

As an English Literature graduate I never thought I would prefer teaching Maths to Literacy but being a trainee teacher is full of surprises. After I completed my GCSE maths I simply pushed it out of my mind thinking I would never use it again, until I decided to become a teacher. In school I found maths daunting, I was scared to put my hand up to offer an answer and disliked the way you either seemed to be right or wrong. The lack of confidence I experienced has inspired me to empower girls, trying to change the gendered narrative of maths in the microcosm of my placement class.

Teaching in a Year 5 class meant I had to revisit long division as well as my times tables but when Covid hit the school my knowledge was really put to the test. I was teaching alone for the week, without support staff, and the end-of-unit test was looming. Half the battle with the children in the class was their self-belief. Most of them can do the maths but will give up easily, head on table, pencil down and complaining that they “can’t do it”. I started to notice that these behaviours were mainly coming from the girls. Even the stronger female mathematicians could seem tentative when giving answers in front of the class.

After consideration I realised girls need to believe that they can do maths in order to succeed. To build on that, we as teachers need to help girls realise they can do maths and give them strategies they can use to help themselves before they rely on the help of others. An OECD [report](#) noted that ‘gender disparities in performance do not stem from innate differences in aptitude,’ meaning that gender is not the factor affecting achievement, instead it is lack of confidence. My aim while teaching was to dispel ‘the common stereotype that women are inferior to men in quantitative skills,’ as the idea of a gendered brain is a myth (Aronson, 2002).

I will now explore some ideas that have helped me in practice and I hope they will help you and the children in your class to feel confident and excited during maths lessons.

‘Strategies for success’

Creating a collaborative working wall spotlighting female mathematicians in the class is something I have found useful in building positive growth mindsets. When children see their work on the board they know they have

contributed to the whole class effort even if they are too shy to participate in discussions or offer an answer. It shows the child and the other children in the class that they are capable. It also provides the child with a sense of pride, it affirms their sense of belonging in a masculine dominated subject. Moreover it provides a point of reference for you, the teacher. This may be used to highlight their work to the whole class or reaffirm successes to the child during a tricky lesson.

Another way I ensured that the children in the class felt confident was offering them tailored interventions. These were performed in the mornings and could come either as pre-teaching or re-teaching. Either way, the extra support made the girls feel as if they had a head start, and felt able to participate in group discussions.

On our working wall we have a 'strategies for success' section where children have been photographed using manipulatives and diagrams to help them. This provides help to children during tricky lessons, tests and moments when they need a confidence boost. If they know what they can use to physically help them, they are less likely to rely on adult support as they have learned to scaffold themselves. Passing this sense of ownership back to the children in the classroom has meant that they are in control of their learning. They know what they need to do to succeed, and I am proud to say there has been notable progress in results.

Simple things like approaching a child one to one before a test and offering them some encouraging words has seemed to help massively. If the children know you believe in them, they will believe in themselves. In this way giving girls a little boost of confidence and instilling a growth mindset has helped me to diminish anxiety around maths. So let the girls in your class know they can do maths – because they can.

Please see below for a range of resources about the performance of girls in maths:

Aronson, J. (2002), "Stereotype threat: Contending and coping with unusual expectations", in J. Aronson (ed.), *Improving Academic Achievement: Impact of Psychological Factors on Education*, Academic Press, San Diego, CA.

<https://www.theguardian.com/education/2015/mar/05/girls-lack-self-confidence-maths-science-oecd-school-engineering>

<https://www.theguardian.com/world/2019/feb/11/access-all-areas-the-tutoring-scheme-for-underprivileged-kids>.

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