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December 2024

From the CEO's desk



Dear AAMT members, affiliates, and stakeholders,

As the year draws to a close, I want to take a moment to reflect on the year that was and to look ahead to the exciting opportunities awaiting us in 2025.

One of the most significant milestones this year has been the successful updates to our constitution, approved at our Special General Meeting in September. These changes mark an important step forward in aligning our governance with our evolving goals. It also strengthens our partnership with our affiliate associations across the nation as we seek to maximise the impact we have in the mathematics education space across the country and internationally.

We have almost concluded the legal paperwork required to transition us from an Association to a Company Limited by Guarantee. We anticipate that the formal transition will occur on 1st January 2025 pending final confirmation from the appropriate governing bodies.

Another major focus has been the development of our pedagogy position paper, which addresses key debates in mathematics education. This paper will provide practical guidance and clarity for educators and leaders navigating an increasingly complex landscape. We are thrilled to share it with you early in the new year. If you haven't already, follow this link to receive a copy of it as soon as it is published.

This year has also seen the continued growth of our podcast, Strength in Numbers. With the generous support of our 2024 podcast sponsor, Tutero, this platform has allowed us to explore critical issues in mathematics education and amplify the voices of thought leaders from around the world. If you haven't already, be sure to catch up on past episodes and stay tuned for more engaging discussions in 2025.

AAMT has continued to strengthen its influence by working closely with affiliates, other associations, bodies and not-for-profits, education departments and policymakers nationwide, driving impactful change in mathematics education.

Our collaborations with organisations such as MERGA and NCTM exemplify our commitment to connecting research, practice, and global insights. Through these partnerships and strategic advocacy, we continue to shape policies and foster innovation, ensuring mathematics education remains a national priority.

Looking back, 2024 has been a busy year for us. From professional learning opportunities to our successful study tour across the US and Canada, and the many resources we've delivered, we hope you've found opportunities to connect, learn, and grow. As we gear up for 2025, I encourage you to engage with the wide range of activities we'll be offering, from Maths300 to our professional learning programs and exciting new initiatives.

As always, none of this would be possible without the tireless dedication of our staff, the wisdom and guidance of our Council, the support of our affiliates across the country, and the generosity of our sponsors. Together, you make all of this work possible, and I am deeply grateful for your contributions.

On behalf of all of us at AAMT, I wish you a joyful and restful summer. Thank you for your unwavering commitment to mathematics education and for being part of this journey with us.

Allan Dougan

CEO, AAMT Inc



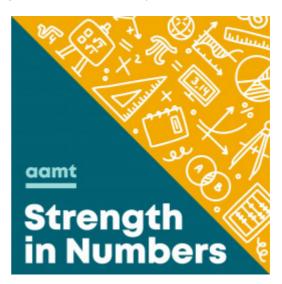
AAMT's Podcast Strength in Numbers Season 3
Sponsored by Tutero

Join us as we dive into the fascinating world of mathematics education with our podcast, *Strength in Numbers*.

Brought to you by the AAMT and generously sponsored by Tutero, this season explores innovative teaching pedagogies, shares classroom success stories, and unravels the mysteries behind those 'Aha!' moments.

Whether you're a maths enthusiast or just looking to improve your teaching skills in mathematics, *Strength in Numbers*, is your go-to resource for engaging, sometimes light-hearted, and informative discussions on all things maths education related!

Be sure to subscribe on <u>Apple Podcasts</u>, <u>Spotify</u>, <u>Amazon Music</u> or wherever you get your podcasts, if you haven't already!



Focus on Maths: Improving mathematics education in disadvantaged Australian schools

AAMT's Focus on Maths program has had a fruitful 2024, supporting 13 schools across Australia in addressing the mathematics education gap. Launched in late 2023, the program targets schools in low socio-economic, rural, or remote areas, with out-of-field teachers or First Nations students. By funding locally tailored mathematics professional learning initiatives, Focus on Maths is helping to build teacher capacity and self-efficacy.

If you'd like to learn more about how a Focus on Maths grant has enhanced teachers' knowledge, confidence and skills in teaching mathematics, enriched pedagogical practices and improved students' participation, engagement and dispositions towards maths in our funded schools, read the full article here.

