THE MATHEMATICAL ASSOCIATION OF VICTORIA

THE UNIVERSITY OF MELBOURNE

2022 Primary Mathematics Education Conference

Join us for either or both days

The Mathematical Association of Victoria (MAV) in collaboration with the Melbourne Graduate School of Education's Mathematics, Science, and Technology Education Group (MSTEG) present a conference focusing on primary school mathematics education.

QUALITY TEACHING

Evidence shows that quality teaching including teacher capability and confidence are key to student learning success. Quality teaching requires many things for educators to be at their best. These include developing personal attributes such as resilience, self-efficacy, and a willingness to learn. Leading educators also require strong content knowledge, and a deep understanding of pedagogy relevant to student cohorts at various levels from early to upper primary.

Excellence in teaching and learning also requires educators to build practice excellence using evidence to measure effectiveness and impact. Join us to develop your own capability and confidence as a mathematics educator and leader, exploring evidence for quality teaching, as we arm you with the tools and knowledge to provide the best student learning experience and outcomes.

Day 1: For Leaders

Thursday 9 June, 2022

For current and emerging mathematics and numeracy leaders, and system leaders in primary schools.

Themes include:

- Understanding the attributes of quality teaching.
- Exploring aspects of quality learning environments such as engagement, high expectations and student self-regulation.
- Leading improvement and change to develop teacher capability and confidence.
- Developing an evidence-based approach to mathematics leadership including leading professional learning teams
- Using assessment and data to drive quality.
- Understanding my personal attributes and developing myself as a mathematics leader.

Day 2: For Teachers

Friday 10 June, 2022

For primary teachers regardless of experience. Sessions build confidence and develop professional ability as a mathematics educator in a supportive, hands-on environment.

Themes include:

- Understanding the attributes of quality teaching and resources.
- Using high impact teaching strategies to maximise student outcomes.
- Developing content and pedagogical content knowledge.
- Creating a quality student learning environment including engagement, high expectations and student self-regulation.
- Using assessment to understand learning progression.
- Developing quality teaching through professional learning teams.
- Understanding my personal attributes and developing myself as a professional educator.

https://www.mav.vic.edu.au/Conference/2022-Primary-Mathematics-Conference

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Haese Mathematics

Day 1: For Leaders
Thursday 9 June, 2022

Join us to explore mathematics leadership.
Sessions will provide practical advice to lead change in your own school context.

What primary leaders said about the primary conference.....

'Great combination of philosophy, theory and practice!'
'Excellent presenters who provide outstanding resources and willingly share their knowledge'.

Session	Presenters	Title
Welcome and Keynote 1 9am–10.15am	Ryan Dunn	A: Leading the development of teaching expertise *Keynote sponsor:* THE EDUCATION STATE / VICTORIA State Government Education and Training
Break: 10.15am–10.45am		
Workshop rotation 1 10.50am–11.50am	Kate Copping	B1: Conceptions of primary mathematics leadership
	Ellen Corovic	B2: Sequencing mathematics lessons
	Paul Staniscia	B3: HIT in the spotlight - setting goals
	Michael Minas	B4: Launch, explore and summarise - tips for implementing a new instructional model
	Martin Holt	B5: Implementing a whole-school strategy for building teaching capacity in maths
	Angela Rogers	B6: Developing a comprehensive numeracy assessment schedule from F-6
Workshop rotation 2 11.55am–12.55pm	Wee Tiong Seah	C1: Mastery or inquiry approaches? Might there be a feasible middle way?
	Pauline Thompson	C2: Leading for impact
	Brooke Brennan	C3: Belief drives behaviour - Building whole school data processes that guarantee buy in
	Jen Bowden	C4: What type of leader are you? Are you on the dance floor or watching from the balcony?
	Ellen Corovic	C5: Structured planning guidance to leverage teacher practice change
	Sarah Buckley, Kate Reid and Cath Pearn	C6: Addressing maths anxiety in primary teaching
Lunch and networking: 12.55pm–1.45pm		
Workshop rotation 3 1.45pm–2.45pm	Cath Pearn	D1: Assessing students' mathematical skills, knowledge and understanding
	Michael Minas	D2: Reasoning: more than 'can you explain your thinking?'
	Di Liddell	D3: Introducing numeracy into the early years
	Kate Copping	D4: Developing consistent language approaches for mathematics
	Angela Rogers	D5: Developing a numeracy scope and sequence: the what and how
Keynote 2 2.50pm–3.50pm	Paul Staniscia	E1: Quality Leadership: more than a roadmap to improvement and change *Keynote sponsor:* EssentialAssessment – Assessment and Curriculum made easy – Australian Curriculum • NSW Syllabus • Victorian Curriculum
F: Happy hour: 3.50pm – 4.30pm Join us for chat, to network and debrief. Bring your questions.		

- In collaboration with the Melbourne Graduate School of Education, the University of Melbourne
- Hand-picked program of high-quality presenters.
- Learn from leaders with practical and educational research experience.

www.mav.vic.edu.au/Conference/2022-Primary-Mathematics-Conference

Day 2: For Teachers
Friday 10 June, 2022

Build confidence and develop professional ability as a mathematics educator in a supportive, hands-on environment.

What educators said about the teachers day.....

'The conference provided an excellent forum to learn about and discuss current research-based information. It provided a range of workshops led by knowledgeable and approachable presenters. I was able to walk away excited about sharing some new ideas and resources with colleagues.'

