## LESSON/LEARNING STUDIES (LS) AND MATH EDUCATION

Marisa Quaresma<sup>1</sup> and Carl Winsløw<sup>2</sup>

<sup>1</sup>Instituto de Educação, Universidade de Lisboa <sup>2</sup> Dept. of Science Education, Faculty of Science, University of Copenhagen

## Short description of the Discussion Group: aims and underlying ideas

Lesson Study (Shimizu, 2014) and Learning Study (Runesson, 2014) (LS) have a growing importance in teacher education, mostly in continuous professional development, but also in prospective teachers' education. LS are conducted in a variety of subjects, often with a non-subject specific point of view. Nevertheless, many LS are conducted in mathematics and are a specific subject of study for many researchers in mathematics education. Signs of this interest are the two mentioned chapters in the Encyclopedia of Mathematics Education (Lerman, 2014) or the Hart and al. book (Hart, Alston, & Murata, 2011b). This interest is paralleled by a demand of more solid theorization of the lesson study process (for eg. Clivaz, 2015; Hart, Alston, & Murata, 2011a; Miyakawa & Winsløw, 2009; Winsløw, 2011). Many social, cultural, cognitive and affective issues have reflexes in the way LS develop and on their results (Ponte et al., 2014). This DG will provide participants with an occasion to discuss the specificities of mathematics LS with regards to regional/national particularities, as well as the methodological and theoretical tools which may be used to carry out research on LS (it's forms, contents, effects etc.) from an international perspective.

## **Planned structure**

Tuesday, 16.30-18.00: Planned timeline	Topic	Presenter
16.30-16.40	DG introduction	Carl Winsløw and Marisa Quaresma (co-chairs)
	"Regional/national particularities and approaches of LS in mathematics education around the world".	
16.40-16.45	Mathematics Education LS in Japan from Historical, Institutional and Community Perspectives.	Baba, Takuya; Ueda, Atsumi; Ninomiya, Hiro; Hino, Keiko (Japan)
16.45-16.50	Promoting and sustaining Lesson Study in Malaysia: What we have learned?	Lim Chap Sam and Teh Kim Hong The (Malaysia)
16.50-16.55	Enacting curriculum reform through lesson study: a case study of the implementation of constructivist practices in the Irish post-primary mathematics classroom.	Aoibhinn Ní Shúilleabháin (Ireland)
16.55-17.00	Lesson Study on Statistics in Primary and Preschool in Chile".	Soledad Estrella and Raimundo Olfos (Chile)
17.00-18.00	Discussion	Stéphane Clivaz (discussant)

Friday, 16.30-18.00:	Topic	Presenter
Planned timeline		
16.30-16.35	Overview of session 1	Carl Winsløw and Marisa
	Introduction to "Theoretical, methodological and epistemological issues".	Quaresma (co-chairs)
16.35-16.40	Unifying Lesson Study with Teaching Mathematics through Problem Solving.	Fujii Toshiakira (Japan)
16.40-16.45	Link between teaching math through problem solving and Lesson Study: some viewpoints from Japan, USA and Switzerland.	Stéphane Clivaz (Switzerland)
16.45-16.50	Theoretical analysis of lesson study: paradidactic infrastructure and situations.	Carl Winsløw, Jacob Bahn, Klaus Rasmussen (Denmark)
16.50-16.55	Lesson study in preservice teacher education.	João Pedro da Ponte (Portugal)
16.55-17.00	LessonNote, A tablet-based application, for supporting effective mathematics lesson observation.	Akihiko Takahashi (USA)
17.00-18.00	Discussion	Takuya Baba (discussant)

## References

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