

Teaching Reflection

Laura M. Grabowski

September 14, 2017

Fall 2016

The theme of all of 2016-2017 was adjusting, at multiple levels. One thing that eased my first semester adjustment was my teaching assignment: 2 sections of CIS 201 CS I Lecture and Lab, and CIS 421 Artificial Intelligence. These are courses that I have taught many times before, so I had a good base confidence and a wealth of materials to draw from.

An adjustment that I had to contend with was the shift in foundation programming language. My previous institution used C++ as opposed to Java that is used here, and nearly all of my research programming is written in C++. I still have to check myself on occasion to make sure that I'm thinking of Java when I'm answering a question from a student. This particular adjustment wasn't too severe in CS I, but I needed to be aware of it at all times.

My two sections of CIS 201 had very different "personalities." One class was highly engaged, while the other seemed to lack drive and energy. Some of that personality is reflected in the student evaluations. While both evaluations from sections were generally good, the tone from one section was much more positive than the other. Not surprisingly, students voiced a desire for more hands-on work in class. I have always found it difficult to strike a proper balance between conceptual understanding and writing code in class, particularly in CS I. The students believe that it's all about the code. While a lot IS about the code, it isn't ALL about the code. There is more. It's those things that put the "science" in "computer science." This is a hard thing for CS I students to grasp. When I teach the course again, I will integrate more in-class worksheets and similar tools to try to find a better balance.

The CIS 421 students seemed pretty satisfied with the course. I am very confident with that course content, and have had the opportunity to experiment with and refine materials and assignments. I took a chance with assigning the team project. While most of the students did excellent projects in the end, I did have to make a midstream correction to the planned assignments for the course in order to open up time for them to work on their projects. One comment on the evaluations stuck with me, one that I'm still puzzling through. The comment was made in the context of workload and expectations of students. Paraphrased, the comment was that students are both lazier and smarter than I may think they are. I'm still figuring out the implications of that statement.

Even though my Fall 2016 teaching load was comfortable, it kept me busy. The effect of that was that I didn't have nearly as much preparation time as I would have liked for my courses upcoming in the spring. That lack of preparation would be felt keenly in the spring semester.

Spring 2017

Spring 2017 was, in a word, overwhelming. I had three new course preparations this semester, which is always highly challenging. Two of those courses (CIS 203 CS II, CIS 303 Algorithm Analysis and Design) I had never taught before in any form, and even though I had taught the subject area of the third course (CIS 495 Software Engineering) previously, the setting and approach here are so very different that it was, in effect, a new preparation. A number of problems were compounded by the catastrophic server crash that we suffered in our lab around midterm, which severely impacted students' ability to do their work for classes.

While I worked diligently to prepare the courses, there were things that were less than optimal. The student evaluations reflect that fact, particularly in CIS 203 and CIS 303. There are many things that I am

working on to address the issues raised by the students in their evaluations for those courses. In CIS 203, I was particularly interested in the frequent comment about more in-class practice. There are numerous problems woven into the existing lectures. I will look at spending more time working through those in a more focused way. In general, students highlighted wanting the class to be more “hands on.” I will have to think through this issue more deeply. Since the course has a 2-hour weekly lab, which allows for putting the lecture material into practice, it is more difficult to see how to balance covering content and concepts with practicing. A possible solution would be to flip the course, but such a design change needs to be thought through carefully, and with input from the entire department faculty.

CIS 303 was my biggest challenge. The subject area is not one of my particular strengths, and so I had confidence issues, particularly at the beginning of the semester. I felt on firmer ground as the semester progressed, but the students picked up on my lack of confidence. That is something that time and experience in the course will improve. I also have a plan to make improvements in the assignments that will address many of the issues that I identified, and that some of the students echoed. For example, while the programming assignments gave many details, there was too much room for interpretation of the details of the assignments, making automating compilation and testing nearly impossible. I am reworking the assignments to solve those issues.

I was generally pleased with the CIS 495 evaluations. I knew anecdotally, from conversations with some students, that students were approaching the course with a range of dedication. This situation isn't surprising. I found it gratifying that many students felt that they gained valuable skills that they would apply directly in their careers. I am looking at ways to improve the software project and its organization for the next time I teach the course. While the project itself was tractable in scope, the students did have to learn a lot of new tools. The course expectations included that the students had to learn those tools on their own. I think I need to choose those battles more carefully, and streamline that aspect of the project for students. Another element of the course that needs to be better integrated into the course is how the Writing Intensive requirements are met. I made the decision to do a traditional essay with rewrite as part of that requirement, and the students did not like that. While I may continue to do a formal essay, I think I can do better with a topic that feels more consistent and worthwhile for students.