



The Wilkie Way

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www.wilkieway.co.nz

Positive relationships with Maths acknowledging teacher anxiety

(article taken from A guide for teachers with maths anxiety (and/or anxiety about teaching maths)
written by Sue Skyrme & Dr Thomas Hunt - www.mathsanxietytrust.com)

Some research has shown that many teachers are anxious about maths (and the teaching of maths). In fact, there is evidence to show that students training to teach at primary level are among the most maths anxious.

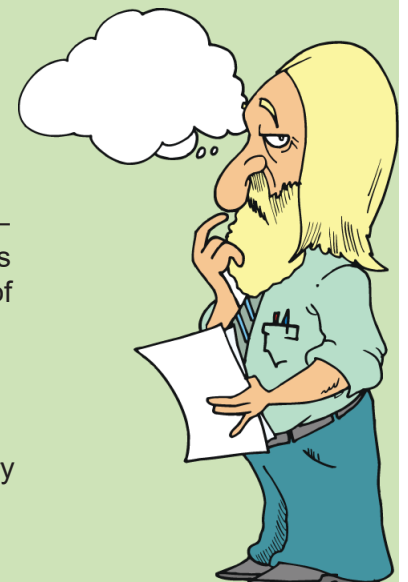
There is also a subtle, but important, distinction between a teacher's anxiety about maths and anxiety about teaching maths. Most teachers with maths anxiety are extremely empathetic to their learners and often present as highly effective teachers as a result.

There are many teachers, who in other curriculum subjects, present as full of passion for the subject and inspire their pupils through their own enthusiasm. However, in the maths classroom, the effect of anxiety can turn the same teacher into someone who may unintentionally transfer negative feelings to their pupils via unhelpful verbal and non-verbal language. These teachers will stay within their 'comfort' zone – e.g. they often choose to use published materials as scripts – not written for their pupils, in their class - but they lack the confidence or subject knowledge to adapt the plans to meet pupil needs. If children don't 'get it', the anxiety increases with both teacher and pupils becoming frustrated. The teacher may lack any flexibility to try different approaches when a child is struggling and often resorts to repeating the same instruction or saying it louder!

Research has shown that a higher level of anxiety about teaching maths is related to lower maths self-efficacy. Some very competent and otherwise confident teachers restrict themselves to teaching at phase one as they fear the 'harder maths' as children grow older. This approach is obviously flawed in several ways as phase one pupils still require the teacher to have an appropriate depth of subject knowledge to ensure a sound foundation for later understanding. Maths anxious teachers will also avoid professional learning opportunities to develop their expertise as they fear public humiliation from colleagues who may expect an existing degree of knowledge and confidence from a practising teacher. The longer this situation prevails, the more the teacher will hide their anxiety and embarrassment, developing further avoidance tactics.

Crucially, if a teacher suffers from maths anxiety, they will often believe that maths is an innate skill – this may affect their attitudes towards pupils' abilities. If they believe that they are incapable of learning maths, this will colour their view of struggling pupils who they will also believe cannot learn – "they are simply no good at maths!". Conversely, a pupil who excels at maths is seen as 'gifted' and innately more able – anxious teachers will be in awe of these children who are frequently left to work independently. These children will lack the challenging questions to move their thinking forward.

A lack of in-depth subject knowledge will mean teachers are unable to make coherent cross-curricular links to maximise learning, particularly at secondary school but equally important at primary. Learning opportunities 'in the moment' are missed.



Maths anxiety can be tackled and we can develop strategies to build resilience and confidence. The aim is not to become a high-flying mathematician, but to reduce anxiety and begin to enjoy maths as a creative and fun subject which is crucial to our everyday lives. It is important to recognise that a certain level of anxiety can be quite normal. Indeed, it is often associated with motivation to perform well as a maths teacher (rather than being indifferent or apathetic) and this can lead to better performance

So if you are a maths anxious teacher how can you take steps to relieve your anxiety?

