Random Thoughts . . .

NEW FACULTY MEMBERS MAY NOT KNOW HOW TO TEACH, BUT AT LEAST THEY KNOW HOW TO DO RESEARCH...RIGHT?

Rebecca Brent and Richard M. Felder

As we have observed on several occasions, college professors may be the only skilled professionals who don't routinely get training in the skills they need to succeed in their profession. Most universities either provide no orientation and mentoring for their new faculty members or they offer a campus-wide half-day orientation workshop consisting mainly of welcoming speeches and lectures on such things as health benefits and retirement packages. Most faculty members are consequently left on their own to learn what they'll need to know about starting and building a research program and designing and teaching courses.

The fact that most new faculty members have never been trained to teach is known throughout the academy, but a common assumption is that graduate and postdoctoral studies provide good preparation for independent research. Unfortunately, that assumption is generally wrong. Doctoral students and postdocs may learn to carry out a research project that someone else has defined and gotten funded, but few of them learn how to select research topics, write successful proposals, assemble an effective research team, and get papers published in top journals.

While experienced faculty members may believe that their new colleagues have been adequately trained in research, the new colleagues know better. We recently led a conference workshop for faculty members in the first few years of their careers. We first had them list their career-related concerns, two-thirds of which involved research. In the remainder of this column, we summarize their research-related questions and our responses, and cite publications containing our responses to their questions about teaching and time management.

Starting and building a research program

- *How do I overcome the fear factor in proposal writing? How do I find funding sources?*

Feeling nervous about writing proposals is perfectly rational. If you're like most brand new faculty members, you've never written one and may never have even seen one.

The best way to overcome the nervousness is to get good information. First, if you can find a skilled research mentor with whom you can collaborate on your first project, consider

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Drs. Felder and Brent are coauthors of Teaching and Learning STEM: A Practical Guide *(Jossey-Bass, 2016).*

doing it. Watching how the mentor identifies and works with funding sources, develops the proposal, assembles a research team, and manages the research can help knock years off the 4–5 year learning curve faced by roughly 95% of new faculty members.[1] Your department head might be able to help you find a mentor. Second, talk to experienced colleagues in fields related to yours and in your college or university's Office of Sponsored Research (it may have a different name) and ask for suggestions of possible funding agencies for the project you have in mind. If any colleagues have written successful proposals to agencies you identify, ask to see the proposals so you'll have models when you write yours.

- *How should I write research proposals?*

When you have a reasonably detailed outline of a research project and have identified a potential funding agency, make phone contact with the appropriate program director at the agency and discuss your ideas. When directors hear about what prospective proposal submitters are planning, they might offer strong encouragement, make suggestions for how to modify the plan to better fit their program's mission, or suggest another program whose mission is a better fit. In each of those cases, the chances of eventual acceptance of the proposal will be significantly greater than they would have been without the phone call. In the worst case, a director might say he or she doesn't think the project is fundable. That conversation will sting a bit, but it can save you weeks or months of wasted work.

New faculty members are often nervous about calling funding agency administrators, fearing that they will be bothering busy individuals. Not to worry. Program directors view those calls as routine parts of their jobs, and they would much rather be called early than have to deal later with complete proposals that their programs are highly unlikely to fund. Just make the call.

- *What can I do to get my research proposals and journal article manuscripts finished well ahead of their submission deadlines? How can I increase the chances that they'll be accepted?*

Here are two proven strategies for getting major writing projects finished in a reasonable time period.[2] First, instead of waiting for large blocks of writing time to open up or binge-writing just before a deadline, schedule regular brief time periods to work on the project (for example, 30 minutes each day, or an hour every other day); set a timer to remind yourself when to begin and when to end; and don't do anything but write during those periods. Second, separate creating from critiquing: instead of editing and revising a word at a time, free-write without looking back until you have a substantial body of material written, and then do the editing. To maximize the odds for acceptance of a proposal or paper, NEVER let the funding agency or journal be the first to review your manuscript. Ask, beg, or bribe colleagues to read and severely critique manuscript drafts, and take their suggestions seriously.

A good article in *The Guardian* gives more tips for writing publishable papers.[3]

Teaching and Time Management Concerns

The workshop participants asked a number of questions related to teaching and time management. Our responses to the teaching questions were drawn from Richard Felder's website[4] and our recently published book, T*eaching and Learning STEM: A Practical Guide*,[5] and our tips on time management were taken almost entirely from suggestions made by Phil Wankat in *The Effective, Efficient Professor*.[6]

Promotion and Tenure / Career Planning

- *How can I find out what's really in the black box called promotion and tenure expectations?*
- *How should I plan my career in a wiser way than just figuring out how to get tenured?*

If you just ask a department head "What do I have to do to get promotion and tenure?" you'll almost certainly be told—truthfully—that there is no definitive answer like a minimum number of grants or grant dollars or published papers. The acceptable numbers always depend on a variety of factors, such as the size of the grants, the agency awarding them, and the impact of the journals. Here's a better approach. Every year, construct a detailed plan for yourself (what proposals and papers you plan to write and where you plan to submit them, what courses you plan to develop and teach, what service activities you will perform, and your long-range vision for your career). Show the plan to your department head and/or mentor and ask for their comments, and carefully consider any suggestions for revision they give you. Then do your best to follow your plan. You won't be guaranteed to make promotion and tenure and have a successful post-tenure career, but the odds in your favor will be good.

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