

New Collaborations

The educational research projects provided the impetus for the PIs to collaborate with a professional society, publishers, colleagues, students and staff.

With a professional society

Beth Cudney, associate professor of engineering management and systems engineering, was able to offer a Six Sigma Green Belt for the students who take her redesigned course through the Institute of Industrial and Systems Engineers. The students are exposed to the information needed during the course and sit for the exam for a nominal cost. More than 90 percent of those taking exam from her course pass. This certification on their resume gives students a leg up on career possibilities and starting salaries.

With staff

Jossalyn Larson, assistant teaching professor of English, initially only collaborated with the library to use physical space. Then the librarians began to help her develop activities, and she was able to turn the students over to the librarians to help them in their research going forward. This helped the students develop an ongoing relationship with the librarians that went beyond Larson's class.

Susan Murray, professor and chair of psychological science, said she developed a lasting relationship with instructional designers on campus and a comfort level that allows her to turn her content over to them "and let them do some different things."

With publishers

When Xiaoming He, assistant mathematics professor, shared the results of his project with his Ph.D. advisor from Virginia Tech, Pau Lin, who initially had encouraged him to develop this teaching method, they decided to write a textbook together. Scheduled to be published in 2018, He says this book will fill a gap in teaching conceptualized guided coding under a general framework. "We found out a better way, and we're writing a book!"

Kellie Grasman, adjunct lecturer with engineering management and systems engineering, never expected to be involved with a well-known author of a textbook and a major publisher. As she began developing video resources for her engineering economics course and presenting her information at various conferences, interest in the project grew. "Short videos that I created turned into an opportunity to work with a publisher," she said. "They wanted me to provide those types of resources for a particular text. That then has grown into my role as a co-author with that text." She shares a byline for "Fundamentals of Engineering Economic Analysis" with John White, chancellor of University of Arkansas. "This grew out of the work done to deliver the instruction," she said. "At that time, it was really progressive for engineering economics. You can extrapolate all of the things I have done as starting with the CERTI grant."

With colleagues

Bonnie Bachman, professor of economics, enjoyed the close collaboration developed with a fellow instructor by doing a project that linked their two graduate classes together. "I was really grateful for the opportunity," she said. "I got to know him better, and understand his course better and the issues

he was dealing with. It was good all the way around from that standpoint -- doing research and developing a strong research relationship with a colleague.

"I am so grateful for the experience; it was a lot of fun. We could both help each other."

Katie Shannon, associate teaching professor of biological sciences, amassed a large amount of data during her two projects, so she collaborated with a colleague in the statistics department to do data analysis.

Kellie Grasman, lecturer in engineering management and systems engineering, appreciated being able to work with tenure-track faculty on a project as well as have a financial incentive to do so. "We're all very busy and not able to put in extra activity unless it is justified and encouraged," she said. "I think that was one of the biggest things for me. As an NTT faculty member to have the opportunity to collaborate with tenure-track faculty in a parallel role and have the incentives, and the legitimate reason to do so, was really important."

With undergraduates outside of the course

Greg Story, associate physical professor, hired undergraduate students who had already taken the course to help him design new physics problems that students wouldn't be able to find solutions manuals for. "The insight I got from working with them was great! I learned that they carried misconceptions about physics even after taking the course." These were things he said that he never would have thought of, thus helping him understand novice learners' thought processes. He was also pleased with these students progress throughout the semester. "I was able to see a vast improvement in their ability to think about physics and write usable problems," he said.