

## Presentation Schedules

Tuesday July 6, 2021

### Presentation 1

SG & WA: 0900 – 1005

Sydney: 1100 – 1205

NZ: 1300 – 1405

Room	Presentations
<b>Jones</b> 3 Research Papers	Chair: Ban Heng Choy 1. Noticing structural thinking through the CRIG framework of mathematical structure by <i>Mark Gronow</i> 2. Secondary mathematics teachers' conceptions of assessment by <i>Hem Dayal</i> 3. The Tattslotto question: Exploring PCK in the senior secondary mathematics classroom by <i>Nicole Maher, Helen Chick &amp; Tracey Muir</i>
<b>Milton</b> 3 Research Papers	Chair: Sze Looi Chin 1. "I think it's 3D because it's not 2D": Construing dimension as a mathematical construct in a New Zealand primary classroom by <i>Shweta Sharma</i> 2. The development of predictive reasoning in Grades 3 through 4 by <i>Gabrielle Ruth Oslington, Joanne Mulligan &amp; Penny Van Bergen</i> 3. What sense do children make of "data" by Year 3? by <i>Jane Watson &amp; Noleine Fitzallen</i>
<b>Clements</b> 3 Research Papers	Chair: Lu Pien Cheng 1. Perspective taking: Spatial reasoning and projective geometry in the early years by <i>Jennifer S. Thom, Lynn M. McGarvey &amp; Nicole D. Lineham</i> 2. Spatial ability, skills, reasoning or thinking: What does it mean for mathematics? by <i>Danielle Harris</i> 3. A primary education mathematics initiative in an Indigenous community school by <i>Bronwyn Reid O'Connor</i>
<b>Leder</b> 6 Short Communications	Chair: Jaguthsing Dindyal 1. Using metaphors to evaluate pre-service teachers' attitude change over first year mathematics unit by <i>Jonathan Adams &amp; Tracy Logan</i> 2. How can novice STEM teachers develop integrated STEM materials: The first step from mathematics textbooks by <i>Takashi Kawakami &amp; Akihiko Saeki</i> 3. Primary school mathematics teachers' exploration of integration strategies within a community of practice by <i>Tarryn Lovemore &amp; Sally-Ann Robertson</i> 4. Supporting pre-service teachers of mathematics to 'notice' by <i>Lisa O'Keeffe &amp; Bruce White</i> 5. From deficiency to strengths: Prospective teachers' shifting frames in noticing student mathematical thinking by <i>Thorsten Scheiner</i> 6. Professional learning using a peer learning circle by <i>Vesife Hatisaru, Sharon Fraser, Carol Murphy &amp; Greg Oates</i>
<b>Malone</b> 1 Symposia	Singapore Enactment Project by <i>Berinderjeet Kaur (Chair), Tin Lam Toh, Joseph Boon Wooi Yeo &amp; Yew Hoong Leong</i>

## Presentation Schedules

Tuesday July 6, 2021

### Presentation 2

SG & WA: 1300 – 1405

Sydney: 1500 – 1605

NZ: 1700 – 1805

Room	Presentations
<b>Jones</b> 3 Research Papers	Chair: Berinderjeet Kaur 1. The reification of the array: The case of multi-digit multiplication by <i>Kristen Tripet</i> 2. Why should we argue about the process if the outcome is the same? When communicational breaches remain unresolved by <i>Joanne Knox</i> 3. Spatial reasoning and the development of early fraction understanding by <i>Chelsea Cutting</i>
<b>Milton</b> 3 Research Papers	Chair: Jaguthsing Dindyal 1. Understanding secondary school students' motivations for mathematics subject choice: First steps in construct validation and correlational analysis by <i>Jacky Tianmi Pei Bell, Jennifer Way &amp; Paul Ginns</i> 2. Charting a learning progression for reasoning about angle situations by <i>Rebecca Seah &amp; Marj Horne</i> 3. Comparative judgement and affect: A case study by <i>Jennifer Palisse, Deborah King &amp; Mark MacLean</i>
<b>Clements</b> 3 Research Papers	Chair: Yew Hoong Leong 1. The development and efficacy of an undergraduate numeracy assessment tool by <i>Andrea Knowles, Chris Linsell, Boris Baeumer &amp; Megan Anakin</i> 2. The metaphor of transition for introducing learners to new sets of numbers by <i>Igor' Kontorovich, Rina Zazkis &amp; John Mason</i> 3. Hands, Head and Heart (3H) Framework: More evidence for self-similarity by <i>Da Yang Tan, Eng Guan Tay, Kok Ming Teo &amp; Paul Maurice Edmund Shutler</i>
<b>Leder</b> 6 Short Communications	Chair: Joseph Yeo BW 1. What teachers notice about student's online mathematical thinking by <i>Anita Green</i> 2. Pre-schoolers' number sense strategies and patterns of strategy use during interactions with multi-touch technology by <i>Chengxue Ge, Stephen I. Tucker &amp; Siyu Huan</i> 3. Disrupting deficit discourses in mathematics education: Documenting the funds of knowledge of young diverse learners by <i>Jodie Hunter</i> 4. Spatial and numeracy skills at the beginning of preschool: A large-scale, nationally representative study by <i>Ilyse Resnick &amp; Tom Lowrie</i> 5. Tuning-in to non-linguistic resources during collective problem-solving in a second language context by <i>Sally-Ann Robertson &amp; Mellony Graven</i> 6. Accounting for embodiment via gestural number sense by <i>Stephen I. Tucker</i>
<b>Malone</b> 1 Symposia	Strengths approaches in early childhood mathematics education by <i>Amy MacDonald (Chair), Fiona Collins, Angela Fenton, Steve Murphy, Matt Sexton, Joce Nuttall, James Russo &amp; Toby Russo</i>

