


# TRANSFORMATIVE INSIGHTS AND ENGAGEMENT

Fostering Cooperative Learning and Perseverance in Face-to-Face and Remote Environments

<b>PRODUCTS USED</b>	Achieve for <i>Biology: How Life Works</i> , Achieve for <i>Interactive General Chemistry</i> , iClicker
<b>STUDY DESIGN</b>	Evaluation Study with Descriptive Analyses
<b>COURSES</b>	Majors Biology & General Chemistry
<b>INSTRUCTOR</b>	Pat Uelmen Huey



**Georgia Gwinnett**  
COLLEGE

## How Achieve and iClicker's mobile app foster engagement during in-person and online learning experiences at a medium-sized four-year college

### The Challenge

#### Maintaining continuity and translating active learning techniques to the virtual environment

Before Covid-19, Dr. Uelmen Huey's greatest instructional challenge was students' preparedness for the depth and speed of the course material. At that time, student engagement was the second most challenging aspect. The sudden transition from in-person to fully remote instruction brought student engagement to the forefront. She needed to quickly reconstruct the cooperative learning community she had cultivated in the physical space of her lab classroom into a virtual environment.

### Pedagogical Approach

When Dr. Uelmen Huey describes her approach to pedagogy, she employs vivid gesticulation and wry humor to reveal deep sensitivity to her students' needs. She began implementing active learning techniques for the first time as a means of adapting from the graduate-level instruction to a high school science classroom in 2002. Active learning remained a cornerstone of her craft when she transitioned to teaching undergraduate students.

Dr. Uelmen Huey began using Achieve and iClicker in her Chemistry and Biology courses in January 2020. Before the COVID-19 outbreak forced spring 2020 classes to pivot from in-person to online, she was convinced that the Achieve/iClicker pairing offered a one-stop shop that addressed two of her highest priorities: student engagement and preparedness.

She continued using both products, finding that her Achieve courses not only offered a seamless transition for her asynchronous course material but that they could even provide a virtual solution for labs, maximizing student engagement.

*"The one-stop shopping was the main reason why I chose Achieve. Wanting that one stop shop was basically wanting students not to give up."*

### Achieve and iClicker Implementation

#### In-class activity guides used as virtual lab activities engage students on a deeper level

While many of her colleagues faced challenges adapting their curricula to the online environment, Dr. Uelmen Huey remained confident that, with Achieve, her students' knew what to expect and that she had access to the resources she needed in order to maintain active learning into her new virtual classroom.

*"Because I could travel from 'room to room' and listen to them,"* she recounts about her use of Achieve's in-class activity guides used as virtual labs, *"it was pretty much like walking around the classroom. You could tell who was engaged in that type of activity versus who wasn't."* By structuring the synchronous activities in this way, she found that students held each other accountable, making it easier to monitor their engagement. She believes that the students' familiarity with Achieve online platform contributed to making these virtual lab experiences *"more valuable [than a course without Achieve]."*

*"I personally love Achieve; it saved my bacon during COVID-19 and is user-friendly for both students and myself."*

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## The Results

**iClicker and Achieve—  
Deepening engagement through intuitive analytics.**

*“I need to engage students when we’re together.*

*“The analytics in Achieve are just much more intuitive. That really encouraged me to track my students. Individual analytics on Achieve are easy enough to recognize immediately so I can just email [a student] and get some feedback from them on an individual basis. It actually has changed my attitude toward analytics. The immediate obviousness of what I was being told about my students actually helped me engage with my students more. That’s how Achieve changed my interaction. Simple, easy to understand, immediately obvious analytics—Wow!”*

**Accessibility and ease of use setting students up for success.**

Dr. Uelmen Huey found that the simplicity and ease-of-use of Achieve and iClicker made for a near-seamless transition from in-person to on-line teaching. She explains, *“It has made it more accessible to them and allowed them to achieve their goal of getting through that foundational course work.”*

*“Having a dependable platform that was easy to use, easy to navigate, intuitive for both students and instructors probably did affect my classroom morale. There is something about the breakout ‘room’ where it’s just you and two other people asking a question where I feel like they actually felt comfortable asking questions. Less comfortable complaining and more comfortable saying we as a group are struggling with this in a way they wouldn’t have asked in class. The ability for them to do that activity, something they already had access to and that they could easily perform without having to go elsewhere to a 3rd party and without having to learn something new. I feel students had more faith in the platform.”*

Dr. Uelmen Huey’s fall 2020 classes will follow a hybrid/flex model with 25% in-person and 75% online sessions. She will continue to use the combination of Achieve and iClicker to drive student engagement in her courses. She describes her experience with Achieve as having *“seen the promised land,”* and she hopes that Achieve will soon be available for all of her courses. While she refuses to sugarcoat the challenges her students faced as a result of the pandemic, she credits her use of Achieve through the crisis with shifting her priorities and her attitude toward online learning platforms, resulting in greater patience and flexibility with her students. *“It has enhanced my commitment to using an online platform and making sure that it’s useful to the students so it’s not just busy work and that they will derive benefit from it regardless of when they choose to engage with it.”*

*“They really enjoyed them. They were fun, they were colorful, simple to do but not easy to interpret. They actually had to think about them.”*

## Institutional Context

Georgia Gwinnett College is a four-year public institution offering bachelor’s degrees. The institution serves an undergraduate population of over 12,800 students with one main campus in Lawrenceville, Georgia. The college has an admittance rate of 92% with a student-to-faculty ratio is 19 to 1. Student demographics are 32% Black or African American, 28% White, 23% Hispanic or Latino, 10% Asian, 4% who identify with two or more races, 2% classified as non-resident alien, and 1% in which students’ race or ethnicity is unknown to the institution. The majority (82%) of students are under 24 years old and 99% are from Georgia. In 2018-19, the university conferred 106 bachelor’s degrees in Biology/Biological sciences and 11 bachelor’s degrees in Chemistry. (citation: NCES)

## Instructional Context

Pat Uelmen Huey, PhD, is a veteran Biology, Chemistry, and Biochemistry professor with more than 24 years teaching experience, with a background working with high school, undergraduate, and graduate students. She has been teaching undergraduate students at GGC since 2012. Dr. Uelmen Huey teaches Principles of Biology I & II, Principles of Chemistry I & II, Biochemistry, and Biological Sciences I.

*“Simple, easy to understand, immediately obvious analytics—Wow!”*

## 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 Achieve and iClicker. The results are also descriptive and should not be used to infer causation.