ABSTRACT
This study examines the effectiveness of adaptive learning courseware in student learning in undergraduate, high-enrollment, general education courses at the University of Mississippi. This research is part of an ongoing 2-year study, with the first semester (Fall 2017) findings being reported herein. Administrators of the University of Mississippi Personalized Learning and Adaptive Teaching Opportunities (PLATO) office developed a protocol for gathering student feedback about the effectiveness of courseware in their learning. Following an initial class observation, the PLATO program manager and student research assistant conducted small student focus groups and surveyed all students in classes that have adopted the courseware. The four focus groups conducted in October 2017 included Introduction to Chemistry, Inquiry into Human Life, Anatomy and Physiology, and Trigonometry.

BACKGROUND
The Bill and Melinda Gates Foundation provided funds for 8 universities in the Association of Public Land Grant Universities consortium to pilot adaptive courseware in general education courses. PLATO is the UM administrator of this grant. PLATO faculty fellows began designing and implementing adaptive courseware in 2017. Over 70 faculty members from 11 disciplines are supported by the grant program.

METHODS

FOCUS GROUP KEY POINTS & QUOTES

The high cost of access codes. The average one-semester code is $151.00.

Bundling course materials forces students to purchase books they do not want or use.

Courseware does not prepare them for exams.

Students do not know how much their performance in the courseware counts toward their final grade.

Courseware content does not always align with other course content.

Students prefer courseware customized to their particular class and wish instructors were better trained to use it.

“I find that the repetition really does help and find that when I get to class, I will remember what I got wrong multiple times.”

“It is like taking two classes: one is the book and the homework and one is the lectures and the test.”

OBJECTIVES

• To determine if students perceive adaptive courseware as helpful in learning
• To understand what aspects of adaptive courseware students perceive as helpful learning
• To understand which level of courseware integration most benefits student learning
• To learn which features of the courseware provide the most benefit for Pell-eligible, minority, and first generation students

SURVEY DATA

1 end-of-semester survey: 4300 invitations, 851 responses, 734 complete responses

WHAT WERE THE MOST USEFUL FEATURES OF THE COURSEWARE?

HOW DID THE COURSEWARE CHANGE THE WAY YOU LEARNED?

HOW DID THE INSTRUCTOR INTEGRATE THE COURSEWARE INTO THE COURSE?

BENEFITS FOR UNDERSERVED STUDENTS

Minority students
• Benefit from multiple ways of learning/multi-modal delivery of course content
• Find their grade is better due to use of the courseware

Pell-eligible students
• Find the progress tool very helpful

First generation students
• Find the progress tool and being able to view solutions to problem sets helpful

CONCLUSIONS

• Students are more satisfied with courses in which the instructor integrates courseware into the course rather than using it as a supplement or homework system.
• Students are concerned about the high cost of access codes and find the bookstore practice of bundling a physical textbook with the access code unfair.
• Underserved students find several features of the courseware to be beneficial.
• Students value flexibility within the courseware.