EDUCATIONAL RESULTS WITH

iClicker

macmillan learning

Instructors using iClicker found:

✓ **Students are more prepared for class**

- Students at all levels of achievement remain engaged in course material outside of class

- Students are better prepared for summative assessments with iClicker-based discussions

✓ **Students are more engaged in class**

- Students are more engaged, even those less motivated

- Students engage in more in-class peer-to-peer interaction

- Both male and female students participate more in class discussions

✓ **Student achieve better course results**

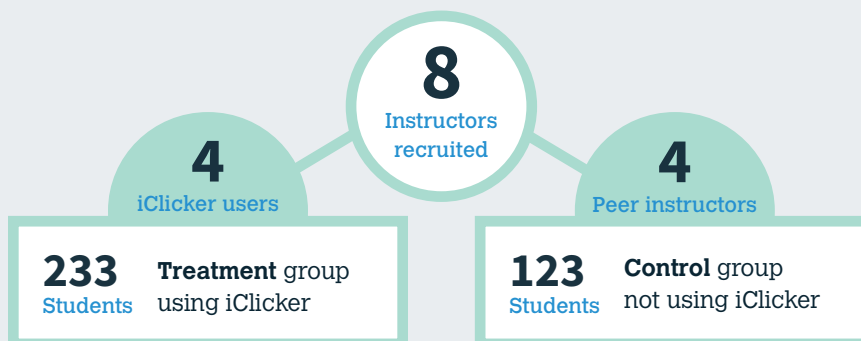- Higher end of course grades

Instructors say:
Students participate more during in-class discussions, comprehend course material better, and are coming to class prepared.

Students say:
They are satisfied with the quality of the course, more likely to recommend it to their peers, and enjoyed taking the course.

iClicker research:

Building on research with instructors in 2017, this study was approved by Institutional Review Boards that allowed researchers to sit in class, interview students, observe instructors, review grades, and correlate the academic performance of each student with their use of iClicker.

8 Instructors recruited

4 iClicker users

233 Students — **Treatment** group using iClicker

4 Peer instructors

123 Students — **Control** group not using iClicker

AMPLIFYING THE IMPACT

1 Ask more in-class iClicker questions (this results in higher final grades).

2 Focus less on the number of questions and more on discussing the results of questions.

3 Share with your class the distribution of answers and discuss common misunderstandings (this improves engagement).

4 Include iClicker responses as part of the course grade (this drives higher academic performance).

LEARNING SCIENCE DESIGN OF

iClicker

macmillan learning

Built on the science of active learning

Learning Research
Supported by education research

A synthesis of education research in four areas was used to guide feature development for iClicker : effective active learning, formative assessment, immediate feedback, and interactive learning.

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Learning Design
Instructors and students co-designed new, novel features

Co-design with instructors from 5 colleges identified the opportunity for better tools to facilitate communication with their students. Further codesign led to a number of product innovations, including exit polls for critical feedback from students. Nine design iterations and subsequent testing led to exit polls and a notification center so students can track their feedback.

Data-driven Insights
Data-mining reveals behaviors and best practices

Analytics reveals preferences, behaviors, and best practices - detailed data-mining the behaviors of 800,000 students in 36,000 courses across 542 institutions revealed trends of usage that drive higher engagement and retention which are being used on-going to guide and refine product features.

800K

3,000

Product Impact
In-depth, local studies were used to drive further product optimization and support best practices

A mixed-method study involving detailed on-the-ground observations at a variety of colleges of more than 3,000 students revealed usage patterns that led to higher student in-class engagement and better course outcomes.