Session	Presenters	Title
Welcome and Keynote 1 9am–10.15am	Sara McKee	A: Quality teaching and learning in the mathematics classroom *Keynote sponsor:* THE EDUCATION STATE · VICTORIA State Government Education and Training
Break: 10.15am–10.45am		
Workshop rotation 1 10.50am–11.50am	Cath Pearn	B1: Identifying and addressing common fraction misconceptions
	Roger Wander	B2: Lockdown treasures: e-resources for extending mathematical thinking in the primary classroom
	Eamon Light	B3: Developing mathematical thinkers through real life contexts
	Jen Bowden and Paul Swan	B4: Getting your fix of Unifix
	Danijela Draskovic and Nathan Alison	B5: Creative coding challenges that will get your students chatting!
	Rachel Pollitt and Rhiannon Rowe	B6: An approach to mathematics pedagogy and curriculum for 3 – 8-year-old children
Workshop rotation 2 11.55am–12.55pm	Derek Holton	C1: Emojis and number towers
	Kate Copping	C2: Team planning
	Aylie Davidson	C3: Planning lessons for student-centered structured inquiry in mathematics
	Judy Gregg and Carmel Delahunty	C4: Productive mathematical chatter: How to improve mathematical discourse to enhance reasoning skills
	Em O'Halloran and Nick Devereux	C5: Shoot and Score: engaging students through sport and STEM
	Siew Chin Ng	C6: Adapting garden-based scaffolding strategies for numeracy activities in early childhood classrooms
Lunch and networking: 12.55pm–1.45pm		
Workshop rotation 3 1.45pm–2.45pm	Cath Pearn	D1: Developing relational thinking: the importance of the equals sign
	Jen Bowden	D2: A picture tells....
	Andrea O'Connor	D3: Differentiation: extending mathematics to all
	Catherine Epstein/ Rodgers	D4: Self efficacy and mathematics
	Eamon Light	D5: Don't put all your eggs in one basket!
Keynote 2 2.50pm–3.50pm	Sara McKee Aylie Davidson Angela Rogers Wee Tiong Seah	E1: Panel: What is quality mathematics teaching? *Keynote sponsor:* Playlunch
F: Happy hour: 3.50pm – 4.30pm Join us for chat, to network and debrief. Bring your questions.		

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Day 1 - For Leaders
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Haese Mathematics

Time	Title/abstract	Presenter biography
Welcome and Keynote 1: 9am-10.15am	**A: Leading the development of teaching expertise** This keynote will explore how an adaptive approach can be an effective response to continued complexity and uncertainty. The session will: • Understand the emerging science of teaching expertise development • Examine the practical challenge of shifting ingrained habits of practice • Explore the essential elements of effective teacher professional learning	**Dr Ryan Dunn** Dr Ryan Dunn has considerable experience within education and has advised and collaborated with schools and districts across Australia, the USA and Canada. He has worked extensively with school leaders in Victoria, South Australia, Queensland, New South Wales and Alberta to support leadership development at a system, network and school level. As a senior lecturer at the University of Melbourne his work focuses on teacher professional learning, educational leadership, mathematics, and middle level leadership. His latest book, Developing teaching expertise: A guide to adaptive professional learning design, focuses on the effectiveness of adaptative approaches for school improvement. Ryan recently delivered workshops to a range of school networks based on his behavioural intent research that offers insights to leading a fatigued workforce. *Keynote sponsor:* THE EDUCATION STATE — VICTORIA State Government | Education and Training
Workshop rotation 1: 10.50am-11.50am	**B1: Conceptions of primary mathematics leadership** This presentation will discuss the views of primary teachers and leaders of mathematics, on the role of primary maths leaders. It will consider how primary mathematics leadership is conceptualised and experienced by teachers and leaders within Victorian schools. The presentation is based on survey responses and examines how the perceptions of teachers and leaders connect to research regarding middle level leaders and maths leaders.	**Kate Copping** Kate Copping is a lecturer in Mathematics Education and PhD candidate at the Melbourne Graduate School of Education (MGSE). Her research involves leadership and teacher professional learning in mathematics. Kate has provided mathematics professional development for teachers through ACER, DET and within individual schools. She has taught in schools in Victoria, NSW and USA, and has also worked in teacher education for MGSE since 2008.
	B2: Sequencing mathematics lessons Explicit teaching is currently a hot political topic in mathematics education. This session will review the role of explicit teaching when implementing cognitively demanding mathematics lessons. When explicit teaching should take place and how to best use a variety of teaching strategies will be explored in relation to individual lessons and building sequences of lessons based on variation theory (i.e. same, same but different). Utilising the notion of challenge and variation theory to drive teacher planning and enhance student thinking will be a key feature of this session. Example sequences will be shared, and teachers/leaders will experience first hand the power of challenge and consolidation to lift and elevate learning.	**Ellen Corovic** Ellen Corovic is a passionate educator who enjoys collaborating with students, teachers and schools. 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 in 2021. The focus of her current research is factors that influence teacher practice change. Currently Ellen is a professional learning and research officer and independent education consultant. Ellen enjoys supporting teachers to find the beauty, fun and love of both mathematics, teaching and leading.

	B3: HIT in the spotlight - setting goals Goal setting in mathematics is not as simple as giving students goals, developing lessons based on these goals and then creating assessments that will identify whether students have met the goals. It takes careful planning by the teacher, as well as a classroom that promotes trust, collaboration and challenge. A classroom where students can be their own teachers, talk about the strategies they are using and can explain what they will do next. A classroom where students seek, respond to and aspire for challenge and feedback. Teachers need to set goals with their students, identify their strengths and challenges, look for strategies they will use when they don't know what to do and come to a shared understanding of how the students will know that they have met a goal. Goal setting in mathematics should be about building mathematical proficiency because mathematics is much more than content strands.	**Paul Staniscia** Paul Staniscia is currently the Deputy Head of Primary at Southern Cross Grammar in Melbourne's West. He also works as a consultant for the Mathematical Association of Victoria and has written various articles for their Prime Number journal. Paul is passionate about the professional learning of preservice teachers. In 2019 he was recognised by ACEL as a New Voice in School Leadership and continues to work with ACEL through publications and as part of their Editorial Board. Having completed a Masters of Educational Leadership, he values a culture of relational trust when working with teachers in evidence-based learning and teaching, both in Australia and overseas. Paul utilises previous classroom teaching experience as well as effective leadership practices when collaborating with teachers in using data to identify student need and impact of teaching.
	B4: Launch, explore and summarise - tips for implementing a new instructional model In this workshop, we examine the Launch-Explore-Summarise instructional model. What are the key features of this approach to structuring a maths lesson and how does it differ from other, more traditional lesson structures? Attendees will participate in a modelled lesson, allowing them to gain a deeper understanding of the benefits of using this approach. We will also discuss issues such as student agency, differentiation, teacher questioning and perhaps most importantly- student engagement. Each participant will leave with a clear understanding of how to lead the implementation of the Launch-Explore-Summarise instructional model at your own school.	**Michael Minas** Michael Minas is the director of Love Maths (www.lovemaths.me), an educational consulting business based in Australia. He has worked in education for over 20 years and his areas of interest include problem solving and student engagement. Michael's YouTube channel features close to 100 videos of engaging maths games and has attracted over half 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 around Australia and provides consultancy services to a range of organisations, including the Mathematical Association of Victoria. Michael was the editor of Prime Number from 2019 to 2021 and is currently a contributing author for the Maths300 website.
	B5: Implementing a whole-school strategy for building teaching capacity in maths This session is for school leaders or curriculum leaders who recognise the need for innovation and change in their maths program. Martin will draw from his experience as a maths coach to talk about a process that begins with teachers (and students) co-constructing a shared vision for the ideal maths classroom and ends with teachers taking ownership of the process and eventually making the maths coach redundant. Martin will share some important implications for school leaders driving the innovation including establishing trust, creating space for risk-taking, maintaining accountability and providing strategic support. He will also introduce Innovation Configuration Mapping as a framework that helps teachers and curriculum leaders develop, monitor and celebrate the measurable steps that indicate growth in areas such as planning, pedagogy and assessment.	**Martin Holt** Martin is an educational consultant, writer of maths resources and an academic in maths education. He has a background in primary teaching and maths leadership in schools. Martin helps teachers develop a classroom culture where all students, regardless of ability, expect to be challenged. He promotes the strategic selection and sequencing of well-constructed tasks to achieve this aim, acknowledging the crucial link between engagement and learning. Martin helps schools implement and monitor a process to strengthen their maths program which stems from constructing a shared vision of an ideal maths classroom. He helps curriculum leaders map out key goals that work towards this vision and communicate the measurable steps that each individual can take to incrementally improve their practice.

