

Math Explorations

April 15, 2014

Journal – Instrument of the Devil

*The Mathematician's Lament* poses a large emphasis on the idea of proofs rather than just following directions. When students just follow directions rather than find out the answers on their own, the art of mathematics is diminished. On page 78, Paul Lockhart describes how mathematics is taught in our school systems. "The problem with the standard geometry curriculum is that the private, personal experience of being a struggling artist has virtually been eliminated. The art of proof has been replaced by a rigid step-by-step pattern of uninspired formal deduction. The result is that the student becomes a passive participant of a creative act". The quote shows with this way of teaching, students are not encouraged to think and explore mathematics on their own. The preexisting proofs for the math problems are just handed to them, which results in many not even knowing what it actually means. Later on in the chapter, Lockhart describes each math class and how it is taught. After the description Lockhart states, "and there you have it. A complete prescription for permanently disabling young minds – a proven cure for curiosity. What have they done to mathematics!". This statement leads me to believe that mathematics was formally taught in a way where students got the opportunity to explore and think for themselves.

I have always been challenged by mathematics. In middle school, I usually did not have study halls; I had a class where I got extra help in mathematics. Since I have always gotten the idea that I was "not good at math", I have never looked

forward to math class or felt excited to solve a problem, or even had the desire to figure it out on my own. I guess you could say that I just have never looked at it like an art. I wonder if the style of teaching which Lockhart favors, was used in my school system, if I would have a different opinion of mathematics. I wonder if I would enjoy mathematics and would even believe that I could actually do it and have the ability to succeed. "Mathematics is not about erecting barriers between ourselves and our intuition, and making simple things complicated. Mathematics is about removing obstacles to our intuition, and keeping things simple". The way that mathematics was shown to me through out my schooling was anything but simple, at least in my opinion.

This is definitely the best math course I have ever taken. Usually I absolutely dread going to math class. I think it is because I have the negative mindset that I am just going to fail. This class has helped me widen my horizons and see that I do have the ability to succeed in math. I also liked how this class has shown me that there is not only one-way of doing things. There are multiple routes you can take to get to the same answer. Not just the one way we were taught in high school is the "right" way. I have also enjoyed how art has been brought into the curriculum. I really enjoyed looking and learning about Andy Goldworthy's art and about fractals. Both of these are so interesting to look at and beautiful. Before this class I would have never considered mathematics beautiful. Math explorations has really opened up my mind about math and has also shown me many things that I would have never known about before this class.