Flexible classroom design saves money, improves flexibility, accessibility of instruction

February 5 2013

Researchers at North Carolina State University have developed a classroom design that gives instructors increased flexibility in how to teach their courses and improves accessibility for students, while slashing administrative costs.

Specifically, the new classrooms take advantage of the fact that students are bringing their own technology – such as laptops – to class. The classrooms also include mobile infrastructure, where whiteboards, desks and tables can be reconfigured according to the needs of students and instructors.

"These classrooms work really well in terms of engaging students, particularly in regard to helping students bridge the gap between in-class instruction and out-of-classroom assignments," says Dr. Susan Miller-Cochran, an associate professor of English and director of the First-Year Writing Program at NC State and lead author of a paper on the flexible classroom design. "It was also important to us administratively because it lowered the costs for our department."

The cost of equipping a traditional computer classroom, including laptop computers, is approximately $34,700, whereas the cost of equipping the flexible classrooms using students' technology is approximately $14,500. Students who don't have their own laptops are able to sign out laptops from a central repository near the classrooms.

In addition to lowering costs and giving instructors more options for how to conduct their classes, the flexible design significantly improves access for students with special needs.

"You can adjust the classroom layout to serve the needs of students with physical disabilities, students on the autism spectrum and students who use technology to address visual or other challenges," Miller-Cochran says.

Since launching the flexible classroom program in 2011, Miller-Cochran has helped other universities in North Carolina, Virginia and South Carolina pursue similar concepts in their classrooms. "Our next steps include developing guidance materials on how to incorporate this concept into classrooms for students in a variety of settings," Miller-Cochran says.

The paper, "Making peace with the rising costs of writing technologies: Flexible classroom design as a sustainable solution," is published online in *Computers and Composition*.

Provided by North Carolina State University