## STUDENT AUTHORITY IN MATHEMATICS CLASSROOM DISCOURSE

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In order to achieve diffusion of authority in mathematics classroom discourse, it is necessary to investigate the authorship (Burton, 1999) of knowledge, that is how mathematical learners come to create and negotiate their meanings. In an epistemological perspective of author/ity (Povey and Burton, 1999) meaning is understood to be negotiated. Teachers and learners who are sharing this perspective work with an understanding that they are members of a knowledge-making community.

In the ongoing research project to be presented, author/ity in the mathematics classroom discourse is studied. My research participants are six student teachers in a programme of teacher education for primary and lower secondary school, and two mathematics teachers, at the university college, who are responsible for the compulsory 30 credits course in mathematics didactics in the programme.

Central research questions are: What is the nature of student author/ity in mathematics classroom discourse? In what ways is student teachers' school-based learning helpful in order to develop a shared perspective of author/ity between teachers and learners?

Data has been and will be gathered by means of video recordings and field notes from whole-class lessons and student teachers' group work in mathematics at the university college, and from school-based learning. I also intend to conduct semi-structured interviews with student teachers. I am planning an inductive approach to analysis of data from observation and interviews.

Sociocultural theories of learning (Lave and Wenger, 1991) are underpinning the project, because of the emphasis that knowledge is constructed through interaction and in a context. To know is in sociocultural theories closely related to participation in communities of practice.

## References:

- Burton, L. (1999). The Implications of a Narrative Approach to the Learning of Mathematics. In L. Burton (Ed.), *Learning mathematics: From hierarchies to networks*. London: Falmer, 21-35.
- Lave, J. and Wenger, E. (1991). Situated Learning: Legitimate Peripheral Participation. Cambridge: Cambridge University Press.
- Povey, H. and Burton, L. (1999). Learners as Authors in the Mathematics Classroom. In L. Burton (Ed.), *Learning mathematics: From hierarchies to networks*. London: Falmer, 232-245.

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