

IMPROVE STUDENT OUTCOMES

in Developmental Math with WebAssign



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LISA KEY BROWN SERVES AS THE DEPARTMENT CHAIR of Developmental Studies at Central Carolina Community College (CCCC), where she also teaches math. Brown has been with CCCC since 1995, moving up from a Guided Studies coordinator to chair of Development Studies. She has a Bachelor of Science in Computer Studies from the University of Maryland and a Master of Business Administration from Campbell University. Brown employs a variety of teaching environments to engage her students including traditional, online, and hybrid.

In this case study we take closer look at how Brown implemented developmental math modules using WebAssign, to not only improve student success rates, but to also achieve a level of excellence that has placed them number one in the state of North Carolina.

THE CHALLENGE

One of the biggest issues facing community colleges nationally is students' lack of preparation for college math. According to the Carnegie Foundation, "the nation is facing a crisis in its community colleges: more and more students are attending community colleges, but most of them are not prepared for college-level work. The problem may be most dire in mathematics." Students are entering community college without the fundamental math skills necessary to succeed in college-level math courses. This phenomenon leads to high drop and incomplete rates and can be a real barrier for overall student success. CCCC is no exception to this challenge and instructors at this school were looking for a way to get students engaged in their developmental math courses.

THE SOLUTION

WebAssign user Lisa Brown met this challenge head on as department chair of Development Studies at CCCC. Brown led the college in the implementation of developmental math modules, a key part of the NC Developmental Education Initiative. Developmental math modules are only 14 days and there are 8 modules in total. This makes the math easier to digest and learn for beginning students, but both students and instructors must move at a quick pace. This pace would be hard to maintain without the support of technology. Brown successfully implemented these developmental math modules with the support of WebAssign's technology.

Using WebAssign has enabled her to create a collaborative classroom in which she can assist her students with one-on-one problem solving in a lab setting. Her approach blends 50% instruction with 50% technology. She calls her approach "on-demand instruction." Only when a majority of students are struggling with the same concept will she actually lecture the class at large. Brown also uses WebAssign to administer tests and quizzes and to answer questions from students outside of the classroom. To supplement the course, Brown has also created a number of YouTube videos to support student mastery of concepts.

THE RESULTS

The recent NC Community Colleges 2015 performance measures for student success reported that CCCC had exceeded the excellence level for developmental math. CCCC's developmental math students achieved an 81.8% success rate, making them number one in the state for colleges of their size or larger. "WebAssign provided multiple assignment options, a GradeBook, secure online testing, customizable precoded questions, and graphing tools that all aided in the successful implementation of these modules," said Brown. The achievement of moving to developmental math modules with WebAssign overall resulted in a dramatic improvement to student learning outcomes.