VI. ANALYZING AND IMPROVING YOUR TEACHING

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Analyzing Teaching and Your Career

As academics, we are trusted to make intelligent decisions, to learn because we love learning and the understanding knowledge gives us, and to act conscientiously toward our colleagues and students. Of course, with that autonomy comes responsibility for our personal and professional growth. This section offers ideas to help you keep growing as an instructor, including ways to analyze and develop your perspective and skills as a teacher, to share ideas with colleagues, and to find out what your students *really* are learning and how you can better help them.

Attending Workshops

You may well find attending interactive workshops to be the most efficient, engaging way to discover new approaches to teaching and to reconsider your own teaching. Teaching Resource Center workshops are frequently interdisciplinary: faculty consistently find that they learn new ideas from colleagues in other disciplines. But workshops for a specific department or for TAs in a particular course also provoke enlightening exchanges and inspired teaching. To request a workshop on a particular topic, contact the Teaching Resource Center; to receive regular e-mail announcements of upcoming events related to teaching, ask to be on the TRC list of interested teachers. Attending workshops and applying the ideas you discover there not only makes you a stronger teacher but expands your personal connections at U.Va.

Conversations with colleagues in disciplines different from my own have prompted me to reconsider the very meaning of "teaching philosophy." I now regard my own teaching principles as developing guidelines rather than fixed and normative rules. I see them as both informing and being informed by everyday teaching practice.

—Cristina Della Coletta, Italian

Consultations to Analyze Teaching

To decide why your teaching works well and what improvements can be made, you need to look at it objectively, by yourself or with a sympathetic advisor. You can find such consultants in your supervising faculty member if you are a TA, the colleague with whom you team teach, peers in any department, or Teaching Resource Center staff members. Whether you work with a consultant or alone, resultant analyses and evaluations are *formative* in nature: they exist to help you improve, not to compare you with anyone else or judge the value of your work.

Some teachers tend to care so deeply about their teaching that it becomes synonymous with themselves. Such an instructor may equate feeling unsuccessful in the classroom with some personal lack and thus recoil from scrutinizing what doesn't work or from allowing a colleague to see it. If you find yourself shrinking from the thought of analyzing your teaching, feeling that your classroom should not be "invaded" by any other instructor, take a bold step now. The longer you delay, the more difficult the change and the less likely you will become the really fine teacher you could. Read on; one of the suggested analytical methods may feel comfortable to you.

Ishmail Conway leading the workshop "Making it Work for Everyone."

Consulting with a Colleague

Acquiring information about your teaching from colleagues should not be unidirectional or hierarchical. The best collegial assistance works in both directions and at all levels. If you are at the lower end of the hierarchy, you will not, of course, be able to establish such a system; but you can initiate mutual classroom observations and/or videotapings that will benefit both you and your colleague. Here are some suggestions:

✧ Begin with someone you feel comfortable with.

✧ Request that the colleague visit your class or watch with you a videotape of one of your classes. Note aspects of your teaching you'd like an outsider's opinion about: How clearly do you follow your stated outline? How can you encourage all students to discuss? How could you better explain difficult concepts? Limit your points of observation to four.

✧ Meet with your observer for fifteen to thirty minutes to discuss your interests and decide exactly what the observer will look for. What evidence will help you analyze your questions about your teaching? If the issue is equal participation in discussion, the observer might note how you call on students, how much wait-time you allow, what eye contact you make with various students, how well students pay attention, and how well students have apparently prepared. Considering evidence rather than impressions keeps the analysis objective.

✧ As class begins, introduce the observer to the students in whatever way you prefer. Sometimes instructors are concerned about students' reaction to an outside observer or camera. But experience shows that although a videotaped or observed class is, no doubt, subtly changed by the presence of an unfamiliar person, students normally appear to forget the camera or observer after about ten minutes. In effect, if you aren't bothered by the camera, they won't be. Make it clear that the observer (or camera) will help you improve your teaching.

✧ As soon as possible after class, in a relaxed setting, review the observer's notes together and draw conclusions about what the evidence means. You may find that you focus your eye contact and questions on students in the front. The observer may have noted that the problematic non-discussants spent a lot of time flipping through assigned reading. By examining appropriate detailed notes, you can draw useful conclusions yourself: for instance, you may decide that students were flipping pages because they were confused.

✧ Finally, decide what *few* teaching changes you will make to solve each problem. For instance, talking individually with the students who seem unprepared is a logical first step. Making a conscious effort to look more frequently at the students in back and calling on them directly may help.

