

**hep/** haute  
école  
pédagogique  
vaud

**HEPVS | PHVS**

Haute école pédagogique du Valais  
Pädagogische Hochschule Wallis



**BLIS**  
Laboratoire Lausannois Lesson Study  
Lausanne Laboratory Lesson Study

# LESSON STUDY IN SWITZERLAND

Valérie Batteau & Sara Presutti - 31.03.2026

Ciclo Internacional de  
Conferências em Lesson Study



Telling the story of how LS started in Lausanne, how it developed, what are our projects, our achievements and our challenges

GOAL OF THE PRESENTATION

Contar a história de como a LS começou em Lausanne, como se desenvolveu, quais são os nossos projetos, as nossas realizações e os nossos desafios

OBJETIVO DA APRESENTAÇÃO

# PLAN

- History of Lesson Study in Lausanne
- Overview of LS in mathematics
- Research interests and questions about LS
- Conclusion : 12 years of 3LS

# History of LS in Lausanne

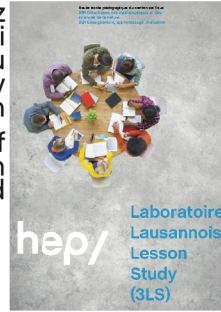
- **2008-2012:** LS in Lausanne University of Teacher education started from 4 teacher educators that discovered it independently
- **2013:** First LS group launched in 2013: 8 primary school teachers working on math lessons over 2 years
- **2014:** the **3LS (Lausanne Laboratory of Lesson Study)** is born
- Rapid expansion into multiple disciplines, school levels, pre-service and in-service teacher training, international partnerships
- **2018** first PhD in French about LS (Batteau, 2018)
- **2020:** slowdown in activities with teachers due to the COVID-19 pandemic
- **2022:** resumption of projects, effort to scale up