- Consider a personal tutor/supportive colleague who would be able to break down your understanding and reconstruct it. (Understanding maths is rather like building a wall; if there are missing bricks lower down, the foundation becomes unstable and will collapse.) It is also important to be relaxed with a tutor/colleague, in order to feel comfortable making mistakes, which are essential for learning,
- Consider using a “critical friend”; working alongside someone who lacks confidence in maths also helps; it removes the fear of making mistakes or saying something perceived to be silly
- Those who are high in maths confidence should be proactive in supporting those who are less confident.
- Colleagues should lead the way in establishing ground rules and should discourage those who are maths anxious from sitting in silence.

Feeling comfortable in the learning situation is crucial

Get your own free copy to read the full article:

A guide for teachers with maths anxiety (and/or anxiety about teaching maths)

www.mathsanxietytrust.com

2025 is The Perfect Year for Mathematics

It is a perfect square: The square root of 2025 is 45

It is the product of two square: $9^2 \times 5^2 = 81 \times 25 = 2025$

It is the sum of 3 squares: $40^2 + 20^2 + 5^2 = 1600 + 400 + 25 = 2025$

It is the sum of all the cubes of all the digits from 1 to 9 $1^3 + 2^3 + 3^3 + 4^3 + 5^3 + 6^3 + 7^3 + 8^3 + 9^3$
 $1 + 8 + 27 + 64 + 125 + 216 + 343 + 512 + 729 = 2025$

It is the sum of all the digits 1 - 9 squared $(1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9)^2 = 45^2 = 2025$

And if that is not enough to make it perfect : $20 + 25 = 45$ and $45^2 = 2025$

The last perfect year was 1936 - make the most of this one!



Wilkie Way Membership - annual subscriptions

School membership - via invoice

Under 30 students \$60 + GST
 31 to 100 students \$160+GST
 101 - 300 students \$260 + GST
 301- 500 students \$360 +GST
 501 - 700 students \$460 + GST
 701+ students \$560 + GST
 Non NZ School \$660 - paid via paypal

Individual Membership

\$55.00
 payable via Paypal

I have decided to NOT increase prices this year as the number of subscriptions rose sufficiently last year to absorb increasing costs. Lets hope the same happens this year to maintain a great price for all.

Members Only - Resources Directory

Information for Members Area

To access the resources, click on the link and pick file in our dropbox database. Any questions or issues accessing files please fill out form at the bottom of this page and someone will be in touch with you.

Maths Aotearoa Practice Workbooks



Student Resources - Activities, Problems, Worksheets & Games



Planning & Assessment

Year 1 & 2

Overview Plan
 Unit Plans
 Student tracking

Year 3 & 4

Overview Plan
 Unit Plans
 Student Tracking

Year 5 & 6

Overview Plan
 Unit Plans
 Student Tracking

Year 7 & 8

Overview Plan
 Unit Plan
 Student Tracking

The membership directory page has been altered to reflect the refreshed curriculum.

Resources can now be searched by topic and by phase.

Many new resources have been added in many sections.

A directory guide is available to download from the home page of wilkieway.co.nz to enable you to see how each section is organised and give you an idea of the significant number of resources available to supplement and enhance any maths programme.

Join the Facebook group: Wilkie Way & Maths

Aotearoa - a place to share how you are using these resources and inspire other teachers or to ask questions about how you could use a resource.



The Wilkie Way

Problems with Numbers

How many different ways can you "break" number 10 into two parts
(Don't forget 0)

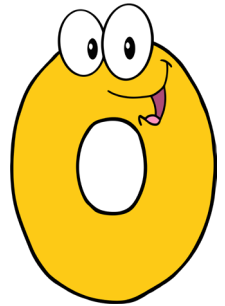


Another word for "break" is partition.

How many different ways can you partition 20 into two parts?

How many different ways can you partition 30 into two parts?

Look for a pattern - can you predict how many different ways you could partition 40 into two parts?



Choose 4 consecutive digits to make a 4 digit number
(digits that come one after the other e.g. 1234)

Reverse the 4 digits then subtract the smaller number from the larger number.

Do this three times using a different set of consecutive digits.
What did you find out?

What if you use alternative digits - e.g 2 4 6 8?



Choose any three consecutive digits

Find the product of the first and last digit. (product means multiply)
Find the square of the middle digit.
What do you notice?

Does this hold true for any 3 consecutive numbers?

Use a calculator and explore with 2 and 3 digit numbers.

