Postdoc Academic Chat #2

TEAM TEACHING THE CHALLENGES AND OPPORTUNITIES OF TEACHING WITH OTHERS

Friday, November 11, 2010

Location: Li Ka Shing Center, Room LK005

- 1. Team Teaching: Benefits and Challenges
- 2. Faculty/TA Teaching Teams
- 3. Professors Preach Ten Commandments of Team Teaching

1. Team Teaching: Benefits and Challenges

The article below looks at, as the title suggests, the benefits and challenges of team teaching. It is by Melissa C. Leavitt, Ph.D., academic staff - Teaching Fellow in the Stanford Program in Writing and Rhetoric. It first appeared in the newsletter: Speaking of Teaching, Center for Teaching and Learning, Stanford University - Fall, 2006, Vol. 16, No.1, http://ctl.stanford.edu/Newsletter/ produced by the Stanford Center for Teaching and Learning. Reprinted with permission.

In recent years, team-taught courses have become an important part of the Stanford curriculum. Long an integral aspect of the Introduction to the Humanities (IHUM) program, team teaching has now found a place in many different departments, programs, and disciplines, at levels ranging from undergraduate lectures to graduate seminars. Team teaching boasts many pedagogical and intellectual advantages: it can help create a dynamic and interactive learning environment, provide instructors with a useful way of modeling thinking within or across disciplines, and also inspire new research ideas and intellectual partnerships among faculty. To experience the full benefits of team teaching, however, instructors must adjust their course planning and classroom management strategies to accommodate a collaborative approach.

Professors Lanier Anderson (Philosophy) and Joshua Landy (French and Italian), who have team-taught several courses together, summed up some of the lessons taken from their experience in an Award-Winning Teachers on Teaching presentation during Winter Quarter 2005-2006. In the following, their suggestions for team-teaching, presented as a mock Decalogue, are interspersed with results from recent research on team teaching.

Thou shalt plan everything with thy neighbor.

Team teaching requires different preparation than traditional, single-instructor courses, particularly concerning the organizational aspects of course management. Careful and extensive planning can help instructors prevent disagreements down the line regarding assignments, grading procedures, and teaching strategies (Letterman and Dugan, 2004; Wentworth and Davis, 2002). Planning meetings also allow instructors to familiarize themselves with their partner's material, helping make the class a true team effort from the start. According to Landy, "Everyone on the team has to be behind every element of the course." While reaching this consensus may take a lot of time and compromise, in the end the extra effort will result in a far more successful intellectual experience. As Cowan, Ewell, and McConnell (1995), a teaching team at City College of Loyola University in New Orleans, write, "Our joint planning sessions became interdisciplinary conversations into which we subsequently invited our students. These conversations were among the highlights of our teaching together (par. 5)."

Thou shalt attend thy neighbor's lectures.

One of the most important rules of team teaching, Landy says, is to "attend all meetings of the class. Never miss a colleague's lecture." Anderson and Landy use what is typically called an interactive teaching model, where all members of the teaching team are present during each course meeting. This model provides the most opportunity for the integration of different subjects and disciplines. However, when scheduling or budget constraints make this level of interaction unfeasible, there are different formats that can give students and instructors the experience of a team-taught course. For instance, in a rotational model, only one instructor is present at a time, but a series of instructors rotate throughout the course, teaching only the course topics that fall within their specialty. While the rotational model allows students to learn each aspect of the course material from an expert in the field, it has the disadvantage of forcing students to adjust to a new teacher's style several times over the course of a quarter (Morlock, 1988). In a dispersed team model, the course meets two or three times a week, once with all faculty members present, and once or twice more in sections with one faculty member present. This model "provides opportunities for integration and interaction" when the instructors teach together, but also provides "a small class environment" in a single-instructor scenario (McDaniels and Colarulli, 1997, p. 32). However, this model can limit the opportunity for students to hear multiple perspectives on the same topic, one of the core learning advantages of team teaching.

