PROFESSIONAL DEVELOPMENT WORKSHOP \cdot SPRING 2006 ASSIGNMENT 13

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Peer observations

I observed two instructors: A and B.

Comment on some effective teaching techniques that you observed.

Instructor A wrote a few problems on the board, then passed back papers. He was passing back papers until 7 minutes after the hour. The time was not lost; the students were working (mostly — many of them were socializing). He then spent time up until 20 minutes after the hour going through the problems. He asked the students what they got and why, and did a lot of interaction. He phrased this stuff as a "warm-up" — since it took almost half the class period, it was much more than that. I began to realize that this was a substantial fraction of his lecture — delivered with the students' active participation.

Instructor B used what at first seemed to be an absurd amount of repetition. She was developing the concept of exponential function, via at least seven (!) examples. The first few were all but identical – changing only the numbers. They all involved something growing at a rate of a few percent, every some number of years. The first few problems were salary increases; then, population growth, doubling time, then interest. My initial thought was that she was doing the same thing over and over, not spending time doing different things. However, she did end up covering a variety of examples. Most importantly, by the time the 4th or 5th all-but-identical example came along, the students — many of them, not just the brightest or most verbal — were chiming in with answers. They were really getting the stuff, down cold, before ever leaving the classroom.

Instructor B's native language is not English — however, she spoke slowly and very clearly. Probably clearer than I do, in fact. Thus she turned a liability into an asset.

Both instructors handled mistakes with grace and humor (as do I).

Comment on some things that the teachers could do better.

Instructor A used a particular grading system for exam corrections: namely, he wrote "excellent", "very good", "good", etc. at the tops of the papers. (This is directly imitative of Dr. Pickrell's grading scheme in the geometry-topology core course.) However, students immediately asked: "How many points does this translate into?" He replied: "Excellent is 3/3; very good is 2.5/3;" I admire the positive verbal feedback, but making the feedback be the grade was confusing. I prefer to assign a point grade at the top of the paper (since students want to know that), and include verbal feedback throughout what I write on the students' papers.

While instructor A had a lot of rapport with his students, instructor B had less. (I myself have even less than instructor B.) What I am saying is that more personable interaction would be better; what I am not saying is that I know what she should do to accomplish this.

Describe things you observed that you would like to incorporate into (or reinforce in) your own teaching style. Compare/contrast the observed teachers' styles with your own.

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Both instructors spent more time facing the classroom than I do. I've gotten feedback from observations in the past that I should write more — students tend not to write down things unless I write them down. Yet perhaps I should write less — since it's hard to face the class while writing. One can sort of turn sideways and write, but

The students in instructor A's class talked and contributed a lot. This is a positive, and I'd like to emulate it. This seems to come at the expense of having a lot of socializing, which I do *not* want to put up with. Perhaps I should; I don't think you can get them to talk actively about math and not at all about anything else

Both instructors seemed to spend very little time consulting their notes. This is good. I usually don't either — except some days. Usually, those days are the ones with lots of numerical examples — e.g. interest-rate problems.