

# Educational planning in mathematics as a part of macro-sociological structures

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Many teachers I have met have experiences of conversations with parents, principals, and colleagues about how the teaching in mathematics should be done. Some teachers have been talking about a pressure and how they adapted their teaching to requirements from others, something that can be interpreted as a perceived tension between didactic conviction and demands from other people. In an forthcoming study I want to explore educational planning in mathematics and the pressure teachers informally have been talking about. In a time where teachers and their teaching, especially in mathematics, are contested in the public debate it is of importance to look further into and describe this particular part of teachers considerations.

One teacher's teaching cannot be seen as an isolated event. The teacher and the teaching are parts of an educational system, systems that often are what Weick (in Choppin, Wagner, & Herbel-Eisenmann, 2012) calls "loosely coupled systems". Such systems have hierarchical structures but do not function as hierarchies. Instead power relations are distributed all over the system and many people at many levels are active agents. Since change, according to Weick requires change in beliefs and values among all agents, loosely coupled systems are resistant to change. At the same time the distribution of power makes the system sensitive to local issues (Choppin et al., 2012), which is good from an equity perspective. Hence, agency should according to Choppin et al. (2012) be distributed all over the educational system. Guitérrez (2010) on the other hand emphasizes that agents on many levels (e.g. teachers, parents, administrators and researchers) is one of the reasons that the mathematics education discourse promoted by policy documents not are a reality in all schools. Active agents on many levels are thus both a prerequisite for equity, and a part of the problem with mathematics education that does not change in accordance with steering documents and current research.

Disregarding that there are agents on many levels, teachers somehow plan their teaching, choose mathematical content, how to teach, and how to take their specific students into consideration. How they make their choices can be seen as a political act. As teaching can be seen as political and political can be defined as "awareness of the existence of *power*" (Valero, 2004, pp. 13) researching teaching may also include researching power. This interest in social, political and

power issues of mathematics education is often referred to as socio-political. The socio-political context can be defined as “the macro-sociological space that has an influence on the more focalized interactions of mathematics teaching and learning in micro-contexts such as classroom (Valero, 2002 in Valero, 2004, pp. 17). According to Valero (2004) the micro-context, for example what happens in the classroom, is inserted in multiple layers of contexts and with a socio-political interest in mathematics education it is important to reveal its social and political essence. Looking at the process of educational planning in mathematics that takes place in the micro-context can be one way to catch sight on the macro-sociological space that influence what happens in the classroom. In other words, the educational system with it’s power distributions and with it’s agents on many levels can be described as a macro-sociological space and the mathematics education can be described as a discourse within that system or space.

Wanting to explore and describe the educational planning as a specific part of the macro-sociological space that the educational system constitutes, there are some issues I am struggling with:

- Is it possible to describe the pressure teachers are talking informally about in terms of power and agency, and how will I be able to collect information that will help me highlight these issues?
- With respect to the theoretical perspective of knowledge being constructed in social context what is important to think about when designing the study?

## References

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