

TRUTHFULNESS, OPEN-MINDEDNESS AND EVIDENCE: SEEKING THE INTELLECTUAL VIRTUES IN SCHOOL MATHEMATICS

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Short description of the workshop: aims and underlying ideas

The intellectual virtues have been described by Sockett (2012) as including aspects such as truthfulness, open-mindedness and evidence. Building on the ideas of Aristotle and MacIntyre (2007), who called for a rediscovery of Aristotelian ethics in contemporary society, Sockett claims that these virtues are the mark of an educated human being and should form a central goal of education. However, neither Sockett nor others with an interest in education and philosophy have specifically identified how such virtues can be developed through the core disciplines such as mathematics. In this Discussion Group we propose to:

- a) Introduce and discuss key concepts of virtue ethics, specifically the intellectual virtues;*
- b) Examine how the intellectual virtues might inform mathematics education, specifically mathematics curriculum;*
- c) Examine how mathematics education might contribute to broader goals of education, specifically the fostering of intellectual virtues; and*
- d) Commence an ongoing discussion of intellectual virtues in mathematics education, leading to the presentation and publication of papers in mathematics education and educational philosophy conferences and journals.*

Planned structure:

Planned timeline	Topic	Material / Working format / presenter
Session 1: Introduction and exemplification	What are the intellectual virtues? Are there specific intellectual virtues that are particularly pertinent in mathematics education?	An outline of virtue ethics and the intellectual virtues (Moltow) Open discussion of with specific reference to mathematics education
	Are there specific examples of how the intellectual virtues are	An example of the intellectual virtues: massively

	realized in and through mathematics and mathematics education?	collaborative research in mathematics (Thornton) Open discussion, with request for examples from participants
Session 2: Realization and action	How are the intellectual virtues described in curriculum documents? What is the relationship between the specific goals of school mathematics and the broader goals of virtue ethics?	An examination of the intellectual virtues in a curriculum documents (Thornton) Open discussion of curriculum documents from participants' contexts
	How might the development of intellectual virtues in mathematics education be realized at different levels of schooling? Are there specific pedagogies, such as inquiry approaches to mathematics, that promote the development of the intellectual virtues in mathematics?	Presentation and discussion of classroom resources at two levels of schooling (Kinnear, Thornton)
	How might we shape a future research agenda for mathematics education and the intellectual virtues?	Open discussion: How might we shape a future research agenda for mathematics education and the intellectual virtues

References

- MacIntyre, M. (2007). *After Virtue (3rd ed.)*. Notre Dame: University of Notre Dame Press.
- Moltow, D., Thornton, S. & Kinnear, V. (2015). *Mathematics education as a practice in pursuit of [intellectual] excellence*. Paper presented at the 39th annual conference of the International group for the Psychology of Mathematics Education, Hobart 13-18 July, 2015
- Sockett, H (2012). *Knowledge and virtue in teaching and learning: The primacy of dispositions*. New York: Routledge.