

**MATHEMATICS TEACHING
AND LEARNING CENTRE**

6th National Conference for School Leaders in Primary Mathematics Education



Our national conference is for leaders of mathematics education in primary schools, mathematics coordinators, school leaders, coaches and specialists. This conference, returning following COVID restrictions, meets an untapped need for mathematics leaders.

A wide variety of workshops will offer knowledge and advice about leading professional learning, implementing new assessment practices, using lesson and instructional models, using coaching practices with colleagues, and much more. A 'hot topics Q&A session' with several mathematics educators will also be included for the first time.

Date

Saturday 18 March 2023
8.30am – 3.30pm (conference
welcome starts at 8.50am sharp)

Location

ACU Melbourne Campus,
115 Victoria Parade, Fitzroy

Cost

\$350 (incl. GST) – includes
lunch, afternoon tea, certificate of
participation, and session notes

Contact and information

acu.edu.au/mathsconference
mtlc@acu.edu.au

This is an activity of the Mathematics Teaching and Learning Centre (MTLC) at Australian Catholic University's Melbourne Campus.

FEATURES OF THE DAY

- High-quality presenters who work closely with mathematics leaders and therefore offer important practical advice.
- A rich array of workshop options in each session block.
- Insights from research are complemented by practical experience, advice, and strategies to support mathematics leadership in schools.
- Session notes, certificate of participation, lunch, and afternoon tea provided. Tea and coffee available from 8.15am.
- Convenient location close to the city, with easy access by public transport (115 Victoria Parade, Fitzroy).



KEYNOTE PRESENTER

Leonie Anstey is the Principal Policy Officer, Mathematics and Numeracy, Curriculum and Assessment at the Department

of Education and Training, Victoria. Leonie is a former principal, teacher, and principal coach. Her teaching background includes primary and secondary mathematics. She has been an education consultant in numeracy education, instructional leadership, and mathematics. Leonie has supported system and school-based projects focused on building teachers' knowledge and practices for effective mathematics teaching in primary, secondary and early childhood settings.

COMMENTS FROM PREVIOUS CONFERENCE PARTICIPANTS

“Wonderful speakers to inspire maths leaders and in turn change what’s happening with maths for students in our schools.”

“Informative, energising, well organised, great opportunity to connect with others around leading maths.”

“Great day! Presenters were very interesting, and content linked to leadership. Looking forward to using ideas with my staff.”

Program

SESSION	PRESENTER	TOPIC
Welcome: 8.50 – 9am		
Keynote: 9 – 10.10am		
Keynote	Leonie Anstey (DET, Victoria)	Mathematics leadership that enables progress: Importance of leaders' mental models and vision for mathematics education The leadership of mathematics and numeracy education requires us to think, identify, articulate, and plan action for all staff and students in our school contexts. Mathematics leaders need to ensure that mathematics programs are numeracy-rich and promote positive dispositions for all learners. Leaders require strategies and approaches to achieve this. In this plenary session, Leonie will prompt participants to consider the importance of useful mental models and a vision that can enable their teaching teams to make progress in mathematics teaching and learning. Leonie will share practices and approaches that can build a positive culture of numeracy and mathematics in schools.
Session A: 10.20 – 11.40am		
A1	Doug Clarke (ACU)	Leading a professional learning session for colleagues: Some tips from an old presenter For the inexperienced presenter, leading professional learning opportunities can be nerve-racking. This also applies to presenting to a familiar (and unfamiliar) audience or on a new topic. In this workshop, Doug will draw on participants' experiences to identify the strengths of memorable presentations. Deciding on a workshop focus and title, structuring a workshop, ensuring sufficient participant activity (physical and cognitive), timing, the 'stance' taken (in relation to teachers and students), the importance of the end, and handling difficult questions will all be addressed. The role of classroom images and work samples, and some PowerPoint tricks will also feature in this workshop.
A2	Marina Papić (ACU)	Leading the development of early algebraic thinking in Foundation to Year 2 Algebraic thinking is a critical part of mathematical reasoning as it is the ability to see patterns, generalise, represent, justify, and reason with abstract mathematical structures and relationships. Thinking algebraically supports a deeper knowledge of algebra, as well as the thinking required to do and use mathematics. In this workshop, Marina will explore the importance of opportunities for young children to develop their algebraic thinking and reasoning. Practical ideas and strategies will be shared with mathematics leaders to make algebraic thinking more prominent in the early primary years.
A3	Peter Sullivan (Monash)	Using an instructional model to guide planning, teaching, and assessment There are many ways to teach well but it can help students if teachers consistently apply a model of instruction and use it with purpose. If students know what is to come in a lesson, it can reduce their anxiety and encourage them to engage more in mathematics learning. In this workshop, Peter will highlight the advantages of a clear instructional model for planning, teaching, and assessment. He will illustrate one such model in this workshop using a particular lesson.
A4	Ann Downton (Monash)	Using challenging sequences underpinned by big ideas to develop deep, connected learning Research suggests that productive struggle plays an important part in mathematics learning. It is through challenge and struggle that students have greater opportunities to activate thinking, and it prompts 'light bulb' moments for them. In this workshop, Ann will share an example of a challenging sequence of learning for the Early Years (F-2). The learning sequence will be unpacked as a way of presenting learning experiences that support students to build connections between mathematical ideas. Participants will also consider the role of mathematics leadership in supporting teachers with the tools necessary to effectively implement such sequences, along with an alternative lesson structure to support mathematics teaching.
A5	Matt Sexton (ACU)	From 'challenging' to 'expansive': Ways of having important conversations about issues in mathematics teaching When working with teachers, we are bound to face issues concerning teaching practice that may not align with the collective commitments for mathematics education in our schools. Effective leadership requires acknowledgement of tensions in practice, and then taking both a relational and developmental approach in ways of resolving those issues. In this workshop, Matt will lead participants through a process of moving from the idea of 'challenging conversations' to 'expansive discussions' in mathematics leadership. Routines to support the use of expansive discussions as a leadership tool will also be explored.
Lunch: 11.40am – 12.20pm		
Session B: 12.20 – 1.40pm		
B1	Panel discussion Matt Sexton Doug Clarke Aylie Davidson James Russo Peter Sullivan	Q&A: Hot topics in mathematics education facing mathematics leaders Several issues about mathematics education tend to surface for mathematics leaders through their work in schools. Three common issues that leaders face about mathematics teaching are: achievement (or ability) grouping (streaming); role of learning intentions and success criteria in maths; and the use of commercial assessment packages/programs. In this workshop, the first of its kind at the MTLCL Leadership Conference, Matt will moderate a panel of mathematics educators who will share their perspectives and advice on these three hot topics. This session will be run like the TV show 'Q&A' with some time available for participants to ask questions.