Thou shalt refer to thy neighbor's ideas.

The purpose of a team-taught course, from an educational standpoint, is to push students to achieve higher levels of synthesis and integration in their study of new material. It is, therefore, vitally important for instructors to model the process of integration by interweaving teaching partners? perspectives into each presentation. Often students are assigned projects that require them to integrate the material individual instructors have

presented. Consequently, students have expressed a desire for teachers to demonstrate the same practice of integration in their own lectures and presentations (Minnis and John-Steiner, 2005). Anderson and Landy integrate their different disciplinary approaches by referring to each other in lectures and presentations. By showing respect for each other's ideas, even when they may disagree, they are able to keep students interested and engaged in all aspects of the course material. Some teaching teams take a more direct approach, and assign one instructor during each class meeting the task of making connections among different course topics (Corcos, Durchslag, Morriss et al., 1997). Whichever method instructors choose, giving students the opportunity to observe integration in action helps them better understand instructors? expectations, as well as improve their own learning outcomes.

Thou shalt model debate with thy neighbor.

Team-teaching allows students to observe high-level intellectual debate among colleagues. Anderson and Speck describe this respectful debate as "professional disagreement" that is both "expert and collegial" (1998, p. 681). When such debates are successful, students learn to disagree without hostility. They also learn how to encounter new material through a variety of perspectives, and gain a practical knowledge of different academic disciplines. Watching instructors debate using different methodological approaches allows students to discover the advantages of different disciplines, and to understand which methodology best suits a particular line of inquiry. In addition, interdisciplinary debate encourages students to apply the skills of integration and collaboration to other courses and assignments. "If you're trying to prepare students for interdisciplinary work themselves, then you really need to pay attention to modeling for the students what the disciplinary approaches are," Anderson says.

Thou shalt have something to say, even when thou art not in charge.

Although Anderson and Landy urge each member of the teaching team to be present during each course meeting, often only one instructor has the primary responsibility for presenting material on a certain day. What to do when you?re not the one in charge? The instructor who is not presenting still has an opportunity to help students better understand the material by acting as an exemplary "student" (Hammer and Giordano, 2001). In Anderson and Landy's courses, the instructor who is not leading the class meeting often plays the role of a "kibitzer," sitting in the middle of the class and offering commentary on the other's presentation or lecture. "Have somebody sitting in the middle," Landy suggests. "It really encourages a kind of crossfire, and the sense that people are all equal participants in the process." Wentworth and Davis offer several suggestions for different roles the non-presenting teacher can play. Among them are: "model learner," in which the instructor asks questions and otherwise contributes to discussion; "observer," in which the instructor takes notes and gauges student response to the presentation; "discussion leader," in which the instructor facilitates or leads break-out groups; or "devil's advocate," in which the instructor raises provocative or challenging questions in an effort to stimulate class creativity (Wentworth and Davis, 2002, p. 27).

Thou shalt apply common grading standards.

One of the benefits that team teaching offers students is an increase in the amount of feedback they receive from instructors (Wadkins, Miller, and Wozniak, 2006). Yet, students often worry whether instructors will apply consistent grading standards. Conflicts can emerge regarding the standards for evaluating student work, and instructors sometimes struggle to bridge their differences regarding evaluation procedures or criteria. Landy recommends, "You'd better find some way of having mutually agreed-upon standards. It's best to be as explicit as you can about how you want to grade." To ensure fairness in grading, some instructors design a specific grading rubric, tailored to the needs of a team-taught course. For instance, one teaching partnership devised the following system: "Papers that clearly met our expectations were read, responded to, and evaluated by just one teacher; others that the first reader deemed as not meeting expectations or 'marginal' were read by both teachers. Together, we would make suggestions and assign a point value for that section of the paper' (George and Davis-Wiley, 2000, p. 77). Like most aspects of team teaching, the extra time and attention devoted to grading strengthens instructors'? pedagogical practices, in this case by encouraging them to better understand the philosophy behind their grading procedures. For example, collaborative grading allowed Anderson to "understand much more explicitly what the grading standards are that I think are important and why."

