

Reducing maths anxiety

How can parents and families help children with maths anxiety? Catherine Pearn discusses.

As a mathematics educator I have worked with many students suffering from mathematics anxiety. I have taught six year olds in a Year 1 Mathematics Intervention program, senior secondary students studying Year 12 mathematics subjects and adults studying to be early childhood, primary and secondary teachers. The symptoms of mathematics anxiety varied from expressing a dislike of mathematics to an adult who had to exit a lecture theatre when numbers were displayed.

Researchers have found that the way mathematics is taught contributes to mathematics anxiety, particularly when there is an emphasis on rote learning of rules and procedures. Timed tests and 'drill type' games cause stress for many students.

I have found that one of the most important things that I can do as a parent, teacher, tutor, or lecturer is to develop a good relationship with the student experiencing mathematics anxiety. I needed to provide support and encouragement by demonstrating what these students could already do and what they needed to do next. The onus on me is to demonstrate that I have confidence in their ability to eventually succeed with mathematical tasks at their level.

I always try to demonstrate my passion for mathematical activities, that I do not know all the answers, that I sometimes make mistakes, that I value alternative ways of solving problems and that I can always learn something new. I still get excited when a student can show me an alternative way of solving a mathematical task that I had not tried previously.

One of the aims stated in *The Australian Curriculum: Mathematics* is for students to: 'recognise connections between the areas of mathematics and other disciplines and appreciate mathematics as an accessible and enjoyable discipline to study' (ACARA, 2014). Hence, we need to ensure students can recognise the mathematics in their everyday lives and in the other subjects they are studying.

So, what can parents do?

The most important thing parents can do is to be positive about mathematics. It is just as important to be good at mathematics as it is to be able to read well. We use mathematics daily – getting to work or school on time, shopping, and cooking are just a few examples.

It is vital that students understand that 'being good at maths' is not simply something that people are born with – appropriate practice will lead to improvement. Therefore, it is

important to help your child understand the need to persevere even if the mathematical task seems too difficult.

Parents should encourage their children to participate in mathematical activities at home. This can be as simple as working out how many plates are needed for dinner or how many cupcakes are needed so that everyone in the family gets one. Can they cut a cake into the number of pieces needed so that everyone has a fair share? Can they work out how long it takes to get to school?

Encourage your child to tell you how they worked out the answer to a mathematical problem. Being fast at remembering things like the multiplication tables will only help if they recognise when to use this information. It is more important that they understand multiplication. For example, can they draw a picture or diagram that shows what 5×3 means?

There are some wonderful board games and card games available for the family to play. For young children games like *Snakes and Ladders* help them with the number sequence as they move their counter from the start to the finish. They are using addition and subtraction when they work out how many more spaces they need to be able to go up the ladder. As the children are playing parents can observe the strategies the students are using. Do they touch every space with their counter (count all) or do they move their counter the number showing on the dice in one jump (count on)? For older children games like *Monopoly*, *Yahtzee*, *Blokus*, *Minecraft* and *Karma* use many mathematical skills.

Parents should have realistic expectations of their children and provide ongoing support and encouragement for them to approach mathematical tasks according to the way they learn best, and focus on their earlier mathematical successes rather than failures.

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References

ACARA (2014). *Australian Curriculum: Mathematics* v6.0. <http://www.australiancurriculum.edu.au/mathematics/aims>

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