THE MATHEMATICAL ASSOCIATION OF VICTORIA

MMC26 CONFERENCE

3 & 4 JUNE 2026

– MELBOURNE MATHEMATICS CONFERENCE –

ELEVATING MATHEMATICS EDUCATION THROUGH CONNECTING THEORY AND PRACTICE

SESSION SUMMARY: Wednesday 3 June
LEADERSHIP STREAM

Keynote **9am - 10.15am**	**LK1** Narratives of mathematics leadership: The 'what,' 'so what,' and 'now what' *Matt Sexton and Kate Copping*						
10.15am -10.45am	**MORNING TEA**						
Session A **10.50am - 11.45am**	**LA1** Evidence to action: Practical strategies for improving mathematics teaching *Melody McCormick and Paul Dobney*	**LA2** Planning for retention: Embedding retrieval practices in whole-school practice *Antje Leigh-Lancaster*	**LA3** Investigating student confidence when solving mathematics assessment tasks *Cath Pearn and Natasha Ziebell*	**LA4** Middle teacher impact: Using co-teaching cycles to build teacher capability *Eamon Light*	**LA5** A whole school approach to numeracy across the curriculum *Kathy O'Sullivan*	**LA6** Research + practice = a perfect match *Sharyn Livy*	**LA7** From data to direction *Renee Ladner*
Session B **11.50pm - 12.45pm**	**LB1** Building teacher capacity through PLCs : Unpacking the PVAT *Ange Rogers*	**LB2** Prioritising what matters: Leading effective improvement in mathematics *Di Liddell and Ellen Corovic*	**LB3** Leading embedding numeracy *Justine Sakurai*	**LB4** Defining excellence: Characteristics of high-performing maths schools *Michael Minas*	**LB5** Relational trust in action: Dispositions and practices for leading mathematics *Matt Sexton and Kate Copping*	**LB6** Advancing mathematical proficiency through the instructional hierarchy *Paul Staniscia*	**LB7** The celebrations and complexities of leading mathematics *Emma Doyle*
12.45pm - 1.30pm	**LUNCH**						
Session C **1.30pm - 2.25pm**	**LC1** Maths instructional model *Ferruccio Servello*	**LC2** I thought I had to know everything (Spoiler: I Didn't) *Sara Pinder*	**LC3** Leading innovative learning: Data, democracy and doing maths *Carly Sawatzki*	**LC4** Developing a whole school curriculum approach with Victorian Lesson Plans *Sam Haberman and Steve Goldberg*	**LC5** Building a coherent mathematics instructional model *Sara Gaul McKee*	**LC6** Leading mathematics well: Building shared understanding, not just shared resources *David Leigh Lancaster*	**LC7** Calm your farm: Leading with clarity and purpose *Darius Samojlowicz*
Keynote **2.30pm - 3.30pm**	**LD1** Leading numeracy learning: Empowering teachers to support students' numeracy development *Kathy O'Sullivan*						
3.30pm - 4.30pm	**HAPPY HOUR**						

SESSION SUMMARY: Thursday 4 June
PRIMARY TEACHERS STREAM

Keynote **9am - 10.15am**	**PK1** Evidence-informed learning and teaching in mathematics *Michael Rosenbrock*						
10.15am -10.45am	MORNING TEA						
Session A **10.50am - 11.45am**	**PA1** Inclusive numeracy: supporting students with intellectual disabilities through learning trajectories and systematic instruction *Vanessa Kukielka and Nathalie Parry*	**PA2** Advancing mathematical proficiency through the instructional hierarchy *Paul Staniscia*	**PA3** Partnering with parents to boost mathematics skills *Eleanor Drayton and Emily Glen*	**PA4** You've got the lesson - but do you know how to teach it? *Jess Kurzman*	**PA5** Hands-on maths, minds-on thinking: making learning visible *Catherine Rodgers (Epstein)*	**PA6** The Da Vinci project: past masters inspiring engaging mathematical activity today *Mayamiko Malola, Angus Fonstin, Gaye Williams*	**PA7** Teaching subtraction: important 'take aways' for effective teaching *Eamon Light and Jill Marr*
Session B **11.50pm - 12.45pm**	**PB1** What does engaging retrieval practice look like? *Michael Minas*	**PB2** Validation transforms classrooms *Justine Sakurai*	**PB3** Enhancing mathematical wellbeing through pedagogy *Kim Walker*	**PB4** A low-floor high-ceiling teaching framework for computational thinking in the upper primary years *Danjiela Draskovic*	**PB5** Developing fluency in the mathematics: practical steps to support your students *Ange Rogers*	**PB6** From numbers to narratives: Using data to enhance mathematical understanding *Renee Ladner*	**PB7** Characterising learning and retention in proportional reasoning: identifying drivers of change in the classroom *Kelly Trezise*
12.45pm - 1.30pm	LUNCH						
Session C **1.30pm - 2.25pm**	**PC1** Elevating mathematics learning: strategies that inspire confidence and engagement *Stephanie Nitschke and Patrick Kennedy*	**PC2** Small changes, big impacts *Sara Gaul-McKee*	**PC3** Engaging students using interactive strategies *Sheila Griffin*	**PC4** Scaffolding in the upper years *Michael Nelson*	**PC5** Developing relational thinking rather than focusing on rules and procedures *Catherine Pearn*	**PC6** Preparing Year 5 and 6 students for algebra: rules and equations that make sense *Daniella Draskovic*	**PC7** Retrieval practice: the what, why and how *Antje Leigh-Lancaster*
Session D **2.30pm - 3.30pm**	**PD1** Debating mathematical perspectives *Sophie Specjal and special guests*						
3.30pm - 4.30pm	HAPPY HOUR						

SESSION SUMMARY: Thursday 4 June
EARLY CHILDHOOD STREAM

Keynote 9am - 10.15am	**ECK1** Mathematics, play, and the philosophy of childhood *Marek Tesar*	
10.15am -10.45am	MORNING TEA	
Session A 10.50am - 11.45am	**ECA1** Using the AERO early childhood learning trajectories in practice *Caroline Cohrssen, Cristina Guarrella and Parian Madanipour*	**ECA2** Developing relational thinking rather than focusing on rules and procedures *Catherine Pearn*
Session B 11.50pm - 12.45pm	**ECB1** Recent Australian findings on educator confidence and mathematics anxiety: implications for supporting early mathematics *Tianjiao Zhang and Katherine Canobi*	**ECB2** Mathematics, belonging and identity: who gets to see themselves as a mathematician? *Emma Forsyth, Melissa Dann and Rebecca Waingold*
12.45pm - 1.30pm	LUNCH	
Session C 1.30pm - 2.25pm	**ECC1** Bringing numeracy intentionally into play *Brent Brickhill, Christina O'Neill, Paul Strain*	**ECC2** Dynamic assessment of young children's early numerical abilities *Nathalie Parry*
Session D 2.30pm - 3.30pm	**ECD1** STEM learning ecologies *Emma Ross and Nicola Yelland*	
3.30pm - 4.30pm	HAPPY HOUR	

SESSION SUMMARY: Thursday 4 June
CAS TEACHERS STREAM

Plenary **9am - 10.15am**	**CASP1** CAS calculators in the mathematics classroom still cause intense discussion in teaching and broader educational communities. *Sue Garner*
	CASP2 Computational thinking in VCE and the Victorian Curriculum *Michael McNeill*
10.15am -10.45am	**MORNING TEA**
Session A **10.50am - 11.45am**	**CASA1** Using (a single) interactive digital technology to deepen mathematical understanding *Jill Brown*
Session B **11.50pm - 12.45pm**	**CASB1** Pedagogical opportunities in the CAS-active classroom *Scott Cameron*
12.45pm - 1.30pm	**LUNCH**
Session C **1.30pm - 2.25pm**	**CASC1** Mathematical methods: deepening learning and connections through CAS *David Leigh-Lancaster*
Session D **2.30pm - 3.30pm**	**CASD1** Building symbol sense with CAS: from calculator to thinking partner *James Mott*
3.30pm - 4.30pm	**HAPPY HOUR**

LEADERSHIP STREAM

KEYNOTE: Wednesday, 9.15am-10.15am

LK1 NARRATIVES OF MATHEMATICS LEADERSHIP: THE 'WHAT,' 'SO WHAT,' AND 'NOW WHAT'

Kate Copping and Dr Matt Sexton

Stream: Leadership

This keynote focuses on narratives of mathematics leadership, connecting theory and practice. Using stories from the field, we narrate the 'what' of mathematics leadership in the everyday practice of leading mathematics in school sites. We address the 'so what' by linking these stories to current research, demonstrating how mathematics leaders foster relational trust, develop capability, respond to challenges, and shape teaching and learning practices. Finally, we turn to the 'now what,' inviting participants to connect insights to their own contexts and consider actions that strengthen mathematics leadership in their schools. Through this narrative framework, we integrate stories of practice, theory, and reflection for action, offering provocations that shape participants' own narratives of mathematics leadership.

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SESSION A: Wednesday, 10.50am-11.45am

LA1 EVIDENCE TO ACTION: PRACTICAL STRATEGIES FOR IMPROVING MATHEMATICS TEACHING

Dr Melody McCormick and Paul Dobney

Join us for an interactive workshop designed for middle and senior leaders looking to drive improvements in mathematics teaching and learning across their schools. This session will explore key strategies and approaches for driving improvement. Participants will have the opportunity to share insights, discuss challenges, and collaborate on practical ways to support mathematics improvement in their context. You'll leave with actionable ideas, strategies, and tools that can be applied in your school environment to strengthen mathematics teaching and learning.

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LA2 PLANNING FOR RETENTION: EMBEDDING RETRIEVAL PRACTICES IN WHOLE-SCHOOL PRACTICE

Antje Leigh-Lancaster

In this workshop, participants will be invited to reflect on their school's priorities and their leadership of team and whole-school planning, identifying areas of strategic focus and supportive structures that could strengthen mathematics learning in their context. Using the implementation of retrieval practices as an example, this workshop explores how leaders can support teachers to implement practical classroom strategies and approaches that research has shown to be effective in facilitating learning, retention and retrieval. It puts retrieval practice forward as an opportunity not only to build fluency, but also to continue learning and deepen understanding. Participants will engage in activities and discussions related to:

- Identifying enablers and barriers to implementing whole school approaches
- Supporting teachers to maximise the benefit of retrieval practice (desirable difficulties)
- Understanding the importance of providing and removing scaffolds (maintaining engagement)
- Using interleaved practice to support appropriate strategy identification (when to use what)

LA3 INVESTIGATING STUDENT CONFIDENCE WHEN SOLVING MATHEMATICS ASSESSMENT TASKS

Catherine Pearn and Natasha Ziebell

Students sometimes get the correct answer to a mathematics task using faulty thinking or misconceptions. Students participating in an online mathematics tutoring program independently completed an online diagnostic assessment both before and after small group tuition. While completing the assessment students rated their degree of confidence about their success on the mathematics tasks for 24 of 35 questions. This workshop aims to give participants the opportunity to explore the analysis which focused on student results, student confidence in their answers, and finally the combination of both answer accuracy and student confidence. Allowing students to provide the level of confidence they have in the answers they provide in a mathematics assessment in comparison to their performance on that assessment task provides teachers with useful diagnostic information to underpin mathematics planning and implementation of teaching.

