Five maths myths worth busting

There are some common myths about maths learning that are not supported by scientific evidence. It's important to 'bust' these ways of thinking, as they can limit students' opportunities to learn and achieve their full potential.

Myth #1: I am not a 'maths person'

While it is true that some students are good at maths and may find maths easier or more enjoyable than others, this is often due to a combination of factors, such as:

- their prior experience learning maths
- their level of motivation and interest during lessons
- the attitudes towards mathematics and numeracy in their household.

All students can improve their maths skills and excel with the right opportunities and support.

Research has shown that mathematical ability is largely a learned skill that can be improved with effort and persistence. With the right resources and guidance, most people can develop a strong foundation in mathematics and achieve their maths-related learning goals.

Myth #2: Mathematics = rules, formulas and one right answer

Mathematics is about understanding and applying concepts, not rote learning and repeating formulas and procedures. It involves exploring patterns, making connections between different ideas, and playing with numbers, shapes, change and structures.

Maths is a subject that involves logical reasoning, problem-solving, critical thinking, and creativity. In some cases, there may be only one correct answer to a maths problem, but mostly there are multiple ways to approach a problem, and different solutions that are equally valid. Maths can help us make informed decisions and solve complex problems.

Myth #3: Males are better at maths than females

There is no scientific evidence to suggest that males are naturally better at maths than females.

While there may be differences in **how** males and females perform on certain maths tasks, these differences are generally small and largely due to cultural and environmental factors such as the influence of stereotypes, teacher biases, and differences in access to maths education and resources.

Research has shown that when girls and boys are given equitable opportunities and support in maths, there is no significant difference in their performance.

Source:
https://www.education.vic.gov.au/Documents/school/teachers/teachingresources/discipline/maths/MTT_Gender_and_Mathematics.pdf

Myth #4: Not everyone is capable of learning mathematics

There is no such thing as having a 'maths brain'. Almost everyone, except for a few individuals with severe learning difficulties, possesses the potential to learn mathematics. While many people perceive intelligence as unalterable –which is called a 'fixed mindset' – adopting a 'growth mindset' fosters the belief that anyone can develop their abilities and achieve success. When faced with difficult tasks or mistakes, those with a growth mindset persevere and understand that errors are crucial for learning and contribute to brain development.

Myth #5: There is only one way to solve a maths problem

While some methods may be more efficient than others, it is crucial not to assert that there is a single correct way to tackle any given problem; there are numerous approaches to solving mathematical problems.

The essence of mathematical learning lies in the exploration and formation of hypotheses rather than simply arriving at correct solutions.

It's true that there are correct and incorrect answers in mathematics. However, our attention should be directed towards the process through which we arrive at answers, and it's critical that we notice and foster the innovative and efficient strategies that our children devise to solve problems.