Book title: The Elephant in the Classroom: Helping Children Learn and Love Maths
Author: Jo Boaler
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The review

1. What is your overall impression of the book?

I'm a big fan of the ideas behind Carol Dweck's writing on growth mindset. It's given me a fresh perspective on my life and the reasons behind my early difficulties and more recent successes. I thought the theory she offers in her book is insightful and illuminating, but found that the sections where she applies her theory to real world scenarios repetitive and speculative. After reading Dweck, I read a book called Bounce by Matthew Syed which did an excellent job of framing the ideas of growth mindset in the world of sport thanks to his first-hand experiences. When I found out that this book does the same as Syed but in the realm of mathematics teaching, I knew I needed to read it.

2. Who do you think would benefit most from reading the book? What will they learn?
People who believe that there are two types of people: those who 'get' maths and those who don't. They will see maths viewed through the growth mindset lens; why those negative feelings towards maths have developed in people and how they can be overcome by teachers and prevented from growing in the minds of young mathematicians. I wish I was taught maths in this way!

3. What did you think about the quality of the writing? Please consider the tone, structure and ideas. Does it suit the audience?

It's extremely well written. Easy to read, entertaining and yet academic and erudite, it is perfectly suited to teachers who may be put off by overly formal and stuffy writing.

4. Please discuss the research used to underpin the ideas. What evidence does the author use? Is it robust and up-to-date?

The writing is underpinned by a wide range of reading from many disciplines including neuroscience, psychology, sociology, education, mathematics, politics, legislation and history among others.

5. What did you learn from reading the book? What ideas/approaches/practice will you change or adopt as a result of reading this book?

It is particularly empowering for a teacher working with children from a disadvantaged background to hear a compelling argument that says that all children provided with the right opportunity alongside the right motivation have the potential to be excellent mathematicians.

The power of maths – what can be achieved, what opportunities are available and the economic impact of a population that are confident with numeracy.

What is a mathematician? Undoing harmful social and gender stereotypes

How teaching maths needs to move away from technique (teaching a method and then getting children to practise it) towards a more inquisitive, explorative, critical and evaluative. After all, we are all carrying around computers in our pockets that can do the calculations in a fraction of a second. Instead, we should be nurturing mathematicians who know what questions to ask, choose what calculations we should be asking those computers to do, and how we can most effectively use them, Apply it to actual life; make it real!

Key strategies: concrete, pictorial, abstract. Problem solving and reasoning.

Avoiding the stigma of 'low ability'. The danger of grouping.

6. Could you share a quote from the book that particularly resonated with you?

"Far too many students hate maths. As a result, adults all over the world fear maths and avoid it at all costs. It is the subject that can make them feel both helpless and stupid. Maths, more than any other subject, has the power to crush children's confidence."