## Presentation Schedules

### Wednesday July 7, 2021

#### Presentation 3

SG & WA: 1030 – 1135  
Sydney: 1230 – 1335  
NZ: 1430 – 1535

Room	Presentations
<b>Jones</b> 3 Research Papers	Chair: Ban Heng Choy 1. Adapting curriculum materials in secondary-school mathematics: A case study of a Singapore teacher's lesson design by <i>Sze Looi Chin, Ban Heng Choy &amp; Yew Hoong Leong</i> 2. Teaching towards Big Ideas: A review from the horizon by <i>Yi Fong Loh &amp; Ban Heng Choy</i> 3. Pedagogical and epistemic beliefs of preservice secondary mathematics teachers: A pilot study by <i>Margaret Marshman &amp; Anne Bennison</i>
<b>Milton</b> 3 Research Papers	Chair: Jaguthsing Dindyal 1. Using interviews with non-examples to assess reasoning in F-2 classrooms by <i>Kate Copping</i> 2. Contextualising space: Using local knowledge to foster students' location and transformation skills by <i>Danielle Harris, Tracy Logan &amp; Tom Lowrie</i> 3. Engagement and outdoor learning in mathematics by <i>Alexandra Laird, Peter Grootenboer &amp; Kevin Larkin</i>
<b>Clements</b> 3 Research Papers	Chair: Joseph Yeo BW 1. Curriculum development and the use of a digital framework for collaborative design to inform discourse: A case study by <i>Ellen Jameson, Rachael Whitney-Smith, Darren Macey, Will Morony, Anne-Marie Benson-Lidholm, Lynne McClure &amp; David Leigh-Lancaster</i> 2. Language games in primary mathematics by <i>Patrick Galvin</i> 3. Teaching 21st Century Skills in the mathematics classroom by <i>Jennifer Missen</i>
<b>Leder</b> 5 Short Communications	Chair: Berinderjeet Kaur 1. The impact of the COVID19 induced primary school closures on the use of engaging mathematics pedagogies by <i>Catherine Attard, Steve Murphy, Lena Danaia, Kathryn Holmes, Jacquie Tinkler &amp; Fiona Collins</i> 2. Implementing a Spatial Reasoning Mathematics Program (SRMP) in Grades 3 through 4 by <i>Joanne Mulligan, Geoff Woolcott, Michael Mitchelmore, Susan Busatto, Jennifer Lai &amp; Brent Davis</i> 3. Connecting calculation strategies through grounding metaphors by <i>Carol Murphy</i> 4. Collaborative problem-solving: An initial analysis of the role of prompts to support online learners in mathematics by <i>Lisa O'Keeffe, Bruce White, Amie Albrecht, Chelsea Cutting &amp; Bec Neil</i> 5. From modeling perspectives to analyze the mathematics grounding activities in classes: Take the game of adding and subtracting decimal numbers module as an example by <i>Wei-Hung Huang &amp; Wan-Ching Tseng</i>
<b>Malone</b> 1 Symposia	<i>Let's count: Success and expansion</i> by <i>Bob Perry (Chair), Ann Gervasoni, Anne Roche, Amy MacDonald, Paige Lee, Sue Dockett &amp; Wendy Field</i>