Thou shalt attend all staff meetings.

In addition to increased preparation time, successful team teaching also requires ongoing meetings among instructors to review and reassess their goals for the course. For many team teachers, meetings become the testing ground for the sort of dialogic instruction they present in class. Meetings allow instructors time to plan upcoming courses, but also to reflect upon their progress thus far, and to compare their impressions regarding student response and engagement (George and Davis-Wiley, 2000). Anderson and Landy use meetings to "test the pulse of the course." It is important to have regular class meetings, Landy urges, because in a team-teaching environment, "you have everyone pulling in different directions, and you need to keep a coherence in the course."

Thou shalt ask open questions.

Students in team-taught courses learn new material by approaching it from many different perspectives. The dialogic structure of class meetings often stands in stark contrast to the lecture format to which many students and instructors are accustomed. Instructors must, therefore, adjust their teaching practices to invite many different responses to a particular question or issue. As Landy suggests, asking a question that is susceptible to multiple answers is very powerful, and also extremely hard to do. Yet he advises instructors to try to "ask some questions to which you really have no idea of the answer." Doing so is a risk, but, as Anderson notes, it "takes students out to the leading edge of knowledge" and shows them "what the production of knowledge is really like." Likewise, to gain the benefits of this mode of inquiry, students must stop searching for the "one right answer" to problems. Although many students enjoy the diversity of voices

and viewpoints that emerge in the team-taught classroom, others struggle to figure out the key points of a lesson when faculty choose to present many possible solutions to a problem (McDaniels and Colarulli, 1997). In some cases, faculty must work hard to overcome students? resistance to the non-lecture format; a good first step is to be clear about the format of the course right from the start (Helms, Alvis, and Willis, 2005).

Thou shalt let thy students speak.

Team teaching can have a highly positive impact on student learning outcomes, largely due to the increased opportunity for student participation that team teaching provides. The presence of more than one instructor in the classroom increases the occasions for student-teacher interaction (Wadkins, Miller, and Wozniak, 2006). More importantly, a collaborative teaching environment invites students to take a more active role in the learning process. Because team teaching encourages a variety of perspectives on a topic, students are more likely to feel they can make valuable contributions to class discussions (Anderson and Speck, 1998). "It's good, in the first few meetings, to set up a pattern in which people do intervene in the discussion from all kinds of angles," Anderson notes. He and Landy make a conscious effort from the beginning of the quarter to create a learning environment in which "student contributions are going to be valued and indeed expected."

Thou shalt be willing to be surprised.

Part of the challenge of team teaching is putting yourself in a position where your own authority and expertise on a certain topic may have to take a backseat. Faculty must make the shift from being "experts" to being "expert learners," for in the collaborative classroom, teachers and students join in a shared process of intellectual discovery (Wentworth and Davis 2002, p. 23). Instructors generally agree that being prompted to look at a topic from a different angle can be one of the most rewarding experiences of participating in a teaching team. Teachers can "get out of their own conceptual boxes" and learn new approaches that will enhance their own research and writing (Corcos, Durchslag, and Morriss, 1995, p. 235). Anderson and Landy, for instance, have coauthored a paper that was inspired by the topics covered in the courses they have taught together. In addition to creating new research opportunities, team teaching can also encourage instructors to hone their pedagogical skills. Anderson remarks, team teaching "does raise your game, and sometimes quite dramatically so." As Landy says, team teaching gives professors the opportunity "to teach in a different way, and to learn in a different way." It allows instructors to hone their pedagogical skills and develop new topics for research and scholarship. The benefits of team teaching extend to students as well, improving learning outcomes by offering increased student-teacher interaction, as well as a multi-dimensional approach to subject matter. Ultimately, the advantages of team teaching far outweigh the time and energy it requires. Anderson and Landy describe themselves as "recidivists," returning time and again to the challenges, and the rewards, of team teaching.

