A Tale of 2 Math Teachers
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This is a story of how I almost didn't become a mathematics educator. At the end of Form three, one chooses subjects. I chose the science subjects that I was already good at, and forced to decide between the visibly useful Information Technology and the emotionally and intellectually satisfying English Literature. I chose the former. In the science classes we all did Add Maths. I had been good at math all through school, except for Form two, when I was deathly afraid of "rallying" Ramdass, who would painfully apply something akin to a Vulcan nerve pinch to that thin-skinned spot where the head and neck merge. Many of us carried bruises and I was not the only one on the verge of failing. My mother sat me down after that midterm report and delivered one of those life-altering sermons where mathematics was concerned.

In form Four we met WW, whose Add Maths classes were a sonata of suffering. It was not uncommon in those days to receive 40 or more problems to be done in a night. WW was a firm believer in doing every problem in the textbook. This would be followed by a worksheet containing ten years of past paper questions and finally an examination. Drill and kill, next topic, rinse & repeat. A well-built man with a powerful voice as well as a Dean of Discipline, we were all afraid of WW to some degree. Our blackboard bore the impact crater, remnant of an act of cosmic violence, where he had angrily punched it next to a terrified student's head. By the end of Form four, I had made up my mind that mathematics was not for me.

To be fair to WW, he knew his mathematics and a firm hand was occasionally necessary with us teenage boys. Sufficient practice is important for skill and concept development. Tiger Woods and Brian Lara perform the same actions over and over until they get it right, feel its rightness, and it becomes automatic. In order to do more advanced mathematics, a level of automaticity with "basic" skills is necessary. In Sixth Form and university, the training we had experienced paid off as many mathematical tools had become automatic, freeing up cognitive resources for problem solving and creativity.

There is a fine line however between redundancy and useless repetition. Mathematical exercises need to have a level of redundancy, so that students can apply the concept or skill being learnt; however, this must be complemented by a sufficiently diverse set of problems drawn from different meaningful contexts to which the skill/concept can be applied. This improves the chances of achieving that elusive goal, the transfer of learning. Mathematical pedagogies like WW's are important for passing exams, certification, but not much else. They are pedagogies that dry up the soul.

In Form five we met Chaits. A small, balding man, with a real knowledge, melody, and passion, both for mathematics and mathematics education, which resonated across every lesson. We still did lots of problems, many made up on the spot, and worksheets, but without the oppressive classroom atmosphere more of us flourished. We did a lot of mathematics that year and experienced the joy, wonder, and unlimited potential of mathematics as we modelled the flights of javelins, shot puts, and cricket balls and naively dreamed of glory on sporting fields because we knew the optimal angle at which to hurl our projectiles for maximum distance and damage. Chaits was also clear that while knowledge was power, skill, ability, and, ultimately, mastery were dependent on disciplined practice. We developed confidence, motivation, and *motives*, as well as good habits for learning and doing mathematics.

Since then I have learnt a lot more about mathematics and mathematics education. I know now that, all things being equal, the more mathematics that one is exposed to at sensitive ages the more likely one is to develop mathematical competency. I have also learnt that the climates and cultures of the mathematics classroom are significant determinants of later success and attitude to mathematics, and that the chief architect here is the teacher. Furthermore, the rewards of mathematical persistence are an extreme exercise in delay of gratification. To the mathematical victors go the economic, social, and political spoils. Sadly, I have also learnt that where mathematics is concerned, "all things" are seldom, if ever, equal, so I have committed my practice to reducing these injustices through mathematics education and encourage my students to similar vocations.

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