If the observation goes well, as it will if you follow these steps, your observer may well reciprocate. Once there taking similar notes, you will see a number of valuable teaching strategies to try. Observing and discussing teaching with colleagues also quickly develops and extends collegial feelings between faculty and/or TAs inside and outside your department. If you can be observed by a supportive senior colleague, the ensuing dialogue about teaching can help develop a beneficial mentoring relationship.

Consulting with TRC Staff

The Teaching Resource Center exists to help individual faculty members and teaching assistants teach as effectively as they can. All consultations with TRC staff are confidential and available only upon request from individuals. You can go on line, call or email the TRC (http://trc.virginia.edu/Consultations/, 982-2815, trc-uva@virginia.edu) to request an in-class observation or videotaping. From then on, the procedure follows the interview, evidence-gathering, analysis, and evaluation stages explained above; TRC staff members emphasize what you want to discover about your teaching, although we can offer general reactions and suggestions if you like.

With videotape, what an in-class observer might have noted likely appears on screen, and you can more easily analyze your own teaching. The TRC has camcorders, blank videotapes, and staff members to videotape your class; if you wish, you may keep a copy of your tape or use your own tape for the original. (For more details, see http://www.virginia.edu/Consultations/)

To know anything well involves a profound sensation of ignorance.

—John Ruskin, *Modern Painters*, vol. I, pt. I, ch. 2, 1843

Students' Help

As those who are meant to learn from our teaching, students sometimes seem logical evaluators. Nonetheless, just as children do not always choose the healthiest cereal, students do not always judge teaching properly. They cannot judge, for instance, how well you know the subject matter. For some students, teaching evaluation forms seem to be popularity contest ballots; for others, black balls from a club. Yet, although your students should not be the only ones to evaluate your teaching,

they are the recipients of your teaching and can offer insights different from those gained through classroom observation and videotape analysis (see McAllister, 1999). In fact, seeing what and how well your students are learning overall can tell you a great deal about your teaching. And there are a variety of methods to gather productive responses from students about your teaching.

Assessing Students' Learning

If you have prepared conscious goals and objectives for your course, you know what your students should know at the end of most classes and certainly at the end of each unit. To a large extent, you can deem your teaching and their studying effective if students have learned, and you don't have to wait until a quiz or exam to assess understanding. Assess your students' learning frequently and informally (ungraded and usually anonymously); here are some favorite techniques from Angelo and Cross (1993):

The One-Minute Paper or *the Muddiest Point.* Stop class a few minutes early, put a question on the board, and ask students to write an anonymous response on a half-sheet of paper or 3x5 card you distribute. Pose questions about content, in-class activities, assignments, or anything you're curious about. Check on factual understanding: "Which of the compounds described today are the most stable, and why?" Check on understanding and ability to draw inferences: "From what we've seen of French culture, why would you think French people often say that Americans have no friends, only acquaintances?" Or ask students to write what they found to be the muddiest or most confusing part of the lesson (Mosteller, 1989). It is essential that you read and analyze students' responses as a group, and then respond appropriately during the next class. You might review part of your previous lecture, give more information about a topic students understood, or solve more problems as examples.

Background Knowledge Probe. In order to collect more specific and useful information about students' prior learning, distribute short questionnaires at the beginning of the semester or before introducing a new topic, thus previewing what is coming and reviewing what students already know. Ask at least one question that most students should know, and at least one other question that is more difficult. Avoid unfamiliar vocabulary because it may obscure knowledge of fundamental facts or concepts. Emphasize that these are ungraded and are neither tests nor quizzes. Report results at the next meeting so that individual students will be able to gauge their level of preparation relative to that of the class as a whole.

Pro and Con Grid. To assess students' level of analysis and capacity for objectivity, ask them a question that will elicit thoughtful pros and cons in relation to an important issue, dilemma, or judgment in your course. To make their pros and cons more comparable, you can indicate a specific point of view they should adopt; and be sure to tell students whether to write in sentences or phrases. In analyzing students' responses, you can begin with a simple frequency count, looking at how students tend to perceive the issue. Or you can compare their lists with yours, or see how balanced their two sides are. Their responses may well provide you with a perspective to begin the next class.

