

Contextual Information: About Me

By Sandie Gilliam, Summer 2004

About Me

I am here at Carnegie continuing on a long journey in mathematics teaching and learning that began in 1975. Along the way I became a National Board Certified Teacher in Adolescent and Young Adulthood Mathematics, a Presidential Awardee for Excellence in Mathematics Teaching, an author on two mathematics textbook series, an instructor with the California Mathematics Project, a presenter at local, state, and national mathematics conferences, and a member of the state board of the California Mathematics Council.

This journey to love learning mathematics began in the 1960s when I had the fortune of taking SMSG (School Mathematics Study Group) - the reform math of that time. Since then I have grown accustomed to learning new ways of teaching mathematics each year and tweaking them along the way. I am always in search of the best way to reach ALL STUDENTS and have them appreciate the beauty, power, and usability of mathematics in their lives.

Not until I began observing math classroom teaching throughout California, as the evaluator for an NSF K-12 math staff development project, did I begin to realize how differently I orchestrate my classroom. Most of the time I do not present information in a lecture, followed by questions of me, and class practice problems. Instead, my students in groups or by themselves come to the board and present their ideas/work on either homework, or group problems, and explain their thinking. They then answer questions or further discuss the situation posed by their peers or answer extension questions posed by me.

During the first ten years of my teaching career, I modeled in the classroom what was modeled for me growing up. Students would put on the board the correct answers to math problems. The teacher's job was then to explain what those students had done. Where was the value of *student* explanation? Students who had gotten the same correct answers were now free to tune out. Gone was the chance to see alternative methods of solution. Also gone was the chance to understand where student misconceptions were occurring, and have peers follow each other's thought processes. What was illustrated for students was that teachers had the knowledge **and** the best way to explain it to the students!

Going up the board and explaining one's thinking is a very important part of my classroom culture. It is very hard for teenagers not to feel the peer pressure of "getting the correct answer." Public speaking is hard for adults, let alone teenagers. Should mathematics class be immune to this kind of learning? Public discourse is a huge part of the mathematics learning in my classroom culture. It needs to be introduced this first day of class.