SESSION	PRESENTER	TOPIC
B2	Carly Sawatzki (Deakin)	Leading more meaningful financial numeracy in primary school settings Recent research identifies that teachers think financial numeracy is important and want to be shown how to design and implement better finance-related programs and lessons. However, teachers often lack confidence in this area because they are unfamiliar with the sorts of modern financial contexts that can connect students' real and mathematical worlds. In this workshop, Carly will explore what primary students need from their financial education in an increasingly digitised financial world, and how mathematics leaders can lead change in this direction within their schools. Mathematics leaders will learn by experiencing tasks and pedagogies that make mathematics meaningful for teachers and students alike.
B3	John Munro (ACU)	Leading mathematics teaching for students with special needs, our exceptional learners All teaching makes assumptions about how students learn, and some students learn in ways that do not match our assumptions. These students are our 'exceptional learners'. Provision for exceptional learners needs to consider how these students learn and the implications for modifying the teaching, curriculum advice and expectations, and the classroom culture for mathematics teaching and learning. In this workshop, John will examine tools that mathematics leaders can use to guide colleagues to identify how these students learn mathematics. This will include exploration of ways to differentiate teaching to take account of individual learning profiles. The workshop will focus on students with autism spectrum disorder (ASD).
B4	Eamon Light (ACU)	Leading by example: A balanced coaching partnership based on relational trust The development of teachers' pedagogical content knowledge and mathematical content knowledge is a career-long journey that is built upon over time. The quality of this growth is dependent on teachers being open and willing to engage in opportunities to develop their teaching capacity in partnership with their mathematics leaders. In this workshop, Eamon will explore a balanced approach to coaching where mathematics leaders lead by example, working alongside and building relational trust through constructive coaching and feedback that supports teacher development.
B5	Leonie Anstey (DET, Victoria)	Engaging reluctant teachers in development of mathematics teaching practice Mathematics leaders support a range of teachers in schools who are on a continuum of knowledge, skills, and dispositions in and towards mathematics education. As a result, some teachers may be hesitant to engage in ways of developing their mathematics teaching practices. In this workshop, Leonie will explore leadership strategies and skills that engage reluctant teachers to trial and implement lessons that support differentiation and learning for all students. Leonie will lead a hands-on approach to spotlight key professional learning approaches that have potential to influence reluctant teachers in a constructive way.
Afternoon tea: 1.40 – 1.50pm		
Session C: 1.50 – 3.10pm		
C1	Jill Brown (Deakin)	'Good' tasks to promote genuine collaborative planning for students' mathematics learning Good tasks are not only important for students but are necessary for effective professional learning. In this workshop, Jill will highlight several 'good' mathematical tasks, working through them whilst engaging in discussions about their mathematical and pedagogical benefits. Discussions about ways that leaders can use the tasks back in schools with teachers will highlight their potential to develop teachers' mathematical content knowledge, pedagogical content knowledge, and curriculum knowledge. The benefits of using such tasks in professional learning situations will be highlighted, including the importance of engaging 'teachers as mathematics learners' during collaborative planning meetings.
C2	James Russo and Jane Hubbard (Monash)	How do we effectively assess student thinking when learning through challenging tasks? Assessment practices should reflect student experiences of learning; however, teachers often have difficulty making judgments about the diverse range of responses students produce when engaged in solving mathematically-rich, problem solving tasks. Reconceptualising assessment so that it's more comprehensive and accurately assesses student thinking can be a daunting undertaking. In this workshop, James and Jane will introduce several approaches for supporting authentic assessment when teaching mathematics through challenging tasks. These include pre- and post-assessment using a marking key, monitoring student thinking as the lesson unfolds, and whole-class observational checklists. Participants will have the opportunity to consider how they might integrate these ideas into their existing school-based assessment practices.
C3	Chrissy Monteleone (ACU)	Importance of questioning: Influencing teachers' use of impactful questions in maths lessons Effective teacher questioning is one of the key components that elicits high levels of mathematical thinking by students. It is during conversations with students, supported by questioning, that teachers can shape mathematical thinking and gain further clarity about students' explanations. In this workshop, Chrissy will lead participants to reflect on the mathematics teachers' questions used in their schools' classrooms. Ways of leading teachers to move towards using probing and guiding questions, crucial in supporting students to elicit, interpret, and explain their mathematical thinking, will also be highlighted.

