

Construction of Knowledge in Classrooms

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Students' construction of mathematical knowledge has usually been investigated in small groups of two to three students. However, students typically learn in much larger classroom communities. In this talk, I will report on attempts to combine two theoretical frameworks, Abstraction in Context and Documenting Collective Activity, in order to research the emergence of mathematical ideas and practices in inquiry-based mathematics classrooms. Abstraction in Context has successfully been used for investigating processes of construction of mathematical knowledge by small groups and individual students. Documenting Collective Activity has successfully been used for investigating how knowledge becomes normative in classroom communities. Networking the two frameworks empirically and theoretically facilitates investigations of how mathematical ideas and practices emerge, possibly in small groups, and later begin to function as if shared in the classroom community.