Mathematical practice as under-determined learning goals: the case of explaining diagrams in different classroom microcultures.


Summary: More and more curricula and standards worldwide specify not only mathematical contents as learning goals but also process-oriented goals for mathematical practices. But even with clear formulations in the formal curricula, the implemented curricula of these mathematical practices can diverge substantially for different classroom cultures, as this research report shows for the discursive practice of “explaining”. By adopting an interactionist perspective, we compare the implemented curriculum in different video-recorded classroom microcultures. The comparative case study on the topic “explaining diagrams” in grade 5 shows that explaining practices and their underlying norms differ considerably with respect to explanandum, repertoire of explanans in epistemic modes, and participation structures.

Classification: C73 D33 D43

Keywords: mathematical practice; learning goals; classroom culture