



The Art *AND SCIENCE* of Teaching

A KU center devoted to student learning shows that teaching and research indeed go hand in hand

Danny Anderson was chair of Spanish and Portuguese when the department won the 2007 Departmental Award for Exceptional Teaching and Learning. The award is given annually by KU's Center for Teaching Excellence, which began in 1997 as a grass-roots effort by faculty to improve student learning. Anderson had sought help from the center designing a course for upper-level Spanish majors. He wanted to encourage students to see language and literature less as academic subjects and more as topics with real-life relevance. He thought service learning, which incorporates volunteer activities in the community, might help make the connection.

BY STEVEN HILL

Sometimes I have the feeling that, in the era of television and film and video games, students are not as interested in reading as I was 25 years ago," says Anderson, now an associate dean in the College of Liberal Arts and Sciences. "I design an upper-division class with topics I think are really interesting. I come to class really excited about the discussion, and I'm sometimes frustrated that my students have not read the text or read it only superficially. They feel like it's distant from them."

Compared to many schools, KU ranks high in student engagement. A 2005 book, *Student Success in College*, included KU as one of 20 universities (and one of only two public schools) profiled for "effective educational practices" involving students in their education. The 20 schools were chosen from more than 700 that took the National Survey of Student Engagement in 2004. The 2007 NSSE survey shows KU students remain "well-engaged." In four of five categories KU seniors posted higher scores than three groups: 33 Carnegie Doctoral Research Extensive Institutions, 16 schools from the Association of American Universities and 10 schools from the Association of American Universities Data Exchange.

Nevertheless, Anderson and his fellow KU professors must look for ways to spark student interest by relating the subjects they teach to topics that grab students' attention. Believing his students to be highly interested in contemporary social issues such as immigration, Anderson decided to try service learning to connect Spanish literature and language with life experience.

Working with CTE's Service Learning Institute, he attended a two-day retreat at

the center's Budig Hall offices, where speakers helped professors think about what they hoped to accomplish with their courses. Breaks between sessions allowed time to design syllabuses and class exercises. A research library and class portfolios put together by other faculty members provided ideas.

What Anderson came up with was Spanish 494, "Spanish Through Service Learning." Offered in spring 2006, the course combined readings, documentary films and 20-hour community service projects. For at least two hours a week,

explain their dealings with Lawrence's Spanish-speaking people. Many students have since told him the class helped point them toward careers.

"None of them has told me they've become great readers of literature," he says. "But I know in that classroom they had very engaged discussions that revolved around their ability to interact with the literary text, and that's what I was trying to get them to do. It's one of the real struggles of working with literature, to get people to think of it as something that's real, that's part of our lives."



Anderson

STEVE PURPÉ

students worked as medical translators during prenatal examinations, tutored elementary schoolchildren learning English as a second language, and served as interpreters during parent-teacher conferences. The literature and films they studied addressed immigrant experience and identity. The service projects drove home the human experience behind those themes, reminding them that literary texts aren't merely dusty books on a shelf. They are life stories.

Students became more interested in the literary works, which Anderson expected. Discussions were energetic—often starting before class began. Students were bursting to share what they'd learned. What surprised Anderson were the connections they made: Rather than use their community service experiences to understand the texts, as he anticipated, students began using the texts to

For people to be in touch with that really did accomplish what I've wanted to accomplish as a literary professor."

Anderson credits the Center for Teaching Excellence helping him make that breakthrough.

"I don't think I could have succeeded," he says, "without CTE."



Great scholars do not necessarily make great teachers. "I took classes from people who did brilliant work, who I still admire greatly," says Shannon O'Lear, a faculty fellow at the Center for Teaching Excellence who earned her PhD at Syracuse. "But, oh, the classes were mind-numbing."

KU is a research university. Research and the grant money it attracts are

integral to the intellectual and financial health of the University. Research is also a major factor in whether or not a faculty member wins tenure.

KU is also the flagship university of the state. Teaching is integral to its mission to educate Kansans.

"Of course the focus is on research, and there's a very good reason for that. Although teaching is important, our research is our universal currency. It's our publications, our grants," says O'Lear, associate professor of geography and environmental studies. "It's the over-

with what's going on, and students aren't getting information that was current when that person went through graduate school."

Still, most agree that the majority of a graduate student's preparation is geared toward becoming a scholar, with much less time spent on learning to teach.

