

DG02: THE ROLE OF MATHEMATICS IN SOCIAL EXCLUSION/INCLUSION: FOREGROUNDING CHILDREN'S BACKGROUNDS

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At PME 27 this discussion group considered the theoretical contributions made by psychological and sociological paradigms to understanding inclusion/exclusion in mathematics learning. This discussion group will continue in this direction this year by considering how children's diverse backgrounds, i.e. family, social, ethnic, linguistic, peer group, etc., impact upon classroom learning of mathematics. That there is such an impact is clear but the relationship between school and home is also highly complex. The group will present data from a number of projects that consider the relationship between children's experiences out of school and their learning of school mathematics. In addition a number of theoretical perspectives will be offered as start points for further discussion.

Session I

Introduction of the theme: understanding and developing children's inclusion in classroom mathematics learning by exploring the unseen and diverse background experiences of children

- The middle part of this first session will present case study data from investigations of the relationship between children's experiences inside and out of classrooms. These studies include amongst other things studies aimed at:
 - Developing home-school links; learning from numeracy in the home, accounting for language, etc.;
 - Developing numeracy practices of children from disadvantaged backgrounds;
 - Developing understanding of mathematics learning dispositions as shaped in the family;
- This will lead to some initial discussion around the issues raised from the case material

Session II

- Following a brief recap of session 1 the group leaders will offer a number of theoretical positions that have, or could have, been adopted to make sense of the data presented in the first session. These might include perspectives from socio-cultural, sociological, critical and activity theory.
- This will be followed by a more general discussion of how the mathematics education community might develop these and other frameworks to explore in more depth the impact of children's social milieu upon their learning of mathematics.
- We aim to conclude the discussion with the recommendation of further avenues of inquiry in this area.