	B6: Developing a comprehensive numeracy assessment schedule from F-6. Is it time to update your school's Numeracy Assessment Schedule? Are you looking for guidance on the best assessments to use from F-6? Then this session is for you! An Assessment Schedule is an important document that directly impacts the quality of data we gather from students. It is therefore critical that the assessments we select provide valid and reliable data teachers can use to guide their instruction. However, we also need to weigh up the costs and benefits of using each assessment. We all know interviews provide great data, but do we have the time/money to administer them? Will the data we gather be used in our teaching, or will it sit on a spreadsheet? In this session, Ange will cover the many considerations associated with creating an Assessment Schedule. You will leave this session with a clear understanding of how to lead your school in creating a realistic and functional Assessment Schedule from F-6.	**Dr Ange Rogers** Dr Ange Rogers is an experienced primary school teacher and Numeracy Leader. She is the editor of the Mathematical Association of Victoria's teacher journal *Prime Number*. Ange is a passionate presenter who regularly facilitates Professional Development for teachers. In 2014 she completed her PhD in Mathematics Education focusing on place value. She currently mentors and provides online PD for teachers and schools through her Numeracy Teachers Academy. Ange loves connecting research and practice to support teachers and leaders. Ange has 4 children and also works to promote a love of maths at home through her social media accounts @ numberdoctors.
Workshop rotation 2: 11.55am-12.55pm	**C1: Mastery or inquiry approaches? Might there be a feasible middle way?** Stakeholders and interested parties in Australia (and elsewhere in some other countries) continue to debate how mathematics should be best taught in schools. Such discussions can distract us from the factors that really matter to effective learning and teaching. In this session, participants will hear from one another what their concerns and experiences are, and will reflect on these against evidence from recent years of related macroeducation research. The possibility of a middle way approach will be proposed, one that adopts the system view of mental processes of learning and teaching mathematics. Participants will then examine how this might play out at the policy, planning and execution levels in the primary school context.	**Professor Wee Tiong Seah** Wee Tiong SEAH is Professor in Mathematics Education at the Melbourne Graduate School of Education, The University of Melbourne. Wee Tiong is a member of the National Expert Group for the 'Literacy and Numeracy Test for Initial Education' [LANTITE], and had been part of the federal government's Expert Advisory and Research Group. Wee Tiong has delivered workshops for principals and school leaders on behalf of the Victorian Department of Education, and some 30 research keynote addresses around the world. Wee Tiong's current research interests include the harnessing of cognitive appraisal constructs (such as values), the fostering of mathematical wellbeing, development of values alignment strategies, as well as international comparative studies.
	C2: Leading for impact Middle leaders (such learning area leaders) play a very important role in improving learning outcome for students as they have a direct and positive influence on teachers' classroom practice. However, it is well known that middle leadership roles can be challenging as these leaders combine an important leadership role with a significant teaching allocation. This workshop offers the opportunity to explore current research on effective leadership practices and then consider what this means for current or future leadership in schools.	**Dr Pauline Thompson** Dr Pauline Thompson is a lecturer in educational leadership at the Melbourne Graduate School of Education, the University of Melbourne. Pauline has worked in schools as a teacher, assistant principal and as an educational advisor. Her doctoral studies focussed on the role of professional learning to make long-term improvements to teacher practice. Her current research is focussed on the role of middle leaders in schools and their impact on teaching and learning.
	C3: Belief drives behaviour - building whole school data processes that guarantee buy in One schools data journey and the lessons learnt in building whole school collective capacity, shared ownership and accountability for data and authentic buy in from teachers as they unpack their students' learning stories.	**Brooke Brennan** Brooke Brennan is the Mathematics and School Data Coordinator at St Francis of Assisi in Mill Park. She is passionate about building data literacy, leadership, school improvement and assessment to help drive improved student outcomes. Her work is underpinned by a growth based pedagogy and the firm belief that given the right conditions and support, every student can learn. She aims to help teachers become confident in making data informed decisions that can show real impact on their school contexts and help school leaders build capacity of teachers and teams to effectively and authentically use their data and avoid being data rich but information poor.

