

The NECIT Seminar 2006

My work with NECIT this semester has had two aspects: that of seminar facilitator with responsibilities to the seminar as a whole; and as a teacher, with concerns about my own teaching and how my students learn. This report, then, consists of descriptions of and conclusions about both of these activities.

In the Seminar:

I would like to recognize the role of Rebecca Shipman-Hurst as seminar mentor and thank her for her contributions as an experienced seminarian. Her steady supply of insights and advice made my job much easier and the seminar better.

Our group of six teachers met each week throughout the semester to talk about issues of diversity and inclusion in and outside of our classes. The group itself was diverse in a number of ways: gender (evenly distributed), teaching experience and age group (veterans and relative new-comers), subject matter (English, modern languages, technology, human services, science, music/philosophy), and work classification (faculty and professional staff, full-time and part-time). These differences have been important in our discussions, because each person naturally sees issues from his or her personal set of circumstances, and this has allowed questions to be addressed from several perspectives. It also has helped each of us to better understand academic worlds outside our own. We brought a wide range of personal backgrounds to the discussion table as well. The group was unfortunately not as racially or ethnically diverse as the 2005 NECIT seminar. (Of course, Massasoit's faculty has a limited racial and ethnic diversity.)

We were also fewer in number (six instead of eight participants) than last year's seminar, and this was sometimes a disadvantage. Except for serious medical issues, attendance by participants was 100%. However, such issues did occur, and the seminar was weaker without the full range of personalities around the table. Missing one (or two) from a group of six is more serious than from a group of eight.

Discussions have been wide-ranging. While there usually was a planned topic for which we prepared, such as consideration of articles or a couple of chapters from the books we were reading, we always brought issues from our classes or other work with us as we gathered each week. These issues would otherwise have reverberated inside our own, individual heads. Teaching, although always involving people, is often planned and directed alone. We rarely have the opportunity to sit with a group of sympathetic colleagues to discuss, in detail if necessary, the concerns we have with how a class is progressing. In the NECIT seminar, there was an outlet for discussions of this type, especially concerning how individual or groups of students fit into the class or not, and how we as teachers have a role in that. As the seminar progressed, our sense of trust in each other grew, and we increasingly relied on the group as a resource for the various issues we all deal with on a daily basis.

Discussions often started with the statement of a concern: "There's a student in one of my classes who ...", "There seems to be two opposing groups in my class ...", or a question: "How can I get my class to ...?", "How do you handle the situation when ...?" In response to such statements or questions, experienced teachers can relate understanding and know-how from their rich past, and newer teachers can present fresh, new approaches that address new circumstances and a contemporary student body. As

facilitator, I often felt a tension between full discussion of current in-class issues and discussion of more externally-inspired topics. If I erred, it was generally on the side of letting teachers get their real, present problems off their chests so they could be supported by the others. Generally speaking, two hours and more were totally inadequate.

As an example of this kind of discussion, we talked several times about techniques for including students with disabilities of various types. This, naturally, leads to the limits of what a teacher can do when working with such a student. Some students reject personalized assistance, and the challenge is convincing them to accept it. Some accept it as one part of their effort, and use the help to support their learning. And occasionally one has a student who demands a great deal of attention – so much that accommodating the student at this level would detract from providing assistance to other students. To what degree does acceptance of diversity (including diversity of ability) imply that we want can provide all that a student needs or wants? Where do we draw the line? There are no simple answers, but group conversations helped to define the issues and boundaries.

I think everyone in the seminar would agree that having some time to actively and cooperatively contemplate one's teaching, especially concerning the "NECIT questions" of diversity and inclusion, was wonderfully refreshing. The standard 15 credit-hour workload that we currently teach is quite burdensome. NECIT gives its participants a chance to come in out of the storm, take a deep breath, and ask the important questions of teaching. And just as important, others were listening and responding.

Recommendations for the future:

I would like to thank the administration for their support of NECIT and I recommend that it be extended to allow future seminars. They have real value in influencing the quality of teaching at the College, where diversity is the norm as well as our Mission. Getting faculty talking to each other in a deep and informed way about such issues is a most effective form of faculty development.

