

**BSRLM Early Years and Primary Mathematics (EYPM) Working Group  
Minutes of the Second Meeting**

**Venue:** University of Nottingham

**Date:** Saturday 3<sup>rd</sup> March 2018

**Time:** 11:40-12:45

**Chair:** Sue Gifford and Natthapoj Vincent Trakulphadetkrai

**Scriber:** Natthapoj Vincent Trakulphadetkrai

**In attendance:**

Anne Mulligan (Middlesex University London); Catherine Gripton (Nottingham Trent University); David Godfrey (Independent); Gwen Ineson (Brunel University London); Julie Alderton (University of Cambridge); Natthapoj Vincent Trakulphadetkrai (University of Reading); Rachel Marks (University of Brighton); Sue Gifford (University of Roehampton); and Vivien Townsend (Manchester Metropolitan University)

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Following the recent release of the 'Improving Mathematics in Key Stages 2 & 3' guidance report by the Education Endowment Fund (EEF), the EEF is exploring the possibility of producing an EYFS and Key Stage 1 version of the guidance which, as we understand, will continue to be based on a review of the research evidence.

Given the research expertise of our EYPM Working Group members, EYPM WG members were asked to respond to the six questions from EEF below. The summary of views discussed is included below.

**Question 1: Does it make sense to address both age groups together? Or should we tackle these groups separately?**

"Both together -> to encourage both groups of teachers to see / read both. EYFS -> different philosophy so would be good to include together."

"Yes, bridge gap and have EY/KS1 read each other."

"Both together as transition EY-KS1 is important and internationally school starting ages are different so what works for 6 year olds will include early years research from some countries and the first years of statutory schooling in others. Need to ensure that there is a balance of EY and KS1 on specific issues even where more research evidence exists for one age phase than the other. Need to include holistic research in early years which includes mathematics within it."

**Question 2: Does the What Works Clearinghouse practice guide on "Teaching Maths to Young Children" provide a good starting point for the EEF guidance? Should we adopt the WWC recommendations? <https://educationendowmentfoundation.org.uk/school-themes/mathematics/#strands> (scroll down to bottom of the page)**

"Concern about having 'tips'. Great to have summaries, easy to read, practitioner-focused. We agree with these recommendations, but would want an international perspective."

"Yes, succinct message for busy teachers."

"Need to broaden the WWC focus to fully include relevant international evidence (including New Zealand, Finland, Hungary, Italy, high performing jurisdictions of the Far East, etc)."

**Question 3: What guidance for early years and KS1 teachers already exists? What training already exists? Is it good?**

“White Rose (+ other Hubs training); LT squared; Teaching channel; DREME (Ginsberg); NCETM; Maths Mastery; Maths No Problem; Development Matters; Nrich; Numicon; Learning Trajectories (Clements and Sarama)”

“Specific to representations, such as Numicon, but not ‘general / comprehensive’ picture. Development Matters – still used as good and not much else to run with. NCETM, Mastery, NC leads to KS2 approach”

“Early learning goals and development matters, NCTEM mastery Y1 PD materials, maths hubs training and materials, Ofsted, baseline, text books and schemes, Learning Trajectories (Clements and Sarama), NRich EY/KS1, Early Excellence training, local authorities training and materials, old BEAM materials, Making Numbers (and Nuffield research), old NNS/PNS materials, Maths Mastery scheme, independent consultants (including KEYU, OSIRIS, Juliet Robertson’s creative star), Numicon materials and training, Numbers and Patterns – Laying Foundations document, Young Mathematicians at Work books (Twomey Fosnot and Dolk).”

**Question 4: Which aspects of practice are well-informed by the research evidence? Where are there gaps between evidence and practice?**

“**Well-informed areas** -> Growth mindset; variation; concrete, pictorial, abstract (CPA). **Gaps** -> KS1 use of textbooks (no research-based in the UK); ability grouping -> not based on research; talk”

“Is it possible to use / translate the 8 recommendations from KS2/3 EEF report for EYFS/KS1 -> perhaps a need to add something specific to capture what is special about EY e.g. play and learning environment including outdoor.”

“Gaps: EYFS – early counting, using manipulatives, early reasoning (non-verbal), early algebraic thinking, pattern, progression. KS1 – generality, teacher questioning, ability grouping and differentiation, progression. Sometimes the research evidence for KS1 is quite old.”

**Question 5: What is the consensus about what constitutes “good practice” in maths teaching?**

“Assessment for Learning (AFL); talk; variation; CPA”

“Whose consensus?”

“Varied. Not much agreement. Importance of manipulatives, talk and communication, mathematical graphics/jottings, play and child ownership, research-informed, developmentally appropriate.”

**Question 6: Following Question 5, what are some of the key areas of contention?**

“What is Early Years? (i.e. not all schools – childminders, etc.). Adoption of policy borrowing i.e. textbook adoption. Ability grouping. What is mastery? CPD.”

“Play. Use of games. Use of stories. Use of songs/music. When and how to assess. What is maths? What understanding is wanted – how do teachers with weak subject knowledge respond to this? Children can only go deep if teachers have deep knowledge e.g. mathematical language. What is developmentally best for children?”

“Developmentally appropriate starting points and expectations, differences across national curricula, Teaching for Mastery, schoolification of early years.”

In this second meeting, the participants were also asked to briefly state their research interests. This is summarised below.

Participants	Research interests
Anne Mulligan	Generalizing in early years; collaborative classroom; teacher questioning; ITE
Catherine Gripton	Early years mathematics; play; children's experience of mathematics; ability
David Godfrey	Creativity in primary mathematics; narrative/story in calculation
Gwen Ineson	Mathematics teachers' subject knowledge; 'talk'; early algebra reasoning
Julie Alderton	Assessment policy; gender and mathematics education; Years 6-7 transition
Natthapoj Vincent Trakulphadetkrai	Mathematical stories
Rachel Marks	Ability grouping and alternatives
Sue Gifford	Early years mathematical difficulties; patterns
Vivien Townsend	Mastery; fraction; policy enactment