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Our teaching-and-learning experts give you insights on what works in the classroom. Delivered on Thursdays. Teaching is written by Beth McMurtrie and Beckie Supiano. We love hearing from readers, so please don't hesitate to reach out to us directly. You can also read more articles about teaching and learning.

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From: Beth McMurtrie

Subject: Teaching: Why Is It So Hard to Spread Innovative Teaching Practices?

This week:

- I describe the results of a study suggesting that training faculty members in innovative teaching practices may not be enough to make widespread changes.
- I share reader responses to a callout to make digital textbooks more engaging.
- I point you to resources on teaching you may have missed.
- I ask you to share your teaching stories.

Expanding the Choir

A new study of how teaching innovation spreads found that early adopters prefer to talk to like-minded colleagues about their teaching practices, rather than with instructors who may not share their approach. This suggests that colleges need to do more to spread the use of evidence-based teaching practices on their campuses.

In short, having a few innovators on campus who use strategies like active learning or peer mentoring may not be enough to foster widespread change.

Those findings appear in a new paper titled "Innovative Teaching Knowledge Stays With Users," which used interviews, surveys, and social-network analysis to study the habits of nearly 200 STEM faculty members at several research-intensive universities.

I spoke with three of the study's authors about their findings and some possible solutions: Brian Couch, an associate professor of biological sciences at the University of Nebraska; Luanna Prevost, an associate professor of integrative biology at the University of South Florida; and Marilyne Stains, an associate professor of chemistry University of Virginia.

The three said they weren't really surprised by their findings, when considered within the larger context of higher education.

"We know that academic institutions are prone to siloing, where smaller groups form around different ideas and disciplines," says Couch. "This study showed us that siloing effects can happen with teaching, even within different departments."

Or as Stains put it, when you look at teaching workshops and other efforts to promote evidence-based teaching practices, "you quickly realize you have the same people who come to all those meetings."

So what are some ways colleges can expand those circles? The group had several suggestions.

Co-teaching is one promising approach. Whether it's putting two faculty members together in a classroom, or simply asking them to design a curriculum together, having innovators work alongside less-experienced instructors is one direct way to expand professors' social networks.

But co-teaching needs to be encouraged and rewarded, the authors said. If an instructor isn't given full credit for co-teaching a course, they are much less likely to want to take that on.

Faculty members also need to be encouraged to work together, and not simply alternate days on which they teach a class. "There should be an expectation that curriculum and learning goals should be discussed," says Stains. "Otherwise it may not move the needle too much."

Colleges should also be careful not to silo resources devoted to supporting innovative teaching, says Prevost. That may happen when departments and colleges work on teaching-related projects independent of the campus teaching and learning center. "Are they reinventing the wheel?" she asks.

Leadership matters as well, says Prevost. Are campus administrators championing the diffusion of effective teaching practices across the campus? "They have the capacity to set the structure to support this work," she says.

That includes making sure student evaluations, along with tenure and promotion policies, support good teaching. Much has been written about how poorly designed evaluations end up punishing innovators if students feel uncomfortable with unfamiliar teaching practices, such as active-learning strategies. The same holds true for promotion policies that don't place sufficient emphasis on good teaching.

This study is part of a larger effort to study the social networks of STEM faculty members at research universities and is supported in part by the National Science Foundation. From there, these and other researchers hope to dive more deeply into questions around effective teaching and learning. One question they want to tackle next, says Prevost, is looking at the most effective strategies around team teaching.

Have you found effective ways to tap into the expertise of your more seasoned instructors, to enable them to support teaching innovation across campus? If so, write to me at beth.mcmurtrie@chronicle.com, and your example may appear in a future newsletter.

Making Virtual Textbooks More Interactive

A couple weeks ago, I asked readers to share ideas for helping students to become active readers of virtual textbooks, not passive consumers. A number of people shared their strategies:

Online annotation and social-reading tools. Several people wrote in to say they use such tools in their classes. Perusall seemed a particular favorite. But you could also check out Hypothesis, NowComment and Nota Bene.

Interactive textbooks. Readers also pointed out that you can pair some of these tools with open educational resources, some of which are interactive, for a no- or low-cost solution.

"I've been using Perusall in my Introduction to Literature course with a no-cost open educational textbook from Lumen Learning," writes Christopher Schedler, an English professor at Central Washington University. Schedler recently gave a presentation comparing student engagement in discussion versus annotation. Interested readers can find a link to the recording on the conference website.

Other readers noted that some digital textbooks allow for underlining and note taking. Ernest Knowles, an emeritus associate professor in the College of Sciences at North Carolina State University, wrote in to say that he has been using a VitalSource eText in his oceanography course for several years, which allows note taking.

Worksheets and other reading assignments. This may be an old-school solution, but several people said they used reading-comprehension exercises to help create a more active reading experience, even when students don't have textbooks they can mark up.

Laurie Weaver, a professor in the College of Education at the University of Houston-Clear Lake, wrote in to say that she has designed several "respond and reflect" assignments for her students in the spring and summer, when classes moved online. "I feel the effort is worth it," she writes. "The students are actively interacting with the course material. Feedback from my summer class was great."

ICYMI

- Is your college considering new course requirements on race and anti-racism? Whitney Peoples and Angela D. Dillard of the University of Michigan share lessons based on their institution's 30-year-old requirement, in a *Chronicle* advice piece.
- Last year I wrote about how some professors center their courses around difficult conversations, to teach students how to talk across ideological divides. Ilana Redstone, an associate professor of sociology at the University of Illinois at Urbana-Champaign, and one of the people I profiled, recently released a series of videos designed to help professors develop those strategies in their classrooms.
- This week I moderated a *Chronicle* webinar on structuring a course so that all students participate. If you would like to watch a recording of the session, you can find that here.

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