SESSION	PRESENTER	TOPIC
C4	Linda Parish (ACU)	When red + yellow = blue: Advice for leading mathematics teaching for gifted students Gifted students, along with all students, are entitled to rigorous, relevant, and engaging mathematics learning opportunities aligned with their individual learning needs, strengths, interests, and goals. Unfortunately, the advice in curriculum documentation on how to enact this with gifted students is often quite minimal, simply citing targeted learning as ways of support. It is therefore up to school leadership to interpret what appropriately targeted learning looks like for these students. In this workshop, Linda will highlight mathematically-gifted learners' unique learning needs and how these can be addressed within regular classroom instruction. Participants will focus on how to recognise mathematically-gifted traits especially in those who may be underachieving, and explore the difference between "high achievers" and "gifted" learners.
C5	Aylie Davidson (Deakin)	Many ways to teach maths well Teachers often ask, "what is the best way to plan a maths lesson? What types of tasks should I use?" The initial answer is always: there are many ways to teach maths well. In other words, students need a variety of learning experiences to develop meaningful understanding and build mathematical connections. In this workshop, Aylie will offer practical advice to mathematics leaders on how they can support teachers to plan challenging and balanced learning sequences using four different lesson types: (1) active teaching, (2) interesting games and puzzles, (3) imagined representations, and (4) what if? questions.
Prize draws and conference conclusion: 3.20 – 3.30pm		

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Australian Catholic University, 115 Victoria Parade, Fitzroy Vic 3065; ABN 15 050 192 660

PAYMENT METHOD

Credit Card (Preferred Method)

Option 1: Please pay online at: acu.edu.au/mathsconference (booking confirmed on payment).

Request invoice

Option 2: Please email mtlc@acu.edu.au and request an invoice. Please pay promptly on receipt of your invoice to secure your conference place and session preferences.

REGISTRATION PROCESS

Step 1: Register and pay

Secure your registration by making payment. Please use one of the above methods. Attendance at the conference is only confirmed once payment is received.

Step 2: Complete the conference preferences survey

Once your payment has been processed by the MTLC, you will be emailed a conference preferences survey. The survey will ask for:

- session preferences (early registrations will most likely guarantee first preferences)
- dietary requirements.

Please note:

- the survey will be sent once your payment has been processed
- workshops are allocated on a 'first paid, first in' basis
- first and second preferences for each session will be collected. Workshops will be closed for booking once room capacity is reached.

Step 3: Confirmation

You will receive confirmation of your registration by email (within one week of payment being received). If you have not received confirmation within one week of making payment, please email mtlc@acu.edu.au.

Please do not attend the conference unless you have received registration confirmation from the MTLC.

Refer to acu.edu.au/mathsconference for updated information.

Email mtlc@acu.edu.au with any queries.

REGISTRATION CLOSING ON 10 MARCH 2023 OR WHEN SESSIONS ARE FULL

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