ADDRESSING MATH ANXIETY

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What is Math anxiety? Math Anxiety is a type of fear (Grace Fleming 2014). According to her, sometimes fear is merely the dread of some unknown that lurks out there. How do you conquer this type of fear? You isolate it, examine it closely, and understand what it's made of.

According to Pradeep Kumar (2013), the phenomenon of Math fear is growing every day. Similarly described by Ewart Newton (2015), that maths-phobia can easily translate into students exhibiting anxiety, a lack of involvement, and even behavioural issues.

From the question “Why did students fear Mathematics?” Pradeep Kumar (2013) listed out the causes of Maths Fear as per his understanding of the subject. He listed that converting word problems into mathematical equations requires good understanding of the language and math fundamentals. He also stated that students are not able to visualize the problem when they face it because mathematics is abstract and it has no shape. Also, students have poor command over the tables, they rely to finger counting that makes their computations long, boring and later will hate mathematics.

According to Pradeep Kumar (2013), Samrana (Name changed) narrates his stories. He says that he is never able to understand mathematical concepts. He fears mathematics because of calculation. He hates numbers. It takes him a lot of time to add two numbers. He fears multiplication and division. He finds mathematics boring. It does not excite his imagination.

Ewart Newton (2015), pointed out previous negative experiences with the subject can lead to a negative and defeatist attitude. Likely, Grace Fleming (2014) stated if you avoid it we lose confidence. That is one factor that affects math performance more than any other is confidence.
A math teacher must enjoy mathematics itself according to Pradeep Kumar (2013). If a math teacher does not enjoy mathematics then how can he create enjoyment for students? This maths anxiety is linked to poor math performance and can make teaching mathematics a big obstacle; this was supported by Ewart Newton (2015).

How to lessen Math Fear?

To overcome this fear, first, Ewart Newton (2015) stated that you should provide students with regular confidence-building exercises that look challenging but enable all students to do well. Students who learn commonly used vocabulary in math have an advantage when approaching word problems (Julie Alice Huson). The words "total, altogether, combined and additional" indicate the need for addition. "Difference, fewer, decreased and remains" mean that subtraction of numbers needs to occur. Ewart Newton (2015) assured that strengthening students’ basic numerical skills is needed for confidence-building. Giving students opportunities to practise and master essential skills for computational fluency is essential. This boost in confidence and self-efficacy can decrease fear in math. Interestingly, studies do show that positive thinking can improve math performance (Grace Fleming 2014).

Second, it’s a good idea to chunk material into smaller steps so that students are able to understand and master one step before moving to the next (Ewart Newton 2015). Even strong students of maths can feel daunted and overwhelmed when there is too much information at once and not enough time to practise. Julie Alice Huson stated also that some word problems contain irrelevant numbers or details. Likely, (Grace Fleming 2014) stated that - Isolate it, examine it, and break it down into little parts. That's exactly what you have to do in math. Every formula is made of "little parts" or skills and steps that you've learned in the past. It's a matter of building blocks.

Third, encouraging students to take risks and have a growth mindset is motivating. By giving students problems that get harder, you can show them they can surmount any challenge through hard work and practice.
Last, but certainly not the least, a teacher’s attitude towards mathematics can have a huge influence (Ewart Newton 2015). By demonstrating an enjoyment and appreciation of mathematics, teachers can encourage a healthy relationship with the subject. And if teachers aren't quite comfortable with maths themselves, a good idea is to invest in professional development. Learning how and why to teach maths in ways that build understanding and excitement can really help reduce maths anxiety in teachers themselves.

References:

Huzon, Julie Alice. Effective Teaching Strategies for Word Problems in Math, Hearst Seattle Media, LLC.