

I am a Teaching Assistant in the Department of Mathematics and Statistics, Texas Tech University. Currently, I am teaching differential equations to undergraduate students. Prior to that, I was a mathematics teacher at Nguyen Thi Minh Khai High School, Asia Pacific College and the College of Finance and Customs in Vietnam. The courses I have taught range from high-school to undergraduate levels.

As a teacher, I have always believed in student-centered learning. One of my favorite quotes is William Arthur Ward's saying, "The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires." As a mathematics teacher, I have always tried to live by that philosophy.

In my experience, there are five major keys to successful teaching in mathematics that help uphold the above philosophy and lend themselves to my teaching style:

First, I put much emphasis on my students' self-motivation and help them develop their eagerness and curiosity to learn new things. I believe that a good mathematics teacher is one who can inspire his students to love mathematics and learn it from self-motivation rather than just grades.

Arousing students' enthusiasm in studying mathematics is no easy task. In my teaching experience, students tend to perform best with the amount of least undue pressure on their performance. They are encouraged to take risks in finding a creative way to solve a problem without worries about getting it wrong or bad grade. When students are confident enough, they are more motivated and learn better. I give lectures, class discussions, and group work and my classes are also made to be as fun and enjoyable as possible.

Second, instead of "spoon feeding" the students, I only act as a guide to help them along in their own search for knowledge. In the role of a guide, I facilitate my students' access to information rather than act as the primary source of information. My students start gaining knowledge through the process of finding answers to their own questions. This means I allow my students the opportunity for individual discovery by learning to develop an inquiring mind geared to math problems.

In my teaching practice, this means that my teaching is full of questions, hints, and suggestions to get my students thinking. In addition, they are often given a chance to brainstorm or work out what they need before they get the answers from me. Even when I answer my students' questions, I answer them in a way that would encourage them to think further and ask more informed questions. Selective math problems and small research projects help them hone their skills as independent thinkers and math problem solvers.

Third, in connection with the above two, I encourage my students to explore mathematics through real-life examples to help them realize that mathematics can be more useful and practical than they might have thought. I help my students see the relationships between mathematics and the world around them. In other words, I bring mathematics closer to my students by making it not only more enjoyable but also more familiar and more practical.

Along this line, in choosing examples for my lectures and problems for my student's homework, I give priority to those daily-life problems that my students can identify with or be comfortable with. I always encourage and remind them to explore the world around them through the lens of mathematics. In other words, I use real-life examples familiar to my students to breathe life into concepts such as those on Riemann sums and definite integrals.

Fourth, I make sure that my students know that I care. I care about them, and I care about their progress. I design flexible office hours and encourage my students coming for discussions and help. In addition to

questions about homework and lectures, students often share with me about their other interests or concerns academics. I find this kind of interaction very beneficial experience. It enhances my understanding of my students and helps me guide them better to learn mathematics and grow academically.

In my experience, good preparation - on my part - before each class meeting is one of the clearest signs to show my students that I care. I know each and every one of my students by name. I know the levels of my students through the use of diagnostic tests and I try my best to adjust and adapt my teaching to their levels. Since I strive for excellence in every class session that I teach, I also care much about details. For instance, since "a picture is worth a thousand words" I often incorporate visuals, such as those from Sketchpad and Maple into my class presentations to make them more vivid and hence easier for my students to understand and remember. For example, Riemann sum, area, volume, sequence, multiple variable functions, etc. are suitable topics for visually vivid presentation.

One of my teaching styles uses new technologies with traditional teaching to support my student-centered methods to bring out the best results in their learning. Besides blackboard and white chalk, the use of computer software with examples is very useful for in-class visualizations in different courses, such as those for differential equations, calculus, and even pre-calculus. I usually use visuals, figures or examples of concrete applications to explain things. Internet is also very helpful in teaching. I utilize online homework, tutorials and assessment. I have used WebWork, and homework sections of online textbooks for various forms of automated homework assignment and grading. While this allows students to do more auto-graded problems and get instant feedback, I feel that students still need some kinds of timed assessment, like quizzes, in order to simulate a test environment. Still another of the most valuable, and underused, technological assets is a course webpage where students can access syllabus information, homework assignments, and useful weblinks such as exam databases.

And last but not least, I strive for excellence and continuous improvement in my teaching. I adapt, revise, and customize my techniques and materials yearly for each class. For instance, class size, student levels and the school's requirements, etc. are all factored in to create the best fit possible. I always try to find the best way to introduce a mathematical concept, or the best example that my students can identify with. I also read a lot of books on the theory and practice of teaching and try out new ideas that could help me improve my teaching. My commitment to research is also a way to help me toward this goal because it helps me grow professionally and lends substance and ethos to my teaching.

The success that I have achieved in my teaching thanks to all the above has manifested itself in student attendance (both when it is mandatory and even when it is not), student participation (both in level and quality of involvement), student performance (in terms of grades and actual output of their school projects), and the formal recognition of the schools (e.g., after a few years of teaching, I was chosen to teach honors classes and to mentor elite teams of math students for the yearly Olympiad National Tournament in Vietnam; I also received the Outstanding Teacher Award at Nguyen Thi Minh Khai High School).

In conclusion, I love teaching and have more than a decade of teaching experience. In addition to being a noble calling for me, teaching also provides me an opportunity for continuous learning and growth in my academic career. I always appreciate the value of combining teaching and research, which is very rewarding. But perhaps the best reward for me as a teacher is when a former student of mine comes up to me and says, "I have fallen in love with mathematics ever since I attended your class." In order to attain such wonderful gifts, I am required to never stop learning in my field and to continue growing professionally as a teacher.