	C4: What type of leader are you? Are you on the dance floor or watching from the balcony? In this workshop we will look at your leadership style and the impact you make on your setting. What type of leader are you? What type of leader would you like to be? We will discuss the importance of thoughtful and considered decision making and your ability to influence and mobilise others to achieve outcomes. Schools are very busy places and too often we find ourselves as leaders on the dance floor, when perhaps we should jump on the balcony to allow us to be more considered leaders.	**Jennifer Bowden** Jennifer Bowden has worked as an Education Consultant at the Mathematical Association of Victoria (MAV) for 15 years. She enjoys inspiring teachers, maths coaches, consultants and leaders to become more critical and creative in their teaching, empowering consultants and teachers to be better educators and provide the best learning experiences for their students. Jen coaches, mentors and guides consultants, teachers, and leaders to build teacher capacity, increase knowledge of curriculum content, and to develop better pedagogies to establish school-wide improvement. Jen's current interest is in helping teachers and leaders to improve education in a way that promotes and challenges students' thinking.
	C5: Structured planning guidance to leverage teacher practice change Designing professional learning for teachers is complex as there are so many elements to consider. From focusing on pedagogical and practice change to planning support and coaching. It can be confusing where to start and what to hone in on. This session will focus on how resource materials can provide structured guidance for teachers' planning to enhance practice change. Examples of how this has worked in several schools will be shared. This session will not revolve around a specific resource but will concentrate on professional learning stories of those who have driven practice change used ReSolve, Challenging Tasks and EMC3 resources. Participants will experience a mini planning session to demonstrate how selected curriculum resource materials can be leveraged to enhance teacher mathematical content knowledge and pedagogical knowledge with an aim to improving teaching practice.	**Ellen Corovic** See session B2 for Ellen Corovic's biography.

	C6: Addressing maths anxiety in primary teaching Maths anxiety is described as the feelings of tension, nervousness and worry associated with carrying out mathematical tasks. It is associated with poor achievement in maths and is believed to be a factor in avoidance of careers and courses for which maths is required. Primary school teachers can report high levels of maths anxiety and there is evidence that teachers' maths anxiety can influence their students through teachers' practices and attitudes. This workshop will present our model for understanding and addressing mathematics anxiety and present psychological techniques that can be used by teachers and/or students to reduce and regulate anxiety. We will discuss our work with preservice teachers using these techniques and how our approach could be implemented in a school context by mathematics leaders.	**Dr Sarah Buckley, Dr Kate Reid and Dr Cath Pearn** Dr Sarah Buckley is a Senior Research Fellow at ACER with extensive experience researching mathematics engagement and motivation. Over the last 5 years, Sarah has driven several projects designed to address mathematics anxiety in primary schools and in pre-service teachers. Sarah leads the Mathematics Anxiety and Engagement Strategy (MAES) at ACER, an initiative of the ACER Foundation, and works on several large-scale, international educational studies including the Trends in International Mathematics and Science Study (TIMSS) and the Programme for International Student Assessment (PISA). Kate Reid is a Senior Research Fellow at ACER. Kate completed doctoral studies focusing on mathematical cognition and has a longstanding interest in early years mathematics development. She has expertise in program evaluation and has led research reviews and evaluations of government initiatives to improve mathematics learning. Her work on the ACER Longitudinal Study of Literacy and Numeracy: Transition from Preschool to School highlighted the importance of preschool numeracy for early years educators. Since 2015, she has worked with Dr Sarah Buckley on approaches to reducing mathematics anxiety among pre-service primary teachers. Dr Cath 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 is currently supporting South Australian teachers in Early Childhood Numeracy program and tutors with the online Learning + tutoring program. She is particularly interested in the identification and assistance for students mathematically 'at risk' of not meeting the national minimum standards and those who are not achieving their mathematical potential. Cath is also a Senior Research Fellow in the Assessment and Reporting Division at ACER. Cath developed Mathematics Intervention, a program for Year 1 students mathematically 'at risk', which she continues to support. Her PhD investigated the links between fractional competence and algebraic reasoning of middle-years students.

Workshop rotation 3: 1.45pm-2.45pm	**D1: Assessing students' mathematical skills, knowledge and understanding** Teachers need to recognise the mathematical skills, knowledge and understandings that their students bring to the classroom. Mathematics assessment is integral in enabling teachers to determine what their students know, the misconceptions they have developed and the difficulties they may be experiencing when presented with a mathematics task. In this presentation, two mathematics assessment instruments will be discussed: Newman's Prompts for worded problems and the use of the clinical interview e.g. The Mathematics Online Interview. These assessment instruments allow teachers to gather information about whether a student understands what the task requires them to do, the strategies the students use to solve the task, the vocabulary they use to describe their strategy and whether they can complete the calculations needed for successful completion of the task. Information from these instruments allows teachers to provide the learning opportunities that build on their students' mathematical skills, knowledge and understandings.	**Dr Cath Pearn** See session C6 for Cath Pearn's biography.
	D2: Reasoning: More than 'can you explain your thinking?' This hands-on workshop provides an in-depth look at the different aspects of the Reasoning proficiency. We explore how you can get your students thinking and working like mathematicians by taking you through a series of engaging warm-up activities and lesson ideas. This workshop also focusses on the crucial role that questioning plays in developing students' capacity to reason. You will leave with a range of practical ideas, as well as an increased understanding of how other tasks can be modified to ensure that your students are proving, comparing, contrasting, explaining, justifying and analysing on a regular basis.	**Michael Minas** See session B4 for Michael Minas' biography.
	D3: Introducing numeracy into the early years This presentation details pedagogical practices used to introduce numeracy into early childhood learning environments, in ways which are authentic, relevant and purposeful. Documentation from a mathematical inquiry will be shared and discussed giving educators insight into how to plan, implement and assess mathematical inquiries in accordance with the Victorian Curriculum and Early Years Learning Framework. The concept of using the environment as a third educator will be discussed, in relation to the creation of play-based learning spaces. Examples of play spaces that are stimulating and inviting will be shared the ways that mathematically rich learning opportunities have been incorporated into the learning spaces will be explained. Leaders will be supported to explore where authentic mathematical experiences can be embedded into learning environments and practical strategies that educators can utilise to set provocations that spark curiosity and encourage children into the world of mathematics will be shared.	**Di Liddell** Dianne Liddell is an education consultant and researcher. She is the Founder and Director of Engage, Empower, Educate and has teaching experience across State, Catholic and Independent schools both nationally and internationally. Dianne's experience focuses on the implementation of play-based and inquiry teaching approaches and into early years learning environments. She is a strong supporter of the Reggio Emilia approach, advocating for the reconceptualisation of education, centred around a pedagogy that honours the voice of the child. As a professional mentor and coach, she has led the successful transformation of teaching pedagogies that have increased student (and teacher) engagement through active participation. Dianne is completing an Educational Research project through The University of Melbourne, teachers' beliefs and practices for enacting a pedagogy of listening.