"Often we are trained from early in our graduate career how to do a research presentation, how to write a proposal, all the things you have to know to be a good researcher," O'Lear says. "There's a recognition that what you're doing in research

critical inquiry to seek answers to particular questions. They share their work, through peer-reviewed journals, creating a body of knowledge that benefits all.

Bernstein favors a similar model for thinking about teaching. His "inquiry" approach differs from what he calls "drive-by faculty development," in which professors attend a lecture on teaching and go away informed.

"The inquiry model is, you come in and we invite you to figure out how you can investigate your own teaching," he explains. "What would you look for?

What evidence would you gather about your teaching? What do you know about what students are learning? It's an approach that engages faculty as investigators."

CTE hosts faculty seminars and guest speakers, and it awards grants and offers workshops such as the one Anderson attended to give professors the time and direction to over-



O'Lear

STEVE PUPPE

head we bring to the University.

"But at the same time it's important to remember there are all these undergrads out there who need teaching."

Teaching and research don't have to be viewed as an either-or proposition.

"I think at large research institutions we have the reputation that teaching and research are in competition, and you have to do one and not the other," says Holly Storkel, associate professor of speech-language-hearing. "I don't think that's really the case."

Success in the lab leads to breakthroughs in the classroom, says Storkel, who won a \$1.75 million NIH grant in 2006 and a W.T. Kemper Fellowship for Teaching Excellence in 2007.

"I think my research enhances my teaching, because I bring that new information into the classroom. Teachers who conduct research are staying up to date

is complex and multidimensional; there's an extra layer of reflecting on the research. We're not always very good at doing that with teaching."



Doing that with teaching, of course, is exactly what the Center for Teaching Excellence is all about. What may surprise some is how much the method CTE employs is borrowed from research.

When he took the job as director of CTE in 2002, Dan Bernstein had been involved for a decade in a national conversation about teaching. He was interested in the idea of treating teaching much the same way researchers treat their research: as a kind of rigorous, scholarly inquiry.

Researchers are investigators who use

haul a class or design a new one. It also encourages faculty who've adapted innovative teaching approaches to share their work and results through portfolios, which are posted on the CTE Web site.

The result is a kind of faculty commons, where on any given day there might be a faculty seminar on the use of technology in the classroom, a meeting to discuss proposed changes in the way faculty performance is evaluated, or a discussion period where professors can toss out questions or observations about their own classroom experiences. Often the discoveries happen by chance. O'Lear recalls a session on "clickers," electronic devices used to solicit answers from students. Though she doesn't use them, she was intrigued by something a professor did: He had two students share a device. "At that point it wasn't about technology; it was about cooperation,"

O'Lear says. Similarly, Anderson recalls a session that outlined a technique called a "thinkaloud," a brainstorming exercise that allows professors to gain insights into students' cognitive styles. He hasn't used it—yet—but someday he might.

For Storkel, the inquiry process led to redesign of an upper-level course that asked speech-language-hearing students to apply findings from clinical research to specific patients. She had noticed that students demonstrated mastery of the course material on a comprehensive exam, but they had trouble applying research evidence to clinical practice. They also did a poor job finding evidence on their own. She devoted more class time to finding and interpreting evidence, and adapted clinical cases from her own research to demonstrate and assess how well students applied that information to patients. Storkel received a stipend that gave her time to develop new course materials, and Bernstein and the CTE staff provide expertise and logistical support.

"I would have these impressions of whether or not students were learning certain things," Storkel says. "But it was Dan who said, 'You know, you could actually put that on a graph.'"

By charting student performance on reading quizzes, for example, she pinpointed where students understood the material and where they didn't. Extending those charts over subsequent semesters, she tracked which changes were bearing fruit. After she redesigned the course in 2005, for example, the number of students earning an A-average on reading quizzes leapt from 25 percent to 86 percent. Most were A-pluses.

The makeover worked because Storkel focused on improving student learning rather than improving teaching.

"We tend to think of teaching as just a performance: I know what I know and my job is to perform it in some way that students will like, and if I do that they'll magically learn," Bernstein says. "It's very much about 'me.' Is my performance good? Are my PowerPoint slides pretty?"

Center for Teaching Excellence programs

- **Best Practices Institute:** Intensive two-day workshops where teachers plan course changes to be implemented the following academic year. "This is the best entree for faculty members into what the center does," Dan Bernstein says.

- **Course Portfolios:** Online lesson plans and examples of student work make public the process and result of an inquiry into student learning. Portfolios give faculty members a chance to share with other faculty what they've learned about teaching.

