

# RESEARCH FORUM ON EARLY ALGEBRA

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The purpose of this Research Forum is to debate, in the context of both well established and more recent research evidence, issues about the relationship between arithmetic and algebra, including their mathematical similarities and differences, their relative places in the school curriculum, the apparent difficulties of the transition from arithmetic to algebra and pedagogic approaches which address this transition.

To create a context for this debate, David Carraher, Analucia Schlieman and Barbara Brizuela were asked to write a stimulus paper based on their research into algebraic thinking with 8-9 year olds. Their paper, which follows, challenges some assumptions embodied in school curricula. It was made available on the PME25 website, and anyone planning to attend the conference was invited to contribute a short written reaction.

Because of limitations of space in these Proceedings, I had the difficult task of selecting from these reactions five which represented the range of issues raised. These reactions, from Liora Linchevski, Luis Radford, David Tall, Anne Teppo, and Elizabeth Warren and Tom Cooper, are printed here. I am very pleased that most of those reactors whose papers could not be included have accepted the invitation to participate in other ways in the Forum, and to make their papers available to other participants. Reactions were also received from, Laurinda Brown and Alf Coles, Stephen Campbell, Wim Van Dooren and Lieven Verschaffel, Nicolina Malara and Giancarlo Navarra, and Ana Pasztor.

## **The organisation of the Forum**

In the first session, David Carraher and his colleagues will make a presentation based on their paper, including some video footage, to give a shared context for discussion. The authors of the five Reaction papers will then each make a short response, and raise some specific questions for discussion. There will then be a substantial time for group discussions, running over into the second session.

The second session will also contain an opportunity for groups to report on their discussions, and a 'plenary panel' discussion with the paper authors.

**If you plan to participate in the Forum, please try to read the papers in this section before the first session.**