LA4 MIDDLE TEACHER IMPACT: USING CO-TEACHING CYCLES TO BUILD TEACHER CAPABILITY

Eamon Light

Middle leaders play a pivotal role in shaping instructional practice and supporting teacher growth. This workshop explores how structured co-teaching cycles can build teacher capability by focusing on what matters most, using challenges as opportunities, and creating sustainable models for collaboration. We unpack why co-teaching is more than 'being in a classroom' and how it supports intentional learning design, clear feedback loops and role clarity. Through practical examples, participants will examine strategies for planning and implementing co-teaching cycles that align with school priorities and teacher needs. We consider how to balance support with autonomy, navigate common hurdles and show how trusting relationships lead to purposeful action. The session highlights how care, clarity and the right conditions enable middle leaders to drive meaningful change in teaching practice.

SESSION A: Wednesday, 10.50am-11.45am (cont.)

LA5 A WHOLE SCHOOL APPROACH TO NUMERACY ACROSS THE CURRICULUM

Dr Kathy O'Sullivan

Developing numeracy across the curriculum requires not only a clear understanding of what numeracy is, but a coherent and purposeful leadership that positions numeracy as a shared responsibility across all learning areas. This practical workshop is designed for school leaders who wish to embed a whole-school approach that strengthens students' numeracy development. Participants will explore what it means to lead numeracy outside the mathematics classroom, including building a shared vision and supporting all teachers in numeracy implementation. The session will focus on practical teaching strategies and practical examples that demonstrate how numeracy can be meaningfully integrated across the school. Participants will consider how to support staff in identifying authentic numeracy opportunities in their subject discipline. Through collaborative numeracy tasks, participants will map existing strengths and gaps in their own school contexts and develop a numeracy plan tailored to their school setting. This workshop will also address leading change effectively, while addressing resistance, sustaining momentum, and building a whole school approach to numeracy development.

LA6 RESEARCH + PRACTICE = A PERFECT MATCH

Associate Professor Sharyn Livy

Bringing together research and classroom practice can sometimes feel like trying to solve a tricky equation, but when the two align, they become a perfect match for improving student learning in mathematics. This session, designed for leaders and teachers, explores what contemporary research tells us about how primary students learn mathematics most effectively, and how teachers can translate these insights into practical, doable, and meaningful classroom pedagogies.

LA7 FROM DATA TO DIRECTION

Renee Ladner

Whole-school improvement in mathematics requires more than collecting data. It needs leaders who can interpret evidence and communicate the story it tells. This workshop shows how data storytelling can drive strategic and sustainable change. Using primary school examples, participants will explore how multiple evidence sources, including assessments, observations and student work, can be combined to reveal patterns in learning and teaching. The session highlights how leaders can use these stories to guide professional conversations, set priorities and align curriculum planning. Practical frameworks will support leaders to build staff confidence with data and strengthen a culture of collaborative, evidence-informed practice.

SESSION B: Wednesday, 11.50am-12.45pm

LB1 BUILDING TEACHER CAPACITY THROUGH PLCS : UNPACKING THE PVAT

Dr Ange Rogers

Building Professional Learning Communities (PLCs) that strengthen teachers' Mathematical Pedagogical Content Knowledge is a vital part of effective numeracy leadership. However, it can be challenging to know where to focus and how to scaffold teacher growth in purposeful, sustainable ways. In this session, Ange will guide participants through a practical process for administering, moderating and using the PVAT assessment (free on her website) to foster meaningful PLC discussions and collective action. Participants will learn how to confidently introduce the assessment, facilitate data moderation and analysis, and use insights to shape targeted teaching goals. By the end, attendees will have a clear understanding of how to use PVAT strategically to drive whole-school numeracy improvement and establish realistic benchmarks in the teaching and learning of place value.

LB2 PRIORITISING WHAT MATTERS: LEADING EFFECTIVE IMPROVEMENT IN MATHEMATICS

Di Liddell and Ellen Corovic

This session supports school leaders to take a clear, evidence-informed look at their current mathematics teaching and learning program. Through structured analysis tools and guided reflection, participants will identify key strengths and areas for growth. Leaders will then use a practical decision-making framework to determine which aspects of their program should be prioritised for targeted intervention. The session equips leaders with clarity and direction to drive meaningful improvement in mathematics across their school.

LB3 LEADING EMBEDDING NUMERACY

Justine Sakurai

Building numeracy capability across all learning areas remains a persistent challenge for Australian schools. This session offers fresh insights from original research into how school leaders can move from awareness to action, transforming numeracy from compliance into authentic, embedded practice. Drawing on recent implementation research, we will explore what distinguishes successful whole-school numeracy approaches from those that fade after initial enthusiasm. Participants will examine practical leadership strategies for building staff confidence and capacity in embedding numeracy naturally within their subject areas. We'll investigate how to leverage students' existing mathematical thinking, create meaningful connections between classroom mathematics and disciplinary contexts, and sustain teacher engagement over time.

LB4 DEFINING EXCELLENCE: CHARACTERISTICS OF HIGH-PERFORMING MATHS SCHOOLS

Michael Minas

What distinguishes schools where maths truly thrives? In this session, we explore the key ingredients that drive exceptional mathematics outcomes in primary schools — from cultivating a positive maths culture to embedding effective teaching practices. Drawing on case studies and classroom experience from across Australia, we will unpack what high-performing maths schools do differently and how those strategies can be realistically applied in your context. Join us to gain practical insights, share experiences, and leave inspired with actionable strategies to strengthen maths outcomes in your own school community.

SESSION B: Wednesday, 11.50am-12.45pm (cont.)

LB5 RELATIONAL TRUST IN ACTION: DISPOSITIONS AND PRACTICES FOR LEADING MATHEMATICS

Dr Matt Sexton and Kate Copping

This workshop extends the keynote presentation by moving from stories to action. Drawing on the narratives of practice shared earlier, Kate and Matt will work with participants to make relational trust in mathematics leadership visible and actionable. Leaders will examine how dispositions toward self, others, and the work of leading mathematics shape everyday interactions, professional learning, decision-making, and responses to challenge. Through structured activities and discussion of practice-based scenarios, participants will identify specific leadership actions that build trust while advancing improvement in mathematics teaching and learning. By the end of the session, leaders will commit to one deliberate relational trust disposition and practice they will enact in their school context.

LB6 ADVANCING MATHEMATICAL PROFICIENCY THROUGH THE INSTRUCTIONAL HIERARCHY

Paul Staniscia

The Instructional Hierarchy provides a framework for understanding how students progress from acquiring new skills to achieving fluency, generalisation, and adaptation. In this session, we will explore how leaders can apply a strategic approach at each stage by selecting evidence-informed strategies that match where learners are in the hierarchy. Throughout this workshop, participants will identify ways of aligning instruction with cognitive demand, so students can deepen understanding, build fluency, foster reasoning, and enhance problem-solving. Drawing on insights from the Grattan Institute's report on effective teaching practices, this workshop demonstrates how purposeful strategy selection across the Instructional Hierarchy cultivates mathematically proficient learners who think flexibly and apply their knowledge with confidence.

LB7 THE CELEBRATIONS AND COMPLEXITIES OF LEADING MATHEMATICS

Emma Doyle

Leading mathematics is both a celebration and a complexity. It involves building belief and capability in others, holding a compelling vision that mathematics is accessible to all learners, and leading change that translates theory into consistent classroom practice. This workshop explores the realities of leading mathematics improvement across diverse school context through a guaranteed and viable curriculum, strong Tier 1 instruction as part of MTSS and high levels of engagement for all students. Participants will reflect on leading self, others and the school for learning as part of leadership development. They will consider practical structures such as coaching, modelling and PLC collaboration within the school context. Participants will also explore what context responsive decisions may look like in practice to support sustainable improvement. The workshop draws on evidence informed decisions, policy and lived leadership experience.

SESSION C: Wednesday, 1.30pm-2.25pm

LC1 MATHS INSTRUCTIONAL MODEL

Ferruccio Servello

This workshop aims to support teachers to design the four key components of the instructional model associated with teaching mathematics from Years 7 - 12 areas of focus will include review and focus questions, explicit skill Instruction, independent practice, and review using hinge questions. The session will demonstrate how these elements work together to activate prior knowledge, build new understanding, promote purposeful practice, and provide timely assessment of learning.

LC2 I THOUGHT I HAD TO KNOW EVERYTHING (SPOILER: I DIDN'T)

Sarah Pinder

Stepping into the role of Numeracy Leader can bring an unspoken expectation to know everything and have all the answers, while quietly carrying the weight of imposter syndrome. This session takes participants on a leadership journey, exploring how shifting from 'expert' to 'lead learner' can transform your leadership practice, influence teacher practice, and strengthen student learning outcomes. Drawing on evidence-informed principles such as curriculum coherence, depth over coverage, and collective efficacy, participants will examine how narrowing focus and prioritising what matters most drives sustainable improvement. Leave with practical, research-aligned strategies to build trust, reduce initiative overload, make data-informed decisions and lead mathematics with clarity, confidence, and measurable impact.

LC3 LEADING INNOVATIVE LEARNING: DATA, DEMOCRACY AND DOING MATHS

Dr Carly Sawatzki

This interactive workshop will showcase the Victorian Parliament's Electorate Data Cards as a tool for teaching how data can be collected, represented, and drawn upon to shape the priorities, policies and decisions of elected representatives. Participants will:

- Explore the Census as a source of data and statistics about people and communities
- Consider demographic and mathematical language
- Examine data displays like horizontal column graphs and pie charts
- Apply mathematical reasoning to a topical issue impacting the Victorian way of life.

This session will model a cross-curricular approach to teaching mathematics and numeracy across the humanities. School leaders and teachers will leave with innovative curriculum ideas and practical strategies to engage students in data-driven discussion.

LC4 DEVELOPING A WHOLE SCHOOL CURRICULUM APPROACH WITH VICTORIAN LESSON PLANS

Sam Haberman and Steve Goldberg

This workshops explores the effective implementation of the Victorian Lesson Plans, drawing from the experience of VLP case study schools. Participants will learn from the change management stories collected by the VLP implementation team through their work with school leaders. Participants will be equipped to utilise VLPs in the ongoing development of their own whole school curriculum approach.

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LC5 BUILDING A COHERENT MATHEMATICS ILNSTRUCTIONAL MODEL

Dr Sara Gaul McKee

Stream: Leadership

This workshop aims to support mathematics leaders to build a coherent, evidence-informed instructional model for mathematics that is responsive to their local school context. It explores how current research, policy and practice can be connected in practical ways to strengthen teaching and learning, with a focus on moving from research awareness to sustained instructional improvement across a school.

The workshop encourages participants to engage with contemporary mathematics education research, and

SESSION C: Wednesday, 1.30pm-2.25pm (cont.)

to develop the skills to interpret and apply evidence in meaningful ways. It explores how leaders can critically read research, build their capacity, and identify high-impact instructional practices.

Participants will be introduced to a structured, step-by-step approach to embedding change. They will engage in hands-on activities that model how research-informed practices can be selected, adapted and implemented within their own schools, including examining practical examples from mathematics teaching. Through collaborative discussion and planning, participants will explore how to design support structures, build collective efficacy, and sustain instructional improvement over time.