Bibliography

Anderson, Rebecca S. and Bruce W. Speck. ?Oh What a Difference a Team Makes: Why Team Teaching Makes a Difference.? Teaching and Teacher Education 14, no. 7 (1998): 671-86.

Corcos, Christine A., Melvyn R. Durchslag, and Andrew P. Morriss, et. al. ?Teaching a Megacourse: Adventures in Environmental Policy, Team Teaching, and Group Grading.? Journal of Legal Education 47, no. 2 (1997): 224-39.

Cowan, Michael A., Barbara C. Ewell, and Peggy McConnell. ?Creating Conversations: an Experiment in Interdisciplinary Team Teaching? [Electronic version]. College Teaching 43, no. 4 (1995): 127-31.

George, Marshall A. and Patricia Davis-Wiley. ?Team Teaching a Graduate Course. Case study: a Clinical Research Study.? College Teaching 48, no. 2 (2000): 75-80.

Hammer, Elizabeth Yost and Peter J. Giordano. ?Dual-Gender Team-Teaching Human Sexuality: Pedagogical and Practical Issues.? Teaching of Psychology 28, no. 2 (2001): 132-33.

Helms, Marilyn M., John M. Alvis, and Marilyn Willis. ?Planning and Implementing Shared Teaching: an MBA Team-Teaching Case Study.? Journal of Education for Business 81, no. 1 (2005): 29-34.

Letterman, Margaret R. and Kimberly B. Dugan. ?Team Teaching a Cross-Disciplinary Honors Course: Preparation and Development.? College Teaching 55, no. 2 (2004): 76-79.

McDaniels, Elizabeth A. and Guy C. Colarulli. ?Collaborative Teaching in the Face of Productivity Concerns: the Dispersed Team Mode.? Innovative Higher Education 22, no. 1 (1997): 19-36.

Minnis, Michele and Vera John-Steiner. ?The Challenge of Interdisciplinary Education.? In Elizabeth G. Creamer and Lisa R. Lattuca, eds. Advancing Faculty Collaboration Through Interdisciplinary Collaboration. San Francisco: Jossey-Bass, 2005. 44-61.

Morlock, Henry C. et al. ?A Rotational Format for Team Teaching Introductory Psychology.? Teaching of Psychology 15, no. 3, (1988): 144-45.

Wadkins, Theresa, Richard L. Miller, and William Wozniak. ?Team Teaching: Student Satisfaction and Performance.? Teaching of Psychology 22, no. 2, (2006): 118-20.

Wentworth, Jay and James R. Davis. ?Enhancing Interdisciplinarity Through Team Teaching.? In Carolyn Hayes, ed. Innovations in Interdisciplinary Teaching. Westport, CT: The Oryx Press, 2002. 16-37.

2. Faculty/TA Teaching Teams

The article below looks at the different stages of teaching assistant development and the implications for TA faculty relations. It appeared in the newsletter: Speaking of Teaching, Center for Teaching and Learning, Stanford University - Fall 2007, Vol. 17, No.1, http://ctl.stanford.edu/Newsletter/ produced by the Stanford Center for Teaching and Learning. Reprinted with permission.

Faculty and graduate students bring to the challenge of teaching together diverse ranges of experience and differing levels of development as teachers and mentors. Regular and open communication between faculty and TAs is the most effective way, of course, of ensuring that diversity or differences in experience and development contribute to a successful collaboration. But there are also several different roles that faculty may want to be aware of and be willing to play in order to most effectively supervise their TAs and nurture them in the dual process of becoming teachers and responsible representatives of their disciplines.

Several different stages of TA development-Senior Learners, Colleagues-in-Training, and Junior Colleagues-and accompanying faculty roles have been identified by Jody Nyquist and Donald Wulff in Working Effectively With Graduate Assistants (Thousand Oaks, CA: Sage Publications, 1996).

