Engaging Evaluations: Helping Students Consider Their Learning
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For several years I have been frustrated with the conventional approach to course evaluations, primarily because they didn’t seem to fit what I was trying to achieve in the classroom. Traditional evaluation questions tend to focus on students' perceptions of course mechanics, suitability of the curriculum, and the extent to which these are delivered in a comfortably familiar manner. Yet I’m much more interested in providing students with a challenging learning experience, in establishing genuine connections, and in encouraging them to take an active, self-reflective role in their learning, by considering their particular talents, goals, and learning styles. In adapting recommendations from the Teaching Resource Center to my own course, I have developed a highly satisfying and informative process that you might modify for your own purposes. (The original ideas appear in these Teaching Concerns articles on the TRC web site: "On the Same Wave Length? Clarifying Course Goals and Expectations" [Fall 1999] and "Using a Mid-term Evaluation to Give Students Responsibility for the Course" [January 1993].)

In Fall 2003, I replaced my regular midterm and end-of-semester evaluation forms in CHEM 281 (Honors Organic Chemistry II; enrollment = 60) with a three-part invitation to students. The questions posed to students at the beginning, middle, and end of the semester are designed to help them think deeply about the course, their role in it, and how this learning experience relates to their broader goals and interests. Additionally, it gives me invaluable feedback on how well I’m teaching and on how well we are all meeting our goals, in terms of students' mastery of course content, problem-solving skills, and increased confidence when facing tough challenges. At the start of the semester, I asked students to respond to this inquiry about what they brought to CHEM 281 and hoped to get out of it:

1) Interests (Academic/Other)
2) Background, Experience, Personal Qualities: (What do you bring to this class?)
3) Goals: (Why are you taking this course? What do you want to learn? What do you hope to accomplish? What would you like to work on?)

Students' detailed, honest responses clearly indicated their desire for engagement and their eagerness to connect the course with their lives more generally. Typically, I looked up individual photos on Toolkit as I read comments, so that I could associate faces with stories and names. I was so moved by their sincerity and all that they shared that I responded to each student's initial message, some with only a few words but many with substantive comments and additional back and forth. Thus I established a genuine connection right from the start, offering encouragement to students apprehensive about a demanding course, as well as academic advice about programs, grants and other special opportunities. More than one student expressed gratitude for the process:

I just want to say how impressed I was to get a reply from you . . . (I)t meant a lot to me to know that you really took the time to read about our interests and share your opinions. I look forward to getting to know you in the months to come. Your comments definitely made me feel like I am doing the right thing taking this class, even if it will be 'intense.'
Later, when students asked me questions and introduced themselves, I would say, "Please remind me of your story," to which they would reply, "I am the one who grew up in California, who plays hockey, who wants to study neuroscience, etc."

At the midterm, I asked students to think about the course in light of their personal goals, and they took this evaluation seriously, too:

1) Go back and review your goals for the class that you submitted at the start of the semester. Also, think about the course goals that were presented to you at the start of the semester. How are things going so far?

2) What can the professor do to better facilitate your learning?

3) What can the TAs do?

4) What can your classmates do to better assist your learning?

5) What can you do to improve your learning and ensure that you meet your goals for this course?

I established all-important trust by keeping students' comments confidential. Once they knew that I cared about them and their learning experience, they were honest and direct, even with criticism, without the need for anonymity. Quite the contrary, they wanted me to know who they were and what they thought!

In a tough course such as CHEM 281, I have learned that it is best to ask students to reflect on the experience after they have crossed the finish line and taken the final, not when they are at marathon milepost 25 at the end of the semester (a time students are especially stretched and tired and more liable to swing a few punches). So I sent out the evaluation request just after the final exam, giving students time to respond while we graded exams and telling them that I would not read their comments until after submitting the final grades.

1) Refer to your goals for the course stated at the start of the semester and your progress in your midterm evaluation. Now that the final is over and the semester has drawn to a close, assess how well you have done in meeting your goals.

2) What have you found most challenging? What would you like to work on improving for the future?

3) What have you found most rewarding? What are your greatest accomplishments this semester? Of what are you most proud?

4) Regardless of whether chemistry will play a central role in your future career plans or not, has your appreciation of chemistry and the value and explanatory power of a molecular-level understanding increased as a result of CHEM 281 and your efforts this semester?

5) Do you have any suggestions for the professor and TAs that might help us to become better teachers and to improve this course for the future?

6) Other comments:

This timing gave them a chance to celebrate their accomplishments, breathe a sigh of relief, consider the entire course and how it affected them, and think about what they might work on next.

I assigned 1% of the final grade to successful completion of all three evaluations. This credit, together with my comments about the importance of this activity for their learning process, seems to have done the trick in terms of response rate: all but one of the students responded about their goals; over 92% answered the midterm and final questions—at two of the busiest times of the semester. More importantly, their genuine, lengthy messages were full of selfreflective comments and very good ideas for course improvements. When I encouraged students to complete the final evaluation, I pointed out the importance of evaluations generally, noting that they should approach them with the same maturity and seriousness with which they hope their profs assign grades. I pointed out that, just as grades mattered to many of them for admission to medical school or other graduate programs, evaluations were taken into account for promotion and tenure cases, raises, and award nominations. I think this impressed upon them the gravity of the exercise. Of course, by
then, we'd already had two rounds and they had seen the benefits of thinking about the course in these ways.

I can't even begin to tell you how successful this exercise was in establishing a connection with the students, in helping them focus on their goals, and in giving them a chance to reflect on their experiences. It has renewed my faith in course evaluations. When students trust that we take them seriously, reading and responding to what they have to say, that belief seems to make a huge difference to them and their experience in the course. One brave CHEM 281 student who is not even a chemistry major was particularly impressed: *I really enjoyed this class as a whole. Even though it was incredibly challenging and really frustrating at times, I'm so glad I pushed myself through it.*