LC6 LEADING MATHEMATICS WELL: BUILDING SHARED UNDERSTANDING, NOT JUST SHARED RESOURCES

Dr David Leigh Lancaster

When teachers know mathematics deeply, planning becomes sharper, teaching more responsive, differentiation more purposeful, resources clearly focused, and students more likely to learn the intended mathematics. Effective mathematics leadership reaches beyond shared resources to foster a shared understanding of the mathematics students are expected to learn. This session explores how leaders can strengthen mathematics teaching by prioritising teachers' understanding of the mathematics their students are expected to learn. It highlights why shared resources and routines are not sufficient without deep understanding of key ideas, connections, representations and common misconceptions. Participants will consider how leadership can support collective mathematical sense-making, coherent planning and consistent teaching.

LC7 CALM YOUR FARM: LEADING WITH CLARITY AND PURPOSE

Darius Samojlowicz

Middle leaders often face competing demands, limited resourcing, and constant pressure. This workshop helps leaders slow the noise, reconnect with who they are, and lead with clarity and purpose. Participants will identify their core values, practise moments of strategic stillness, and learn how 'what looks like doing nothing' can sharpen decision-making. Through practical tools and reflective activities, leaders will refine their focus, strengthen relational leadership, and leave with actionable strategies to lead calmly and intentionally in complex school environments.

SESSION D: Wednesday, 2.30pm-3.30pm

LD1 LEADING NUMERACY LEARNING: EMPOWERING TEACHERS TO SUPPORT STUDENTS' NUMERACY DEVELOPMENT

Dr Kathy O'Sullivan

In many countries, governments require that schools develop the numeracy capabilities of all young people and, therefore, assign the responsibility of numeracy development to all teachers. However, leading and sustaining effective numeracy learning across the curriculum can be challenging. This keynote will explore how numeracy can be meaningfully embedded across the curriculum to enhance student learning and engagement. Drawing on Kathy's extensive research and practical experience, she will demonstrate how the N Framework can be used as a tool to plan and implement authentic numeracy learning within and across subject areas. Kathy will also showcase successful examples of how schools have embedded numeracy across the curriculum – illustrating the power of numeracy leadership and collaborative professional learning to support students' numeracy development.

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PRIMARY STREAM

KEYNOTE: Thursday, 9.15am-10.15am

PK1 EVIDENCE-INFORMED LEARNING AND TEACHING IN MATHEMATICS

Michael Rosenbrock

What does it mean to be evidence-informed as a maths teacher? And how can it help me make a difference for my students? In this keynote Michael will unpack a model for being evidence-informed that draws together research, practice and context. He will then explore the importance of translating models, theories and ideas into action - connecting core purpose, to current priorities, to teaching practice. Michael will dive deeper into the nuance and details that help us to go from possibilities to impact on the outcomes that matter. Sharing examples from his experience of teaching and leading mathematics, he will explore different lenses that we can apply when planning and reflecting on teaching such as lethal mutations, catalysts and dosage.

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SESSION A: Thursday, 10.50am-11.45am

PA1 INCLUSIVE NUMERACY: SUPPORTING STUDENTS WITH INTELLECTUAL DISABILITIES THROUGH LEARNING TRAJECTORIES AND SYSTEMATIC INSTRUCTION

Vanessa Kukielka and Nathalie Parry

This workshop explores how Learning Trajectories (LT) can elevate inclusive numeracy by connecting developmental research with precise classroom practice. Participants will explore why early numeracy is a powerful predictor of later academic success and why strong foundational understanding is critical for independence and participation for students with intellectual disability. We will examine the core components of LT, mathematical goals, developmental paths, & align instructional tasks to determine developmental starting points & next steps. Participants will engage in classroom examples & explore how the Concrete–Representational–Abstract approach strengthens conceptual understanding across tiers of support. It will equip educators to identify specific learning gaps, design targeted instruction that fosters numeracy development, and provide an understanding of how LT's enable us to create instructional sequences that promote mathematical independence.

PA2 ADVANCING MATHEMATICAL PROFICIENCY THROUGH THE INSTRUCTIONAL HIERARCHY

Paul Staniscia

The instructional hierarchy provides a framework for understanding how students progress from acquiring new skills to achieving fluency, generalisation, and adaptation. In this session, we will explore how teachers can apply a strategic approach at each stage by selecting evidence-informed strategies that match where learners are in the hierarchy. Throughout this workshop, participants will identify ways of aligning instruction with cognitive demand, so students can deepen understanding, build fluency, foster reasoning, and enhance problem-solving. Drawing on insights from the Grattan Institute's report on effective teaching practices, this workshop demonstrates how purposeful strategy selection across the Instructional Hierarchy cultivates mathematically proficient learners who think flexibly and apply their knowledge with confidence.

PA3 PARTNERING WITH PARENTS TO BOOST MATHEMATICS SKILLS

Eleanor Drayton and Emily Glen

Participants will explore how partnering with parents and carers can profoundly impact lifelong mathematics learning. Victorian Mathematics Ambassadors Eleanor Drayton and Emily Glen will focus on two key transition points: starting primary school and moving into secondary school.

Em will introduce new evidence-based resources that build parent understanding of skills such as one-to-one counting, subitising, partitioning with the part-part-whole model, and teen numbers. These practical tools help families confidently support learning at home. The workshop includes hands-on demonstrations and strategies to embed these ideas in family routines.

Ellie, an experienced secondary teacher, will address common parent concerns about the shift to more formal mathematics in secondary school. She will guide upper primary teachers on how to prepare families, reduce anxiety, and establish strong learning habits before students begin secondary schooling

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PA4 YOU'VE GOT THE LESSON - BUT DO YOU KNOW HOW TO TEACH IT?

Jess Kurzman

A well-designed lesson plan gives you a great head start - but the real impact comes from knowing how to teach it most effectively. This workshop shows how to move beyond simply following the plan to truly understanding the mathematical ideas that underpin it, in order to make lessons as effective as possible. Participants will explore practical strategies to build the content knowledge needed to teach mathematics with confidence. You'll walk away with actionable ideas and strategies that can be applied immediately, helping you strengthen your own understanding and bring lessons to life with clarity, purpose, and impact.

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SESSION A: Thursday, 10.50am-11.45am (cont.)

PA5 HANDS-ON MATHS, MINDS-ON THINKING: MAKING LEARNING VISIBLE

Catherine Rodgers (Epstein)

Making mathematics visual through hands-on resources and shared strategies is a powerful way to engage learners and deepen understanding. This workshop explores how teachers can explicitly teach mathematical concepts using concrete materials and visual representations that make thinking visible and learning stick. Participants will engage with practical tools — such as attribute blocks, arrays, Cuisenaire rods, and playing cards — to help students represent their ideas, solve problems, and communicate their thinking with clarity. These strategies not only support differentiation but also encourage students to make meaningful connections across mathematical strands. A key focus is on helping students visually share their strategies and solutions, promoting classroom discussion, collaborative reasoning, and stronger mathematical confidence. This session will leave you with ready-to-use resources and techniques to embed visual, explicit teaching into your everyday mathematics practice.

PA6 THE DA VINCI PROJECT: PAST MASTERS INSPIRING ENGAGING MATHEMATICAL ACTIVITY TODAY

Dr Mayamiko Malola, Angus Fonstin, Dr Gaye Williams

This session aims to support teachers as they extend their expertise in engaging students in developing deep understandings of mathematics through STEM learning experiences. In the session, processes through which this project was developed will be shared, and participants will be invited to work in groups to analyse da Vinci machines and brainstorm ways that groups of students might link aspects of such machine functions to present day applications and thus 'see' the mathematics within. Selected tasks developed during this project will be examined by participant groups to identify their key features. Discussion of teacher actions that could promote or inhibit deeper student mathematical thinking will follow. Presenters will draw links between research and pedagogy associated with project successes.

PA7 TEACHING SUBTRACTION: IMPORTANT 'TAKE AWAYS' FOR EFFECTIVE TEACHING

Eamon Light and Jill Marr

Subtraction is one of the conceptually demanding topics in primary mathematics. This workshop examines essential principles for effective subtraction instruction by exploring how to establish strong conceptual foundations across the different interpretations of subtraction and address persistent misconceptions. We will unpack why subtraction challenges students' learning and how representations and language shape understanding.

SESSION B: Thursday, 11.50am-12.45pm

PB1 WHAT DOES ENGAGING RETRIEVAL PRACTICE LOOK LIKE?

Michael Minas

Recently, retrieval practice has taken centre stage, and for good reason. Research proves it boosts long-term maths learning, but in classrooms, it often gets reduced to a handful of slides. This session will offer a range of practical strategies that will help combat some of the common misconceptions about what retrieval practice looks like in classrooms. Each idea shared will prioritise student engagement, the cornerstone of a thriving math classroom, and go beyond memorisation to promote genuine mathematical thinking. Attendees will leave with research-informed and ready-to-use strategies to enhance retention, reduce cognitive load, and support all learners in building deep conceptual understanding. Join us to discover how to transform your lessons and help your students feel curious, engaged, and enthusiastic about maths.

PB2 VALIDATION TRANSFORMS CLASSROOMS

Justine Sakurai

This workshop distils original research into practical, classroom-ready strategies for using validation as a powerful classroom teaching tool. When teachers validate students' thinking processes, struggles, and social presence in the classroom, they create psychologically safe environments where disruptive behaviours diminish and cognitive engagement flourishes. We will examine evidence-based validation techniques, including acknowledging mathematical reasoning, normalising productive struggle, and recognising social and conceptual effort to help students positively engage in the classroom. Through interactive scenarios drawn from real classroom data, we will learn to respond to frustration and confusion in ways that maintain student focus on mathematical thinking. We will gain strategies for integrating validation into existing practices, ultimately fostering classrooms where young learners remain cognitively engaged, mathematically curious, and behaviourally focused.

PB3 ENHANCING MATHEMATICAL WELLBEING THROUGH PEDAGOGY

Kim Walker

This session explores the Mathematical Wellbeing Framework and pedagogical approaches that may enhance students' mathematical wellbeing (MWB). Drawing on her experiences as a past participant of the Academy Teaching Excellence Program and the Teaching Innovation Fellowship, Kim will share how the learning and inquiries she engaged in have informed her practice and supported increases in students' MWB. Through modelled activities, participants will explore the interconnected relationship between pedagogy to intentionally facilitate collaboration in mathematics classrooms and strategies that promote positive dispositions towards learning mathematics.

PB4 A LOW-FLOOR HIGH-CEILING TEACHING FRAMEWORK FOR COMPUTATIONAL THINKING IN THE UPPER PRIMARY YEARS

Danjiela Draskovic and Dr Max Stephens

As computational thinking (CT) becomes essential in contemporary mathematics education, teachers need practical ways to design tasks that are accessible yet challenging for diverse learners. This presentation examines how the well-known low-floor, high-ceiling (LFHC) principle can be applied deliberately across three key differentiation dimensions in CT-infused mathematics classrooms.

1. Mathematical content.
2. Cognitive load of CT.
3. Affective/Engagement.

Participants will unpack practical tasks illustrating these dimensions in action and consider several resources including Bebras and the Victorian Coding Challenge (VCC) as a concrete example of how schools can integrate CT in Mathematics. The session will offer clear principles for developing CT-rich tasks that maintain mathematical integrity while supporting all students to go further.

SESSION B: Thursday, 11.50am-12.45pm (cont.)