	D4: The International Classroom Lexicon Project: Engaging with your professional vocabulary Developing consistent language for teaching mathematics enables schools to develop a shared understanding and approach. Engaging with the professional vocabulary of our mathematics teaching community provides us with the opportunity to understand classroom practice at a much deeper level. This workshop is designed to facilitate discussion and ideas for developing your own school's mathematical language. Having a common and consistent language can help your school to build a cohesive approach to discuss mathematics teaching practice within your school.	**Kate Copping** See session B1 for Kate Copping's biography.
	D5: Developing a numeracy scope and sequence: The what and how. Are you wanting to develop a Numeracy Scope and Sequence document, but not quite sure where to start? Or, do you have a Scope and Sequence, but it sits in the shared drive and no one refers to it when planning? This session is for you! A Scope and Sequence document is an important resource to ensure all teachers are 'on the same page' in Numeracy. In this session Ange takes you through five practical steps to ensure you and your staff create a meaningful document that will guide the teaching and learning of Numeracy at your school. Ange will share resources to ensure the process to create the Scope and Sequence is kept simple, based in research, but importantly reflects your school's context. You will walk away from this session with a clear structure to work through with your staff. This will include planning, creating, collating, trialing and revising your Scope and Sequence, to ensure it is an invaluable teaching and planning document for all.	**Ange Rogers** See session B6 for Ange Rogers' biography.
Keynote 2: 2.50pm – 3.50pm	**E: Quality leadership: more than a roadmap to improvement and change** When implementing change to improve practice, goals need to come from necessities rather than desires, so that they can be deeply embedded in the history and culture of the school. To do this, leaders must move back and forth from a transformational leader to an instructional leader and identify the appropriate times for each. There is no step-by-step shortcut to change or improvement however, it can happen when teachers see themselves as evaluators of their effects on students and when they use evidence-based practices to inform, change, and sustain these beliefs about their effects. Using the insights gained throughout the day and reflecting on current practice, leaders will have an opportunity to explore how they can establish a purpose, build a shared vision, develop shared plans, lead action and evaluate the results all within their own settings.	**Paul Staniscia** Paul Staniscia is currently the Deputy Head of Primary at Southern Cross Grammar in Melbourne's West. He also works as a consultant for the Mathematical Association of Victoria and has written various articles for their Prime Number journal. Paul is passionate about the professional learning of preservice teachers. In 2019 he was recognised by ACEL as a New Voice in School Leadership and continues to work with ACEL through publications and as part of their Editorial Board. Having completed a Masters of Educational Leadership, he values a culture of relational trust when working with teachers in evidence-based learning and teaching, both in Australia and overseas. Paul utilises previous classroom teaching experience as well as effective leadership practices when collaborating with teachers in using data to identify student need and impact of teaching. *Keynote sponsor:* EssentialAssessment Assessment and Curriculum made easy Australian Curriculum • NSW Syllabus • Victorian Curriculum

Day 2 - For Teachers
Friday 10 June, 2022

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Time	Title/abstract	Presenter biography
Keynote 1: 9am-10.15am	**A: Quality teaching and learning in the mathematics classroom** This session will explore a range of ways the High Impact Teaching Strategies can increase engagement in the Mathematics classroom. This session will briefly introduce participants to a variety of engaging tools and strategies for use in the classroom, such as Number talks, Exit Passes, Problem solving and Mathematics conferences. Resources to support the implementation of these practices will be shared to support participants. This session will explore how to structure a mathematics lesson to: - engage students in the lesson - allow for reflective and critical thinking - provide opportunities for ongoing formative assessment - ensure students have opportunities to reflect on their own learning.	**Dr Sara McKee** Dr Sara McKee completed her Doctor of Education degree at the University of Melbourne, focusing on building teacher capacity and formative assessment. She has held a range of leadership positions in both primary and P-9 schools, including leading teacher of mathematics, Assistant Principal, Deputy Principal and Principal. Sara has also worked in Tertiary education as a lecturer and tutor. She has presented at a number of conferences, including the Mathematical Association of Victoria annual conference and previous MAV/MGSE conferences. Sara has led a Network Community of Practice, working with teachers and school leaders in the network on best practices in mathematics education. *Keynote sponsor:* THE EDUCATION STATE — VICTORIA State Government | Education and Training
Workshop rotation 1: 10.50am-11.50am	**B1: Identifying and addressing common fraction misconceptions** Many teachers believe that fractions are one of the most challenging mathematical topics to teach and learn. Many difficulties arise when students rely on the same strategies they used successfully to solve whole number tasks to solve fraction tasks. Misconceptions may not be identified as students can get the correct answers using 'faulty' fractional thinking using their whole number strategies. Teachers need to be aware of the common fraction misconceptions, so these can be avoided or, if already in place, they can be addressed. Fractions can be represented in different ways e.g. as part of a length or an area, part of a quantity or as a position on a number line. For some students, changes in representations adds another layer of difficulty. This session will describe common fraction misconceptions and discuss possible strategies to ensure students develop understanding so that they can represent fractions in different ways.	**Dr Cath Pearn** Dr Cath 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 is currently supporting South Australian teachers in Early Childhood Numeracy program and tutors with the online Learning + tutoring program. She is particularly interested in the identification and assistance for students mathematically 'at risk' of not meeting the national minimum standards and those who are not achieving their mathematical potential. Cath is also a Senior Research Fellow in the Assessment and Reporting Division at ACER. Cath developed Mathematics Intervention, a program for Year 1 students mathematically 'at risk', which she continues to support. Her PhD investigated the links between fractional competence and algebraic reasoning of middle-years students.

