

Growing into Teaching: A Graduate Student's Perspective

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Teaching is a unique journey that is shaped by many factors. A teacher's own educational, cultural, and emotional experiences play a significant role in whom they ultimately become as an educator. My story is no different, and has greatly affected the way I pursue teaching, in particular the way I interact with my students.

My journey started in 1995, when my family and I moved from Johannesburg, South Africa, to the United States. I was used to an educational culture that was very different from anything I know now. The only thing I knew of America was what I had seen in movies. My first experiences in the American classroom were, shall I say, interesting. During my first day in an eighth grade classroom, the teacher asked us to take out a sheet of paper, write down a hypothesis for our science fair project, and turn it in at the end of class. I was mortified. Not only was I not raised in an English school, but also had I never heard of the word "hypothesis." After class I went up to the teacher, with tears in my eyes, admitting that I had no idea what he just asked me to do. I had no idea what a science fair was, either. In frustration, the teacher gave me an experiment on "titration," yet another word I had never heard before, and wrote a hypothesis for me. Needless to say, I didn't learn a thing. My struggles as a student continued, most notably in my American History and U.S. Government classes. I had no idea what a "bill" or an "amendment" was. I had never heard of a "constitution." I had good days and bad days, and somehow managed to get through just fine.

The years went by, and soon I began at our local university. I learned that I wasn't really performing too well in the lecture-style courses I was taking, but I didn't have much of a choice. Things changed when I found a flier advertising for an undergraduate research position in an insect systematics lab. Being in the lab was something entirely different. I became fascinated with insects and their amazing diversity and decided to go to graduate school. The hands-on research environment challenged

me to think differently and to ask questions that I wouldn't have otherwise considered. It got me to think from the very basics, from the little I knew about insects. I got to ask my own questions, which might seem rudimentary now that I've been involved in research for years. Like most graduate students, I got involved in teaching. I was challenged not only to be a better student, but also to teach undergraduates.

I constantly thought back on my first day in eighth grade, hoping that I can always play an important role in my students' education. I couldn't help but wonder what my students were thinking. Was I being clear? Was I being considerate of their own backgrounds, even if they didn't have such a tumultuous affair with learning as I did? These questions ultimately affect every decision I make in the classroom. The learning experiences that I would have found helpful have become a central part of what I do in my classes, especially given my background as a foreign student. As things would have it, those same values have proven successful for the majority of my students. I have reflected deeply over the effectiveness of these qualities, and it comes down to three major lessons that have worked for me.

1. Caring about Students

Students are complicated beings. As a teacher it can be difficult to not see one's classroom as a homogenous group of people with the same expectations and learning experiences. Given my own background, it has become essential for me to get to know my students while assuming very little about their backgrounds or knowledge. Although I generally teach courses for biology majors, the diversity of perceptions, misconceptions, and cultural backgrounds can greatly convolute the expectations I have. I have made it a rule that every student should feel valuable in the classroom, by getting to know their names, paying attention to individual struggles, and making learning an individualized process. I believe that finding value in the variety of personalities in our students helps them feel welcomed and gives them a feeling of personal responsibility in their learning. The ability to understand and be sensitive to individual needs, based on my own experiences, has helped me bridge the gap between comfort and impersonality in the classroom. As a graduate student, I can't think of a better way to reach out to students, especially since I am still a student myself. I have had some of the most amazing, thoughtful, passionate students that take on a variety of personalities, and sometimes their love for biology isn't vocally evident until I get an email that says, "You made biology fun!"

2. Breaking down the loaded concepts

Many topics we teach as biologists are what I consider “loaded.” Subjects such as “evolution,” “natural selection,” or even the seemingly most basic questions about how we know “facts” have many emergent principles that students struggle with. How does one start a discussion on evolution? I start with the basics, just as I wish my science teacher in the eighth grade had done. Even if students had already completed a science fair project in the sixth grade, a general overview might have helped the experienced students as well as students like me, who had no clue how to write a hypothesis. Assessing what concepts students feel comfortable with is the first step in seeing how far we can go with certain discussions or activities. Instead of starting with a lecture on Darwin and natural selection, perhaps breaking down the subject into digestible pieces would be more effective. For example, imagine a scenario where you are offered a trip to sail around the world to places that have remained largely unexplored in a biological sense. You see organisms you had never seen before: birds with blue feet, giant tortoises, or a diversity of birds that seem somewhat similar. What would you say about these strange creatures? What would you do with this information? Putting students in the place where they are challenged to think about a topic from its very basic beginnings can tremendously change the way they view controversial subjects like evolution. From a student’s perspective, I think I would have greatly benefited from learning various topics in this deconstructed sense.

3. Reflecting on teaching

I think the most valuable quality that good teachers can have is being reflective in their teaching. For me, this means thinking about what I am doing in the classroom, and how it affects my students’ learning. There are many ideas and hundreds of methods that can help teachers be successful in the classroom, especially because “successful” can take on many different definitions. Teaching in a meaningful way has always meant that students’ needs come first. By reiterating that I aim to show care and concern for my students, while breaking down concepts into manageable pieces, I have become confident that those values make me successful as a teacher and as a student. The growth that teachers experience before, during, and after being in the classroom, is a highly personal venture that shapes the way we view ourselves and our role in the classroom. I guess as a graduate student, I believe that being a successful teacher is highly dependent on how much I care to be meaningful

and deliberate in my teaching. The willingness to consider my students' perspectives, needs, and personal expectations for learning cannot lead to anything but being a great "teacher".

If I reflect back on my own learning experiences, there is nothing more obvious than what I hope to be in the classroom. In a nutshell, we should consider the students by taking a step back and putting ourselves there. As someone who struggled as a student, I often look back on how I got here. My learning has finally come full circle.