In his landmark book, *Scholarship Reconsidered*, Ernest Boyer (1990) re-conceptualized the faculty role in teaching by representing teaching as a scholarly activity. His ideas quickly generated controversy, and a dialogue distinguishing two roles with respect to teaching: *scholarly teaching* and the *scholarship of teaching*. Scholarly teaching, the focus of this essay, begins with reflection and inquiry on how students are learning and what fosters and impedes that process. Scholarly teachers document student learning and instruction, identify resources in the literature to assist them in defining and addressing their questions, implement data collection processes, apply what is learned, and document outcomes. They change how they teach in order to address a student learning issue, and documenting the process and what they found.

For engineering education in the US, two movements have led to an emphasis on scholarly teaching. New engineering accreditation criteria asked programs to set learning objectives and develop assessment measures for student learning and skill attainment. These activities are more congruent with practices of scholarly teaching. Simultaneously, a “paradigm shift” was encouraged in higher education – a move from a teacher-centered paradigm to a student-centered paradigm. In a student-centered paradigm, faculty members are facilitators of learning, and students become more active, self-directed learners. Scholarly teaching had found an advocate.

If you decide to adapt a more scholarly teaching approach, anticipate resistance, from yourself, your students, your colleagues, and your administration. The following are a few tips I have learned from college instructors who have successfully made changes to their teaching.

1. Be intentional and transparent. Know *why* you want to use a certain method (I want my students to compare notes with each other to practice reflecting on what they are hearing).
2. Tell your students ahead of time. No. surprises. For example, you might say “midway in the lecture, I will give you a question to discuss with the person sitting next to you. Your answer will require you to compare notes from the lecture and synthesize the most important points together. This will help me know how well I’m communicating the important material and help you see if you are missing something.”

3. Start Small. Don’t try to change everything all at once. If you want to start using active and collaborative learning techniques in your lectures, try introducing a short activity in the middle of the lecture as in the example above. Repeat the activity and improve upon it so students get used to talking to each other. That sets the stage for more activities later in the semester.

4. Keep it safe. Much student resistance to change in teaching comes from anxiety that the change may threaten achieving high grades. Keep activities “low stakes,” but integrate them into other course activities so students see how they impacted their learning.

And finally, be persistent. It is normal for people to resist change. If what you are doing is grounded in the research on teaching and learning, and you believe it’s appropriate for your course and discipline, don’t give up. Share with your colleagues what you are doing, get support, get feedback from your students, and document the results. Eventually the change will become the “norm” and second nature to you and you can address the next student learning challenge.

******
