

RESEARCHING IDENTITY AND AFFECT IN MATHEMATICS EDUCATION

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In researching identity in mathematics education we propose focusing on four general aspects: 1) a consistent conceptualization of identity, in particular of mathematical identity, 2) the exploration of possible analytical tools resulted from this conceptualization to identify one's mathematical identity in a given mathematical school context, 3) identification of how these identities emerge in terms of one's (within and without institutional) mathematical experiences, 4) reflection about teaching strategies to foster the students to develop a healthy mathematical identity. We consider aspect number 1 as mainly theoretical, whereas aspects number 2 and 3 as mainly empirical. Aspect number 4 refers to pedagogical implications resulting from the preceding aspects. In what concerns aspect number 1, we follow Gee (2000) when he says that identity means being a certain 'kind of person'. This 'being a kind of person' is shaped by our experiences in the several social practices we participate in and can change across contexts and time; it depends on our different performances in different contexts. From this perspective one's 'core' identity is constituted by multiple context-based identities. In the context of mathematical education, being a certain 'kind of person' can be understood in terms of the relationship the subject (student, student teacher, teacher) develops with the discipline (Gómez-Chacón 2000, Boaler 2002). For Gómez-Chacón (2000), for example, this relationship involves information and knowledge, and interaction with that knowledge. This interaction, in its turn, can be characterised by the subject's personal experiences in mathematical practices and how he position himself in relation to mathematical knowledge. These are infused of affective components: beliefs, values, emotions, motivations, attitudes and success and failure attributions. In our presentation we provide data from some of our studies, one with secondary students (Frade & Machado, 2008) and other with primary student teachers (Gómez-Chacón, 2006) to illustrate aspects number 2 and 3.

References

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