

RESEARCH ON EMOTION IN MATHEMATICS EDUCATION — THEORIES AND METHODOLOGIES

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Within the Project Mathematical Thinking the research team has developed ways of looking at key issues in mathematics education research, namely emotion, transfer and assessment, through the lenses of four theoretical *perspectives* current in mathematics education and in social research more broadly: theories of symbolic control; situated learning; discursive practices; and semiotic mediation.

In our work on emotion, as with much recent work in mathematics education, we tried to move beyond a narrowly psychological approach and, influenced by cultural, sociological and psychoanalytic approaches, developed new ways of addressing how emotion permeates mathematical activity in the classroom.

Drawing from earlier work of Evans (2000) who used textual analysis of interview transcripts based on a discursive practice framework and a psychoanalytic basis for the methodology we then applied a range of methodological tools, including emotion metaphors (Kovecses, 2000; Lakoff, 1987), cognitive scenarios and scripts (Wierzbicka, 1999) to analyse classroom episodes. Through the analysis of transcripts of problem-solving interviews and classroom episodes it was possible to notice how emotions apparently attached to mathematical activity nevertheless draw on the experience and beliefs related to schooling more broadly and to non-school contexts rather than to narrowly school mathematical issues. Emotion is seen as integral with cognition and, whether it manifests itself as enjoyment or aversion, a relevant issue in the development and sustaining of mathematical activity in the classroom.

In this presentation we will discuss the methodologies used to address the corpus of data.

References

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- Wierzbicka, A. (1999). *Emotions across Languages and Cultures – diversity and universals*. Cambridge: Cambridge University Press.