Case Study – Economics at Cuyahoga Community College

Contents

About the Supporting Organizations 3
Background 4
Increasing Course Success 4
Student Performance 5
Project Contacts 6

Authors

Michele Hampton, PhD
Professor, Business Administration at Cuyahoga Community College

Barbara Means
Executive Director, Learning Sciences Research at Digital Promise Global

Citing this Resource:

To reference this work, please cite:


Materials are freely available on the Every Learner Everywhere website and licensed under a Creative Commons Attribution-No Derivatives 4.0 International License.
About the Supporting Organizations

Every Learner Everywhere is a network of twelve partner organizations with expertise in evaluating, implementing, scaling, and measuring the efficacy of education technologies, curriculum and course design strategies, teaching practices, and support services that personalize instruction for students in blended and online learning environments. Our mission is to help institutions use new technology to innovate teaching and learning, with the ultimate goal of improving learning outcomes for Black, Latinx, and Indigenous students, poverty-affected students, and first-generation students. Our collaborative work aims to advance equity in higher education centers on the transformation of postsecondary teaching and learning. We build capacity in colleges and universities to improve student outcomes with digital learning through direct technical assistance, timely resources and toolkits, and ongoing analysis of institution practices and market trends. For more information about Every Learner Everywhere and its collaborative approach to equitize higher education through digital learning, visit www.everylearnereverywhere.org.

Association of Public and Land-grant Universities (APLU) is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities in the U.S., Canada, and Mexico. With a membership of 244 public research universities, land-grant institutions, state university systems, and affiliated organizations, APLU’s agenda is built on the three pillars of increasing degree completion and academic success, advancing scientific research, and expanding engagement. Annually, member campuses enroll 5 million undergraduates and 1.3 million graduate students, award 1.3 million degrees, employ 1.3 million faculty and staff, and conduct $49.2 billion in university-based research.

Achieving the Dream (ATD) leads a growing network of more than 277 community colleges committed to helping their students, particularly low-income students and students of color, achieve their goals for academic success, personal growth, and economic opportunity. ATD is making progress in closing equity gaps and accelerating student success through a unique change process that builds each college’s institutional capacities in seven essential areas. ATD, along with nearly 75 experienced coaches and advisors, works closely with Network colleges in 44 states and the District of Columbia to reach more than 4 million community college students. Follow ATD on Twitter, Facebook, and LinkedIn.

Intentional Futures is a Seattle-based design and strategy studio. We work closely with clients across the public and private sectors to solve hard problems that matter and make big, ambitious ideas come to life. Our core offerings include human-centered strategy, data-driven storytelling, intentional, collective learning, and product design and prototyping. To learn more about iF or see our past work, visit intentionalfutures.com.
Economics at Cuyahoga Community College

Increasing Course Success through Student Engagement and Active Learning

Background
Cuyahoga Community College (Tri-C) is Ohio’s first community college and remains Ohio’s oldest and largest public community college. Each semester Tri-C offers more than 1,000 credit courses in more than 200 career and technical programs and liberal arts curricula. The College serves more than 25,000 students annually across four campuses of which 38% identify as minority.

Increasing Course Success through Student Engagement and Active Learning
The Fundamentals of Macroeconomics course fulfills the social science requirement in Tri-C degree programs. The goal of the redesign effort for this course was to increase course success rates by enhancing student engagement with the course material and emphasizing active learning strategies that result in deeper learning.

Dr. Michele Hampton redesigned the Economics course to meet this goal through three strategies: structure the class as a learning experience rather than as an exercise in memorization, provide students with abundant opportunities to apply course concepts to practical problems and issues, and create a sense of community within the learning environment.

A distinctive aspect of this course redesign effort was the extent to which Dr. Hampton involved students in the process, including the selection of courseware. Her students piloted two adaptive courseware products that were being considered for the course and participated in focus groups with the vendors to provide their observations and feedback on the two courseware products. This evaluation process culminated in a student vote that chose the product currently being used for the course - McGraw Hill Connect Master with Learn Smart Achieve.

The course redesign altered almost every aspect of the course, including moving to an all-digital platform rather than using a traditional textbook. Introduction of economics concepts is now accomplished using a flipped course model, in which students study content for the current unit before the class meeting. The course content is delivered through publisher-created videos rather than through readings in a traditional textbook. These videos are provided in both English and Spanish and are captioned for accessibility. With this flipped classroom approach, students come to class much better prepared to start applying the curriculum concepts than they did when text was the primary method of content delivery. A flipped teaching model frees up time in class to work on meaningful and practical assignments. The course is organized based on the principle of “learn a little, do a little.” Class time is used to reinforce course topics (if needed), to work on problems as a whole class and in small groups, and to foster discussion regarding relationships between economics concepts and current events.
Each class ends with a fun and competitive formative assessment that rewards the top five players for correctly answering questions regarding what was presented in class that day.

Homework that further reinforces course concepts is due after class meetings and is completed using adaptive courseware. Homework topics are “chunked” into groups of 3-5 concepts and student ratings of their confidence concerning various concepts are used to design review assignments and provide data on which concepts may need more reinforcement in class. Several options for immediate remediation “pop up” and are made available to students when they miss a problem. All of these features serve to make homework interactive and individualized. Studying is much more hands-on and relevant and learning has become more effective and engaging since the economics courses underwent their redesign. The economics courses also use other types of assignments, such as writing, problem sets, study guides and exams to further strengthen the learning environment and keep students engaged.

Dr. Hampton builds classroom community through regular communication with students. She developed a student communication plan to frequently check in with students whose performance has begun to slip or whose presence in class has begun to diminish. In addition, Dr. Hampton treats students as partners in the effort to continuously improve the course. She administers a survey at the conclusion of the course where students provide feedback to ascertain what they like about the class, what they would like to see changed, one concept they think they will remember one year from now, and one concept they still do not understand as well as they would like. Students have reported that they really appreciate the communication and it lets them know that their instructor cares about their learning and well-being. If you want to learn more about the College Algebra program at ASU, please visit Arizona State has seen some early success implementing adaptive courseware in algebra classes.

**Student Performance in the Redesigned Course**

Course performance data for the Macroeconomics course was obtained from the Tri-C Office of Institutional Research and analyzed by Digital Promise. Data for four successive academic terms show improvement in average course grade from 2.55 in Fall 2018 to 2.86 in Fall 2019 and a high rate of student success for this course (over 90% in both Summer 2019 and Fall 2019).

<table>
<thead>
<tr>
<th>Semester</th>
<th>Number of Students</th>
<th>Average Course Grade</th>
<th>Student Pass Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2018</td>
<td>40</td>
<td>2.55</td>
<td>80.00%</td>
</tr>
<tr>
<td>Spring 2019</td>
<td>39</td>
<td>2.46</td>
<td>82.05%</td>
</tr>
<tr>
<td>Summer 2019</td>
<td>23</td>
<td>2.96</td>
<td>91.30%</td>
</tr>
<tr>
<td>Fall 2019</td>
<td>42</td>
<td>2.86</td>
<td>90.48%</td>
</tr>
</tbody>
</table>
Student interaction improves student engagement regardless of the course modality. This improved student engagement positively impacts course success.

Project Contacts

Michele Hampton, PhD
Professor, Business Administration
Cuyahoga Community College

Barbara Means
Executive Director, Learning Sciences Research
Digital Promise Global