

“How don’t you understand this?” - Exploring Mathematics Anxiety in the Primary School Context

When a learner feels uncomfortable doing mathematics, and that experience is repeated, it can cause anxiety towards mathematics. However, a primary school pupil may not be able to express how anxious they feel about mathematics. If it goes undetected, mathematics anxiety will lead to a dislike and possible avoidance of this essential subject. A responsive and supportive teacher can help the learner overcome the challenges posed by mathematics anxiety. In this webinar Maria explores the nature of mathematics anxiety at primary level, examining the factors that give rise to mathematics anxiety, and how these negative feelings can be detected and alleviated.

Points to consider:

“it is important to address math anxiety at the earliest possible ages because early math anxiety may “snowball” in ways that lead to increased anxiety, dislike, and avoidance of math (Wigfield & Meece, 1988). Further, identifying math anxiety early is the first step in designing interventions to ameliorate these anxieties, which in turn may contribute to higher math achievement in the population.” In Ramirez et al, 2013.

“math-anxious teachers and parents exert a significant influence on students’ math achievement (Beilock et al., 2010; Vukovic, Roberts, & Green Wright, in press). These findings suggest that addressing math anxiety at the teacher level may be an effective starting point in ameliorating math anxiety in young children and improving children’s math achievement.” In Ramirez et al, 2013.

Allowing for ‘productive struggle’ (Russo et al, 2020), ‘productive failure’ (Kapur, 2008)
Productive struggle allows for persistence, autonomy, growth mindset, and resilience (Russo et al, 2020)

- Importance of play for early maths
- Letting students tackle a problem, without too much scaffolding.
- Breathing exercises, Jumping Jacks
- Early testing for maths anxiety
- Dyscalculia screening
- Maths Talks – need to talk about maths before ss get an answer
- Putting more emphasis on how you approach the solution, rather than on the solution itself.
- Starting from the level of the student.
- Allowing extra time for quizzes, tests.
- Real examples, manipulatives to help explain concept/topic.
- Avoid singling out a student.
- Poor performance.
- Timed tests damaging children’s relationship with maths.
- Praise effort, process, strategy, rather than ‘being smart’.
- Emphasis on understanding the concept rather than drilling it.
- Talk positively about maths! Negative talk does not help MA.
- In class:
 - Start with simple questions, revise previously done concepts
 - Monitor progress frequently
 - Give kids a break during maths
 - Work on questions in small groups
 - Pair a weaker with a stronger student (buddying)
 - Seat the MA student at the front of the class
 - Do not single them out to do a question unexpectedly.
 - Use visuals, manipulatives.