Seminar members should be chosen with an eye toward diversity of all types: gender, racial, ethnic, cultural, age, teaching experience, subject area, work classification, etc. A membership of about eight should be a goal. I hope that the publicity NECIT receives through the professional development day on May 25, 2006 and other outreach activities by the Massasoit NECIT group will expand the applicant pool and make such diversity easy to achieve.

One possibility that could be considered is to have the seminar spread out over a full academic year with one alternate assignment per semester. In this design, somewhat less would be expected from participants during each semester. (Two hour meetings would still be the norm.) But it would allow seminarians to contemplate issues of diversity and inclusion for a longer time before planning and starting their own projects. Also, projects that, for example, redesign courses or course materials during one semester could be put into action at the beginning of the following semester while the seminar is still actively meeting.

In My Classes:

Questions of diversity and inclusion, at first glance, seem to be more legitimately addressed in social science or humanities courses. The discussion topics and reading and

writing assignments for such courses can more easily include questions of self-identity, belonging, isolation, and group dynamics than those in the science courses that I teach. But the key point is that these issues still exist for my students, even if they don't have an opportunity to voice them in exams or lab reports. The extent to which each student feels like a full member of my class can strongly influence his or her success.

In one of the books we read together during the seminar, What The Best College Teachers Do, by Ken Bain, the author writes about how external forces, such as exams and papers, are poor motivators. Students really learn only if the motivation is internal – that is, they really find the material personally important. Bain describes a number of techniques for capturing student interest. One of these is to pose some “big questions” – questions that will convince students that the subject matter leads to something worthwhile.

I thought about this approach for my “Science of Music” course and have written a list of such big questions, entitled, “Questions To BE Answered This Semester,” which I hope will tap into students’ inherent interest in music to motivate them. It includes questions like, “Why do guitars and other string instruments have large wooden bodies?”, “Why do certain combination of notes sound good together, while other combinations sound terrible?”, and “Why is Symphony Hall in Boston one of the best places in the world to hear music, and the Field House Gym one of the worst?” Of course, much depends on an enthusiastic presentation, which I hope I can do on the first day of class. The danger is that some students could feel overwhelmed by the magnitude of the undertaking, and give up right away. Hopefully, recognizing this danger will allow me to indicate that no one should be able to answer any of these questions right away, and that I have carefully designed a step-by-step path to get us to the answers by the end of the course.

An example of the value of the NECIT seminar was when I presented these “big questions” to the seminarians and asked for their feedback. A problem with self-editing is that the author knows what he or she wants to say, and doesn't always recognize the limitations of what is actually on paper. Also, being knowledgeable in one's own field can blind one to shortcomings in the wording. Several good suggestions from members of the seminar improved the document. Perhaps more importantly, I gained confidence that the list is useful and could achieve its goal.

It is hard to know how many coincidences simply occur, or to what degree they are brought on by a heightened awareness of issues. In the textbook I use when I teach astronomy, almost all historical information involves the classic discoveries of the ancient Greeks. A paragraph each is given to Islamic, Mayan, and Asian astronomy. A picture of Stonehenge is also shown as an example of prehistoric astronomy.

As I was perusing a recent science periodical, I found an interview with a black South African astronomer. In addition to his scholarly research, he also advocates for science education in African schools. He described an ancient structure in the Sahara – a calendar circle – which, although smaller than Stonehenge, predates it by 1000 years. He also explained that there are ancient astronomical traditions in Africa, still active in some native cultures. The Dogon people of Mali, for example, use the rising and setting times of certain constellations for agricultural scheduling.

Now, was this information unavailable to the author of my textbook? (It seems unlikely.) Would an African-American or an African student in my astronomy course

find it significant that his ancestors also had a rich astronomical tradition and asked scientific questions? (For some, certainly) Is it a useful point to make that all peoples try to make sense of their physical environment, including the celestial one? (Absolutely) Will I in the future ever again be able to mention Stonehenge without talking about the calendar circle of the Sahara? (No) Was it a coincidence that I paid attention to this article during the semester in which I was asking questions about diversity and inclusion in the NECIT seminar?

