WORKSHOPS ABOUT MENTAL ACTIVITIES:

NUMBER SENSE IN FOUNDATION PHASE

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Target audience: Foundation Phase teachers

Motivation for Workshop

Workshops conducted in the first year of the Wits Maths Connect – Primary Project at Wits, a 5 year research and development project - provide evidence that supports earlier findings of teaching in the Foundation Phase (FP) that teachers have an inclination of keeping learners dependent on concrete strategies. Our aim is to intervene in this situation through focusing on assisting teachers to move learners from a dependence on concrete strategies to abstract calculating, in order to develop more flexibility and efficiency with number.

Content of workshop

In this workshop, we present an outline of the Lesson Starter Activities project and teaching towards more flexible and abstract calculating strategies. The workshops will focus on five key areas related to developing number sense in the FP. These are number identifications and numerosity, counting, addition and subtraction, multiplication and division. Haylock and Cockburn (2008) present a framework that supports the development of all five aspects. This framework advocates for connections between words, actions, pictures and symbols.

Our aim is to use this outline to simulate conversation about the importance of the five key areas and the use of the Haylock and Cockburn (2008) framework. We focus on mental activities for number sense in the workshop. We aim to both understand teachers' selection of mental activities and to develop spaces where a focus on developing coherent 'number sense' activities is brought to the foreground.

We aim to end the workshop with opportunities for the teacher to design activities in ways that better achieve 'local goals' relating to 'mental activities' and move towards international goals related to the development of number sense and the development of more sophisticated strategies for operating with numbers.

Proposed time allocation for workshop activities

Reading and discussion of Lesson Starter Activities	0 – 30 minutes
What are we trying to achieve when focusing on mental activities in mathematics lessons – sharing inputs and frameworks	30-60minutes
Designing lesson activities to better achieve number sense	60-90minutes
Presentation and discussion of designed activities to enhance mental activities	90-120minutes