	B2: Lockdown treasures: e-resources for extending mathematical thinking in the primary classroom Lockdown presented educators with challenges for teaching students in the virtual world. Where could we find engaging, interactive e-resources that meet the diverse needs of our students? Now that we're back to face-to-face teaching, how might these resources inspire problem-solving and increase student confidence to explore and create? In 2021, the presenter compiled a collection of websites he found useful in tutoring a variety of primary and junior secondary students in virtual settings. In this workshop, he'll share some of his favourite activities and lead discussions on how you could tweak them for use in your classroom. We'll also look at sharing some of the e-resources you have found useful in the past two years. BYO device if you wish, but you'll be provided with all the necessary links to get you going after the workshop.	**Roger Wander** Roger Wander taught secondary school mathematics for over 30 years before joining MGSE in 2008. He was a Clinical Specialist in the Master of Teaching (both Primary and Secondary programs), and lectured in the STEM stream of School Experience as Breadth. His most recent involvement with MGSE was as an online coach for South Australian early years teachers who were completing a numeracy professional development program. He has also been a consultant in the area of whole-school numeracy for secondary schools and use of technologies in mathematics teaching. Roger has designed and delivered professional development workshops for numeracy and mathematics teachers in primary and secondary schools, with a special interest in mathematical literacy, formative assessment in mathematics education and the use of CAS and dynamic geometry technology.
	B3: Developing mathematical thinkers through real life contexts This session will present a modified version of the Launch, Explore, Summarise lesson structure to explore how real life contexts can be used to promote mathematical thinking and problem solving. Students need multiple opportunities to present their thoughts in a range of forums to receive constructive feedback, learn from their mistakes and to learn from others.	**Eamon Light** Eamon Light is a passionate Mathematics educator who has 16 years' experience in a range of educational setting including primary schools and university. Eamon's priority in mathematics education has always been to build mathematical minds through developing critical, creative and independent thinkers from an early age. Eamon has a passion for developing positive dispositions towards Mathematics in young learners through mathematical inquiry and using real life contexts to stimulate engagement.
	B4: Getting your fix of Unifix If you've ever taught in a maths classroom, you've most likely stumbled across or used unifix blocks in your teaching. These colourful little blocks are one of the most versatile concrete manipulatives, and can be used in anything from counting to patterns and algebra. In this hands-on workshop, you will be introduced to a variety of activities using unifix, all developed around multiple curriculum content descriptors from Foundation through to Level 6.	**Jen Bowden and Paul Swan** Jennifer Bowden has worked as an Education Consultant at the Mathematical Association of Victoria (MAV) for 15 years. She enjoys inspiring teachers, maths coaches, consultants and leaders to become more critical and creative in their teaching, empowering consultants and teachers to be better educators and provide the best learning experiences for their students. Jen coaches, mentors and guides consultants, teachers, and leaders to build teacher capacity, increase knowledge of curriculum content, and to develop better pedagogies to establish school-wide improvement. Jen's current interest is in helping teachers and leaders to improve education in a way that promotes and challenges students' thinking. Dr Paul Swan is an award winning author, acclaimed speaker and workshop presenter and developer of games and materials to support students to learn mathematics. He is an Honorary Life member of the Mathematical Association of WA and an Honorary Fellow of the Australian College of Educational Leaders (ACEL). He was awarded his PhD for his work identifying the Computational Choices of upper primary and lower secondary students. As Dr Paul Swan lives in Perth, his part in the workshop has been prerecorded.

	B5: Creative coding challenges that will get your students chatting! MAV, in collaboration with Digital Learning and Teaching Victoria (DLTV), have produced a series of engaging coding challenges to be experienced in the Scratch platform. They're designed to extend your Grade 5 and 6 students and captivate them with problem solving challenges that will require both their intellect and creativity. In this workshop, you can experience the challenges for yourself and find out how you can get access for your students for free!	**Danijela Draskovic and Nathan Alison** Danijela Draskovic is a Secondary Mathematics Education Consultant for the Mathematical Association of Victoria (MAV). Danijela has taught mathematics and physics in independent schools in Victoria as well as in the UK, and loves being in the classroom where she feels she is truly in her element. She believes that most people can engage and have success in mathematics by approaching the subject in a holistic and meaningful way. Danijela is passionate about exploring the affordances of technology in enhancing teaching and learning by modelling concepts in visual and dynamic ways. She is also an accredited trainer for Texas Instruments and has authored content for textbooks in the past. As a mum of two young boys, Danijela has also become passionate about mathematical connections between early years and primary school and how they impact a person's journey through secondary school and later in life. Nathan Alison taught Digital Technologies, VCE Computing and Software Development in Victoria for 11 years before beginning work for DLTV. He brings a background in computer systems engineering and years of hobby coding as well as a keen desire to help teachers with more complex computer science concepts through clear explanations and relevant activities.
	B6: An approach to mathematics pedagogy and curriculum for 3 – 8-year-old children Children explore mathematics innately during daily routines and play. Knowing how to identify and support children's mathematics learning in play-based programs can – at times - be challenging. This session combines theory and practice in action, including hands-on ideas for how to incorporate mathematics in early childhood programs, and practical ways to address the foundations of children's mathematics learning. This session will explore how to develop play-based mathematics content and pedagogical strategies in your early years' programs to support children's ongoing mathematics learning.	**Dr Rachel Pollitt and Rhiannon Rowe** Rachel Pollitt completed her PhD at the University of Melbourne. Her research focused on spatial reasoning and assessment in early childhood teaching practice. She has worked as a Clinical Teaching Specialist and has taught in the Master of Teaching program at the University of Melbourne. Rachel's research interests include play-based mathematics assessment strategies, early childhood pedagogy, and how spatial reasoning can inform mathematics curricula in early childhood education. She is the Director of Early Learning across Haileybury College campuses and is responsible for the ongoing development of the ELC programs and curriculum. Rhiannon has a Graduate Diploma in education with an undergraduate degree in Early Childhood. She am currently undergoing her Masters of Education at Melbourne University, specialising in Assessment and Pedagogy. Throughout university, Rhiannon worked as a Kindergarten Inclusion Support Officer for Yooralla and was fortunate enough to complete her final practicum in Rarotonga, the Cook Islands. She has taught in low-socio economic areas in South-East Melbourne but also in London, where she lived and worked for four years. Rhiannon has been at Haileybury for 5 years, teaching Year 3. She is also the Year 3 Curriculum Assistant and Deputy Head of English (Junior School). Her teaching pedagogy is implicit of the Explicit Model. She delivers the Numeracy program through a spiralling curriculum and supports students through the concrete, pictorial and abstract phases utilising physical apparatus (show-me boards and Math's toolkits).