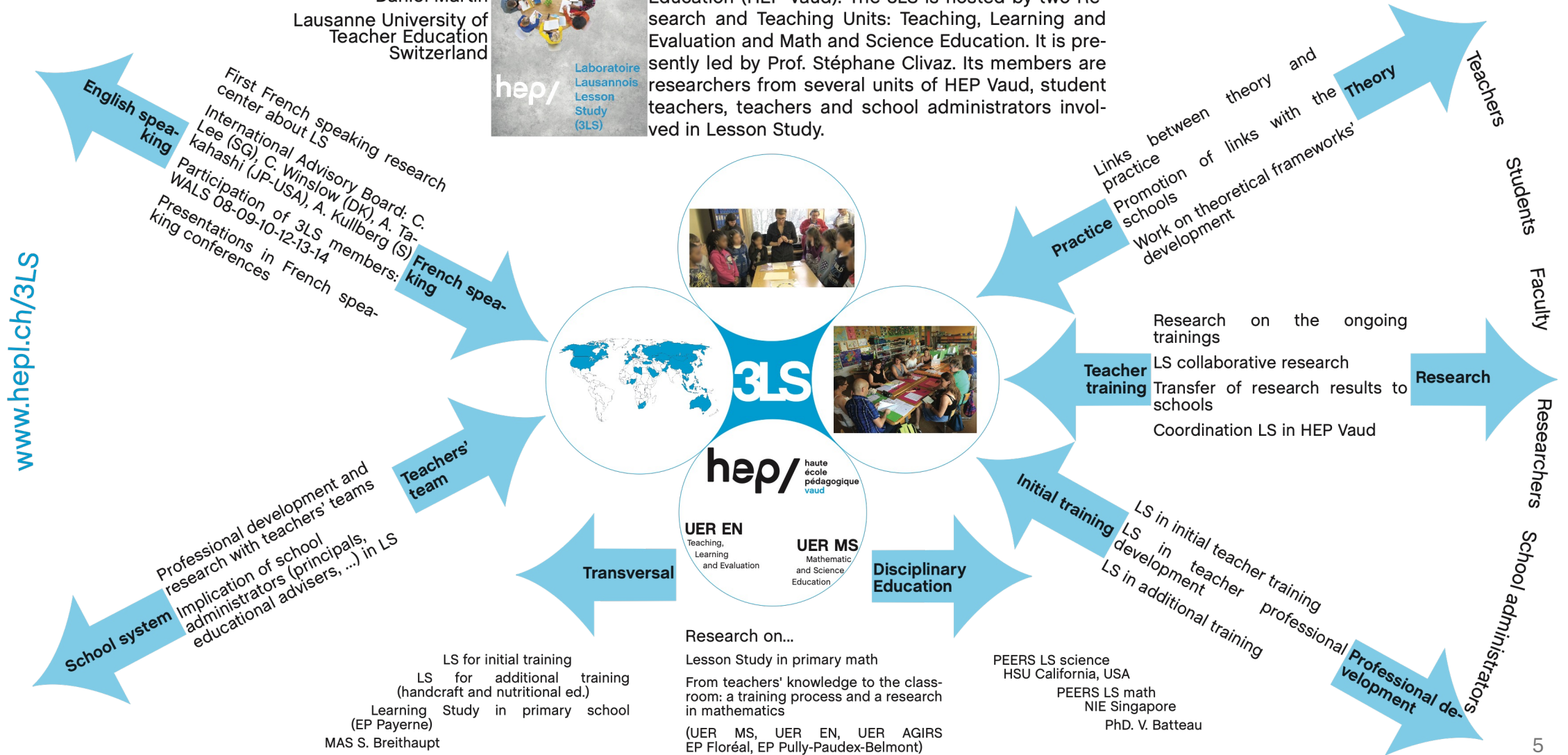
# Laboratoire Lausannois Lesson Study

## Lausanne Laboratory Lesson Study

Stéphane Clivaz  
Sveva Grigioni  
Valérie Batteau  
Anne Clerc-Georgy  
Daniel Martin  
Lausanne University of  
Teacher Education  
Switzerland



The Lausanne Laboratory Lesson Study (3LS) was created in 2014. It aims to gather and develop research projects at Lausanne University of Teacher Education (HEP Vaud). The 3LS is hosted by two Research and Teaching Units: Teaching, Learning and Evaluation and Math and Science Education. It is presently led by Prof. Stéphane Clivaz. Its members are researchers from several units of HEP Vaud, student teachers, teachers and school administrators involved in Lesson Study.