PB5 DEVELOPING FLUENCY IN THE MATHEMATICS: PRACTICAL STEPS TO SUPPORT YOUR STUDENTS

Dr Ange Rogers

In this session Ange shares the importance of developing a strategic and targeted approach to fluency across your school. Ange will start by exploring the research that underpins fluency development. She will explore its place in the curriculum, links to the VTLM 2.0 and the impact a systematic approach can have on student confidence, motivation and achievement in mathematics. The session will provide practical examples to assist you to embed a focus on fluency both at school and home for your students. You will walk away from this session with insights and ideas to take the first steps towards implementing a whole school approach to fluency in your own context.

PB6 FROM NUMBERS TO NARRATIVES: USING DATA TO ENHANCE MATHEMATICAL UNDERSTANDING

Renee Ladner

Data can tell a powerful story about student learning when teachers know how to interpret it. This workshop will explore how primary teachers can use classroom evidence to guide purposeful mathematics planning through data storytelling. Participants will examine how assessment results, work samples and observations can be used to uncover patterns in student thinking. Using practical classroom examples, the session will show how teachers can move from collecting data to creating clear narratives that highlight strengths, misconceptions and next steps. Simple frameworks will help teachers turn evidence into actionable insights that inform lesson design, differentiation and collaborative planning.

PB7 CHARACTERISING LEARNING AND RETENTION IN PROPORTIONAL REASONING: IDENTIFYING DRIVERS OF CHANGE IN THE CLASSROOM

Dr Kelly Trezise

Proportional reasoning is challenging because it requires students to think about how quantities change together, not just add numbers. This workshop will present a study following 369 US students through a proportional reasoning lesson, testing them before, immediately after, and one week later. By examining how students solved problems, we identified different learner groups — some improved significantly, whilst others made smaller gains or forgot what they'd learned. We investigated what predicted these outcomes, including cognitive factors (prior knowledge, working memory) and emotional factors (maths anxiety, interest). We find students learn very differently from the same lesson. The workshop emphasises why it's crucial for teachers to look beyond right and wrong answers — by examining how students solve problems, teachers can better understand their thinking, identify issues early, and provide more targeted support.

SESSION C: Thursday, 1.30pm-2.25pm

PC1 ELEVATING MATHEMATICS LEARNING: STRATEGIES THAT INSPIRE CONFIDENCE AND ENGAGEMENT

Stephanie Nitschke and Patrick Kennedy

This workshop explores the impact of the science of learning through illustrations of practise. Join two of the Victorian Mathematics Ambassadors as they unpack what it truly takes to transform mathematics learning in schools. Steph Nitschke will share how her school has embedded a powerful culture of learning — highlighting the practical strategies that have lifted confidence for students, teachers, and families alike, and the insights she'd prioritise if starting again. Patrick Kennedy will then delve into the art of blending structure with flexibility, illustrating how intentional routines and a whole-student focus can sustain engagement and amplify learning outcomes.

This workshop offers a compelling, practice-rich snapshot of how far mathematics education has come — and where it can go next. Attendees will leave energised, informed, and ready to refine and embed high-impact approaches in their own classrooms and schools.

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PC2 SMALL CHANGES, BIG IMPACTS

Dr Sara Gaul-McKee

This session aims to demonstrate how small, intentional adjustments to everyday mathematics teaching can lead to improvements in student understanding, confidence and attainment. It equips participants to identify and apply high-impact strategies that are grounded in evidence-informed practice and easily embedded into existing classroom routines. The session explores how building confidence with research-aligned approaches can strengthen mathematical learning without adding to workload. Participants will explore which changes have the greatest impact on mathematical thinking and outcomes, explore practical strategies for planning, questioning and representation, and engage in discussion around what effective, sustainable practice looks like in real classrooms. Through concrete examples and reflective activities, participants will explore how evidence-informed approaches can support consistency, clarity and confidence for both teachers and students. Participants will leave with a clear understanding of how small changes can make a big difference in primary mathematics teaching and learning.

PC3 ENGAGING STUDENTS USING INTERACTIVE STRATEGIES

Sheila Griffin

This practical workshop explores interactive strategies designed to engage every learner. These approaches give students opportunities to explain their thinking, participate fully, and build confidence. Participants will discover how techniques such as Circle Time, Show Me, and Interactive Number Lines and Charts can enhance classroom involvement and understanding.

PC4 SCAFFOLDING IN THE UPPER YEARS

Michael Nelson

This workshop equips educators with a connection between evidence-informed practices and what they look like in the classroom. Participants will explore a range of different scaffolds that can help them differentiate complex concepts, including Place Value, Additive Thinking, Multiplication and Fractions, to ensure all students can have achievement in their learning.

PC5 DEVELOPING RELATIONAL THINKING RATHER THAN FOCUSING ON RULES AND PROCEDURES

Dr Catherine Pearn

Mathematics education researchers have highlighted the importance of students developing relational thinking rather than relying on calculations to solve mathematical tasks. Relational thinking involves students recognising and understanding the relationship between given quantities. Students need to understand the properties of the operations e.g. commutative, associative and distributive laws and recognise when these laws can be used e.g. addition and multiplication are commutative however subtraction and division are not. Some young children have started to use relational thinking even before formal schooling when they notice that five fingers can be shown as 'four fingers and one more finger' or 'three fingers and two more fingers'. This workshop explores the types of materials and tasks that teachers can use to encourage students to use relational thinking rather than carry out calculations using rules and procedures.

SESSION C: Thursday, 1.30pm-2.25pm (cont.)

PC6 PREPARING YEAR 5 AND 6 STUDENTS FOR ALGEBRA: RULES AND EQUATIONS THAT MAKE SENSE

Danijela Draskovic

Upper primary students are ready to move beyond arithmetic toward algebraic reasoning, but only if we give them rich contexts where structure, pattern, and generalisation emerge naturally.

In this session, we'll explore "border problems" and other low-floor, high-ceiling patterning tasks that help students:

- articulate relationships between quantities,
- describe and extend patterns visually and numerically,
- express those relationships as rules, and
- connect those rules to symbolic notation.

You'll leave with practical classroom tasks, sample student responses, and facilitation strategies that bridge the gap between pattern recognition and algebraic generalisation. This will help in laying strong conceptual foundations for secondary mathematics.

PC7 RETRIEVAL PRACTICE: THE WHAT, WHY AND HOW

Antje Leigh-Lancaster

This workshop unpacks retrieval practice: what it is, why it works, and how to implement it in a manageable way. The session focuses on designing retrieval questions that strengthen fluency while also supporting ongoing learning and deeper understanding.

Participants will engage in activities and discussions related to:

* getting the most from retrieval practice

* designing retrieval questions with clear purpose

* keeping it manageable

Participants will be invited to reflect on their current retrieval practice and identify one or two practical changes they can trial immediately.

The presentation and related resources will be shared.

SESSION D: Thursday, 2.30pm-3.30pm

PD3 DEBATING MATHEMATICAL PERSPECTIVES

Dr Sophie Specjal and special guests

What truly matters most in mathematics education? In this dynamic and thought-provoking workshop, Debating Mathematical Perspectives, leading academic experts and experienced teacher-practitioners come together on the same stage to explore and challenge our assumptions about what counts in mathematics classrooms today. Join us for this inaugural session at the Melbourne Mathematics Conference as we openly debate competing priorities, interrogate long-held beliefs, and highlight tensions that shape curriculum, assessment, and classroom practice. Through live debate, interactive audience engagement, and reflective discussion, participants will gain deeper insight into the diverse perspectives influencing mathematics education and leave better equipped to articulate and defend their own stance. Be prepared for lively dialogue, contested ideas, and a richer appreciation of the complexity, and possibility, at the heart of teaching mathematics.

CAS PEDAGOGY STREAM

PLENARY: Thursday, 9.15am-10.15am

CASP1 CAS CALCULATORS IN THE MATHEMATICS CLASSROOM STILL CAUSE INTENSE DISCUSSION IN TEACHING AND BROADER EDUCATIONAL COMMUNITIES

Sue Garner

79 students at Ballarat Grammar trialled CAS symbolic calculators as part of the Melbourne University's DSME CAS-CAT Project from 2000-2002, culminating in the initial Mathematical Methods (CAS) external examinations in 2002. The three schools in the initial project trialled TI, HP and Casio CAS calculators. VCAA extended the project as additional schools joined the trial over a period of 10 years, adding computer-based CAS systems as an option in the exams. There is a wide range of published papers about how CAS can be integrated into the maths classroom. During the CAS Project, over time, there developed a perceived need for 'elegance' in using a CAS calculator: that is when to pick the calculator up, or put it down, according to the teaching/learning/assessing context. There has been, and still is, controversy about using CAS in the classroom. This keynote will address the history of CAS in Victoria, the interesting reaction from the parent communities, and the discussions around the authority of the calculator vs the authority of the teacher/student. Sue Garner will describe the difference between teaching with a 'birds eye view' and everyone's main fear, that of using CAS as a 'button-pushing' machine.

CASP2 COMPUTATIONAL THINKING IN VCE AND THE VICTORIAN CURRICULUM

Michael McNeill

Enactment through engagement – the current use of CAS as an enabling technology to promote learning in mathematics, and as a mechanism to engage computational thinking through F-10 and Outcome 3 for the VCE Mathematics studies in Victoria.

SESSION A: Thursday, 10.50am-11.45am

CASA1 USING (A SINGLE) INTERACTIVE DIGITAL TECHNOLOGY TO DEEPEN MATHEMATICAL UNDERSTANDING

Associate Professor Jill Brown

This workshop explores how CAS can be used as a powerful enabling technology for learning and doing mathematics. When computational aspects are carried out by the technology students can focus on meaning, relationships and reasoning. Research shows that students who use CAS in their learning of mathematics on average performed as well as or better than non-CAS users on the technology free Methods Exam 1. Participants will engage in hands-on activities centred on using the numerical, graphical, and symbolic functionalities of CAS to: introduce, explore and connect mathematical concepts and ideas, develop mathematical skills and procedures, apply mathematics to modelling and problem solving. Participants will consider how synergies between CAS, AI and computational thinking could be used to strengthen learning and engagement in senior mathematics.

SESSION B: Thursday, 11.50am-12.45pm

CASB1 PEDAGOGICAL OPPORTUNITIES IN THE CAS-ACTIVE CLASSROOM

Dr Scott Cameron

This workshop explores the pedagogical opportunities available within CAS-active mathematics classrooms. Delegates will be introduced to a range of pedagogical possibilities operating at the subject, classroom, and task levels, providing a framework for understanding how CAS can shape teaching and learning. Delegates will engage in structured reflection to critically examine their current practices and consider how CAS is positioned within their own classrooms. Building on these reflections, the workshop will highlight additional pedagogical opportunities and task design principles that support deeper mathematical thinking, foster student agency, and promote purposeful integration of CAS in mathematics teaching.

SESSION C: Thursday, 1.30pm-2.25pm (cont.)

