

# Disastrous Teaching Experience at New Institution Teaches Many Lessons

by Juan Tolosa  
Richard Stockton University, NJ  
tolosaj@loki.stockton.edu

Here's a list of some of (my) worst (teaching experiences) and in some cases how I tried to rectify them:

- I assumed that students are as motivated as I am. In reality, most students, especially in introductory or remedial courses like the ones I was teaching, couldn't care less about the content. In the case of math, they come believing that the content is boring and that they will never be good at it.
- I criticized the book and insisted that student use their class notes instead. Most students feel insecure. They need as many things to hold onto as possible. The book is one of them. If I discredit the book, I am taking away what they believe is their life preserver. I learned the hard way how much they resent that. Now I make the book our companion. I use it whenever possible and regularly encourage students to consult it in class.
- I did not take attendance. My rationale? I believed these kids were adults. They would understand that it was their responsibility to be in class. If they didn't attend, that was their problem. Now I take attendance every day and make it a part of the grade. Checking attendance sends a strong message. It says being in class is important — it matters. In my experience that message motivates students to take it seriously as well.
- I didn't let students use calculators in class or on tests. I reasoned that students should be learning concepts, the fundamental ideas. Students rely too much on calculators. They never learn that they can figure things out for themselves. But I underestimated how much

students would resist the ban. Now I require the use of calculators. There's no student resentment, and I've come to understand that students who don't bother to learn the concepts are helpless even with their calculators.

I did teach pre-calculus again, in fact I teach it every year now. I've discovered some approaches and strategies that do work. Here are some of my favorites:

- **Patience.** When students make stupid mistakes, like adding fractions wrong, making crazy cancellations, or forgetting what I just explained five minutes ago, I used to take it personally and become very angry. Students are very easily intimidated; an angry reply is almost sure to turn them off and discourage them from asking questions ever again. It is very hard to make students feel at ease so that they will ask the questions that they need to. It is a little like taming wild squirrels. One false move and they run away. They hide silently.
- **Forbidden words.** I carefully avoid words and phrases like easy, simple, straightforward, trivial, elementary, basic stuff, and you should know this. What is easy for me is not easy for students: that is why I am standing in front of the class.
- **High homework standards.** Require detailed explanations and justifications in homework and tests. Set standards from day one. If a project is unacceptable, I return it and let students resubmit. If it's unacceptable next time, they have earned a zero.
- **Tough Love.** Teat students with respect, but don't pamper them. Students know the difference. I have learned that you can care for them and still be very demanding.

- **Be informal.** Promote a relaxed atmosphere. For several years now I have dressed up for Halloween. It still amazes me what a difference a costume and a good laugh makes. I've had students tell me that this day changed how they felt about the course. They decided not to drop and to keep trying.
- **Optional final project.** I allow students with a strong B average to do a final take-home project instead of the final test. This option is usually gratefully accepted, since it removes the uncertainty of a final test (which is always comprehensive in my courses, and counts for a sizeable percentage of the grade.) Even so, the final project assignment is designed so that it forces students to review the whole course in the process of working on demanding and creative problems.
- **Cooperative learning.** I now use it in all my classes, although I'm still searching for ways to make it less time-consuming. Students are organized into groups of four people each (with small deviations). They work as a group outside class and turn in homework assignments (projects), one per group. In my experience, students come to appreciate collaborative work. Often I find the same groups still working together in subsequent semesters, even with different course content.