# LS in 3LS: different disciplines over the years



German

Sustainable development

Physical science

Basic learning

Biology

Mathematics

French

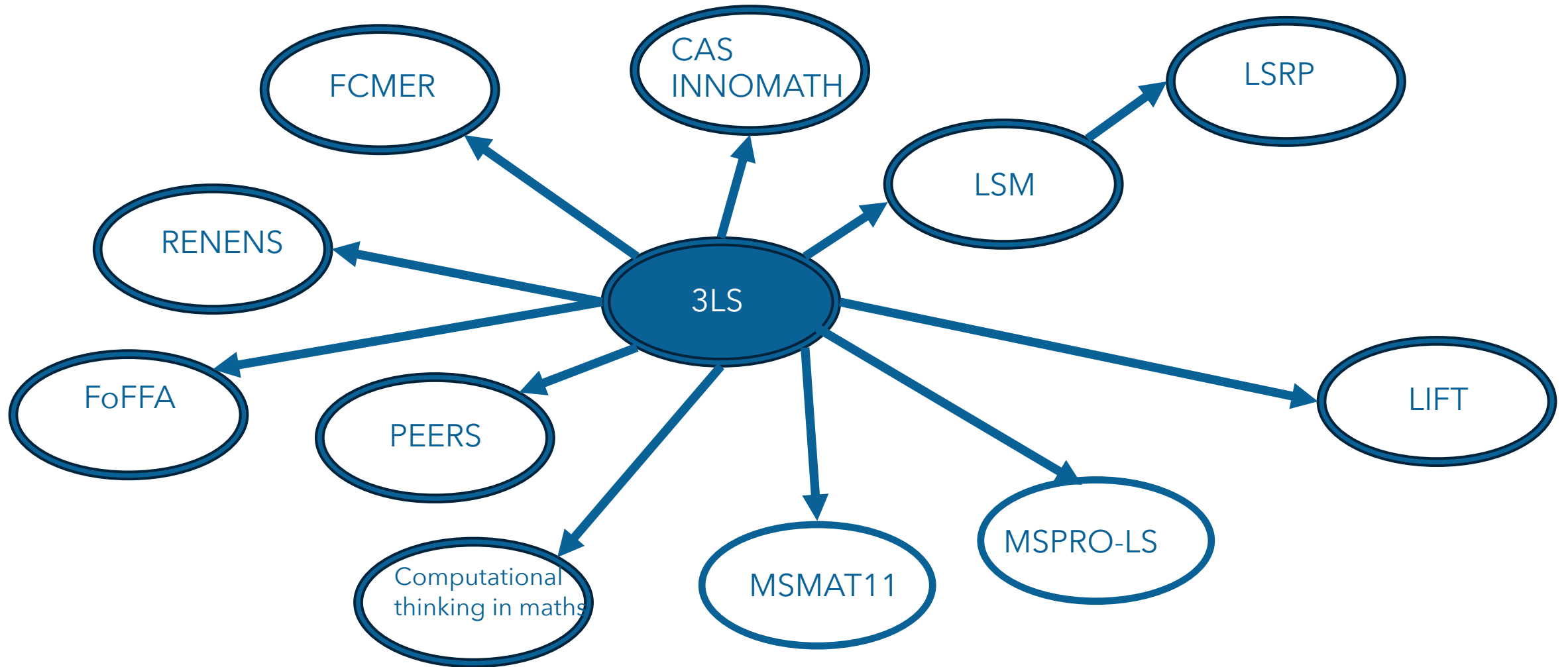
Music

Geography

English

Science

# Overview of LS in mathematics since 2013 (3LS laboratory)



## LS with...

Pre-service mathematics teachers

In-service mathematics teachers

Mathematics educators

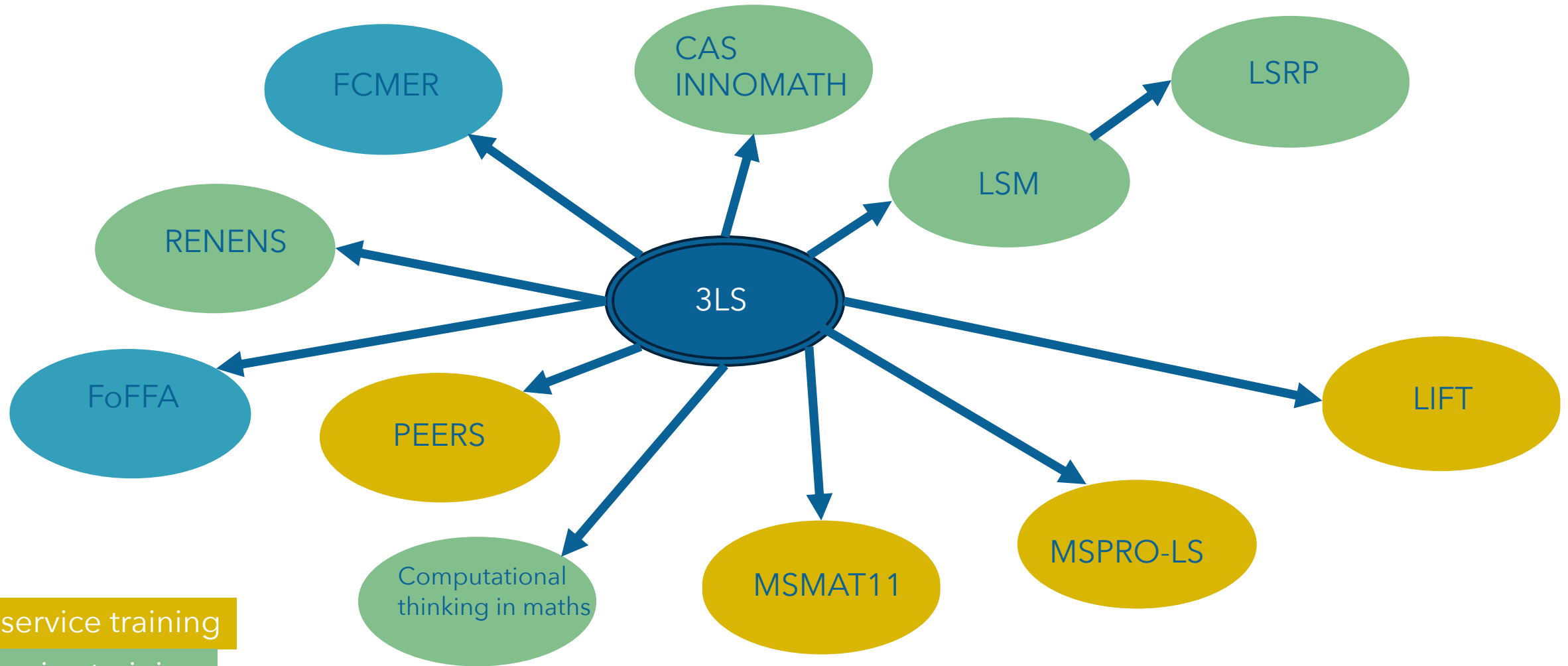
## LS for...