- **Faculty Fellows:** Shannon O'Lear and Catherine Weaver, assistant professor of political science, serve as faculty consultants to Bernstein and help him carry out the center's mission. Duties include coaching faculty and participating in center seminars and programs.

- **Teaching Teas:** Informal afternoon gatherings at which faculty members can discuss specific topics of interest and share their classroom experiences.

- **Faculty Seminar:** Semester-long classes with readings that explore a particular theme related to teaching. Faculty must apply, and those accepted receive a stipend.

- **New GTA Conference:** Orientation session prepares new teaching assistants for classroom service.

- **Departmental Ambassadors:** Twice-semester meetings with departmental representatives keep academic units across campus informed of important teaching developments, and keep the center aware of teaching issues important to faculty. —S.H.

The inquiry approach focuses on determining whether students leave a class with an understanding and ability they didn't have before. The emphasis shifts from a subjective review of performance to an objective analysis of learning. It all goes back to Bernstein's belief that teaching can be approached with the same intellectual rigor as research.

"If peer review of research is our most exalted way of honoring what we do intellectually [as researchers], then what

do we mean by peer review of teaching?" Bernstein says. "My notion is that it's not just sitting in someone's class and watching them teach, because teaching is not a performance."

This new approach affects not only how faculty members evaluate teaching, but also how students do so. Changes are underway for the role of student evaluations in tenure review, Bernstein says, noting a "gradual shift away from a total reliance on student opinion." The student voice will still be heard, but in a way

that's more in line with its expertise.

"Students are really good at telling us if we're accessible, respectful, available, clear, timely," Bernstein says. "But they are really not the right people to ask if the right material is being taught, or if the material is too difficult. There's even good research suggesting that they are not particularly good at telling you how much they've learned.

"Our idea is that if you represent what your students are learning to your colleagues, then your colleagues can judge whether or not students are learning ade-

"It always starts with, 'What do you care about? What do you want students to understand?'"

— Dan Bernstein

"What we try to offer is the opposite of teaching tips," he says. Drop in on a CTE session and you're more likely to find faculty members grappling with big ideas than memorizing a top-ten list of classroom tactics. That's not to say that CTE traffics only in skull sessions and airy ideas: There is plenty of nuts-and-bolts advice to help teachers design classes, but that design will be grounded

classroom, control of the students—that's not what I'm after. It should really be more student-centered, and that's why CTE is trying to focus people more on student learning than on teaching."

In a recent class, for example, O'Lear showed students a CNN story about the GAP clothing chain, which had found a contractor using child laborers in a sweatshop. A student questioned why

the video clips she showed always made Americans look bad. "If we want cheap clothing, why should we care if corporations use child labor?" the student asked.

The question led to a charged discussion that veered far from the planned lecture material. And that was fine with O'Lear.

"It was a great class. They were thinking

about concepts we talked about in class, but relating them to the world and how they think about the world. And that's our job at the University—to reflect the world of ideas."

Anderson says there's nothing quite like walking into a classroom to find students "already revved" before he starts.

"I like sharing the knowledge I have from my years of study and training myself as a scholar, but I also like seeing students become engaged to discover knowledge for themselves," he says. "It really adds excitement to a class, and it also means that as an instructor you can be surprised to discover how far you can go with a discussion. In a class where students leap in, you get a sense that you are covering much more material in much more depth."

And that's good for all—students, teachers and scholars alike.



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Bernstein

quately over time."

It's a change of emphasis welcomed by many professors who are motivated to improve their teaching.

"It's easy to think of teaching as a popularity contest," O'Lear says. "If my students like me I'm a good teacher.' That isn't necessarily the best indicator."

"CTE keeps bringing us back to not am I doing fun, crazy things in class or how popular I am with the students, but what are my students really learning?"



Great scholars do not necessarily make great teachers. But the principles that guide great scholarship—inquiry, intellectual rigor, peer review—can be applied to the craft of teaching. Of that, Dan Bernstein is certain.

in a broader understanding of exactly what it is they are trying to teach.

"It always starts with, 'What do you care about? What do you want students to understand?'" Bernstein says. "And once you've identified that, the next question is, 'Do they? How many do and how deeply?' At a place like KU, there's always room for improvement, because not everyone who walks in the door is dying to be your best student. There are many things you can do to engage them, to make it worth their time. Students will work harder if you make it worth their while."

This broader understanding also allows professors to toss the lecture notes out the window when circumstances require.

"What we're really trying to unclench people from is this idea that it's all about control," O'Lear says. "Control of the