The Focus on Maths program remains open to applications year-round, with the evaluation and selection process for Funding Round 4 closing on 30 March 2025. You can read our application guidelines on our website. If you teach in a primary or secondary school with an ICSEA score below 1000 and have a maths professional learning project in mind, why not apply for funding in 2025 by clicking here?

MERGA - Teacher Reads Can a Short Online Test Diagnose Student Thinking?



Teacher Reads are one-page extracts of research findings from MERGA conference papers. The purpose of Teacher Reads is to disseminate aspects of research that are meaningful to teachers, such as mathematical tasks, assessment tools, strategies for teaching, considerations for student learning, findings of research that may impact classroom practice, etc.

We hope teachers will draw inspiration from these Reads and follow up with details from the conference papers for research-informed classroom practice.

This newsletter, the paper in focus is "Can a Short Online Test Diagnose Student Thinking?

The paper provides evidence that a short, fully online, well-constructed diagnostic test based on research literature can give teachers information about their students' thinking and strategies that is sufficiently accurate to use for formative assessment purposes. The example is a test for students beginning to learn to solve equations. We hope you enjoy this teacher read!

By Vicki Steinle, University of Melbourne (<u>v.steinle@unimelb.edu.au</u>), Kaye Stacey, University of Melbourne (<u>k.stacey@unimelb.edu.au</u>) and Beth Price, University of Melbourne (<u>priceb@unimelb.edu.au</u>).

Click here to read the paper

Craig Barton and Ollie Lovell professional learning workshop

AAMT are proud to be partnering with one of the UK's most celebrated mathematics teachers, podcaster and author Craig Barton and with Australia's own Ollie Lovell, who are embarking on a multi-city professional learning tour.

In a full-day intensive learning experience, Craig and Ollie will guide you through practical, evidence-based strategies to elevate your classroom practice. Highlights of the day include:

- Maximising learning in the first 10 minutes of a lesson and to set the tone for the whole lessons
- Crafting effective worked examples to ensure students grasp new concepts with clarity
- Streamlining feedback practices to make giving and gathering feedback efficient and impactful
- Sustaining your growth and inspiration as a mathematics teacher throughout your career

Each strategy will be underpinned by research and brought to life with real-world examples (and non-examples) from the classroom. Secondary and upper primary mathematics teachers will have the chance to engage in discussions, debate ideas, and rehearse techniques with a community of like-minded educators and walk away with ready-to-use lesson strategies and tools to build long-term success.

Craig and Ollie will be holding events in Perth (20 June 2025), Melbourne (23 June), Sydney (25 June) and Adelaide (27 June). Seats are limited, so click <u>here</u> to secure your spot today.

You can follow Craig's work by listening to his podcasts Mr Barton Maths and Tips for Teachers or by checking out his many websites including Diagnostic Questions and mrbartonmaths. Ollie's Education Research Reading Room podcast and website explore his work in more detail.

Leadership for Building Thinking Classrooms Back in 2025!

After the success of Peter Liljedahl's *Building Thinking Classrooms* workshop in Canberra this August, we're thrilled to announce not one, but TWO workshops coming your way in 2025!

Mark your calendars because this workshop is now heading to the sunny Brisbane/Gold Coast and vibrant Adelaide in August 2025.



Peter Liljedahl, the author of *Building Thinking Classrooms*, captivated educators in Canberra with practical strategies and dynamic approaches that truly transform the classroom. We received overwhelmingly positive feedback from the participants.

Now, it's your turn to join the movement.

These two-day workshops are designed for educators who are ready to:

- · create engaging and student-centered classrooms,
- · build a culture of deep thinking and collaboration, and
- implement actionable strategies backed by years of research.

Spaces for these exclusive events will be limited, and from the interest in the Canberra event, we can tell they'll fill fast.

Want to secure your spot before registrations open to the general public? Express your interest now!

By signing up via the link below, you'll receive priority access to the registration form (no obligation) - giving you the chance to lock in your place early.

Express Your Interest Here!

Don't miss this opportunity to elevate your teaching and inspire your students. Let's build classrooms where thinking thrives!

PRIME: Tackling Shared Challenges in Mathematics Education

In our last newsletter we referred to our varied activities at ICME-15, including co-hosting the Partnerships for Research and Innovations in Mathematics Education (PRIME) workshop that brought together mathematics educators from Australia and the United States.