CASC1 MATHEMATICAL METHODS: DEEPENING LEARNING AND CONNECTIONS THROUGH CAS

Dr David Leigh Lancaster

This workshop explores how CAS can be used as a powerful enabling technology for learning and doing mathematics. When computational aspects are carried out by the technology students can focus on meaning, relationships and reasoning. Research shows that students who use CAS in their learning of mathematics on average performed as well as or better than non-CAS users on the technology free Methods Exam 1. Participants will engage in hands-on activities centred on using the numerical, graphical, and symbolic functionalities of CAS to: introduce, explore and connect mathematical concepts and ideas, develop mathematical skills and procedures, apply mathematics to modelling and problem solving. Participants will consider how synergies between CAS, AI and computational thinking could be used to strengthen learning and engagement in senior mathematics. A concise historical overview of the development of CAS and their evolving role in senior mathematics will also be shared.

SESSION D: Thursday, 2.30pm-3.30pm

CASD1 BUILDING SYMBOL SENSE WITH CAS: FROM CALCULATOR TO THINKING PARTNER

James Mott

This workshop aims to support teachers in using CAS as a thinking partner to develop students' symbol sense and critical digital literacy across Years 9–12. Using the Predict–Act–Reflect–Reconcile framework, participants will explore structured classroom activities that position CAS as a tool for reasoning, prediction, and verification rather than simple calculation. Participants will engage in hands-on tasks comparing pen-and-paper and CAS methods, analysing multiple representations, and reconciling equivalent expressions. The session highlights strategies for orchestrating discussion, surfacing misconceptions, and building students' capacity to question and interpret CAS output, with practical activities ready for immediate classroom use.

THE MATHEMATICAL ASSOCIATION OF VICTORIA

EARLY CHILDHOOD STREAM

KEYNOTE: Thursday, 9.15am-10.15am

ECK1 MATHEMATICS, PLAY, AND THE KHILOSOPHY OF CHILDHOOD

Professor Marek Tesar

This keynote argues how early mathematics and the key concepts of the philosophy of childhood are woven together. The argument allows educators to reconsider what mathematics becomes when childhood is understood as a meaningful mode of being in the present, rather than a stage of preparation for a future. Drawing on philosophical work in early childhood education, the presentation explores how mathematical thinking emerges through children's play, movement, relations, and everyday encounters with materials, space, rhythm, and time. Mathematics is framed not as content to be delivered, but as a way of noticing, relating, and making sense of the world.

The keynote highlights how educators can recognise and work pedagogically with these forms of mathematical thinking without instrumentalising play or narrowing children's experiences. In the conclusion, attention is given to questions of difference, equity, and whose ways of knowing are made visible, as well as towards reflective, ethically attuned early mathematics pedagogy.

Supported by

SESSION A: Thursday, 10.50am-11.45am

ECA1 USING THE AERO EARLY CHILDHOOD LEARNING TRAJECTORIES IN PRACTICE

Professor Caroline Cohrssen, Dr Cristina Guarrella and Parian Madanipour

This workshop aims to enhance early childhood educators' and teachers' understanding of the concept of learning progressions. Participants are encouraged to bring an observation of a child (or a small group of children) engaged in a typical learning experience with them to the workshop. In this workshop, we will draw on the AERO Early Childhood Learning Trajectories (EC LTs) to identify the mathematical thinking (or opportunities for mathematical thinking) observed in the observation. This will be the starting point for participants to collaborate in discussing ways to consolidate and extend children's mathematical thinking and mathematical language within the context of their own learning environments. We will bust myths that EC LTs are underpinned by a checklist or milestones approach.

ECA2 DEVELOPING RELATIONAL THINKING RATHER THAN FOCUSING ON RULES AND PROCEDURES

Dr Catherine Pearn

Mathematics education researchers have highlighted the importance of students developing relational thinking rather than relying on calculations to solve mathematical tasks. Relational thinking involves students recognising and understanding the relationship between given quantities. Students need to understand the properties of the operations e.g. commutative, associative and distributive laws and recognise when these laws can be used e.g. addition and multiplication are commutative however subtraction and division are not. Some young children have started to use relational thinking even before formal schooling when they notice that five fingers can be shown as 'four fingers and one more finger' or 'three fingers and two more fingers'. This workshop explores the types of materials and tasks that teachers can use to encourage students to use relational thinking rather than carry out calculations using rules and procedures.

SESSION B: Thursday, 11.50am-12.45pm

ECB1 RECENT AUSTRALIAN FINDINGS ON EDUCATOR CONFIDENCE AND MATHEMATICS ANXIETY: IMPLICATIONS FOR SUPPORTING EARLY MATHEMATICS

Tianjiao Zhang and Dr Katherine Canobi

This workshop draws on recent Australian research exploring early childhood teachers' and educators' mathematics anxiety and its implications for practice. It aims to deepen understanding of this issue by examining key dimensions, contributing factors, impact on teaching, and supportive approaches for mitigating anxiety. This workshop highlights key themes identified in our literature review, which considers mathematics learning across educators' professional journeys, including schooling experiences, tertiary education, professional development programs, and workplace practice. Participants will be encouraged to share personal experiences of learning and teaching mathematics. They will reflect on how anxiety or confidence may shape their teaching decisions, and those of colleagues, and influence children's engagement with mathematics. Through self-reflection and peer discussion, participants will gain ideas for regulating anxiety and fostering positive mathematical dispositions among teachers, educators and children.

ECB2 MATHEMATICS, BELONGING AND IDENTITY: WHO GETS TO SEE THEMSELVES AS A MATHEMATICIAN?

Emma Forsyth, Melissa Dann and Rebecca Waingold

Mathematical learning begins in relationship. Research shows that children's mathematical identities are shaped early through everyday interactions, experiences and opportunities (Macdonald, 2025). Yet subtle bias and deficit discourses can influence who is positioned as capable, confident or "good at maths." This workshop explores mathematics as a relational and social justice orientated practice, connecting theory from anti-bias education approaches and early mathematical development, with practical strategies for teaching (Scarlet, 2020). Participants will engage in reflective provocations and practice-based examples that illuminate how meaningful interactions, thoughtful language and program design shape belonging. Participants will learn to strengthen inclusive mathematical dialogue, disrupt bias in everyday moments, and intentionally position all children as capable mathematical thinkers.

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- *Maps From Anna To Zane* (K-3: mapping, measurement, scale)
- *100 Dogs* (K-3: number)
- *Emma's Big Counting* (K-4: number, algebra)
- *How Many Legs?* (F-4: number)
- *One Hundred Hungry Ants* (F-4: number)
- *The Escape* (F-4: number, algebra, shape)
- *Remainder of One* (F-5: number, algebra, measurement)
- *Camilla, Cartographer* (2-6: measurement, Shape)
- *If The World Were 100 People* (2-6: number, measurement, statistics)
- *The King's Chessboard* (2-6: number)
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$219.20 (MEMBER)
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EMMA BOOK SET

K-4

Each book has been designed to support students' understanding of number sense, counting, partitioning, place value, fractions, multiplicative thinking and patterns!

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$102.10 (MEMBER)
$127.60 (NON MEMBER)

PERFECT SQUARE

K-6

Michael Hall inspires creativity and resilience in this strikingly illustrated picture book starring a brightly colored square. *Perfect Square* is the perfect choice for teaching kids to think outside the box! Young readers will learn days of the week and colors of the rainbow, as well as emotional resilience.

$21.15 (MEMBER)
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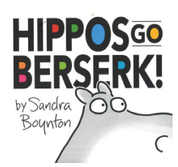

HIPPOS GO BESERK!

K-3

The story begins quite simply, with no hint of the chaos ahead: One hippo, all alone, calls two hippos on the phone... Exuberant hippopotamus guests show up in ever-increasing numbers, until an all-night party is inevitable.

$25.35 (MEMBER)
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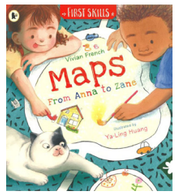

MAPS FROM ANNA TO ZANE

K-3

A whimsical story about learning to use maps, perfect for very young children.One day, Anna's friend Zane sends her an invitation: Come to tea tomorrow! This is the way to my home. Love, Zane. Inside the envelope, there's a map. Anna soon decides to make a map of her own, too ... and before long, Dad and even Whiskers the cat are in on the fun. From routes to symbols, point of view and scale, join Anna and her dad as they explore the wonderful world of maps.

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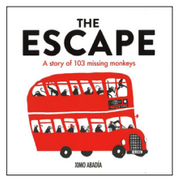

THE ESCAPE

K-2

A story of 103 missing monkeys, a monkey counting adventure. In this bold and clever counting adventure, look closely to find all of the missing monkeys. It gets trickier, as the number of monkeys to spot on each page keeps getting bigger.

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SESSION C: Thursday, 1.30pm-2.25pm

ECC1 DYNAMIC ASSESSMENT OF YOUNG CHILDREN'S EARLY NUMERICAL ABILITIES

Nathalie Parry

Standardised tests may not fully capture children's emerging numerical abilities. Dynamic assessment integrates instruction with assessment to measure learning potential, providing educators with information to identify and support numerical development. This session aims to describe a structured dynamic assessment approach for early numeracy that supplements standardised, unassisted measures, through graduated prompts. Our study evaluated this approach with 58 preschoolers using a well-known standardised assessment and eight purposefully designed tasks. Findings demonstrate that:

1. young children's numerical abilities are assessable using dynamic assessment
2. children show problem-solving gains following support
3. different numerical tasks require different amounts of support. Participants will explore a practical, research-based example of graduated prompts that educators can implement in the mathematics classroom to address specific learning needs.

ECC2 BRINGING NUMERACY INTENTIONALLY INTO PLAY

Brent Brickhill, Christina O'Neill, Paul Strain

We will explore ways to developmentally introduce numeracy concepts through a combination of provocations and learner interests. A spotlight will be shone on how you can use mat time, intentional learning centres and guided play to support early learners mathematical understanding. We will explore how early curriculum concepts can be incorporated through intentional play-based learning and linked to planning and observations. Finally we will talk about ways to support educators to further develop their numeracy practices.

SESSION D: Thursday, 2.30pm-3.30pm

ECD2 USING THE AERO EARLY CHILDHOOD LEARNING TRAJECTORIES IN PRACTICE

Emma Ross and Professor Nicola Yelland

This workshop explores how STEM Learning Ecologies support deep mathematical understanding by connecting theory, practice, and place. Drawing on early years classroom examples, participants will examine how children apply mathematical ideas such as measurement, comparison, prediction, and data reasoning through authentic STEM challenges linked to their local environments. Using practical vignettes, the session illustrates how learning experiences that honour materials, movement, and cultural knowledge, including First Nations engineering, support the transfer of mathematical understanding beyond isolated lessons. The workshop highlights how intentional teaching and responsive facilitation strengthen conceptual understanding. Participants will explore design principles that bridge theory and practice, supporting mathematics teaching that is meaningful, place-responsive, and culturally grounded, while building professional knowledge that is practical, reflective, and enduring.

THE MATHEMATICAL ASSOCIATION OF VICTORIA

SPEAKERS

BRENT BRICKHILL

As Brighton Grammar's Numeracy Leader (ELC - Year 6), Brent Brickhill promotes enhanced teaching practice through workshops, coaching and classroom support. He utilises assessments and observations to inform teaching approaches, guides teachers in planning and oversees ELC and Primary curriculum documentation. Brent enjoys providing weekly numeracy mat sessions to three- and four-year-old learners as well as mathematics intervention support to primary-aged learners.