With any of these assessment techniques, when you read responses soon after class, you will know more about your students. If you find many incorrect answers to factual questions, you know you're not getting your message across. If students can't draw inferences, you need to teach them how. The students' "muddiest points" may be ones you thought were clear; analyze the source of the discrepancy and figure out a better way to explain the point during the next class.

Student questions and facial expressions inform me about what issues to delve into in more depth, what examples to give, and what stories to tell. I attend to faces carefully. I tell a lot of stories.

—Dennis Proffitt, Psychology

Seeking Students' Comments

Assessing how much students are learning from your teaching does not preclude asking them directly what they think about the course and your teaching. To gain the most benefits from student comments, however, you must seek them *early* in the semester, preferably no later than a month after the course begins. Necessarily formative evaluations, since you are going to use them to make interesting and useful changes, these offer several advantages. First, you have the time to improve in areas where you and the students agree improvements are warranted. You can seek students' opinions about aspects of the course that most concern you. Students value the chance to give their opinions, and they notice and appreciate ensuing changes, often applauding such improvements on final course evaluations. Finally, devoting a little time to analyzing teaching increases the dialogue between you and your students about the course, motivating some of them to put more into it, too.

Comments forms. Use the One-Minute Paper format ("Do you prefer small-group or whole-class discussions,

and why?"), or create a brief form to gather precisely the information you need. It can be as short as three or four questions:

- How well are the assigned readings discussed in class?
- What can the teacher do to improve discussions?
- What can the other students do to improve discussions?
- What can you do to improve discussions?

Use only questions that require students to create an answer, and try to generate as many ideas as you can. Open-ended questions also work well: "I learn the most when we _________ because . . . ."Of course, with such item types, you cannot statistically analyze the data; yet early in the semester you will have information and ideas. For help with questions or format, call the Teaching Resource Center; *How Am I Teaching?* by Weimer et al. (1988) offers sample forms directed toward various specific needs.

Ask your students to answer the questions anonymously during the last few minutes of class; questionnaires that leave the room rarely return. Announce that you will read comments immediately and summarize the results and your plans for the future. While reading students' remarks, decide how you could incorporate helpful suggestions and why some proposed changes will not work. Via e-mail or during the next class, explain what you can and cannot change and why. Students who learn early on why a desired modification is not possible rarely complain about it later.

Teaching Analysis Poll (TAP). The Teaching Resource Center can also give you a summary of your students' views about their learning in the course by conducting a Teaching Analysis Poll for you. To begin, you first discuss your course with a TRC consultant: format, objectives, students' background and assumed motivation, and your concerns. Then, one day, thirty minutes before the end of class, you introduce the consultant, declaring that you have initiated a student-oriented analysis of the course and that you will talk about results with students during the next class. You leave the room, with an appointment to talk with the consultant soon.

The consultant gives groups of four or five students five minutes to answer three questions:

- What most helps you learn in this class?
- What impeded your learning?
- What suggestions do you have for improvements?

One student in each group writes on the board, in three columns, the answers most group members agree about. The consultant monitors responses to verify that a proposed solution accompanies any problem. With the class as a whole, the consultant reviews comments on the board, clarifying ambiguities and keeping only those observations that a majority of the students approve. The consultant thanks the students and reiterates that the instructor will receive the summary of reactions remaining on the board.

During the follow-up meeting, the consultant conveys the students' information, adding details from the conversation and discussing possible refinements and modifications. The consultant can help you decide what modifications to make, if any.

The TAP gives you more details than do individual written evaluations because students have time to discuss the course in a safe atmosphere and because the consultant prohibits vagueness. Furthermore, you know that the majority of students concur with the recommendations. Gone is the one negative remark that grates for days; gone are the ambiguities of written remarks contrary to fact: how does one explain the statement, "We didn't have any small-group work," when students worked in small groups at least once a week? The TAP is completely confidential, the consultant keeps no written notes, and a TAP can be requested only by the instructor involved.

Final evaluations. Use your departmental or schoolwide standardized final evaluation form; you may include other questions as well. Of course, do not look at these student evaluations until after you have submitted final grades. Even if you don't recognize individual evaluations, negative responses (including those with little foundation) can make it difficult to grade final papers objectively.

