

Quick-read: tools to support maths-anxious learners



Reducing anxiety and supporting maths-anxious learners

When students are suffering with maths anxiety, healthy learning cannot take place. Here are a couple of tools and techniques that can help to build confidence and reduce anxiety among your maths students.

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If you try to teach a pupil in a maths anxious state, they will not hear you – they will certainly not be able to learn...

Janet Baker

Doctoral Researcher leading interventions into maths anxiety



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Recommendation



Every learner and their experience of maths anxiety will differ but depending on the severity and frequency of the anxiety, they should:

- **have one-to-one intervention sessions with targeted support**
- **be encouraged to take a break, listen to calming music or go for a walk.**

Encouraging a relaxation response can also be a helpful tool for anxious learners to regulate their emotions. Developed by Dr Herbert Benson in 2000, it is seen as a quick, effective way to switch off the brain's 'fight or flight response' by engaging the parasympathetic nervous system and returning the learner to a calm state.



Practical tip

Using the relaxation response with learners

- Learners should focus on their breathing, surrounding sounds or the repetition of a well-chosen word, for instance 'calm' or 'joy'.
- As the learner repeats their chosen word, in time with their breathing (if possible), they'll be able to clear their mind, become calm and return to thinking effectively.
- Learners can do this consciously, as and when they are beginning to feel anxious.
- For a more detailed description of the relaxation response, watch [👉 Relaxation Response: Dr. Herbert Benson Teaches You The Basics](#) on YouTube.

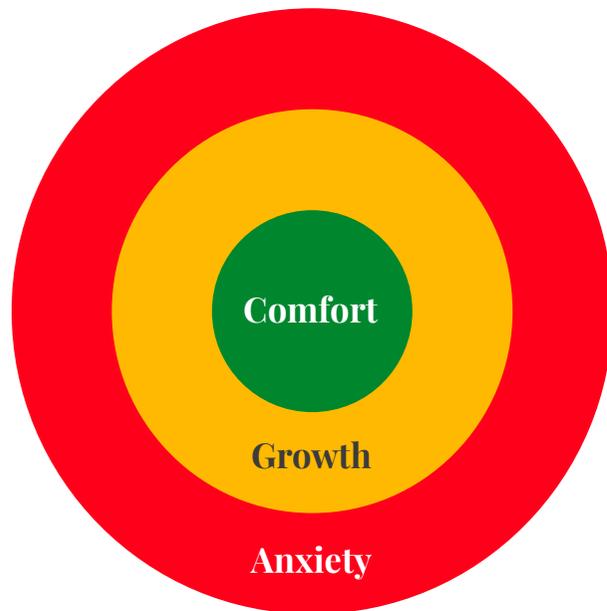
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The Growth Zone Model

Many researchers who have studied maths anxiety and worked with teachers and learners suggest the following tool to help reduce its impact and build greater resilience.

The Growth Zone Model gives a framework for learners to name and communicate their feelings.



The Growth Zone Model, Lugalia et. al (2013)

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- **The comfort zone** is where a learner could be working on familiar tasks independently, building their self-confidence and providing opportunities for practice and automaticity
- **The growth zone** is where new learning happens – here, it should be safe to make mistakes, get stuck, require support, and find activities challenging and tiring
- **The anxiety zone** is where what is being asked is not within the learner's reach at that moment. The learner starts to experience threat rather than challenge, stress increases, cognition decreases, and little or no useful learning takes place.



Practical tip

How to use the model with learners

- **Introduce learners to the framework** in lessons and encourage them to use their own words to describe their feelings when faced with different situations such as feeling challenged or comfortable with activities.
- **Print copies of the growth zone model for your learners as a tool to use regularly.** Learners can place an object on the colours of the model to indicate their emotions. This will help them to be more aware of their emotional responses and allows teachers to better understand when to challenge learners in the comfort zone with a question or support learners in the red zone.