Here is an example of recognizing and validating the diverse backgrounds found in my science courses. Recently while teaching heat and thermodynamics, I started going into a practical example – home heating systems. As I began talking about radiators and such, I looked around the classroom and, in addition to some Americans, I saw students from Vietnam, Bangladesh, Haiti and Nigeria. I stopped in my tracks and asked them about homes in their native countries, which are tropical. A very interesting discussion followed about temperature issues which ended with my Nigerian student saying, “For us, air conditioning is much more important.” That changed the direction of the lesson. Of course, these students are currently living in the greater Brockton area, so heating systems are familiar to them. But I think they enjoyed talking about their home countries and the conditions there, and it brought their “differentness” out into the open as a positive attribute, and the lesson revolved around them and their backgrounds.

I make a point of asking foreign students about their home countries to let them know that I find them and their cultures interesting. I also let them know that I was a student in a different country and that I know how overwhelming and frightening it can be to be dealing with so much in a different place with a different language. I think it helps them relax to know that I am tolerant of accents and mistakes in English, because I had the similar difficulties. Then, I believe, they may try to express themselves as well as they can, instead of waiting for perfect English, which will certainly not be there by the end of the course. I once asked a student his opinion in French, cobbling together a few words from my high school debacle with the language. When he replied (in French), it was the first time in the course he had said something, and it broke the ice. (For the record, I “summarized” his answer for the class; that is, I explained the correct answer as if I had understood what he had said.) But he was now one more who belonged to the group of answering students, and began contributing occasionally (in English). It was also good for my American students to hear that little bit of linguistic diversity, and to see that I valued this foreign language.

It is in some ways more difficult to include students with other types of diversity – students with disabilities, minority students, students who are first generation college students and without role models, students with academic deficiencies, and otherwise strong students with inhibitions about or bad previous experiences with science courses.

I fear especially for students who are new to college, who do not have family members or friends who are experienced in the culture of college, and who perhaps did not initially plan to go to college. I fear they will not find their place at Massasoit and in the academic culture despite possessing skills that should enable them to succeed. They will start with two strikes against them as they struggle to learn the ropes, perhaps never becoming acclimated to this different world. How can I welcome these students? How can I gain their trust?

I've decided that I need to connect on a personal level with every student. Some students are outgoing and easy to talk to. How about the student in the back of the class, desperately trying to remain anonymous least I find out he or she really doesn't belong (so he or she thinks)? In the rush to manage the class and progress through the syllabus, it's too easy to let such students "off the hook." In response, I've written a letter welcoming students to the class, expressing enthusiasm for the course ideas, and ensuring them of support throughout the semester. I hope this will give a friendlier face than the syllabus, which tends to be a bit business-like. I will also "strongly suggest" (i.e., offer an incentive) for students to come to my office early in the semester to break the ice, so we can get to know each other and begin a one-on-one relationship, in addition to the more group-oriented relationship of the classroom. I will be on the look-out for that anonymous student.

I have several times brought to the NECIT seminar another issue with which I have been struggling: science, especially physics, can have a formality about it which some find off-putting, and which some students find intimidating. On the one hand, the formality of physics is part of its beauty, and to deprive students of a taste of that rarified atmosphere is to deny them a true look into science. On the other hand, if students are turned off right at the beginning of the course, there's no hope of ever appreciating this aspect of physics. I'm determined to bridge this gulf in increments. I have planned to start my intermediate level physics courses with more intuitive examples and gradually bring in more mathematical formalism as the course progresses.

NECIT has provided a framework for examination of my teaching that has included time and collegiality. Both of these were critical. Being able to contemplate the effectiveness of my teaching techniques, and to discuss ideas with a group of trusted colleagues, has made a great difference this semester. I have enjoyed my teaching this semester more than I have in a good number of years.

~Ken Demers