In the workshop, the educators explored common challenges and innovative solutions in maths teaching, fostering cross-cultural collaboration between teachers, academics and researchers and exploring topics such as generative AI, curriculum design, culturally responsive teaching and large-scale assessments.

Catherine Challen from Queensland University of Technology and Pauline Kohlhoff from University of Technology, Sydney have written a detailed article, in collaboration with Padmanabhan Seshaiyer from George Mason University and Ilana Horn from Vanderbilt University, explaining the purpose and benefits of the workshop.

Read the article here

Maths300 PL - Special EOY Pricing



If you haven't already done so, now is the perfect time to finalise your professional learning for Term 1 2025.

We still have some limited slots available for Maths300 professional learning sessions on the pupil-free days.

Whether you're new to Maths300 or looking to deepen your understanding, our two distinct modules provide tailored support for primary or secondary teachers.

We offer two distinct modules: **Module 1 – Introduction to Maths300** and **Module 2 – Experimenting and Exploring with Maths300 Software**, each available in versions tailored for primary and secondary teachers.

You can now book two online one-hour sessions covering both Modules 1 and 2 for a special price of **\$1,250**, which includes any number of teachers!

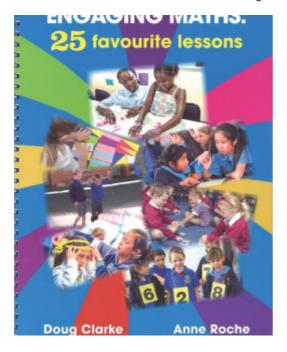
If you prefer to book any one module, we offer a 60-minute PL for only \$650.

For those wanting a more in-depth exploration of Module 1, there's a 90-minute option available at a special rate of **\$800**.

These prices are **exclusive of GST**, and are only valid for learning scheduled before 28 February so get in quickly.

To organise a Maths300 PL session for your school or to organise a trial for your school, contact our friendly team at maths300@aamt.edu.au.

Gems from the bookstore



Engaging Maths: 25 Favourite Lessons

by Doug Clarke, Anne Roche

This full-colour volume aims to enrich the mathematical experiences of primary school students (and their teachers) through enjoyable, challenging and active lessons.

Why not explore grid coordinates and compass directions through a piratical 'Treasure Island' map, or introduce simulation through a 'Throwing the globe' activity, or play a few rounds of 'Colour in decimats'?

Each lesson follows a similar pattern, beginning with an engaging 'hook'.

There are clear instructions, interesting professional musings (including highlighting common misconceptions) and ideas for pulling the lesson together at the end. The lessons are complete, with reproducible activity sheets and further professional references.

Reflections from the authors highlight some of the key pedagogical aspects and assessment potential.

Engaging maths, indeed!

Click here to order now!



Engaging Maths: 21 More Favourite Lessons

by Doug Clarke, Anne Roche, Matt Sexton

This book follows the success of Engaging Maths: 25 Favourite Lessons ("the Blue Book") which continues to stimulate a lot of interest from teachers, mathematics leaders, and pre-service teachers alike. There are 21 brand new lessons, across Foundation to Year 8.

This full colour volume with over 160 classroom photos encourages both physical and cognitive engagement, with lots of fun thrown in! Teachers can use Concept Cartoons to develop geometry understanding, enhance visualisation through Look Make Check Adjust, build mental computation through 4Up!, provide real challenge with Cubes in My Pocket, or head outside for Footy Angles.

With Matt Sexton joining the writing team, new features include an extended introduction with topics such as rethinking ability (achievement) grouping, using enabling and extending prompts, valuing productive struggle, and the importance of recording.

More engaging maths? Yes please!

Click here to order now!

AAMT Journals (APMC and AMEJ) in 2024

2024 has seen the publication of many inspiring articles in both AAMT journals.

The APMC Editors, James Russo and Jane Hubbard, have put together three editions this year with a fourth special edition put together by Ann Downton as a guest editor. Bronwyn Reid O'Connor, assisted by Ben Zunica, have continued at the helm of the AMEJ this year. It

takes considerable time and effort to pull the journals together and we at AAMT are very grateful to all our editors for their hard work and enthusiasm.