Workshop Rotation 2: 11.55pm - 12.55pm	**C1: Emojis and number towers** In this session, I want to take a problem, and in scaring it to death, consider questions such as: What methods can we use to solve this problem? What methods can we use to solve other problems? How can emojis come into this problem? How can emojis come into maths in general? Can we find other problems like this that we can solve? How do the terms like extend and generalise fit in? What can we do to help students solve problems? In reSolve, the AAMT's website Maths by Inquiry, there is a question on number towers, (see Assessing Reasoning: Year 3 Exemplars | reSolve). The question I want us to look at is, given the numbers 1 to 5 on the bottom row, what is the biggest number possible in the top square (and why).	**Emertius Professor Derek Holton** Derek is an Honorary Professor at the University of Melbourne and Emeritus Professor at the University of Otago. His current interests include working with a range of schools to promote problem solving in mathematics and an understanding of what mathematicians do. Derek provides professional development for teachers related to problem solving and the work of mathematicians. He has produced a number of resources, including co-authoring a recent book in the Creative Activities in Mathematics series.
	C2: Team planning This session focuses on the why, what and how of team planning. Why do you need to plan as a team? What difference does it make to teaching and to student learning? What is achievable in the limited time you have to plan? In this session we will explore some pedagogical approaches which can be implemented into your teaching through planning sessions. We will also explore effective strategies for monitoring student progress across a cohort.	**Kate Copping** Kate Copping is a lecturer in Mathematics Education and PhD candidate at the Melbourne Graduate School of Education (MGSE). Her research involves leadership and teacher professional learning in mathematics. Kate has provided mathematics professional development for teachers through ACER, DET and within individual schools. She has taught in schools in Victoria, NSW and USA, and has also worked in teacher education for MGSE since 2008.
	C3: Planning lessons for student-centred structured inquiry in mathematics If a goal of education is to maximise opportunities for all learners and develop students who can think critically and creatively, then our approach to planning and teaching should reflect this. Using the context of multiplicative thinking, we will delve deeper into an instructional model that is ideal for student-centred structured inquiries. Using the 'Launch, Explore, Summary' lesson structure, Aylie will offer practical tips and suggestions on what teachers should focus on when planning each stage of the lesson. This includes having a clear mathematical focus, where explicit teaching fits, and approaches to differentiation and assessment.	**Aylie Davidson** Dr Aylie Davidson is an experienced early childhood and primary mathematics educator having worked in teaching and leadership roles in metropolitan and regional school settings, initial teacher education, and project leadership for the Department of Education Victoria. Aylie's research examines ways to help teachers work together to plan student-centred mathematics learning sequences and experiences that involve innovative pedagogies. Her other research interests include: mathematical reasoning; the use of challenging tasks to support diverse learners; middle school leadership; and student engagement. Aylie enjoys working with and learning from teachers and school leaders to make learning relevant, practical and sustainable. Aylie regularly presents her research at mathematics education conferences and in various academic and teacher publications.

	C4: Productive mathematical chatter: how to improve mathematical discourse to enhance reasoning skills Since when is a noisy classroom a desired outcome? In a Mathematics classroom productive talk is the cornerstone of deep learning. Hearing lots of chatter is a sign that students are discussing their ideas, explaining their thinking, making new connections, and defending their viewpoints. The purpose of this session is to equip teachers with robust strategies to engage students in invigorating discussions to enhance mathematical reasoning. During this workshop teachers will have the opportunity to explore practices that will help lead students to deeper levels of reasoning, using both Tier 2 and Tier 3 language during 'exploratory discussion'. These interactions will also assist students to expand and clarify their own thinking, think with others, and help them to listen carefully to one another. Strategies that will be addressed will include 'Talk Moves', 'Number Talks', the use of effective questioning, and ways to embed and draw on mathematics vocabulary throughout a lesson.	**Judy Gregg and Carmel Delahunty** Judy Gregg is an experienced primary school mathematics educator. She believes that teachers' pedagogical content knowledge, along with their passion and enthusiasm for mathematics is the key to raising standards in mathematics education. Her post graduate studies in Early Numeracy and Mathematics Leadership, along with her experiences as a classroom teacher, number interventionist, and as a school maths leader developed a passion within her to share this knowledge with other teachers. Currently she is working as a contract school consultant in primary education for the Mathematical Association of Victoria, which includes in-school consulting, writing projects in partnership with the Department of Education and Training, as well as some writing for Maths 300. Judy has a strong desire to develop teachers' skills in delivering engaging and challenging maths activities through an exemplary use of the proficiencies to promote 'real' learning. 'If students are not struggling, they are not learning'. Carmel Delahunty has many years' experience as a teacher and leader of mathematics education in primary schools. Her current roles are as a consultant for The Mathematics Association of Victoria and an independent numeracy coach. Carmel is passionate about empowering teachers and mathematics leaders to enhance student engagement, enjoyment and appreciation of the role of mathematics through technical language in discussion, games, picture story books, investigations, challenging tasks and learning sequences.
	C5: SHOOT and SCORE: Engaging students through sport and STEM In this workshop for teachers of Year 3 to Year 6, we will explore a range of engaging challenges and games incorporating STEM (with an emphasis on the M) and basketball! Challenges and games are freely available to use in your classrooms and guaranteed to get your students moving!	**Em O'Halloran and Nick Devereux** Em O'Halloran joined The Huddle in 2019 as Manager, Education and Careers. Prior to The Huddle, Em was a leading teacher specialising in eLearning and STEM. Em has a graduate degree in marine biology and a graduate diploma in teaching. She is an experienced educator, manager and learning designer with over ten years of leadership experience. Her philosophy is to empower others to develop the skills and mindset to navigate, thrive and find joy in the ever-changing world. When Em is not busy designing and implementing learning programs that leverage the power of sport to inspire brighter futures and strengthen social inclusion, you will find her playing with her kids, Peter (5) and George (3). Nick Devereux joined The Huddle in 2019 and worked in the Sport and Recreation team before starting as Educator Engagement Coordinator in late 2021. Nick has a bachelor's degree in Applied Science/Physical Education and was PE teacher prior to joining The Huddle. He is an experienced sports coach, currently working with North Melbourne Football Club's VFLW team. Nick is passionate about the power of sport to drive positive change. In the few spare minutes outside of The Huddle and coaching, Nick can be found tinkering with or riding his beloved bicycles.