- Training pre-service teachers for the teaching profession
- Acquiring mathematics teaching knowledge

- Doing research with teachers
- Developing a research topic and having research data
- Pin the professional development of teachers

- Co-training
- Constituting a team
- Preparing training
- Designing resources

# Overview of LS in mathematics since 2013 (3LS laboratory)

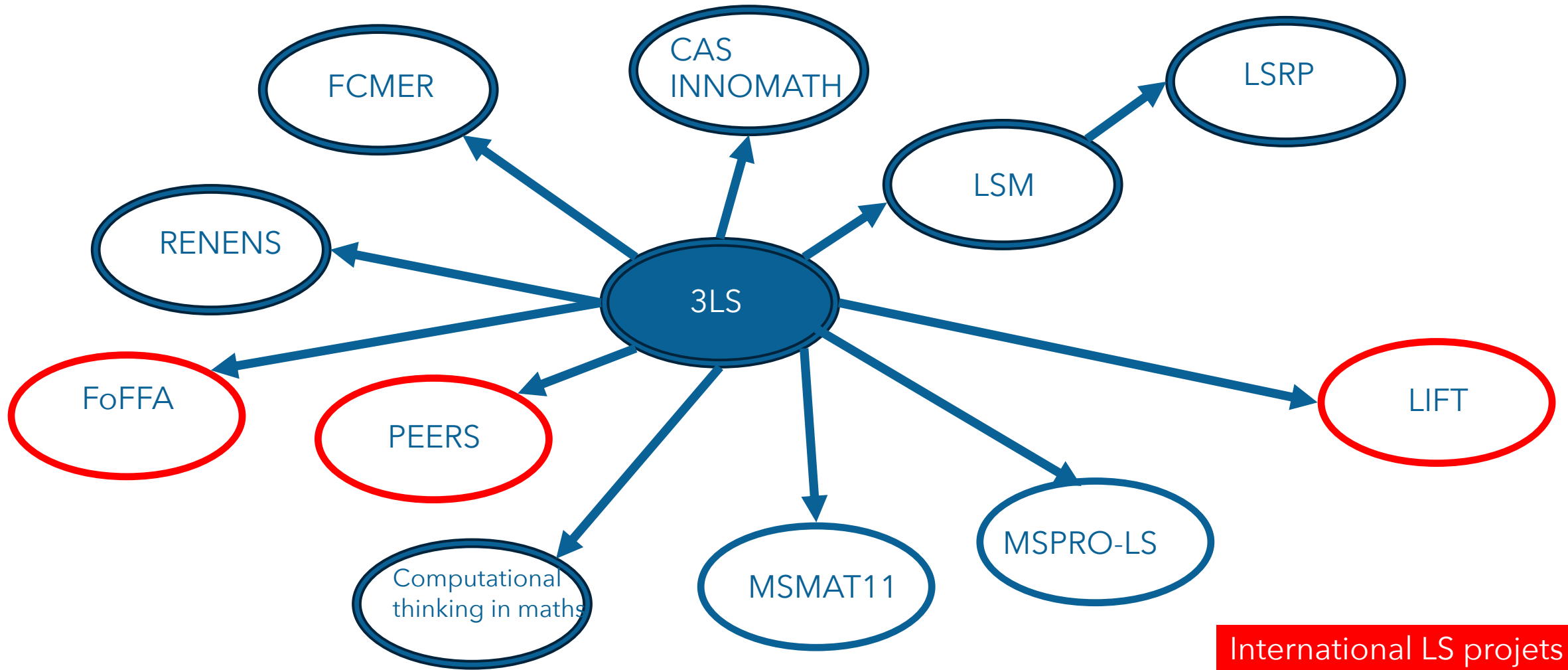


Pre-service training

In-service training

