Final Reflection

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MSE 651

***What your overall TA experience was like.***

Being a teaching assistant was weird experience, particularly at the beginning. I did not expect to have a full class of people waiting for me at the first discussion group meeting. The classroom was truly full. That felt like a bit of a fever dream because I am not much of a public speaker. What’s more, this felt a little too professorial. I was expecting more of a study group feeling and was faced with 30 undergrads primed for a lecture.

The uncanniness mostly subsided after that first meeting. I settled into the role and the classroom was never that full again. The students who showed up consistently were curious and humble students and that made my job very easy.

The grading aspect of TAing was a standard grading experience. A small exception would be that I had never graded papers before. It felt subjective. Prior to this experience, I had only graded music theory homework assignments, which tend to have (for the most part) distinctly right and wrong answers.

***What successes and challenges you had as a TA, especially as it relates to supporting student learning.***

I would consider my relationship with a few of the more curious students a success. A group of 3-4 students would stay after to ask questions or discuss various topics. I hope that I was able to demystify materials science for a few of them. I made some promising students aware of the materials research that is going on at BSU. Further, I made it explicit to some that, based on the quality of their work on a 101 project, that people will pay them to do research (right now at the undergrad level).

Candidly, I found it hard to engage with students that had no experience with science and no real interest in engaging with science. How do you support learning in a student like that? For those students I tried to at least give them some pointers on how to “do school.” That is, if you have resolved not to learn things, but are instead here to get the degree and get out (the merits of this aside) there are easy and hard ways to do that. For example, when you have a semester long project, doing the absolute least on the individual assignments (that are meant to culminate in a final project) is not saving time. This is a sort of, an-ounce-of-prevention-is-worth-a-pound-of-cure mentality is lost on many students, especially underclassmen. Or, if you are going to do a perfunctory job on the project, don’t pick a passion project topic like “snowboards.” Choose a specific material that is well researched and has easily produced resources that will facilitate checking the boxes on the rubric.

***How you added value to the course.***

As I mentioned in the previous prompt, I hope that I was able to bring materials science down to earth for some of my students. For example, we were experimenting with breaking microscope slides and measuring the force required to break them. The students seemed to like the playfulness with which I hypothesized about how different scratches on the slides would result in weaker slides. And I unintentionally made it competitive, with students presenting and testing their own theories to “achieve” the broken slide with the least amount of force. Ultimately, this motivated a nice discussion that connected the micro and the macro of the material.

***How being a TA added value to your educational experience; you might also describe the skills you built as a TA that will transfer to your intended career.***

I have gained more respect and empathy for my current and previous professors. For those professors that left something to be desired, I have a better understanding of the difficulties that they face. And the flip side of that is renewed respect for the good professors that I have had over the years.

It has also given me the experience of being a mentor in microcosm. I have mentored people in rock climbing and rock climbing safety. However, for the former, expertise is easily exhibited and for the latter, it is easy to capture someone’s attention when they can die if they do not listen. This means that that the mentorship is intrinsically built on a strong foundation of respect for the mentors’ skills or knowledge. In contrast, when dabbling with mentorship in a STEM context, I found it easier to feel like an imposter.

So how do you prove to your students that you have information or expertise that they could find useful? How can you do so in a short time? How do you do so without reveling in your own accolades in front of a classful of people that have no idea who you are? How do you garner respect from the next wave of new faces? I do not plane to teach a class of people again, but it was a good exercise regardless.

I also got to exercise the next phase of mentorship a bit. That is, once you have a mentee’s ear, how do you help them craft and achieve goals. I hope that this will prove useful throughout the rest of my career.

***How you see the content we covered in class meetings and that you learned in CTL workshops play out in the course for which you were a TA. If that didn't happen much, describe instead opportunities where this could have happened.***

I see Bloom’s taxonomy everywhere now (much like the boogyman). It provides a framework around which to evaluate students from disparate backgrounds competencies. This is the case for MSE 101, which has competent engineers presenting alongside sophomore business majors with no interest in deriving formulas. I can also see the taxonomy in the assignments themselves in that I can think, for example, “oh this is testing them at the understanding/analyzing level.”

As I outlined in the “Course Topics in Action” assignment, I think there is room for more strategic peer assessment assignments with metacognitive intent. Without all the pitfalls of crafting a real peer assessed assignment, I think it is possible to tap into that headspace with an assignment that has students grade anonymized past projects. This could be done in conjunction with a “learn the rubric” type assignment. My hope would be that by seeing what a D, C, B, and A project look like, students will have self-motivated metacognitive thoughts about how these look and how they want there’s to look.