

Why You (Probably) Don't like Mathematics

If you ask the average student what subject they dislike the most, there is a high probability that you are going to receive “Maths!” as an answer. Mathematics has that unique ability to inspire all sorts of horror in students at the mere mention of its name. This begs the question – what is unique about mathematics that inspires such a disproportionate hatred from the general student population?

To start with, Mathematics has a popular reputation for being “difficult”. Mathematics is all about problems, literally. Being the art of problem solving, mathematics can get ridiculously abstract and logic-driven at times. It doesn't help that our education system often focuses on the solving itself instead of the logic and reasoning behind them in the first place. Maths (and sometimes science) are introduced to students without any historical (or otherwise) context, making the students feel the theorems and problems they are dealing with are completely arbitrary. This is what inspires the common student complaint of mathematics being completely useless and of no real practical value.

Mathematics is also notoriously absolutist – based on facts with next to no room for interpretation. Mathematics is introduced as being incredibly rule-based, a system you follow, one that has been established. And while it is true that school-level mathematics that we are often familiar with is pretty much set in stone, there is nothing wrong with wanting more flexibility. In fact, creative thinking and logical reasoning are the tenets of mathematical reasoning, and once again they are often compromised and not given as much priority in our education system. Mathematics, being cumulative, means that you just keep adding on. It is difficult for a student who hasn't grasped ground zero to keep his attention up when you keep climbing up the ladder.

Societally, Mathematics is also seen as being an inbuilt skill – something that you're “born with”, something that you're just good at or bad at. This is probably the worst thought process of all the ones discussed so far. The harmful view that our society and our education system foster that some students are inherently better than others at technical subjects is extremely counter-productive to the cause of building an inclusive learning environment for all. While it is true that some students might be able to grasp newer concepts faster than others, there is no real reason for students to be bad at problem solving. Mathematics is developed through practice – practice that students are often unwilling to do because they start with a mental roadblock – an uncharitable view of mathematics in the first place.

In the end, students' problems with Maths seem to be a microcosm of all the problems that our education system has in the first place. An education system that focusses on learning but not thinking makes students miss out on the creativity and thinking patterns that math (and other subjects) are able to cultivate. “Technical” subjects like Maths and Science are often used to gauge a student's intelligence, without considering any other factors. Students are told it's okay to not be universally great at more creative subjects like English or Art, but are ostracized for not being instantly great at the scientific subjects.

Instead of treating the “creative” and the “technical” subjects as polar opposites, what we need today is to have both aspects of the subjects feed off each other. Much of art is cold, hard, objective facts and there is a lot in Science (and Math) that is still ambiguous and subjective. A lot of the innovations in mathematics and science came from creative inclinations. We need to strike a balance between art and science. The only way to ensure that is to stop holding certain subjects, like Mathematics, up to a ridiculous standard. By defining students' intelligence by their aptitude in certain subjects, the subjects are held up on a pedestal, making students resent them and wary of approaching them in the first place.

Mathematics has endless scope for creativity. Fields like Recreational Mathematics are focussed solely on creativity – how to manipulate the geometries of the world we live in for no other reason than to see pretty patterns or make fun toys. Today, thanks to avenues like digital video and the internet, one can access the different avenues of mathematical creativity, but what we need is to inspire students to seek it out themselves. What we need is an education system that is able to inspire scientific curiosity and creativity in its students.

At the end of the day, all we need is the right inclusive atmosphere that focuses on development on all fronts. Holistic development means development all around – creative and technical. We need an education system that can inspire students to get excited about learning new things – even if it is boring, old Maths.