

Investigating Mathematical Inquiry

Katie Makar
The University of Queensland
<k.makar@uq.edu.au>

Jill Fielding-Wells
University of Tasmania
<jill.wells@utas.edu.au>

Kym Fry
The University of Queensland
<k.fry1@uq.edu.au>

Sue Allmond
Jindalee State School
<sallm6@eq.edu.au>

Jude Hillman
Jindalee State School
<jhill98@eq.edu.au>

The aim of this Round Table is to bring together a community of researchers who focus on the teaching, learning, assessment, and research of a mathematical inquiry approach. We invite those interested in the study of mathematical inquiry to discuss their work or aspects of inquiry that are in need of research. A few questions are listed below to provoke conversation. Bring your own!

1. What shared and unshared perspectives do we have of mathematical inquiry?
2. What are purposes of mathematical inquiry?
3. How can mathematical inquiry be used to assess learning?
4. What signature practices characterise inquiry pedagogy in mathematics education?
5. How is mathematical inquiry similar to or different from inquiry in other content areas, such as science?
6. How does the teaching of mathematical inquiry fit into the broader repertoire of pedagogies used by teachers in the course of a year?
7. What challenges do teachers and students face in adopting mathematical inquiry?
8. Does an inquiry approach benefit children with different backgrounds differently?
9. What are key benefits and drawbacks of learning mathematics through inquiry?
10. Do particular strands of mathematics fit better with inquiry?
11. Does mathematical inquiry improve learning in mathematics?
12. Is mathematical inquiry scalable?
13. How can different paradigms contribute to a diversity of insights into mathematical inquiry?
14. What key research areas are strongly tied to mathematical inquiry (e.g., argumentation, socio-mathematical norms, collaboration)?
15. What are possible programs of research for mathematical inquiry?