She has taught more than 15,000 students in the last ten years of her career.

"Perusall and iClicker are the smoothest running technologies I have ever used. Ever."

Dr. Ross has used iClicker for more than fifteen years and started using Perusall to deliver course content in 2017. She continued using both products when the COVID-19 outbreak forced spring 2020 classes to pivot from in-person to online, as a way of maintaining the engagement and peer-to-peer learning that have become a hallmark of her teaching.

The Challenge

Student engagement and fostering deep insights

"Before iClicker, it was very difficult to get input from everyone," explains Dr. Ross. "When the class transitioned to online, my once vibrant in-person class seemed to go silent for the first few sessions. Before Perusall, assigning a textbook and articles to read was like throwing a 'Hail Mary.' Both of these technologies improved active learning for my in-person class, but could they help foster that same type of engagement in an online environment?

"Could iClicker and Perusall be used to foster engagement in an online environment?"

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iClicker and Perusall Implementation

Using iClicker and Perusall to deepen discussions and improve engagement

"My face-to-face classes are very, very active. It's pretty common for other faculty members to peek in to see what is going on," laughs Dr. Ross as she describes how she uses iClicker and Perusall to generate lively discussions that engage students.

For one of her spring 2020 courses, Dr. Ross led synchronous online lectures interspersed with iClicker questions. Student course evaluations confirmed that using the iClicker mobile app when classes moved online helped maintain a 'normal' college class experience.

"I hoped that the in-person engagement could be replicated when classes moved online this spring," said Ross. "I was pleased to see that students quickly found their rhythm using Perusall for asynchronous online content discussions. iClicker then allowed us to dive deeper into opinions during our synchronous sessions. Students know they must complete the assigned reading and group discussions on Perusall before class because our iClicker questions will delve more deeply into that content. It will be obvious if they are not prepared."

Dr. Ross reads posts on Perusall and notes any confusion about the readings. She then is able to guide Perusall discussions in a way that addresses any misconceptions. In face-to-face, and later remote classes, Dr. Ross uses iClicker to ask questions about the Perusall readings, which generate discussion and give her a better idea of student understanding. She often asks students to convince another student or the whole class of their view. "It is a lot of fun. The students are completely engaged. They come to class prepared to engage [through Perusall] and are drawn into the discussion. The whole class is applying what is discussed in the Perusall group posts and learning together in-class through iClicker."

Even though she was a veteran iClicker user, Dr. Ross was surprised at how well the system worked in an online course. She even found certain iClicker features to be more valuable in that environment, particularly the study tools and the exit poll. "Connecting with students is even more important with online classes because of the inherent difficulty of keeping them engaged. Students need a 'hook' to keep them accountable and interested. iClicker works well as that hook. Exit polling allows me to conduct just-in-time check-ins with students, which helps me stay close to student needs in an online environment."

With the COVID-19 pandemic continuing, Dr. Ross' fall 2020 classes will follow a hybrid/flex model with both in-person and online sessions. She will continue to use the combination of Perusall and iClicker to drive student engagement in her courses.

The Results

iClicker and Perusall connect students both inside and outside of class and keep them accountable for staying on top of the work

Fostering student accountability. Feedback from Dr. Ross's students confirms that Perusall held them accountable for reading and helped foster deeper understanding. Ross has seen that students retain more of what they are reading, noting that instructors can truly see how a student thinks from their comments on Perusall. Dr. Ross also sees that students who want to make an impression on faculty use Perusall to stand out in the crowd. She maintains, "It's not magic: It's Perusall!"

Creating connections for deep learning. Connecting with students is even more important when teaching online or hybrid classes. Working with Perusall and iClicker, Dr. Ross has seen student participation—and grades—go up. "I want every student to know they have a voice and don't have to be afraid, ashamed or intimidated about expressing themselves. Before iClicker I felt I wasn't connecting with every student. With iClicker I know I am."

> *"With iClicker I know I am connecting with every student."*

Easy to use in any environment. Dr. Ross found that the simplicity and ease-of-use of iClicker and Perusall made for a near-seamless transition from in-person to online teaching. As she explains, "Perusall and iClicker are the smoothest running technologies I have ever used. Ever."

Study Limitations

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

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