The nuances of the development stages and faculty roles will be discussed in the following paragraphs. This newsletter further outlines how teaching teams can benefit from discussions about the kind of learning that takes place in their course. Finally, linguistics graduate students compile practical suggestions about "What TAs Like."

Senior Learners

TAs on the first level of pedagogical development can be seen as "Senior Learners" since their competence up to that point has been demonstrated more by their excellence as students than by their experience as teachers. They are in survival mode and are concerned about whether their students will like them. They tend to rely on faculty and colleagues for directions (p.20).

What faculty can do.

When faced with the prospect of teaching with TAs on the first level of development, faculty may have to cultivate and draw upon management skills that are not generally part of the preparation of university professors. How best to motivate, coordinate, and monitor a TA's progress and performance are skills that require advance planning and conscientious follow through. If faculty can establish a relationship with, and set expectations for, their TAs early on-well before the beginning of the term-TAs will then be much more willing and able to rise to the occasion. With enough advance notice, the TAs will have the chance to coordinate the needs of the faculty with the demands of their other commitments (p.7). In this "Manager" role, faculty should try to make their

expectations as clear and detailed as possible, while remaining aware of the needs of the TAs (p.8). Outline grading guidelines or rubrics, and discuss grading practices and what kind of feedback motivates students to learn in your course. Grade the first assignment of the course together. Observe new TAs and give them frequent feedback on their teaching.

What TAs can do.

Be pro-active and ask questions to clarify what your duties are, what is expected of you, and how you should do it. Find out as much as possible about the students you will be teaching. Talk with your peers about your challenges and ask them for helpful tips. Don't reinvent the wheel-build on what has worked for others. Ask for constructive feedback on your teaching. Attend a CTL practice teaching session that will enable you to teach a small segment of a lesson in front of other TAs who will give you constructive feedback. Request a free midquarter small group evaluation from CTL that will help you assess how your teaching is going. Attend departmental or CTL teaching workshops. (For more details about CTL's resources see: (http:// ctl.stanford.edu.)

Colleagues-in-Training

TAs enter the "Colleague-in-Training" stage of development when they gain experience and confidence in their authority as teachers by emulating their faculty role models. They are now open to new ideas and ready to employ creative approaches to teaching (p.11). TAs can best learn these new ideas and creative approaches by observing faculty model effective and innovative teaching practices and noting their overall approach and attitude toward teaching in their discipline.

What faculty can do.

Nyquist and Wulff suggest that faculty should try to model behavior that they want their TAs to emulate and use a variety of teaching methods to reflect a "broader conceptualization" of the material (p.12). It is also particularly helpful if faculty can take the time to demonstrate their teaching methodology to TAs. Share with them the ways you think about teaching certain material, designing assignments, and planning lectures or demonstrations (p.13). Explain why you teach the way you teach, and how your pedagogical choices further the goals of your course. At this stage, the TAs are able to assume more responsibility. Involve them in designing an activity, an assignment, or a paper prompt. Invite them to prepare part or all of a lecture and discuss their performance with them afterward. This way, the TAs can reflect on their own teaching choices and understand those of the faculty more clearly.

What TAs can do.

Now that you have mastered the basic teaching skills, expand your teaching experience and engage in a more conceptual discussion about teaching practices and goals. Look for the bigger picture as you figure out what your professional goals are. Ask to observe your professors in the classroom and find out why faculty are teaching the way they are. Offer to help create assignments, help prepare a lecture, or assume responsibility for other elements of the course. Invite your professor to observe your teaching and ask her/him to write up a report about it. Reflect on your teaching and take notes on it during the course or immediately after the course. What worked and why? How did the students react to your teaching strategies? Keep all teaching documents you design because you might need them later, if you teach in this course again, decide to write a teaching statement, put a teaching portfolio together, or design your own course.

Junior Colleagues

At the third stage of development, a TA is ready to be treated more like a peer, to learn about collegial roles and collaboration, and to contribute their own insights to the structuring of the course (13). This stage of development calls for TAs to be treated as "decision makers" who have their own style of teaching and views on pedagogical methodology (p.14).

