

Frosting, Sauce, and the Ticking Tenure Clock

Thoughts of a Lilly Teaching Fellow

[Kirk Martini](#)

Describing the response of faculty to news of her Lilly Fellowship, a recent fellow quoted one of her most enthusiastic senior colleagues: "Whoop-dee-do." The response reflects an unwritten code of behavior for assistant professors at a research university: Keep your head down and focus on your research, don't be distracted by teaching and committee work. People *say* that tenure is a three-legged stool of teaching, research, and service, but everyone knows the legs are not equal. Plenty of tenure stools have balanced on the research leg alone, with dangling appendages of teaching and service. Excellent teaching may prop the stool a bit, and terrible teaching may tilt it down, but the difference between adequate teaching and very good teaching does little to sway the balance. Time on the tenure clock is precious and finite; why spend it as a teaching fellow when research counts so much more?

For me the answer lies in the choice between a professional life that is fragmented and schizophrenic, and one that is integrated and whole. Every hour devoted to teaching is an hour not doing research. But becoming a more active and engaging teacher can be stimulating not only for your students, but for you as well. When teaching is stimulation rather than irritation, it can be a font of ideas instead of a drain on time. Nobel laureate Richard Feynman said it best:

The questions of students are often the source of new research. . . they *remind* me of a problem by asking questions in the neighborhood of that problem. It's not easy to remind *yourself* of these things . . . I would *never* accept any position in which somebody has invented a happy situation for me where I don't have to teach.

You get those benefits only if students are asking good questions. Students must be engaged and curious in an atmosphere that invites discussion. Creating that situation is not easy; it requires carefully crafted technique.

One of the teaching techniques I learned as a Lilly fellow last year was "how" to put a question before a class. Instead of presenting a question and asking "what's the answer?", it is much more effective to ask "what's a reasonable hypothesis?" or, even better, "what are some reasonable hypotheses?" and then sort through the alternatives and find a good answer.

With this technique, students see a more realistic approach to problem solving. In any kind of creative work--writing, art, engineering design, etc.--a person must function both as a free-thinking creator and as a harshly analytic critic. The creator generates possibilities, and the critic scrutinizes those possibilities for flaws. The "reasonable hypothesis" approach demonstrates that process in miniature.

Believers of the unwritten code often dismiss the notion of teaching techniques as flashy showmanship: frosting on the cake. As a Lilly fellow, I learned that technique is not shallow and superficial; it's deep and rich. Technique is not frosting on the cake, it's the sauce of the stew. Without that sauce, the stew is still nutritious, but its contents lie bare in hard, dry lumps; there is no bubbling mystery to provoke questions. Teachers from different fields put different ingredients in the stew, but we can all share secrets about making the sauce, about making the contents stimulating and vital.

To teach in a way that is productive for both you and your students, you have to know the difference between frosting and sauce, between entertainment and engagement. I plan to continue trying new techniques, constantly stirring the intellectual pot. It will take more time than simple spoon feeding, precious time on the ticking tenure clock, but I think it will lead toward a career that is whole and round, rather than one that is torn and split. That time will tell.

Kirk Martini
Assistant Professor of Architecture and Civil Engineering
1994-95 Lilly Teaching Fellow
1995-96 Teaching and Technology Initiative Fellow
