

Presentation Code	2Ca
Title	A Study of Primary Teachers' Practices in Mathematics
Presenter/s	Valérie Batteau
Affiliations	Haute Ecole Pédagogique Lausanne (Switzerland)
Type of presentation	Paper presentation
Strand	Developing professional learning communities: models and practices
Time/ Location	Saturday 3 rd September 14:30-16:00pm (Forum Seminar Room 1)
Abstract	<p>Our research intends to study the evolution of primary teachers' practices through the analysis of the effects of a training and research process in mathematics: lesson study (LS). In this LS, the group consists of eight primary teachers ranging from experienced, voluntary and generalist teachers, and two coaches. The LS process occurs over two years with two collective sessions occurring per month in Lausanne (Switzerland). Teachers are involved in a professional development training in mathematics. How can this process modify teachers' practices? What is going to change in their practices? What is going to resist in their practices?</p> <p>We will present the theoretical framework, research questions and methodology in a first part and our analysis of teachers' practices in a second part.</p> <p>Teachers' practices are analyzed using the theoretical framework: the double approach (Robert & Rogalski, 2002, 2005) based on a French didactical approach and an ergonomic approach (Leplat, 1997) based on activity theory. In this framework, teachers' practices are seen as a complex, coherent and stable system. Regularities are observed in teachers' practices during three important moments of teacher's activity (process of devolution, regulation and institutionalization (Brousseau, 1997)) and correspond to teachers' strategies and choices. In the ergonomic approach, the main goal is to distinguish prescribed work (the prescribed task, or what the teacher must do) and real work (the conducted task, or what the teacher does in reality). To appropriate the prescribed task, the teacher should modify it. We study the teacher's activity as a process of modifications between tasks (Leplat, 1997; Mangiante, 2007). The prescribed task includes the mathematic task, the mathematical knowledge, the lesson plan and the planning material. The prescribed task is analyzed a priori: we study the mathematic knowledge at play in the task, the possible resolutions and the didactical variables. Then, we analyzed the</p>

	<p>proceedings of the conducted task.</p> <p>The first cycle of LS was about numeration, we analyzed Anaís' practices. The second cycle of LS was about geometry, we analyzed Oceane's practices. The third and fourth cycles of LS were about problem solving and we analyzed Valentine's practices.</p>
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Presentation Code	2Cb
Title	Sharing Emotions through Lesson Study: Cultivating Professional Capital and Professional Learning Communities of Teachers
Presenter/s	Yuu Kimura
Affiliations	University of Fukui (Japan)
Type of presentation	Paper presentation
Strand	Developing professional learning communities: models and practices
Time/ Location	Saturday 3 rd September 14:30-16:00pm (Forum Seminar Room 1)
Abstract	<p>Professional learning communities and professional capital of teachers are key concepts in the educational change and reform. In professional capital, decisional and social capital has strong effects of cultivating human capital (Hargreaves & Fullan, 2012). Especially, establishing professional learning communities in schools comes to cultivating social capital and facilitates professional development of teachers. In this sense, lesson study that teachers socially interact and talk about their practices is one of the key activities, which cultivate professional capital of teachers.</p> <p>But, in preceding studies, we could not show sufficient evidences that lesson study cultivates professional learning communities in schools. Now is the time for inquiring how do we establish strong professional learning communities in our schools, how do lesson study effects on cultivating strong professional learning communities and professional capital of teachers, and what happened in teachers' professional dialogue in lesson study that cultivate professional learning communities.</p> <p>This study examined how does sharing emotional practices of teachers through lesson study link to cultivating professional learning communities and professional capital. The reason why this</p>