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**Mathematics and Education: Collaboration in Practice**

Over the last 15 years, we have been studying the work of teaching mathematics in primary school classrooms. Our goal, as research mathematician and teacher, has been to understand what it takes to teach mathematics with integrity, and to contribute the improvement of teachers’ training. We have asked: What is mathematical about mathematics teaching, and what are the mathematical demands of that work?

We brought to this research complementary training, skills, knowledge, and perspectives. We studied primary records of practice so as to focus on common artifacts that we could examine, analyze, discuss, and unpack. These records–– most often videotapes of lessons––also enabled us to hold teaching still, and to study and re-study the same moments, interactions, explanations, questions, and tasks.

The perspective that we have developed is that mathematics teaching is a special form of mathematical practice, and it has been this frame that has both required our collaboration and supported its development. We will illustrate this with examples, showing both the affordances of our work together, as mathematician and educator, and also its challenges and the problems we have had to solve.