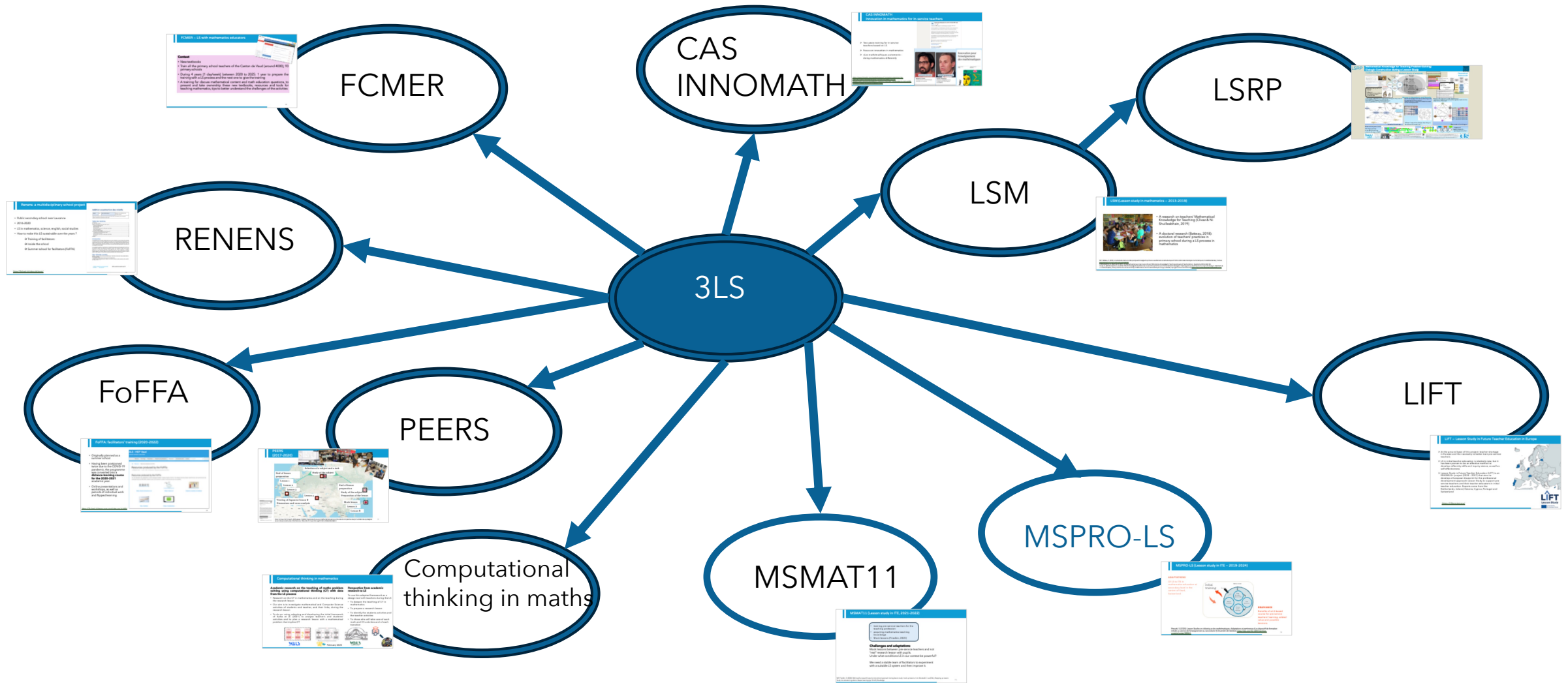
Mathematics educators

# Overview of LS in mathematics since 2013 (3LS laboratory)



International LS projects

# Overview of LS in mathematics since 2013 (3LS laboratory)



# LSM (Lesson study in mathematics – 2013-2019)



- A research on teachers' Mathematical Knowledge for Teaching (Clivaz & Ni Shuilleabhain, 2019)
- A doctoral research (Batteau, 2018): evolution of teachers' practices in primary school during a LS process in mathematics

