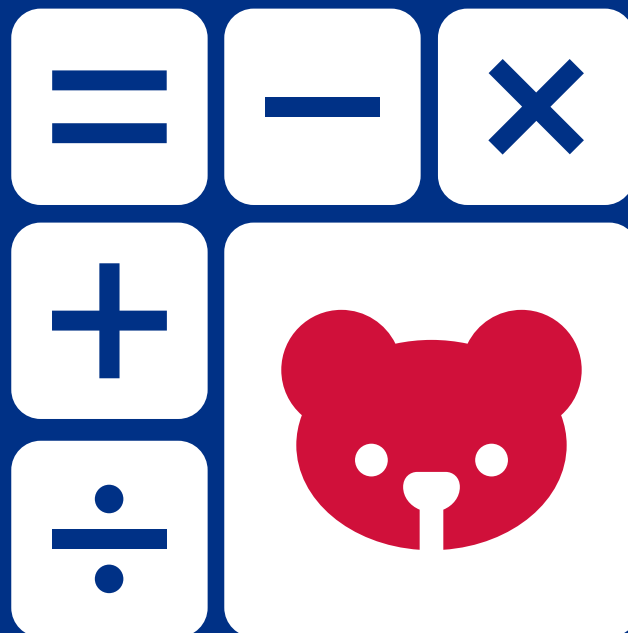


New Frontiers of Learning

Poke the bear!

A joint professional learning event
for mathematics educators from
Foundation to Year 10



It's time to explore some of the long-held assumptions about mathematics and poke the bear!

How do we engage students in an authentic way with the 'messiness' of this glorious subject? Let's embrace the necessities of content, curriculum and sequence using contemporary practices and broadening our reach to other disciplines. There are plenty of mathematics educators in schools right now ditching antiquated practices, keeping the timeless ones that work and moving to innovative approaches.

Let's hear from these disruptors, change makers and classroom practitioners who are shaking things up and moving beyond conventional structures to engage learners and challenge the traditional models of mathematics teaching and learning.

**International keynote:
Dan Meyer**

We are so pleased for our third annual event to bring you a leading international keynote speaker for the first time!

Dan Meyer taught secondary maths to students who didn't like secondary maths. He has advocated for better maths instruction on CNN, Good Morning America, Everyday With Rachel Ray, and TED.com. He earned his doctorate from Stanford University in maths education and is the Dean of Research at Desmos where he explores the future of maths, technology, and learning. He has worked with teachers around the world and calls California home.



