

Relax and learn to love maths

Kristi Gray

People who find arithmetic stressful and panic about mathematical problems could be suffering from maths anxiety, a study has found.

The condition, a recognised form of anxiety, interferes with the brain's working memory and may be one of the largest barriers to understanding and enjoying maths.

It means when students come to deal with maths problems, they get so worried about working out the actual adding and subtracting, they make mistakes.

The study by scientists at Staffordshire University in Britain found that the anxiety can affect people who should be competent at maths.

"The anxiety doesn't just apply to people who are poor at maths. People who are perfectly competent can be affected in a way that makes them perform less well than they would without maths anxiety. We think it interferes with working memory, the memory you need to do calculations," researcher Dr Sheila Ford said.

Anxious thoughts competed with the memory resources needed to do maths, she said. "People think they know the answer but are not confident so they resort to complicated counting strategies. If you rely on counting on your fingers rather than employing tricks such as rounding up, you are more dependent on working memory."

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Ford said maths anxiety affected large numbers of people and pupils as young as 10 had described the condition which may continue into adulthood.

The Staffordshire team will go on to investigate relaxation techniques that could help people overcome their maths fears.

Alan Parris, president of the New Zealand Association of Mathematics Teachers, said teachers had long been aware that some students had a form of anxiety about maths but had not been aware it was a recognised condition. Parris welcomed the research findings and hoped a test could be devised to identify and help those with the condition.

He said most children could add, subtract, divide and multiply when presented with a pile of numbers. The trouble often came when they were confronted with the problem put into the context of words.

"Give them a real-life situation rather than a pile of numbers and the difficulties begin," Parris said. "You can see some people get anxious and have a block at this

point. They can read what the problem says, but can't interpret it mathematically."

Meanwhile, Canterbury University mathematics lecturer Dr Bill Baritomba has come up with his own novel way to help people enjoy mathematics. He believes people are put off mathematics by the experience of being taught in a boring, complicated way.

Baritomba is running community barn dances in rural Canterbury towns in the coming months.

"Barn dancing is extremely mathematical, though most people don't realise it," Baritomba said. "The patterns of the dance — join up hands and circle left; take four steps in and four steps back, are geometric, symmetric, repetitive cyclic movements. These ideas are the stuff of mathematics."

If something came across heavily mathematical it could put people off, said Baritomba. Offering things that were fun and not making a big deal about the maths would get the message across that maths related to everyday life experience, rather than being an isolated activity.