JILL BROWN

Jill is internationally recognised for her research in the field of mathematics education. She has an impressive list of publications that focus on mathematical modelling, the teaching and learning of functions, and the use of digital technologies by teachers and students. Her interests include researching the teaching, learning and assessing of real world applications and mathematical modelling, mathematical thinking and reasoning, functions in technology-rich environments, affordances, zone theory, and anything that furthers our understanding of teaching and learning mathematics.

SCOTT CAMERON

Dr Scott Cameron is a senior lecturer in mathematics education at the University of Melbourne. He teaches mathematics education subjects and is dedicated to enhancing pre-service teachers' pedagogical content knowledge to prepare them for effective classroom practice. Dr Cameron's PhD research investigated senior secondary students' use of computer algebra systems, exploring their attitudes, usage patterns, and influencing factors. Using a longitudinal mixed methods case study, his work provides valuable insights for integrating technology into mathematics teaching. Building on this foundation, he now examines the impact of emerging technologies, including mathematics analysis software and AI, on mathematics teaching and learning, reflecting his commitment to innovation in mathematics education.

KATHERINE CANOBI

Katherine Canobi is a research fellow in the REEaCh (Research in Effective Education in Early Childhood) Centre in the Faculty of Education, The University of Melbourne. Her research interests include: teaching and learning early mathematics; young children's mathematical development; and relations between concepts and skills in early numeracy and literacy.

CAROLINE COHRSSEN

Caroline Cohrssen is Professor of Early Childhood Education and Deputy Head, School of Education at the University of New England. Her research is underpinned by a systems approach and focuses on teaching and learning in the prior-to-school years: the home learning environment and early childhood education settings. She is also interested in learning trajectories and school readiness, as well as pre- and in-service teacher education.

KATE COPPING

Kate Copping is a researcher in primary and early childhood mathematics education. Her PhD research explores how primary mathematics leadership is conceptualised, experienced, and enacted within schools by the primary mathematics leader and those with whom they work. This qualitative research positions primary mathematics leaders as middle leaders, working with both school leaders and teachers. It aims to better understand the role of primary mathematics leaders to inform school policy and decision making. In addition to her PhD, Kate's research focuses on the teaching and learning of mathematics in the primary education sector. This includes teacher professional learning, assessment and the use of teaching strategies which build understanding in primary mathematics education. This research aims to support the development of educators in building student engagement and understanding in mathematics. Kate is also a lecturer in primary and early childhood mathematics, with many years of experience teaching in primary schools in Victoria, NSW, and the United States. She is a member of the RiMEA11 (Research in Mathematics Education Australasia 2020-2023) editorial team. Kate has been an item writer for NAPLAN and is vice president of MAV.

ELLEN COROVIC

Ellen Corovic is a dedicated and passionate educator who thrives on collaboration with students, teachers, and educational institutions. As a teacher, school leader and now education consultant and researcher, she works to build individual and collective efficacy as well as teacher capacity in mathematics. Ellen has extensive experience as an education consulting, including ten-years based at The Mathematical Association of Victoria. She completed a Master of Instructional Leadership at the University of Melbourne in 2019 before commencing a PhD at Monash University in 2021. The focus of her current research is factors that influence teacher practice change. Ellen continues to support schools through coaching, advice, and support. Ellen enjoys supporting teachers to find the beauty, fun and love of both mathematics, and teaching.

MELISSA DANN

Melissa is an experienced coach and teacher with over 20 years' experience blending strong theory with practical teacing strategies. Melissa is known for her relational leadership, professional courage, and passion for joyful, reflective teaching.

PAUL DOBNEY

Paul is a Learning Specialist/Primary teacher and currently working as the Senior Project Advisor in the Numeracy, STEM Education Unit.

EMMA DOYLE

Emma Doyle is a Leading Teacher at Wooranna Park Primary School, where she leads whole school Curriculum (Numeracy). She has over ten years experience as a Numeracy Leader in different school settings. Emma has teaching experience across all primary year levels and has held leadership roles in diverse school communities, leading whole school improvement through evidence informed practice. She is passionate about building teacher capability to design inclusive, engaging mathematics learning where every student can thrive. Emma has been featured in the Numeracy Leader's Corner of the *Prime Number* journal. She has completed the Unlocking Potential: Principal Preparation, including a Principal Internship, and is currently participating in the Primary Mathematics and Science Specialist Initiative. Beyond her school, she contributes to system wide improvement through mentoring, delivering professional learning and participation in Numeracy Communities of Practice.

DANJIELA DRASKOVIC

Danijela is an Education Manager at the Mathematical Association of Victoria (MAV), where she leads major statewide initiatives including the Victorian Coding Challenge, Build Me Up, VCE Revision Program, Maths Talent Quest, and professional learning across secondary school mathematics. Before joining MAV, Danijela taught mathematics and physics at secondary schools in Australia and the UK. Danijela also worked as an accredited Texas Instruments trainer, and contributed to authoring mathematics textbooks. She is passionate about helping teachers uncover and address student misconceptions, the key barrier to mathematical success, and about making mathematics both meaningful and accessible for every learner. As a mother of two young boys, Danijela is particularly interested in how strong primary–secondary connections shape students' long-term mathematical confidence and curiosity.

ELEANOR DRAYTON

Eleanor is passionate about mathematics teaching and learning and driving improvements in student engagement and outcomes. She believes that everyone has the capacity to feel success and raises aspirations for mathematics in the secondary context and promotes pathways for VCE mathematics. Eleanor has over 10 years' experience teaching with a Master of Education in Professional Practice. She teaches at Hume Central Secondary College and is a Victorian Mathematics Ambassador.

ANGUS FONSTIN

Angus Fonstin is the Director of Student Voice, Innovation and Positive Climate at Lalor North Secondary College. Angus has extensive experience in School leadership and STEAM education across a variety of contexts including Independent, Government, and Juvenile prison settings.

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SPEAKERS

EMMA FORSYTH

Originally from Aotearoa, NZ, Emma has been teaching and leading in ECE settings for over 15 years. Emma's philosophy is anchored in relational pedagogy, with a love for translating research into play-based practice that supports teacher capabilities and ultimately children's love for learning.

SUE GARNER

Sue Garner is a retired mathematics teacher after 30 years. In her secondary teaching career, she has taught Mathematical Methods and Specialist Mathematics, Pure and Applied Mathematics at VCE, as well as mathematics in years 7-12. Sue has variously been Head of Mathematics and Lead Teacher at a number of schools within Victoria and abroad. Sue has lectured in mathematics education at the University of Melbourne, La Trobe University, Bendigo, and at both ACU Aquinas and Federation University in Ballarat. Sue holds two Master's degrees: one in Mathematics Education (Deakin University) and the other in History at UNE, Armidale. She has published maths textbooks, worked with VCAA in SAC audits, and assessed VCE examinations for many years. Sue was invited to trial CAS symbolic calculators as part of Melbourne University's CAS-CAT Project from 2000-2002. Sue has published papers and presented at conferences about CAS integration into the maths classroom.

SARA GAUL-MCKEE

Dr Sara Gaul-McKee completed her Doctor of Education at the University of Melbourne, with a focus on building teacher capacity in mathematics. Sara has held various positions in P-9 schools, including as a leading teacher of mathematics from Prep - 9, Assistant Principal of Curriculum, Deputy Principal, and Principal. She has also led a Network Mathematics Community of Practice, where she worked with mathematics leaders and teachers from a network of schools with a focus on building teacher capacity. Sara currently convenes Primary Mathematics Units at Victoria University and is the course chair of the Bachelor of Education (P-12) course. Sara is passionate about making mathematics learning engaging for teachers and students.

EMILY GLEN

Emily believes that all learners can succeed in mathematics with the right support and encouragement and all teachers are capable of delivering quality content. She aims to build confidence and inspire innovative approaches to teaching and learning. Emily has over 10 years' experience teaching, with 9 years in mathematics leadership. Emily teaches at St Kilda Park Primary School and is a Victorian Mathematics Ambassador.

STEVEN GOLDBERG

Steven Goldberg is the Manager - Implementation, Victorian Lesson Plans, DE. Steven leads the implementation of VLPs in Victorian government schools and is a practicing secondary mathematics teacher at Prahran High School, where he has taught since 2019.

SHEILA GRIFFIN

Sheila Griffin, an accomplished and highly awarded primary teacher, was recognised at the prestigious CHOOSEMATHS awards for Outstanding Primary Teacher of the Year by the Australian Mathematical Sciences Institute (AMSI). She established Sheila Griffin Maths. As an independent Primary Mathematics Consultant in Western Australia, Sheila delivers customised, face-to-face professional learning sessions for educators, catering to the unique needs of each school. Sheila has collaborated with Dr Paul Swan and other contributors on the *Teaching Mathematics Through Story Books* series and has regularly presented at the MAV and MAWA.

CRISTINA GUARRELLA

Dr Cristina Guarrella is a Melbourne Postdoctoral Fellow in the Faculty of Education at The University of Melbourne. Her research explores teacher practice at the intersection of STEM and early years education. Aiming to contribute to the quality of assessment practice, Cristina's postdoctoral research applies a bridging approach to support teachers to embed learning progressions that articulate children's knowledge and skills in science and engineering. Cristina's ongoing research interests include early childhood and primary STEM education, science outreach and AI literacy.

SAM HABERMAN

Sam supports the development and implementation of the Victorian Lesson Plans, most recently leading development in secondary mathematics. Sam is an experienced mathematics and science teacher, most recently teaching at Elevation Secondary College, where whole-school curriculum and explicit teaching is core to the instructional approach.

PATRICK KENNEDY

Patrick Kennedy (Our Lady Star of the Sea Ocean Grove, Victorian Mathematics Ambassador) is committed to ensuring every student builds a strong foundation in mathematics through high-quality, tailored instruction. His approach centres on creating supportive, inclusive classrooms where learners develop confidence, proficiency, and reduced anxiety in numeracy. With 10 years' experience as a teacher and learning specialist, and a Master's in Wellbeing, Patrick brings deep expertise in boosting student engagement and aspirations.

VANESSA KUKIELKA

Vanessa brings extensive experience in specialist school settings and focuses on numeracy assessment and intervention for students with diverse learning needs, particularly students with intellectual disability.

JESS KURZMAN

Jess Kurzman is the Mathematics Leader and Learning and Teaching Leader at St Patrick's Primary School in Kilmore. With over 20 years of teaching experience, including more than 15 years in mathematics leadership, she is dedicated to improving classroom practice and fostering a culture of deep mathematical thinking and learning. Holding a Master of Education in Mathematics Leadership from Monash University, Jess is passionate about driving whole-school change and empowering educators to elevate student learning. Beyond her work at St Patrick's, Jess is a board director at the Mathematical Association of Victoria and an experienced consultant. She works closely with schools to implement research-informed best practices, supporting educators in strengthening their mathematics instruction.

RENEE LADNER

Renee is an experienced educator and primary education consultant with the Mathematical Association of Victoria, bringing over fifteen years of experience across primary education. She has served as a Numeracy Leader and Deputy Principal and holds a Masters in Mathematical Leadership. Her research, titled How do challenging tasks affect student motivation?, explored how supportive and intellectually demanding mathematics environments strengthen students' intrinsic motivation and wellbeing. This work informed her approach to leading whole-school improvement in mathematics teaching and learning. At MAV, Renee has partnered with numerous schools across Melbourne, supporting diverse communities through professional learning, planning, coaching and classroom modelling. She is committed to creating rich, inclusive learning experiences that meet students at varied levels of proficiency. Grounded in research, collaboration and strong relationships, she focuses on building teacher and leader confidence in mathematical content and pedagogical knowledge.