Do read your evaluations soon after submitting your grades. Make notes or highlight positive comments; list negative comments with the number of times each appears. If you have at least a dozen responses, you can probably ignore a negative comment that occurs only once unless the author offers a useful suggestion. Evaluate the positive comments alongside the negative ones; you will see contradictions, indicating that students are individuals—and human. Most importantly, assimilate the useful suggestions and analyze the source of any repeated negative comments: maybe you do talk too much during class discussions. *Decide how you will improve next time, and note your ideas.* If your evaluations frustrate or confuse you, discuss them with a supervisor, colleague, or TRC consultant. It can be enlightening to see them through the eyes of an objective observer. Evaluations should be helpful; they may be important to your career; you need to determine what they mean. Finally, if your department allows you to keep copies of your students' evaluations, do so; you may need them when you're nominated for a teaching award or write your teaching portfolio.

Conversation over lunch at the August Teaching Workshop, Old Cabell Hall.

Teaching Portfolios

Much of the documentation you gather in the activities explained above will be useful evidence in a teaching portfolio. Teaching portfolios are used for a number of different purposes:

- To allow you to reflect analytically upon your teaching
- To help you improve your teaching through a process of self-analysis and reconsideration
- To organize documents pertinent to teaching that you can mine later for grant applications or award nominations
- To document your effectiveness as a teacher
- To help you strengthen the relationship between your teaching and research
- To organize evidence of your professional expertise

Rather like the professional portfolio of an artist, composer or writer, the teaching portfolio shows the person's best work, and perhaps argues for better work to come.

—Robert Bruner, Darden

To create a teaching portfolio, you select, analyze, and comment on documents that demonstrate your teaching of your discipline. The brief narrative statement includes your reflections on teaching, summaries of what and how you teach, efforts toward improvement, and evidence of teaching effectiveness. Evidence supporting assertions appears in appendices or web links: for example, syllabi, students' work presented anonymously (perhaps with your remarks or grades), students' comments, a videotaped class, colleagues' observation comments.

Although you can certainly create a teaching portfolio on your own (see Seldin, 1997 and Edgerton et al., 1991), many U.Va. faculty and TA colleagues recommend participating in the biennial TRC workshop because it offers individualized coaching, support from colleagues writing *their* portfolios, and wide-ranging interdisciplinary conversations about teaching ideas. Whether you plan to create a portfolio or not, think about what constitutes products of good teaching as you go about your teaching. You can quickly gather some of the information that you will find invaluable in analyzing or presenting your teaching. For ideas about what to collect, contact the Teaching Resource Center.

Writing a portfolio, I learned how to contextualize the values and philosophies, my style and methods of teaching, and my concerns in a healthy and positive way.

—Anonymous comment,
participant in TRC Workshop on
Teaching Portfolios, 1999

Analyzing Teaching and Your Career

College and university administrators want good instruction for their students; if you are entering or continuing in the academic job market, it should benefit you to convince search and promotion committee members of your excellence in teaching as well as in research. Spending some time and energy analyzing your teaching not only enhances your skills but also your self-confidence: you know why you are effective. The narrative statement from your teaching portfolio can tell a compelling story. Web-based portfolios are easy to access. Offering a videotape of a successful class as part of your dossier can make you stand out positively. Your letters of recommendation for the job market should also include details about how you interact and communicate with students in the classroom; if you have done collegial observations, you have a proficient letter-writer handy.

If you are a graduate student who plans a career other than teaching, your classroom experience can still hold you in good stead. Your future employer will be glad to learn that you present yourself well in front of an audience, that you have strong organizational and/or leadership qualities, that you meet deadlines, and so on. While improving your teaching, you are developing skills applicable to many endeavors. A supervisor who knows your successful teaching career at U.Va. can write directly about your abilities.

As an assistant professor, if you consistently spend even a little time considering your teaching with colleagues' assistance, you will assist senior colleagues with promotion and tenure decisions. As noted above, your colleagues should enjoy conversing with you about the intellectual challenges of teaching and research and want to keep you in the department. In addition, colleagues who have seen you teach can speak knowledgeably about your teaching; you will have a stronger dossier than one that comes simply from students' evaluations. A teaching portfolio organizes pertinent evidence for easy understanding.

Finally, never forget the personal satisfaction of teaching well: the excitement of a student who *finally* understands, the pleasure of constructing a balanced and organized presentation, the thrill of opening new vistas to curious minds. Teaching can counterbalance the loneliness sometimes inherent in scholarly pursuits and offer the scholar an immediate outlet for intellectual energy. If teaching well matters to you, work on it as you would any skill you want to acquire. In the academic world, teaching well matters more all the time.

A teacher affects eternity; he never can tell where his influence stops.

—Henry Adams, *The Education of Henry Adams*, 1907