

Educators call for adding more research to classes

Entwining teaching and research more closely leads to better instructing, say some educators.

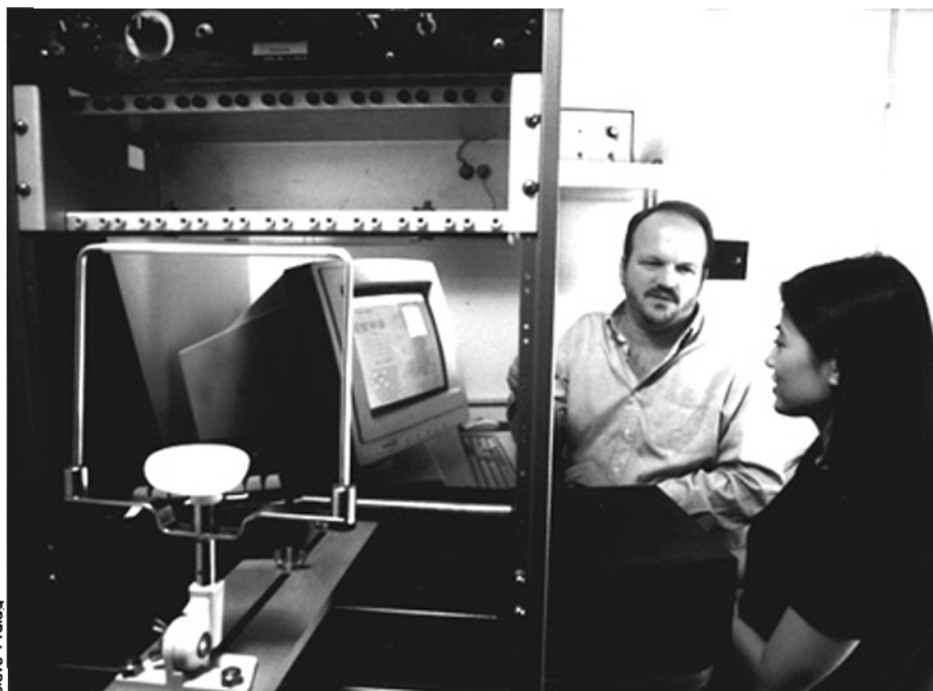
By **Bridget Murray**
Monitor staff

As university faculty struggle to find a balance between the time and energy they devote to their research and teaching, one psychology professor argues that they may be asking the wrong question.

Thinking of teaching and research as entirely separate functions creates a false dichotomy between the two, says psychologist Curt Burgess, PhD, of the University of California–Riverside. And it feeds a myth that professors' research responsibilities undermine good teaching, when in fact, teaching and research are inextricably linked, he says.

"The question we should be asking is, how do we strengthen the links between teaching and research—faculty responsibilities that ought to be symbiotic?" says Burgess.

To cement those links, Burgess proposes that professors make research a part of all students' coursework. Helping students with research is a form of teaching, and a particularly valuable form at that, he says. Instead of merely spoon-feeding knowledge to students, the professor becomes a mentor who guides students on their research quest, thus forming an interactive learning relationship that may be the best form of teaching of all, Burgess asserts.



Steve Wolga

Psychologist Curt Burgess, PhD, with student Tien Vo, argues that guiding a student through a research project may be the best form of teaching.

A stressful system

The friction between teaching and research tasks is fueled by escalating pressure on faculty to spend more time on teaching, Burgess says. Aside from the stresses of a tough academic job market and shrinking research budgets, faculty face a mounting public outcry for proof that the money they spend on tuition is a good investment. In return for their tuition dollars, students demand quality teaching and personal attention from professors, and many students complain that professors spend more time in the research lab than the classroom, causing teaching to suffer.

The stress on faculty stems in part from imbalances in the universities' system of rewards, according to psychologist Allison Rosenberg, PhD, executive director of the Government-Univer-

sty Research Roundtable at the National Academy of Sciences. Instead of recognizing great teaching on par with extensive and stellar research, most universities award tenure and promotions to faculty who produce the most research and publications. This research-centric system causes faculty to chase after ever-dwindling grant monies and saps their teaching energy, educators say. The logical—and necessary—way to relieve stress on faculty is to make teaching and research intertwined faculty duties, argues Burgess. He lobbied for this revised approach at a public meeting about stresses on faculty, held by the National

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Science Board and Rosenberg's Research Roundtable in Washington, D.C., in February. As a panelist at the meeting, Burgess told the audience that teaching and research share the common goal of discovery and are interdependent. Dialogue about the meeting is continuing on the World Wide Web (www2.nas.edu/guirrcon).

In addition to easing pressure on faculty, involving students in research enables them to test and apply theories, which makes them more attractive to employers, says Burgess. For example, in his Research Methods course, he divides students into groups of three or four and requires them to develop and produce a small research project over 10 weeks. Burgess advises each small group throughout the process, thus giving them highly individualized instruction that's not recorded as part of his teaching load.

"A good deal of hidden, but valuable, teaching occurs in the form of research," says Burgess. "The experience gives students richer and more immediate feedback, and they gain a sense of investment in the enterprise that is often absent when they are passive recipients of a lecture."

Research as teacher

Another psychology professor putting Burgess's idea to work is Mike Kalsher, PhD, of Rensselaer Polytechnic Institute in Troy, N.Y. He has created a research laboratory to supplement the psychology department's introductory

psychology course. The 160 undergraduate students in the course form small groups and work together on research topics. Students spend part of the class listening to Kalsher lecture and a significant amount of time researching their topic.

One group of students set up a demonstration project illustrating the toxic effects of alcohol. Those who were old enough drank large quantities of beer and underwent field sobriety tests by local state troopers. In another experiment, students investigated people's attention to warning labels on bottles of model airplane glue. Students tested whether people were more inclined to heed the labels' admonishments that they wear protective equipment if the labels had raised, instead of flat, borders. The testing is ongoing.

So far, students' response to the research projects has been mostly positive.

"They enjoy going out there and looking for answers themselves," says Kalsher.

Boosting teaching

Already, some universities have begun considering teaching and research more equally in tenure and pay-raise decisions. Psychology departments at Mi-

ami University of Ohio, the University of Minnesota and the University of California-Berkeley are among those that now reward faculty for good teaching through promotions and salary increases.

However, universities need to change more than their reward systems, asserts Rosenberg. She suggests that departments refuse to consider more than a fixed number of research publications in any faculty-review process. In this way, faculty will be freed up to devote more time—if that is their inclination—to teaching. In addition, faculty would be able to develop more long-range, integrated and coherent research reports, with input from their students, says Burgess.

"More research needs to find its way into the classroom," says Burgess. "Not only does it educate students about the time and effort that goes into research, but it teaches them to become better problem-solvers, critical thinkers and consumers of information." Ψ