

School Strategy – Maths anxiety: promoting a growth mindset



Overview

Growth mindset people 'can because they think they can'. Fixed mindset people 'can't because they think they can't'. This has huge implications for dyscalculic learners, who need to believe that they will be able to overcome their difficulties with maths.

Objective

Promote a growth mindset in the classroom.

Ability range

All ages

Suggested groupings

Whole classes

How to identify learners with growth or fixed mindsets

Growth mindset	Fixed mindset
Believing that intelligence is not fixed – that intelligence can be improved through learning	Believing that talent is static and you will only be successful if you are naturally talented
Seeing mistakes as a positive – something to learn from	Preferring to stay in their comfort zone and avoiding challenging situations
Thriving on challenge and being self-confident	Avoiding challenge
Not giving up easily – having resilience in their approach to maths	Being anxious about making mistakes – believing that maths is all about getting the answer right Giving up easily
Believing that hard work pays off – effort will bring success	Being self-conscious in front of their peers – won't offer a solution in public for fear of looking 'stupid'
Reflecting on strategies that work for them – developing metacognitive awareness	Not reflecting on what strategies have helped them to learn or to move on
Having learning goals and using feedback to improve	Keeping easy performance goals and enjoying being praised for doing well

How to promote growth mindset

- Give praise for the process rather than the outcome. Removing the emphasis on getting the right answer can really help to alleviate anxiety. The more that we can focus on the strategy and whether the chosen method is helpful, the less anxiety there will be about performance in maths.
- Avoid league tables in class and make sure that you only compare progress against each learner's own results.
- Celebrate mistakes and see them as a positive learning opportunity rather than a failure. Having a display of the 'mistake of the week' can make mistakes part of life, part of maths lessons and something to be explored and learned from rather than something the learner has done wrong.
- Foster the mindset of 'yet' – encourage learners to think 'I can't do this yet' rather than 'I can't do this at all and will never be able to do this'.
- Help learners to be encouraged by the success of their peers rather than to be discouraged.

Use the SWAP table below to reframe their beliefs:

SWAP	I am stupid.	for	I can't do this yet.
SWAP	This is too hard.	for	This may take a little while.
SWAP	I wish I was as clever as my classmate.	for	I am going to work out how they got the answer.
SWAP	I have never done this before – I have not been shown how to do it.	for	What has worked in the past that may help me here? Have I done anything similar?
SWAP	I have got an answer, so I have finished.	for	Am I sure this is correct? Can I check it using a different method?
SWAP	I will never need to know this area of maths when I leave school.	for	Working this out is helping me to become better at solving problems.

Use the table below to ensure that your teaching is promoting a growth mindset:

Growth mindset approaches	Fixed mindset approaches
Praising effort and strategies	Praising correct answers
Feedback emphasising effort and application	Feedback emphasising achievement
Focusing on developing self-confidence	Offering false or empty praise
Developing intelligence and skills	Recording intelligence and skills over assessing
Promoting independent learning and ownership of tasks	Directing learners to tasks
Focusing on learning and understanding	Focusing on results and performance