Colorado Regional Digital Learning Symposium

Adaptive Courseware for Early Success: Scaling Through a Network Approach

Sponsored by:
Colorado State University, Fort Collins and Colorado Technical University

Wednesday, January 20th, 2019
“How much can software improve students’ learning? For years we have been hearing overheated claims about the huge impact that technology would have on education. People have been right to be skeptical. But I think things are finally coming together in a way that will deliver on the promises.”
What is Adaptive Learning?

Adaptive courseware is a digital instruction tool that provides personalized learning experiences for each student. It includes instructional content and assessment that is scoped and sequenced to support an entire course. Adaptive courseware provides faculty with data about each student’s progress and learning needs so that instruction and pedagogy can be modified in real time to improve student success. The result is that students are able to get the content or activity that they need, when they need it.

Adaptive courseware analyzes student data and can adapt elements of the instructional content, activities, and assessments based on the student’s performance. As a result, each student takes a customized path through the course material based on how he/she is interacting with the software (e.g., answers/inputs, time spent on tasks, assessment results). If you would like to learn more about adaptive learning solutions, we recommend exploring resources developed by Tyton Partners and EDUCAUSE.
What is Adaptive Learning?
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Susan Holechek (standing), an instructor at Arizona State U., uses adaptive courseware in her introductory biology classes which:

- Allows her to use class time on exercises that reinforce the concepts students are learning.
- Helps her create opportunities for more points of contact — between her and her students, and her students with the material.
- Utilizes a dashboard that helps her keep track of how well each student is doing on homework and quizzes, with a cumulative "mastery" rating attached to each

The proportion of students earning a C or better in her course rose from 76 to 94 percent in the pilot and has continued to remain strong now that she has switched entirely to adaptive learning.
What We Do

1. OUR MISSION
Provide a comprehensive, coordinated approach to help colleges and universities use new technology to innovate teaching and learning, with the ultimate goal of improving student outcomes of first-generation college students, low-income students, and students of color.

2. OUR INITIAL FOCUS
Support colleges and universities as they implement adaptive courseware in first-year, foundational courses which have been identified by institutions as vital for student retention and success.

3. WHY THIS WORK?
Foundational courses (credit-bearing and/or developmental education courses) continue to have low completion rates.

“Adaptive systems have the radical potential to shift to education in the service of students by providing a student-centric design based on individual student skill and outcome attainment.”
– Lou Pugliese, EdPlus, Arizona State University
Our Partner Organizations
Lessons Learned:
Benefits of Adaptive courseware

Supports
Student Success
• Allows students to move through the course material flexibly based on their prior knowledge and skills.
• Provides real-time feedback to students’ work and allows for more self-remediation.
• Changing the content or degree of difficulty depending on the learner results in better course engagement and progression.

Empowers
Instructors
• Automated assessments and predictive analysis allow for customization of course
• Rich data analysis of student progression enables faculty to provide more responsive course activities (traditional assessment methods often provide info too late in the learning cycle)
• Allows instructors to reimagine class time and class activities

Reinforces
Teaching and Learning
• The technology actively uses research about how people learn. Correctly developed, adaptive systems reveal learning habits.
• Automated feedback cycles prompt students to take action and develop self-efficacy.
Institutions came together to establish best practices and determine what institutions need to successfully implement adaptive courseware. The result was an Implementation Guide which includes the following:

- A clear six-phase process for implementation
- Case studies sharing the lessons learned by different institutions
- Resources to help institutions through each phase
- Advice on when and how to engage different stakeholders at the institution
- Tips for project management and evidence-based decision making
Scaling the Work

2016 - current
Accelerating Adoption of Adaptive Courseware at Public Universities
8 institutions

2018
Freely available to all!

2019
Every Learner 1st Cohort:
12 institutions
3 states

2019
Frontier Set:
2 cohorts
23 institutions and one state system

2019
Jobs for the Future:
111 institutions
7 states

2021
200 + institutions
And SCALE!
## What Services We Offer

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| • Resources to navigate the process of choosing and using adaptive technology  
• Research on the outcomes of adaptive learning initiatives  
• Project management tips and resources | • Webinars  
• On-site trainings  
• Communities of practice for peer-to-peer learning | • Access to institutional coaches and consultants who can assist with:  
◆ Institutional needs assessments  
◆ Teaching and learning support  
◆ Course design support  
◆ Data analysis |

**Available Now:**  
*A Guide for Implementing Adaptive Courseware: From Planning through Scaling*  

**Currently in development**  

**Technical Assistance (TA)** currently being developed and refined in partnership with a small set of institutions
Ask me anything
Listening Session

Mentimeter
What are the adaptive learning initiatives at your institution?

What would you most like to learn from other institutions as you proceed with this work?

What kind of support would be most useful as you do this work at your institution?