ANTJE LEIGH-LANCASTER

Antje is an education consultant and partner at Leigh-Lancaster Consulting. She has over 25 years' experience supporting schools through professional learning, curriculum implementation, and initiatives that enhance student engagement and mathematical understanding. She believes building teachers' collective mathematical knowledge within a school is core to improving student outcomes and sees team and whole-school collaborative planning as an effective vehicle for achieving this. Antje has an interest in developing practical classroom approaches that strengthen retention and retrieval of learning, deepen understanding, and support problem-solving. She sees retrieval practice as an opportunity not only to build fluency, but also to continue learning and deepen students' understanding. In 2025, Leigh-Lancaster Consulting partnered with MAV to deliver the Academy Leading Mathematics program, supporting educators to lead mathematics improvement across their schools.

DAVID LEIGH-LANCASTER

Dr David Leigh-Lancaster is an Education Consultant and Partner at Leigh-Lancaster Consulting. He is a mathematics educator with over 40 years of experience working with students, teachers, schools, and education systems. From 1998 to 2021, he served as Mathematics Manager at the

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VCAA, leading curriculum and assessment reforms, including the introduction of CAS in senior secondary mathematics. David works closely with educators to strengthen alignment between mathematics curriculum, assessment and pedagogy to enhance student learning - unpacking key ideas through engaging activities that make mathematical structure visible and foster reasoning, exploration, and application. He has a strong interest in the future of mathematics education and moving school mathematics forward to remain both relevant and forward-looking, with a particular focus on exploring the evolving roles and potential synergy for CAS, computational thinking, and artificial intelligence.

DI LIDDELL

Di Liddell is an Education Manager at MAV, where she partners with schools to build professional learning communities that strengthen teachers' confidence, capability, and passion for mathematics education. Her work contributes meaningfully to improving teaching practice and enhancing learning experiences across the state. With more than twenty years of experience across State, Catholic, and Independent schools, both in Australia and overseas, Di is a highly experienced educator and leader. She has played a key role in the successful delivery of numerous educational initiatives, including the co-design and development of the Middle Years Maths Challenges and F–4 Learning Sequences, the establishment of MAV's Early Childhood membership stream, and the design and creation of the annual Melbourne Mathematics Conference.

EAMON LIGHT

Eamon Light is a dedicated mathematics educator with 20 years of experience across primary schools and universities. He supports both preservice and inservice teachers to build confidence and competence in teaching mathematics. Eamon believes that critical, creative and independent thinking should be nurtured from an early age. He champions strong classroom culture and the development of positive mathematical dispositions as foundations for meaningful learning, using real-world contexts to make mathematics relevant and accessible. Eamon prioritises thoughtful pedagogy, teacher agency and mathematical reasoning to help students, not only understand concepts, but also develop curiosity and engagement. Eamon continually explores and refines innovative strategies, equipping educators with practical tools to navigate the evolving landscape of mathematics education.

MICHAEL MACNEILL

Michael MacNeill (BSc, BE Hons, M Ed. Leadership) is the Curriculum Manager and subject matter expert for Mathematics F-10 and VCE for the VCAA.
With a background in neuroscience, astrophysics, mechanical and biomedical engineering, he has sought the application of mathematics across disparate areas of investigation and more importantly how the process of learning and applying maths can be demystified. Michael has accrued 20 years in the classroom teaching VCE Mathematics and Physics, as well as mathematics and science at all levels in the secondary context, most of that time leading faculties and whole schools within roles including Head of Science, Head of Numeracy, Head of Mathematics and Head of Senior Mathematics.

PARIAN MADANIPOUR

Parian Madanipour is a Doctoral Candidate in the School of Education and Professional Studies at Griffith University. Throughout her career, Parian has worked extensively in research and teaching. Her doctoral studies explore how early childhood teachers facilitate the development of executive functions in everyday preschool environments, offering insights that bridge theoretical frameworks with practical applications.

MAYAMIKO MALOLA

Mayamiko Malola is a Lecturer in STEM and Mathematics Education at Charles Sturt University. His research focuses on the development of the concept of multiplicative thinking in students in the primary and junior secondary school, and the intersection of STEM disciplines. He worked for the Victorian Department of Education as a mathematics teacher.

JILL MARR

Jill Marr is an experienced educator with 34 years of teaching across the UK, UAE and Australia. Throughout her career, she has worked as a classroom teacher, Mathematics Leader and Number Intervention teacher, developing a deep understanding of how children learn mathematics across diverse settings and cultures.

Jill is particularly passionate about building strong number foundations in the early years, working with learners from Prep to Year 2 to ensure they develop the confidence, understanding and flexibility needed for future success in mathematics. She believes that when young students experience mathematics as meaningful, hands-on and connected to prior knowledge, they are better equipped to extend their mathematical thinking into upper primary, secondary schooling and beyond. Her work focuses on practical, research-informed approaches that empower teachers to make mathematics engaging, accessible and purposeful for all learners.

MELODY MCCORMICK

Melody is the Strategic Advisor for Mathematics Improvement in the Curriculum and Teaching Practice Division. She develops and implements strategic policy and provides system-level advice to support mathematics improvement across Victorian schools. Melody collaborates across Department branches and divisions to identify and coordinate system-wide actions for mathematics improvement, including the development of guidance and resources to support schools.

MICHAEL MINAS

Michael Minas is the director of Love Maths (www.lovemaths.me), an educational consulting organisation based in Melbourne, Australia. He has worked in education for over 25 years and his areas of interest include problem solving and student engagement. Michael's YouTube channel features 100 videos of engaging maths games and has attracted over a million views from educators from across the globe. In 2018, Michael's ability to shape learning was recognised when he won a CHOOSEMATHS Teaching Excellence Award. He presents at conferences both within Australia and internationally and also provides consultancy services to a range of schools and organisations. Michael was the editor of *Prime Number* and is a contributing author for the Open Middle and Maths300 websites. He is also the author of *Understanding and Teaching Primary Mathematics in Australia* and *The Curse: The Colorful & Chaotic History of the LA Clippers.*

JAMES MOTT

James is a VCE Specialist Maths Teacher at the Centre for Higher Education. He is also a TI National Trainer, VCAA assessor, MAV Professional Learning committee member, and MAV Specialist Maths SAC writer. He has presented at local and international conferences on using TI CAS technology to support student learning. James is passionate about sharing and learning pedagogical practices with fellow mathematics educators. He completed a Master of Education at the University of Melbourne, including a year-long research project that explored features supporting generalising within a CAS and paper-and-pencil mathematical investigation, and synthesised these into a framework to guide task design.

MIKE NELSON

Mike brings over a decade of experience, both as a classroom teacher and learning specialist. He has designed, implemented and assessed tailored programs for Tier 2 and Tier 3 intervention both for his classroom as well as school wide. Mike has worked as part of Learning Specialist and is an experienced writer, he was a part of the Victorian Lesson Plan writing process for both Maths and Science. Additionally, Mike has written for ReSolve and Education Perfect. Mike has presented on mathematics education at the AAMT conference and MAT, MAWA, QMAT and MAV state conferences. He has also been published in Prime Number and Common Denominator (Vic), Teaching Mathematics (QLD) and Mathematics Teaching (UK). Mike has collaborated with Dr Paul Swan to create engaging resources. Mike graduated from the Teacher Excellence Program in 2025.

STEPHANIE NITSCHKE

Stephanie Nitschke (Nazareth Catholic School Grovedale, Victorian Mathematics Ambassador) is passionate about mathematics education, inspiring curiosity and excitement in her students. She creates engaging, dynamic lessons that make mathematics accessible and enjoyable, motivating both learners and educators to pursue their goals. With over 10 years' experience and a Master of Education in Mathematics Leadership, Stephanie brings expertise in fostering confidence, engagement, and a love of learning in mathematics.

CHRISTINA O'NEIL

Christina O'Neill is an Early Childhood and Primary-trained teacher who currently works in the three-year-old room at Brighton Grammar's Early Learning Centre. She collaborates with her team to plan, implement and document intentional play and child-centred learning experiences.

SPEAKERS

Christina has been part of the Brighton Grammar team since 2018, where passion, accountability and respect are fundamental to the instructional approach.

KATHY O'SULLIVAN

Dr Kathy O'Sullivan is a leading expert in the field of numeracy education, and holds a PhD in Numeracy across the Curriculum. With a background in secondary-school mathematics teaching, her research focuses on numeracy across the curriculum and teacher professional learning. Kathy has made significant contributions to advancing the understanding of numeracy across the curriculum and is passionate about supporting teachers' disciplinary numeracy development.

NATHALIE PARRY

Nathalie is a learning intervention specialist and lecturer in the Learning Intervention Team at the University of Melbourne. She is a joint PhD candidate at the University of Melbourne, Australia and Katholieke Universiteit Leuven, Belgium, studying young children's mathematical abilities as they transition from informal to formal schooling. Nathalie's expertise includes assessing literacy and numeracy knowledge and skills and designing instructional strategies that meet key goals. Her work guides teachers to implement evidence-based assessment and intervention practices (to support growth) for all learners.

CATHERINE PEARN

Dr Catherine Pearn is a lecturer in mathematics education at The University of Melbourne. She has taught in the Master of Teaching programs across all levels – Early Childhood, Primary and Secondary. Cath has provided professional development for teachers and educators nationally and internationally. She is particularly interested in the identification and assistance for all students who are mathematically 'at risk' of not meeting national minimum standards as well as those who are not achieving their mathematical potential. Cath developed Mathematics Intervention, a program for Year 1 students mathematically 'at risk' and was one of the two researchers who developed the South Australian Learning+ an online mathematics tutoring program for students from Years 6 – 9. Her PhD investigated the links between fractional competence and algebraic reasoning of middle-years students.

SARAH PINDER

Sarah Pinder is a Learning Specialist and Numeracy Leader at Derrimut Primary School, where she works alongside teachers to strengthen mathematics practice across the school. With over 10 years in primary classrooms and a Master of Instructional Leadership from the University of Melbourne, Sarah is passionate about turning research into reality by continually inquiring into her own practice to understand what truly makes a difference. She knows great leadership in numeracy isn't about being the 'expert' in the room, but about focusing on what genuinely shifts engagement and practice in the classroom through building collective efficacy, being willing to take risks and learning out loud to foster confidence and excitement for the teaching and learning of mathematics.

CATHERINE RODGERS (EPSTEIN)

Cathy is a consultant with the Mathematical Association of Victoria and the current Mathematics Coordinator at Camberwell Grammar Junior School. She also runs her own mathematics consultancy business. Cathy is passionate about developing divergent thinkers by encouraging students to solve problems collaboratively and make meaningful connections. With over 20 years of experience, she has built a rich collection of tried-and-tested tasks, games, and learning sequences grounded in the Big Ideas in Mathematics. These resources span all strands, are easily differentiated, and foster a classroom culture of curious, confident mathematicians.