The work of our regular 'column' contributors is valuable and not insignificant in terms of time, effort and content. Many thanks to John Gough for his ongoing 'Diversions' column in the AMEJ, where he muses over a broad range of topics from 'polyiamonds' to robotic 'ants'. Helen Prochazka continues to provide curious mathematical snippets from literature, newspapers, teacher's chat rooms, film, television and radio in her regular 'Scrapbook' column. Thank you, Helen!

'Unpacking the expertise of teaching of mathematics', a regular AMEJ column in recent years, has published the reflections of invited mathematics educators regarding aspects of their classroom practice. Thank you to each of the authors for sharing their insights.

It is encouraging to note the healthy number of teachers submitting articles in 2024. It's also great to see academics teaming up with teachers as co-authors.

The published papers have been broad in their content. For example, in the AMEJ there have been articles on AI in the classroom, Keynesian probability, Mathematical strategies in health and physical education, and a series of articles on CODAP. In the APMC, papers have included those concerned with improving student engagement, integrating mathematics and digital technologies, mathematical games, supporting EAL/D learners—a range of practical and pedagogical articles.

AAMT journal articles are mostly from Australian authors but there are also frequent contributions from overseas, as far afield as USA, Canada, Turkey, and China.

Do you have an idea for a journal article? We encourage educators, from Early Years, Primary, Middle School, Senior school, and Tertiary sectors, to submit papers. The journal editors are available to run your ideas by. Get in touch with us via email (Jacquie Sprott, jsprott@aamt.edu.au)

Have you subscribed to our journals? These journals are a great way to enrich your professional knowledge and practice. Do subscribe via your State based mathematics association, or contact us at office@aamt.edu.au for assistance.

AMEJ Editors

APMC Editors

Bronwyn Reid O'Connor Ben Zunica James Russo Jane Hubbard

The National Mathematics Talent Quest

The National Mathematics Talent Quest (NMTQ) is our annual competition that celebrates creativity and curiosity by challenging students to explore real-world mathematical investigations. Although open to entrants from Foundation to Year 12, students do not directly enter NMTQ. Instead, the best entries are chosen from the local state and territory competitions, for consideration for a national prize.

This year saw 43 entries forwarded to the national competition. In early September, 23 judges worked feverishly marking the projects to find the best and most innovative maths investigations in the country! We're delighted to announce that the judges selected 14 prize winners and 13 highly commended entries, representing 5 different states and an equal mix of primary and secondary students.

AAMT would like to formally extend our thanks to all the judges and teachers who make NMTQ possible. We'd also like to congratulate every student who diligently and creatively worked on and submitted a mathematics investigation project, whether they participated only in their state/territory competition or whether they progressed all the way to being awarded a national prize.

If you think you might be interested in entering your local Maths Talent Quest competition in 2025, you can follow the links from the AAMT website by clicking <u>here</u>.

Calling beginning primary teachers

Are you in your final year of teacher education or a first-year teacher?

Johnson Alagappan, a PhD student at Monash University, is conducting research on the experiences of early career primary school mathematics teachers.

Your insights from your teaching placements and first two years in the classroom can help support the wellbeing of new teachers.

If you're willing to contribute, please complete the short survey below (approximately 15 minutes).

Click here to complete the survey

Maths through Stories Competition 2025

AAMT is proud to serve as the Australian outreach partner for the Maths through Stories Competition 2025. This exciting international contest invites primary and secondary students to create original mathematics-themed stories. By blending creativity with mathematical thinking, Maths through Stories offers a unique way for students to explore maths concepts in an engaging and imaginative way, while supporting literacy and cross-curricular learning.

The competition could make a perfect back-to-school activity to kick-start Term 1, to help you get to know your students and how they think mathematically. Visit the website <u>here</u>, to learn more about the competition, including submission guidelines, deadlines and to find support materials.

The website also has a great range of lesson ideas, book reviews and other resources to support you to teach maths through stories!

Thank you for subscribing to the AAMT newsletter.

Here are a few other ways to stay updated on the latest in maths education in Australia:

Follow us on Facebook or on Twitter @aamtinc.

Connect with <u>AAMT Inc</u>, our <u>CEO Allan Dougan</u> or <u>Education Specialist Denise Halliday</u> on LinkedIn.

Our quarterly newsletter is delivered right into your mailbox. Past newsletters can be found on our website under the **About Us/Newsletters** section.

And if you like what you read, please tell your colleagues about us!

Kind regards, AAMT Team

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