What faculty can do.

The most experienced TAs need less supervision and more peer-level dialogue, and might be ready as well for the chance to lecture and assist in designing a course and formulating course policies (p.5). Discuss with them how your research informs your teaching. Show them how your course fits in the departmental or university-wide curriculum. Introduce them to the specific discourse of teaching in your field, including professional organizations that support teaching. Initiate a pedagogy lunch with colleagues and graduate students.

What TAs can do.

Offer to assist your professor in designing the course, writing assignments and exams, and preparing course materials early in the process. Volunteer to lecture and ask for feedback on your lecture. Practice your lecture with an Oral Communication consultant at the Speaking Center. Have yourself videorecorded and request a consultation with a CTL consultant about your performance. Find out how the course you will be teaching fits in the departmental curriculum. If you intend to pursue an academic career, ask colleagues who recently landed an academic position how to best prepare yourself for the teaching responsibilities of a future faculty position. Attend advanced CTL workshops on professional topics, such as course design, lecturing, jump starting an academic career, or preparing a teaching portfolio.

By taking these several developmental stages and the accompanying faculty roles into account, TAs and faculty alike can take more conscious and supportive roles in making the Faculty/TA teaching partnership as effective and mutually beneficial as possible.

Further Readings (The books are available at CTL's library.) Curzan, Anne and Lisa Damour. First Day to Final Grade. A Graduate Student's Guide to Teaching. Ann Arbor: University of Michigan Press, 2000.

Marincovich, Michele, Jack Prostko, and Frederic Stout, eds. The Professional Development of Graduate Teaching Assistants. Bolton: Anker, 1998.

Nyquist, Jody D. and Donald H. Wulff. Working Effectively with Graduate Assistants. Thousand Oaks: Sage Publications, 1996.

Reis, Richard M. Tomorrow's Professor: Preparing for Academic Careers in Science and Engineering. New York: IEEE Press, 1997.

Ross, Catherine and Jane Dumphy. Strategies for Teaching Assistant and International Teaching Assistant Development. Bolton: Anker, 2007.

What's Working in TA Training 2006. (A biennial CTL publication, also available at http://ctl.stanford.edu/TA/whats_working.pdf.)

If you are interested in learning more on how CTL can support your TA training program or graduate student professional development, please contact: Marcelo Clerici-Arias (Social Sciences), marcelo@stanford.edu Mariatte Denman (Humanities), mdenman@stanford.edu Robyn Wright Dunbar (Sciences and Engineering), robyn.dunbar@stanford.edu

For more information on CTL TA training resources see: http://ctl.stanford.edu/TA/

3. Professors Preach Ten Commandments of Team Teaching

The article below looks at the challenges and rewards of team teaching. The article is by Barbara Palmer and is based on a talk given at Stanford University by Professors Joshua Landy and Lanier Anderson on February 23, 2006. It appeared in the Stanford Report, Volume XXXVIII, No.20, March 15, 2006. Reprinted with permission.

Joshua Landy, Lanier Anderson offer 'thou shalts' of the craft

Joshua Landy, associate professor of French and Italian, and Lanier Anderson, associate professor of philosophy, might easily have been rivals, said Michele Marincovich, director of the Center for Teaching and Learning, as she introduced Landy and Anderson's presentation at the Center's "Award-Winning Teachers on Teaching" lecture series on Feb. 23.

The professors, both "rising stars in the humanities firmament," each arrived at Stanford

in 1996, and both have been awarded the university's top teaching award, the Gores Award, as well as a Dean's Award for Distinguished Teaching, she said. Both also have published in leading journals and have been awarded fellowships at the Stanford Humanities Center, she added.