A virtual event: Friday 10 September, hosted through MAV's event portal

Who should attend: Teachers of Foundation - Year 10

Book at: www.mav.vic.edu.au/events

Session	Presenters	Title
Opening and welcome: 9.15am-9.30am		
Virtual keynote A 9.30am -10.30am	Dan Meyer	A: Maths without mistakes: The mathematics education community has worked to destigmatise mistakes in recent years, yet it continues to diagnose as mistaken what is instead very purposeful student thinking. We'll learn about curriculum, technology, and strategies that celebrate and develop that thinking instead, helping learners grow in their mathematics identity and knowledge.
Workshop B 10.30am -11am	Various facilitators	B1: What is poking our traditional practice? (F-10): Take a deeper dive into the keynote presentation and our conference theme in a guided small group discussion. Meet fellow attendees and connect Dan's message with the day ahead.
Morning tea: 11am-11.30am		
Workshop C <i>Select from a workshop or facilitated conversation</i> 11.30am -12.30pm	Cassie Allan	C1: Creating engaging and interactive maths lessons (F-6): Cassie Allan, a learning specialist from Glendal Primary School, will run an interactive session to demonstrate how to create a learning environment that promotes multiple exposures and collaborative learning in mathematical lessons. Experience how Cassie creates powerful and interactive mathematical learning experiences to strengthen her students' understanding of concepts being covered, and walk away with resources and ideas to incorporate into your classroom tomorrow.
	Craig Becker	C2: When students assess everyone benefits (7-10): You're capable of assessing a restaurant meal even before it hits the table. When we trust and leverage this concept, we can get students evaluating practices from the first lesson, setting standards, assessing and providing targeted suggestions for improvement, all whilst building confidence in themselves and saving teachers time for more conversations that have greater impact.
	Paul Staniscia	C3: Visible thinking (F-10): Explore how we get meaningful conversations going in maths classrooms using visible thinking approaches.
	Karen Milkins-Hendry	C4: Conversation: Questioning in maths (5-10): Create powerful invitations for students to learn through quests. Questioning is compelling, relevant and joyful learning and this conversation will allow you to explore how to engage your learners using this contemporary framework.
	Jen Bowden	C5: Conversation: Shaking up leadership (F-10 leaders): How do we encourage innovative practices in our team? How do we create a culture where teachers take risks and try new things? Join a conversation to learn, share and explore leadership of a contemporary maths team.
Lunch: 12.30pm-1.15pm		
Workshop D 1.15pm -2.15pm	Ivanhoe East Primary School Martin Holt Val Zenel and Kym Seng	D1: Innovative curriculum and classroom planning and practice preparing students for a new frontier (F-6): Martin is a consultant with the MAV who has worked with teachers from Ivanhoe East Primary School over the past few years to push the boundaries whilst planning and implementing innovative curriculum practice. Martin, Val and Kym will reflect on their experiences and journey, their achievements, and ideas for future improvement. The presenters will share hands on tasks and activities and showcase curriculum and planning.
	Jess Mount	D2: Ideas for open ended investigation tasks (7-10): Open ended investigations are a great way to promote problem solving and reasoning skills. However, they can be daunting for teachers to use in a lesson as they can take some preparation and planning. Equally students can become overwhelmed by open ended tasks as they require some free thinking! In this workshop we will look at some open ended investigations, how previous tasks can be opened up and how these investigations will work in a lesson.
	Paul Staniscia	D3: Visible thinking (F-10): Explore how we get meaningful conversations going in maths classrooms using visible thinking approaches. (Repeat of Session C3)
	Jen Bowden	D4: Conversation: Shaking up leadership (F-10 leaders): How do we encourage innovative practices in our team? How do we create a culture where teachers take risks and try new things? Join a conversation to learn, share and explore leadership of a contemporary maths team. (Repeat of Session C5)
	Deb Carmichael	D5: Conversation: building your network and knowledge (F-10): How do we harness the power of social media and other platforms to build and share our professional knowledge? Join this conversation on engaging with the online community of mathematics educators.
Workshop E 2.20pm-3pm	Anthony Macali	Anthony loves data! (F-10): In this interview style session with Anthony Macali, data analysis and COVID data guru, we will discuss how applied data can inform our understanding in mathematics.
Close: 3pm		

How do I book?

- Book at www.mav.vic.edu.au/events
- Registrations close on Monday 6 September
- \$335 (inc GST)

Keynote speaker

Dan Meyer

Dan taught secondary maths to students who didn't like secondary maths. He has advocated for better maths instruction on CNN, Good Morning America, Everyday With Rachel Ray, and TED.com. He earned his doctorate from Stanford University in maths education and is the Dean of Research at Desmos where he explores the future of maths, technology, and learning. He has worked with teachers around the world and calls California home.



Presenters

Deb Carmichael (ISV)

Deb Carmichael has taught mathematics for nearly 30 years across all secondary year levels and in a variety of contexts. She has held Head of Department roles and Senior Executive roles. Deb is now a Senior Advisor at Independent Schools Victoria, working in The Development Centre. This allows her to use her experience, interest in current research and passion for mathematics teaching to engage with fellow educators.

Jennifer Bowden (MAV)

Jennifer Bowden has worked as an Education Consultant at the Mathematical Association of Victoria for 14 years. She enjoys inspiring teachers, maths coaches, consultants and leaders to become more critical and creative in their teaching, empowering consultants and teachers to be better educators and provide the best learning experiences for their students. Jen coaches, mentors and guides consultants, teachers, and leaders to build teacher capacity, increase knowledge of curriculum content, and to develop better pedagogies to establish school-wide improvement. Jen's current interest is in helping teachers to improve their own teaching in a way that promotes and challenges students' thinking.

Jess Mount (MAV)

Jessica has taught secondary mathematics for over 10 years and was Head of Mathematics at a private girls school in Melbourne before taking maternity leave. Since 2013 she has been involved with MAV VCE revision programs, SAC writing and in school consultations as well as working with various publishers for textbook publications. Jessica has also been a VCE Further Mathematics assessor since 2011. Currently she is working at MAV as a secondary education consultant.