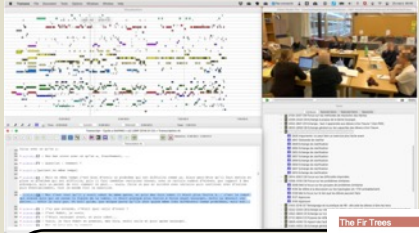
Ref: Batteau, V. (2018). Une étude de l'évolution des pratiques d'enseignants primaires vaudois dans le cadre du dispositif de formation lesson study en mathématiques [Université de Genève]. Genève. <https://archive-ouverte.unige.ch/unige:106282>

Ni Shuilleabhain, A., & Clivaz, S. (2017). Analyzing Teacher Learning in Lesson Study: Mathematical Knowledge for Teaching and Levels of Teacher Activity. *Quadrante*, XXVI(2), 99-125.

Clivaz, S., & Ni Shuilleabhain, A. (2019). What Knowledge Do Teachers Use in Lesson Study? A Focus on Mathematical Knowledge for Teaching and Levels of Teacher Activity. In R. Huang, A. Takahashi, & J. P. da Ponte (Eds.), *Theory and Practice of Lesson Study in Mathematics: An International Perspective* (pp. 419-440). Springer International Publishing. [https://doi.org/10.1007/978-3-030-04031-4\\_20](https://doi.org/10.1007/978-3-030-04031-4_20)

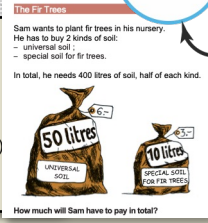


## Context and Data

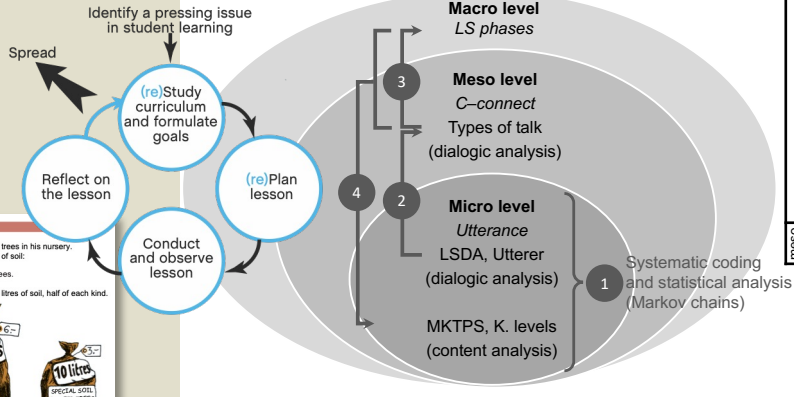


8 generalist teachers, grades 3 and 4  
2 facilitators  
1 problem

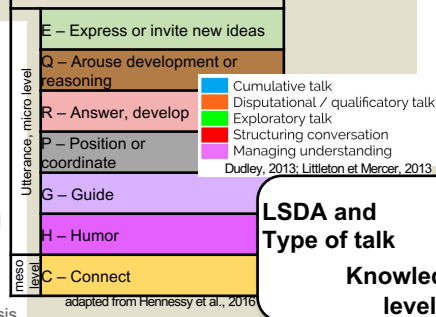
8 LS sessions  
3517 transcribed utterances (476 min.)  
2726 LSDA-coded utterances  
2263 MKTPS codes



## Method (levels of analysis)



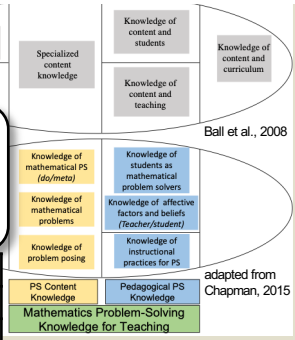
## Lesson Study Dialogic Analysis LSDA



**LSDA and MKTPS Knowledge level**

1	Inaccurate knowledge, lack of knowledge, self-assumed ignorance
2	Unexplained knowledge. Observation, testimony
3	Incomplete knowledge, knowledge with a low degree of certainty. Explicit questioning
4	Contextualized explicit knowledge
5	Generalized, decontextualized knowledge

