Greasing the Tenure Track 2

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Abstract

Some new faculty must balance the competing demands of the desire to teach effectively while maintaining a heavy teaching load. Oh, and, by the way, along the way to the tenure hurdle, research, professional development, and service duties may distract from family, friends, and real life.

Based on the author's participation in the NSF's New Century Scholars (NCS) Workshop at Stanford University as both a scholar (1999) and, subsequently, as a senior scholar (2000), this paper summarizes six useful tips for tenure-track faculty. This second paper in the series by NCS senior scholars provides the perspective of an engineering educator at a California State University campus with approximately 4000 engineering students.

Fight Boredom with Clarity

Jerome Breitenbach is a colleague in my department who used this phrase in response to my query about how to improve teaching ability. It nicely introduces several simple principles to use in class and complements much of the advice presented in the NCS Workshop.[1-2] Considering clarity while applying the principles of effective teaching enhances the process for both student and teacher. The following elements of instruction summarize several principles of effective teaching:[3]

- Select objectives appropriate for the students
- Teach to the objectives
- Monitor the students and adjust the teaching
- Use the principles of learning

Hidden in these tips are the need to account for a variety of student learning styles and the need to make use of active learning and collaborative learning strategies.[4] It might seem superfluous to emphasize the use of clarity, because clarity can certainly aid each of the above instructional activities. Perhaps a very specific piece of advice will help:

- Avoid the use of ambiguous pronouns.

Phrases containing any of the words "these things here" provide little helpful information, particularly to a student taking notes who doesn't happen to see the gestures that the instructor

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uses to reduce the ambiguity. Descriptive epithets with helpful adjectives add more information and guide students whose gaze may point elsewhere. For example, when describing a drawing, say the “left vertical rail” rather than “this thing.”

A related bit of advice, also from Jerome Breitenbach: Listen to yourself from the point of view of the student. Listen to what you say as you say it and adjust your delivery.

Keep Mouth Closed

It is better to remain silent and be thought the fool than to open one's mouth and remove all doubt.[5] This advice applies primarily to department politics and committee work, until you know each person in your department well enough to understand how they will perceive your input. A good question to ask is “would I want to hear what I am about to say?” By all means provide useful ideas, when you are certain that they are useful. Otherwise, many comments can improve with further reflection or less public channels of communication than a quick statement to the entire department during a meeting.

Attend Lectures by Other Faculty

Seeing how colleagues work in their classrooms provides vivid illustrations both of what works well and what doesn’t. We learn tips just by viewing another instructor’s classroom from the student’s perspective. I also gained a more complete view of the curriculum, just by visiting one or two lectures from a variety of classes. Some colleagues will provide their lecture notes. This invaluable assistance enabled me to survive my first year of teaching.

Make Friends outside the Department

Aside from the normal advantages of making friends outside your discipline, friends from other departments may also want to improve their teaching. One of the more useful exercises I participated in was motivated by a Cal Poly program called TEAM (TEaching And Mentoring). This program paired up faculty to visit each other in the classroom. An initial workshop introduced faculty to the program and described techniques for classroom observation and feedback. Frank Owen, a Mechanical Engineer, and I decided to meet a few weeks into the quarter for a pre-visit conference to map out areas for improvement. Responding to comments on student evaluation forms, we both sought ways to improve teaching effectiveness while minimizing the intimidation factors due to our presentation styles and due to the technical challenges in difficult courses. We also each face a “difficult” section occasionally, meaning a section that seems less willing than most to participate in class and provide active feedback.

The day after Frank visited my classes, we met for a one-hour post-visit conference. Since Frank’s notes were copious, complete, and useful, the session was quite valuable. Some of the more valuable comments directed me to improve my boardwork, to pay careful attention to students’ responses to my queries, to attempt to engage more students in the classroom, and, above all, to switch rooms from the horrid one assigned for the quarter. The fan noise in the room was detracting too much from the course! I subsequently visited one of Frank’s classes and provided feedback during a post-visit conference the next week. We each felt that we learned a

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great deal from the experience and were able to use some of the advice we received right away. Not feeling that we had perfected our teaching, we decided to continue the process. For a second set of visits, we decided to videotape each other's courses. We did so and met for a post-visit conference. Videotape provides extremely honest feedback! We like the feedback process, because we learn almost as much by visiting each other's classes as we do by hearing the feedback. If you don't wish to devote as much time as we did to this process, you might consider doing a micro-teaching exercise like the one used in the NCS Workshop.[6] Gather one or two other faculty and videotape each other teaching for 8 minutes. Then, watch the tape together and provide feedback. Certainly, the lesson does not have to be a complete lesson, but even a short time on tape provides extremely valuable feedback.

File Papers for Personnel File

The detail offered here stems from my experience at a public, primarily teaching institution. The California State University requires tenure track faculty to file personnel files once per year. Preparing the file requires too much time, and here is a very useful tip I learned from my friend Joy Shetler to make the process much less painful. File copies of papers that will go into the personnel file as you generate them. My desk contains folders labeled:

- Fall Teaching
- Fall Other
- Winter Teaching
- Winter Other
- etc.

As I generate class materials such as syllabi, handouts, assignments, and exams, I place one copy into the appropriate folder. In go research proposals, journal articles, minutes of committee meetings I chair, student evaluations and other documentation of my contributions in teaching, professional development, and service. If I am diligent throughout the year, then preparing my annual file does not require hunting for some misplaced paper.

Swim or Surf

My choices to keep sane and healthy derive from my enjoyment of water. You must have your own methods. Pursuing them make us enjoy our work more.

Conclusion

Specific elements of the NCS Workshop have improved the author's teaching, professional practices and sanity. Approaches that have improved the quality and efficiency of teaching activities include:

- specifying and using detailed learning objectives
- using multiple teaching strategies that acknowledge a variety of learning styles
- applying active learning techniques

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These elements are tangible suggestions for new (and more experienced) engineering educators to take back to the classroom and try for themselves. Certainly, the tips described require too much instructor energy to implement all of them immediately in every course taught. Rather, this series of papers presents a buffet of hints for tenure track instructors to make use of, gradually incorporating more during subsequent terms.

Bibliography

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