Karen Milkins-Hendry (ISV)

Karen Milkins-Hendry is Dean of The Development Centre at Independent Schools Victoria. Her 26 years working in schools included leadership experience that spanned across pastoral and academic areas with extended periods as Acting Principal. This background provided valuable strategic skills and experience to bring into both the development and implementation of leadership programs. With a teaching background as broad as Specialist Mathematics and Chemistry through to VCE Theatre Studies, Karen relishes her current role of engaging with the broader educational community with a view to providing evidence-based support to the unique improvement journey of schools.

Paul Staniscia

Paul is the Deputy Principal, Learning and Teaching Leader and Mathematics Leader at a Catholic Primary School. Having completed a Masters in Educational Leadership, he values a culture of trust when working with teachers in evidence based teaching and learning. He uses both previous classroom teaching experience as well as effective leadership practices when collaborating with teachers in using data to identify student need and impact of teaching. Paul is passionate about the learning and teaching of Mathematics, specialising in this area, and continually seeks effective evidence-based practices. Paul uses this knowledge when working as a Mathematics Consultant and working with teachers and leaders across educational settings. He places a strong focus on ensuring students are aware of their learning and his recent work has been in developing students who know what they are learning, why they are learning it and what their next learning steps are. He has also used his research in technology to assist students in becoming capable of collecting and reflecting on their own evidence.

Craig Becker

With more than 20 years' experience as a classroom teacher, educational leader and professional learning consultant, Craig Becker is passionate and skilled in the areas of collaborative capacity, student engagement, visible learning and student-focused assessment, feedback and guidance strategies. Believing learning structures should always be visible and well-communicated, he has devoted years to embedded action-research that has helped to identify and develop clear connections between learning behaviours and academic growth. Craig has successfully led teams and curriculum initiatives in five different schools across four countries.

Val Zenel

Val has worked as a primary school classroom teacher for over 15 years. She is a Year 2 teacher, Learning Specialist and Numeracy Leader at Ivanhoe East Primary School. In her role as Numeracy leader, she supports teachers to embed the whole school approach to numeracy and is dedicated to ensuring that mathematics is an engaging experience for all students.

Cassie Allan

Cassie is passionate about inspiring teachers to improve student engagement and agency. She has been teaching for 9 years in both Australia and the UK. In her position as Head of Senior School in London, Cassie found developing student engagement in all areas of the curriculum was the most efficient way to overcome challenging behaviours and improve student outcomes. In her current role as Learning Specialist at Glendal Primary School, she works with teachers from Foundation to Year 6 to develop their teaching practice. Cassie regularly models lessons and teaches with staff to demonstrate a variety of ways to effectively increase mathematical understanding.

Kym Seng

Kym has 12 years' experience teaching in Victorian primary schools. She has been a Learning Specialist, Team leader, member of the School Improvement Team and the Leadership Team. She is currently teaching Year 1 at Ivanhoe East Primary School and is passionate about engaging and supporting students to reach their potential in mathematics.

Martin Holt

Martin is an educational consultant, writer of maths resources and an academic in maths education at Australian Catholic University and Deakin University. He has a background in primary teaching and maths leadership in schools. Martin helps teachers develop a classroom culture where all students, regardless of ability, expect to be challenged. He promotes the strategic selection and sequencing of well-constructed tasks to achieve this aim, acknowledging the crucial link between engagement and learning.

Martin helps schools implement and monitor a process to strengthen their maths program which stems from constructing a shared vision of an ideal maths classroom. He helps curriculum leaders map out key goals that work towards this vision and communicate the measurable steps that each individual can take to incrementally improve their practice.

Anthony Macali

Anthony loves data! He has been a Business Intelligence and Reporting Manager at Sensis for over 15 years, with his main role being the development, maintenance and support of finance data warehouse and web-based reporting applications. He also supports data mining, predictive modelling, and market intelligence activities. In 2020, like many of us Anthony was forced to work from home due to the global pandemic. He started investigating the data and found a lack in real time collated data across Australia. Anthony had a determination to view near real-time data on the COVID situation, and took the initiative to create COVID Live. COVID Live data is collected from media releases and verified against state and federal health departments, an evolving website that has developed alongside our changing world during the pandemic. With the rest of his spare time he is a film buff writing short and sharp movie reviews!