But instead of competing with one another, the scholars have "converged in wonderfully productive ways," Marincovich said. Landy, an expert in Proust, and Anderson, a specialist in Nietzsche, are the architects of an initiative in Philosophical and Literary Thought, which offers students major tracks in interdisciplinary studies of literature and philosophy. In addition to team teaching a gateway course in philosophy and literature, Landy and Anderson teach interdisciplinary courses in the Introduction to Humanities Program, together and with other instructors. (As team teachers, "we're recidivists," Landy said.)

In their Feb. 23 talk, the professors demonstrated their teaching technique as they presented "The Challenges and Rewards of Team Teaching." Instead of standing at a lectern together-in Landy's words, "like some kind of two-headed president"-Landy took the lead as lecturer, with Anderson positioned at the center of the room as "kibitzer," setting up some of Landy's points and interjecting his own.

Both professors compiled the list of "Ten Commandments of Team Teaching," presented by Landy. The commandments are:

1. Thou shalt plan everything with thy neighbor.

"Plan a lot. Plan early and often. Co-design everything," Landy advised. Everyone on the team has to be prepared to stand behind every element, he said.

A coherent course framework is vital, because team teaching makes it a little harder to keep things under control, he said. "Reassure your students there is still a line around which you are drawing this arabesque."

2. Thou shalt attend thy neighbor's lectures.

A course that presents five weeks of teaching from one professor followed by five weeks from another really isn't team taught. "They're two different classes," Landy said. Participation by professors throughout a course not only increases its coherence but "raises the game" for the lecturing professor, he said. And it gives team members opportunities to learn new teaching strategies from each other, he said.

3. Thou shalt refer to thy neighbor's ideas.

Team teaching is not a zero sum game, where a stellar performance by one professor takes away from the stature of another in students' eyes, Landy said. When individual teachers are performing well, the whole course benefits, he said. "Make each other look good."

4. Thou shalt model debate with thy neighbor.

A team-taught course offers opportunities to model high-level debate between advanced scholars, "demonstrating how two equally competent people might legitimately disagree," Landy said. "It shows students what the range is of permissible disagreement. It's not the case that anything goes-everything has to be argued for-but it's also not the case that there is one monolithic approach," he said. Professors should "use evidence that is emblematic of your discipline," Anderson added. Students then learn to "come from the strength of both disciplinary perspectives and step from one to the other," he said. "You can really show by example what kinds of questions are susceptible of this sort of beautiful openness, that there are four or five possible approaches, none of which commands a privileged right to our attention," Landy added.

5. Thou shalt have something to say, even when thou art not in charge.

Have some view about the material, Landy said. "It may not come round to you, but your responsibility is to be ready."

6. Ye shall apply common grading standards.

It's time consuming and difficult, but important for a teaching team to be explicit about grading strategies and to find mutually agreed-upon standards, Landy said. Since grading standards vary from department to department, it may be that "one of you is going to have to go up and one has to go down," he added.

7. Thou shalt attend all staff meetings.

"It's vital to have regular meetings, which everyone should attend," Landy said. "Keep testing the pulse of the course."

8. Thou shalt ask open questions.

"Ask questions susceptible of multiple answers," Landy said. "See what comes back."

9. Thou shalt let thy students speak.

It's important to make it clear from the first few classes that student participation is valued and expected, Anderson said. Faculty have to guard against being too technical in their responses to each another, thus keeping students out of the discussion, he said. "Police yourselves and keep things at the level of the class."

10. Thou shalt be willing to be surprised.

Team teaching offers a special chance to take students out to the leading edge and see what the production of knowledge looks like, Anderson said. "You have to bring

[students] along far enough so they know the difference between questions that they don't know the answer to and questions that you don't know the answer to," he said.

It's risky, "but the job of teaching is to communicate momentum, not just information," said Landy. "It's vitally important to let ourselves be wrong, to let ourselves be challenged. We have to let ourselves get into those situations where we might fail and where maybe no one is going to come up with an answer.

"Get out of the way and let the thing happen," he said. "Just be a catalyst. Once the reaction has taken place, the catalyst gets discarded-hopefully not fired, but discarded."