ANGE ROGERS

Dr Ange Rogers is an experienced primary school teacher, numeracy leader and maths education consultant. Ange is a passionate presenter who regularly facilitates Professional Development for teachers across Australia. In 2014 she completed her PhD in Mathematics Education focusing on the assessment and teaching of place value. She has a special interest in dyscalculia and learning difficulties in mathematics, and loves connecting research and practice. Ange has an online mentoring and professional development platform called the Numeracy Teachers Academy, and has developed the Number Fluency Program which is running in over 130 schools across Australia. Ange has four children who keep her busy and loves to promote a love of maths through her social media account @numberdoctors.

MICHAEL ROSENBROCK

Michael is an experienced and passionate educational leader, education consultant and a teacher of mathematics and science. He has over a decade experience teaching and leading in schools. Michael has worked as a specialist teacher forVCAA and was a Content Specialist at Evidence for Learning (E4L). He works with systems, networks, school leaders and teachers – supporting the translation of research evidence into practice. Michael is regularly called upon to provide subject matter expertise – particularly in the areas of implementation in schools, teaching and learning and curriculum. Michael is a determined advocate for those experiencing socio-economic disadvantage and for students in rural, regional and remote settings. Prior to working in education, Michael worked in the aerospace, automotive and software industries in Germany, the USA and Australia.

EMMA ROSS

Emma Ross is an education consultant and curriculum writer specialising in early childhood and primary STEM education. She has worked as a teacher, leader and consultant across urban schools and remote Aboriginal communities. Her Master's research explored how collaboration, creativity and critical thinking develop in early STEM learning. Emma designs curriculum-aligned learning and delivers professional learning that supports meaningful, accessible and culturally responsive, hands-on STEM experiences.

JUSTINE SAKURAI

Justine Sakurai is an educator with nearly three decades of experience in mathematics education across school teaching, university lecturing, educational research, and curriculum development. As a Lecturer at the University of Melbourne's Faculty of Education, she teaches in the Master of Teaching and Master of Education programs, specialising in Mathematics and Curriculum Education. Her leadership has been demonstrated through major Department of Education projects, including Embedding Numeracy Across Secondary Disciplines (7-10) and the Master Trainer and Local Leader/ Numeracy Pedagogy and Practice initiatives. Justine serves as Editor of Vinculum, MAV's secondary education journal, and has contributed extensively to the Victorian Curriculum and Assessment Authority. Her work encompasses VCE Mathematics and VM Numeracy study designs, curriculum and assessment development, resource creation, and international benchmarking reports.

DARIUS SAMOJLOWICZ

Darius Samojlowicz is the Executive Officer of the Mathematical Association of New South Wales, where he leads organisational strategy and supports mathematics education across the state. With over a decade of experience designing and delivering professional learning nationally and internationally, he has a strong track record in developing leadership capability and supporting school improvement. Darius specialises in empowering middle leaders — the critical bridge between vision and implementation — to lead with clarity, confidence and purpose. He brings deep experience in leadership coaching, professional learning design and building high-performing teams, helping educators strengthen their identity as leaders and focus on the work that matters most.

CARLY SAWATZKI

Dr Carly Sawatzki is a teacher educator and educational researcher in Deakin University's School of Education. She has more than 15 years' experience working with preservice and practising teachers (including out-of-field and non-specialist teachers of mathematics) across primary and secondary courses. Carly's work is distinctly "real world" and aims to gently influence the way teachers think about educating young people for active and informed citizenship. She is internationally recognised for her classroom research which explores how young people develop numeracy and financial capability within families, communities, and schools. Carly has led research and curriculum consultancies for Australian, State and Territory education authorities. She is a thought-provoking presenter who draws on educational research to challenge thinking, promote critical conversation, and inspire innovation. To find out more, go to www.carlysawatzki.com

FERRUCCIO SERVELLO

Since becoming Head of Mathematics and Numeracy and pedagogical coach at Ave Maria College, Ferruccio has led the development of a dedicated Instructional Model

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for mathematics teaching across Years 7–12. In 2024, he completed the MACS Teach-Well program, further strengthening his expertise in evidence-informed practice. The following year, he contributed to the College's Annual Action Plan, integrating the new Instructional Model with whole-school approaches to numeracy and literacy. His work continues to focus on building teacher clarity and supporting high-impact instruction through four key components: Review and focus questions, explicit skill instruction, pndependent practice, and hinge-question review.

MATT SEXTON

Dr Matt Sexton (PhD, MEd, BA, BTeach) is the Director of the Mathematics Teaching and Learning Centre (MTLC), a Mathematics Education Lecturer, and the Enterprise Manager for the Faculty of Education and Arts (FEA). Matt joined ACU in 2010, working with pre-service teachers in mathematics education, where he has since received four Executive Dean commendations for teaching excellence, and in 2023, received the FEA Excellence in Teaching Award for outstanding teaching.

Since taking over as MTLC Director in 2018, Matt has generated approx. $430,000 of revenue for the MTLC, supported by grants and other professional learning project funds. With his focus on building relationships through school-university-industry partnerships, Matt works with school communities and education sectors, often teaching mathematics lessons in schools, working with classroom teachers and mathematics leaders. He engages in research concerning mathematics leadership activity and provides leadership professional development focusing on improving school mathematics.

SOPHIE SPECJAL

Dr Sophie Specjal is passionate and determined to translate educational research into educational settings. She is the podcast host for the University of Melbourne's Taking Teaching for the Faculty of Education. She founded Language of Learning and is an educational consultant working with schools globally. Sophie recently completed a PhD at the University of Melbourne as part of the Science of Learning and Research Centre with Laurette Professor John Hattie. Sophie's research focussed on the science of talk and the language used in the classroom (both teacher and students) to create meaningful interactions that promote deep-level thinking, questioning and understanding.

PAUL STANISCIA

Paul Staniscia is the Head of Primary at Southern Cross Grammar in Melbourne, Australia. With a Master's in Educational Leadership and working as a leader across multiple schools and sectors, Paul has held roles including Acting Principal, Deputy Principal, and Curriculum Leader. His work is grounded in evidence-based teaching and a passion for mathematics education. He serves on the doard of directors MAV and is a board member at Education 360. He is also an editorial board member for ACEL, where he contributes to leadership in teaching and school improvement. In recognition of his contributions, Paul was awarded the 2019 ACEL New Voice in School Leadership Scholarship and a 2023 ACEL Fellowship. Paul has presented at educational conferences in Australia, Singapore and the United States. He has worked as a consultant across all sectors of education and has written articles for multiple publications, including MAV's *Prime Number* journal. Paul also mentors future educators as a sessional academic, guiding pre-service teachers.

PAUL STRAIN

Paul Strain, Deputy Director and Pre-Prep teacher at Brighton Grammar's Early Learning Centre, has experience as both an Early Childhood and Primary teacher. He currently works as a member of the four-year-old teaching team, planning collaboratively with clear intentions and reflective practice. Paul includes learners' interests as he develops intentional play experiences and leads focused mat time discussions. He also works closely with other educators to provide clear routines and hands-on activities.

MAREK TESAR

Professor Marek Tesar FPESA is the Dean of the Faculty of Education at the University of Melbourne. He previously served as Head of School, Associate Dean, and Director of the Centre for Global Childhoods in the Faculty of Education and Social Work at the University of Auckland, Aotearoa New Zealand. His scholarship focuses on the philosophy of education, early childhood education, and childhood studies. He is the recipient of the Bloch Distinguished Career Award from Reconceptualising Early Childhood Education and is a Fellow and Past President of the Philosophy of Education Society of Australasia. He is also editor-in-chief of two seminal journals in his field: Educational Philosophy and Theory (Taylor & Francis) and Policy Futures in Education (Sage).

KELLY TESZISE

Dr K is a researcher in the Learning Intervention team at the University of Melbourne. She leads interdisciplinary research that bridges education, psychology, and technology. She has served as Director of R&D at a US EdTech company and has held academic positions in Australia, the US, and the UK. Her work examines learning, cognition, and emotion, contributing to educational software design, theories of cognition–emotion interaction, and understanding of mathematics learning and anxiety. Grounded in real classroom contexts, particularly in mathematics education, her research is driven by a commitment to translating evidence into inclusive teaching strategies that support student learning and well-being, especially for marginalised communities and learners experiencing gaps in their education.

REBECCA WAINGOLD

Rebecca is an experienced kindergarten teacher who leads with care, curiosity and determination, fostering joyful, inclusive programs. Passionate about belonging and children's rights, Rebecca challenges barriers to inclusion, embraces reflective practice, and supports her team to grow with confidence through change and complexity.

KIM WALKER

Kim Walker is an experienced mathematics teacher, who has taught in Victorian schools for over 20 years. Her areas of interest include mathematical wellbeing, student engagement and problem solving in mathematics. Kim holds an MBA and has previously been a Head of Mathematics and VCAA Assessor. In 2022, Kim participated in the Victorian Academy of Teaching and Leadership inaugural Teaching Excellence Program and was awarded a Teaching Innovation Fellowship in 2024. She has presented at MAV's annual conference and in 2025 presented a research paper at the Mathematics Education Research Group of Australasia (MERGA47) conference in Canberra, titled Enhancing Mathematical Wellbeing with Pedagogy. In 2026, Kim joined the Academy as an expert teacher in residence.

GAYE WILLIAMS

Gaye Williams (Honorary Senior Fellow, Faculty of Education, University of Melbourne) worked as a teacher, provider of professional learning and researcher in primary and secondary settings. Her research foci include designing problem-solving tasks that engage, developing contexts that promote creative mathematical thinking, and evaluating STEM projects.

NICOLA YELLAND

Nicola Yelland is Professor of Early Childhood Studies at the University of Melbourne and Director of the Global Childhoods Research Hub. She has worked as an academic leader and researcher in Australia and East Asia. Her research focuses on transformative pedagogies, digital technologies, and culture and curriculum. Nicola connects research and practice to support educators working across diverse social, economic and political contexts.

TIANJIAO ZHANG

Tianjiao Zhang is a student in the Master of Education program at the University of Melbourne. She has completed a Master of Teaching (Early childhood) at Adelaide University with 80 days of professional placement. Through her teaching and learning experiences, she noticed diverse perceptions of children's mathematics learning among educators and families, especially in early childhood settings where learning often occurs in informal and spontaneous ways. Having personally experienced mathematics anxiety, she became interested in understanding mathematics anxiety among early childhood educators.

NATASHA ZIEBELL

Dr Natasha Ziebell is an Associate Professor of Teacher Education at the Faculty of Education, University of Melbourne. The primary purpose of her work is to advance inclusion, equity, and impact for all students through curriculum innovation, research, and leadership. Natasha began her career as a kindergarten director and primary school teacher 25 years ago, before transitioning to academia. She has led research and co-designed educational initiatives with government departments and schools, supporting innovation in curriculum and assessment . Central to her work is generating new knowledge on how continuity of learning, and the alignment of curriculum and assessment, can promote equitable educational experiences across diverse contexts.

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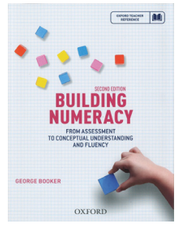

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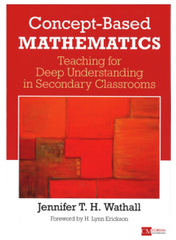

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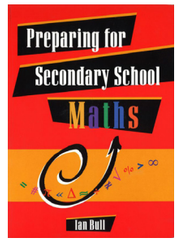

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