	C6: Adapting garden-based scaffolding strategies for numeracy activities in early childhood classrooms Studies have found positive impacts of garden-based learning programmes on children's academic outcomes, yet little is known about how educators facilitate discovery and exploration in outdoor gardens. This workshop will share prior research findings, and examples of educators' facilitation techniques during garden-based learning from these three Singapore classrooms. Participants will brainstorm and then share how these scaffolding strategies can be adapted for various indoor and outdoor numeracy learning experiences.	**Siew Chin Ng** Siew Chin Ng is currently a Graduate Researcher / PhD Candidate and Tutor at the University of Melbourne. Her past working experiences include teaching in preschools, as well as project officer, research assistant, and more recently co-principal investigator duties for early childhood projects in Singapore. Siew Chin has also been actively engaging in research translation by contributing to articles in practitioner-focused journal-magazine, and research briefs for early childhood practitioners disseminated through the NEL portal of the Singapore's Ministry of Education. Her teaching and research interests include early childhood pedagogy and curriculum, adult-child interaction and teacher professional learning.
Workshop Rotation 3: 1.45pm -2.45pm	**D1: Developing relational thinking: The importance of the equals sign** 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 recognizing, and understanding the relationship between given quantities. To use relational thinking, students need to understand the properties of the operations and recognise when these rules can be used e.g. addition and multiplication are commutative but subtraction and division are not. However, relational thinking can start even before formal schooling when young children notice that five fingers can be shown as 'four fingers and one more finger' or 'three fingers and two more fingers'. In this session, the focus will be on materials and tasks that teachers can use to encourage students to move beyond the belief that the equals sign means 'give an answer' so that they recognise when relational thinking can be used.	**Dr Cath Pearn** See session B1 for Cath Pearn's biography.
	D2: A picture tells... Picture books are a springboard for creative and critical teaching where students can make strong mathematical connections between concepts and language. Picture books contain both imagery and dialogue that can ignite curiosity and in which teachers can create purposeful and innovative learning tasks. In this workshop, we will investigate how good quality picture books can develop deep mathematical understandings for our students. In addition, we will look at a range of tasks that utilise the mathematical proficiencies.	**Jennifer Bowden** Jennifer Bowden has worked as an Education Consultant at the Mathematical Association of Victoria (MAV) for 15 years. She enjoys inspiring teachers, maths coaches, consultants and leaders to become more critical and creative in their teaching, empowering consultants and teachers to be better educators and provide the best learning experiences for their students. Jen coaches, mentors and guides consultants, teachers, and leaders to build teacher capacity, increase knowledge of curriculum content, and to develop better pedagogies to establish school-wide improvement. Jen's current interest is in helping teachers and leaders to improve education in a way that promotes and challenges students' thinking.

	D3: Differentiation: Extending mathematics to all. Differentiation is an evidence based pedagogy which is visible in any inclusive classroom, however the challenge lies in how as maths educators, we can effectively differentiate in the maths classroom. This session will look at how the use of enabling and enhancing prompts can support effective differentiation in mathematics and ensure all learners have access to the curriculum. The interactive presentation will provide examples of low floor/ high ceiling maths tasks and model how prompts can be incorporated into rich mathematics tasks to differentiate and remove the need for ability groups. Assessment ideas will also be shared to help inform educators of the 'where to next for learners'.	**Andrea O'Connor** Andrea O'Connor has been teaching mathematics and science for over 20 years in primary, secondary and tertiary education in both Australia and the UK. She completed her Masters of Education specialising in Maths Education and has presented at a number of MAV conferences in the areas of Mindset Mathematics and the ICT in Mathematics. She is passionate about evidence based pedagogy and instruction and has recently accepted a position for Catholic Education Sandhurst as a Senior Education Officer: Leader of Pedagogy.
	D4: Self efficacy and mathematics Self-efficacy in mathematics indicates students' self-belief in their ability to overcome difficulties or obstacles to solving mathematical problems. Students with a strong sense of efficacy are more likely to challenge themselves with difficult tasks and be intrinsically motivated. Self efficacy judgments are quite often based on four sources; an individual's own past performance, observations of what others are saying and doing, verbal persuasion or feedback and a self belief in their own personal capabilities or emotional state. In our workshop we will look at these four sources and investigate strategies to build self efficacy.	**Catherine Epstein/Rodgers** Cathy works as a consultant at MAV and is currently the Numeracy leader at St Paul's Bentleigh and St Peter's East Bentleigh. Cathy also runs her own mathematics consultancy business. Cathy is passionate about teaching our students to be divergent thinkers, encouraging them to solve problems by making connections. In the past 15 years she has acquired a wealth of tried and tested rich tasks that extend across the strands, are easily differentiated and promote an environment of keen mathematicians.
	D5: Don't put all your eggs in one basket! This presentation aims to put the power of pedagogical reasoning in the hands of the teacher. Why can't the focus of a mathematics lesson be put on the 'doing' of mathematics rather than the 'knowing' of Mathematics? A split screen approach will be used to demonstrate that there needs to be a balance of task types that teachers can use to promote a deep understanding of mathematical concepts.	**Eamon Light** See session B3 for Eamon Light's biography.

Keynote 2: 2.50pm – 3.50pm	**E1: PANEL: What is quality mathematics teaching?** Quality teaching has been shown to have one of the biggest impacts on student success when learning mathematics. But what does quality mathematics teaching look like? And how do we know when we are engaging in quality teaching? In this panel session we will explore quality teaching from a range of perspectives to challenge how we think about mathematics teaching and learning. Time will be reserved for delegates to pose their own questions to the panel as we all strive to develop quality teaching practices.	**Dr Sara McKee** See Keynote 1 for biography. **Dr Ange Rogers** Dr Ange Rogers is an experienced primary school teacher and Numeracy Leader. She is the editor of the Mathematical Association of Victoria's teacher journal Prime Number. Ange is a passionate presenter who regularly facilitates Professional Development for teachers. In 2014 she completed her PhD in Mathematics Education focusing on place value. She currently mentors and provides online PD for teachers and schools through her Numeracy Teachers Academy. Ange loves connecting research and practice to support teachers and leaders. Ange has 4 children and also works to promote a love of maths at home through her social media accounts @ numberdoctors. **Dr Aylie Davidson** See session C3 for Aylie Davidson's biography. **Professor Wee Tiong Seah** Wee Tiong SEAH is Professor in Mathematics Education at the Melbourne Graduate School of Education, The University of Melbourne. Wee Tiong is a member of the National Expert Group for the 'Literacy and Numeracy Test for Initial Education' [LANTITE], and had been part of the federal government's Expert Advisory and Research Group. Wee Tiong has delivered workshops for principals and school leaders on behalf of the Victorian Department of Education, and some 30 research keynote addresses around the world. Wee Tiong's current research interests include the harnessing of cognitive appraisal constructs (such as values), the fostering of mathematical wellbeing, development of values alignment strategies, as well as international comparative studies. *Keynote sponsor:* Playlunch

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