## Presentation Schedules

### Wednesday July 7, 2021

#### Presentation 4

SG & WA: 1145 – 1250  
Sydney: 1345 – 1450  
NZ: 1545 – 1650

Room	Presentations
<b>Jones</b> 3 Research Papers	Chair: Ban Heng Choy 1. Insights into the pedagogical practices of out-of-field, in-field, and upskilled teachers of mathematics by <i>Merrilyn Goos &amp; Aoife Guerin</i> 2. Professional development and junior secondary mathematics teachers: Can 'out-of-field' teachers benefit too? by <i>Rebekah Strang</i> 3. By teaching we learn: Comprehension and transformation in the teaching of long division by <i>Ban Heng Choy, Joseph Boon Wooi Yeo &amp; Jaguthsing Dindyal</i>
<b>Milton</b> 3 Research Papers	Chair: Lu Pien Cheng 1. Why that game? Factors primary school teachers consider when selecting which games to play in their mathematics classrooms by <i>James Russo, Toby Russo &amp; Leicha A. Bragg</i> 2. Conceptualising 3D shapes in New Zealand primary classrooms by <i>Shweta Sharma</i> 3. Capitalising on student mathematical data: An impetus for changing mathematics teaching approaches by <i>Tracey Muir</i>
<b>Clements</b> 3 Research Papers	Chair: Yew Hoong Leong 1. Computer based mathematics assessment: Is it the panacea? by <i>Angela Rogers</i> 2. The development and validation of two new assessment options for multiplicative thinking by <i>Dianne Siemon, Rosemary Callingham &amp; Lorraine Day</i> 3. The impact of formative video feedback on pre-service teacher's self-regulation and self-confidence in online mathematics education by <i>Chelsea Cutting &amp; Kevin Larkin</i>
<b>Leder</b> 5 Short Communications	Chair: Berinderjeet Kaur 1. A scoping review of research into mathematics classroom practices and affect by <i>Steve Murphy &amp; Naomi Ingram</i> 2. Assessment-related affect in mathematics: Results from a quasi-experimental study by <i>Kaitlin Riegel, Tanya Evans &amp; Jason Stephens</i> 3. Overcoming issues of status and creating pathways for learning mathematics in one primary school classroom by <i>Generosa Leach</i> 4. Investigating the disconnect of theory and practice: Differentiating instruction in secondary mathematics by <i>Andrew Marks, Geoff Woolcott, Christos Markopoulos &amp; Lisa Jacka</i> 5. Reflecting upon mathematical competency: An appreciative inquiry by <i>Catherine McClusky</i>
<b>Malone</b> 1 Symposia	Issues and affordances in studying children's drawings with a mathematical eye by <i>Jennifer Way (Chair), Jill Cheeseman, Ann Downton, Anne Roche, Sarah Ferguson, Katherin Cartwright, Janette Bobis, Kate Quane, Mohan Chinnappan &amp; Sven Trenholm</i>

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## Presentation Schedules

### Thursday July 8, 2021

#### Presentation 5

SG & WA: 1015 – 1120  
Sydney: 1215 – 1320  
NZ: 1415 – 1520

Room	Presentations
<b>Jones</b> 3 Research Papers	Chair: Lu Pien Cheng 1. Secondary pre-service teachers' views on using games in teaching probability: An international collaboration by <i>Hem Dayal &amp; Sashi Sharma</i> 2. Coding and learning mathematics: How did collaboration help the thinking? by <i>Nigel Calder &amp; Kate Rhodes</i> 3. Pre-service teachers' wellbeing balance when learning mathematics and numeracy by <i>Philemon Chigeza</i>
<b>Milton</b> 3 Research Papers	Chair: Jaguthsing Dindyal 1. Leading mathematics: Doings of primary and secondary school mathematics leaders by <i>Colleen Vale, Anne Roche, Jill Cheeseman, Ann Downton, Ann Gervasoni, Penelope Kalogeropolous, Sharyn Livy &amp; James Russo</i> 2. Teacher actions for consolidating learning in the early years by <i>Sharyn Livy, Janette Bobis, Ann Downton, Melody McCormick, James Russo &amp; Peter Sullivan</i> 3. Exploring the 'high' and 'low' points in primary preservice teachers' mathematics-related identity development by <i>Janette Bobis, Janet Nguyen &amp; Heather McMaster</i>
<b>Clements</b> 2/3 Research Papers	Chair: Joseph Yeo BW 1. A decade of MERGA research papers in mathematics teacher education by <i>Daya Weerasinghe</i> 2. Analysis of secondary school textbooks on trigonometric identities by <i>Si Ying Lim</i>
<b>Leder</b> 2/3 Research papers	Chair: Yew Hoong Leong 1. Pre-service teachers use of mobile apps for teaching geometry by <i>Meegasdeniya Nelie Shiyama Edirisinghe</i> 2. Digital competences of high school mathematics teachers in Pakistan: A pilot study to validate the online survey by <i>Mairaj Jafri</i>
<b>Malone</b> 1 Round Table	Chairs: Jodie Hunter & Ban Heng Choy Comparing mathematics curricula across countries: What do they tell us? by <i>Jodie Hunter &amp; Ban Heng Choy</i>