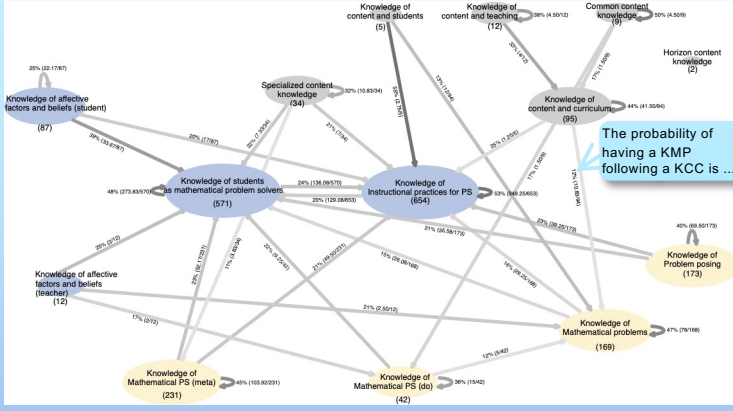
## Theoretical framework



## Research Questions and Results

**In what way is MKTPS built collectively during the LS process?**

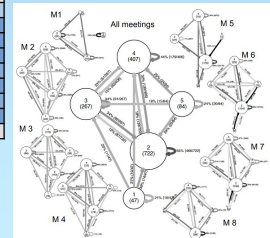
What is the MKTPS that emerges during each LS meeting?  
What are the transitions of MKTPS and those most represented?  
How does one MKTPS follow on to the next in the dialogue?



**Which knowledge levels are used during each LS meeting? Do they evolve?**

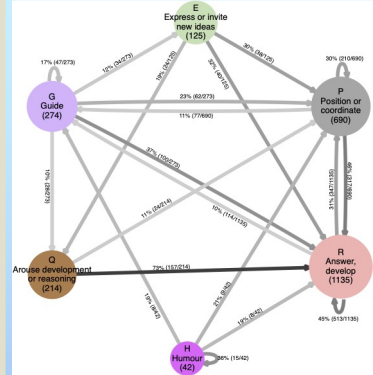
In particular, what are the characteristics of the facilitators in terms of the levels of knowledge expressed?

Knowledge level	1	2	3	4	5
F1	0.04	0.12	0.14	0.31	0.78
F2	0.12	0.13	0.16	0.07	0.07
T1	0.08	0.12	0.17	0.13	0.06
T2	0.08	0.04	0.02	0.02	0.01
T3	0.12	0.09	0.11	0.05	0.01
T4	0.10	0.11	0.10	0.10	0.01
T5	0.06	0.04	0.07	0.07	0.02
T6	0.17	0.17	0.11	0.12	0.01
T7	0.25	0.14	0.12	0.11	0.02
T8	0.09	0.03	0.01	0.02	0.01
Total	1	1	1	1	1



**What are the dynamics of the interactions?**

In particular, which types of interactions during LS meetings characterised the facilitators compared to those of the teachers?



Utterance	LSDA	E	G	P	Q	R	H
F1	0.10	0.61	0.15	0.09	0.16	0.21	
F2	0.07	0.29	0.12	0.30	0.11	0.02	
T1	0.18	0.05	0.11	0.14	0.10	0.10	
T2	0.06	0.00	0.04	0.03	0.04	0.00	
T3	0.07	0.01	0.07	0.07	0.09	0.00	
T4	0.10	0.01	0.10	0.03	0.11	0.10	
T5	0.06	0.00	0.05	0.01	0.06	0.00	
T6	0.14	0.01	0.13	0.12	0.16	0.17	
T7	0.15	0.02	0.20	0.20	0.13	0.26	
T8	0.06	0.00	0.01	0.01	0.03	0.00	
Total	1	1	1	1	1	1	
Average F1-F2	0.09	0.45	0.13	0.19	0.14	0.12	
Average T	0.10	0.01	0.09	0.08	0.09	0.08	
Total F1-F2	0.18	0.90	0.27	0.39	0.27	0.24	
Total T	0.82	0.10	0.71	0.61	0.72	0.62	

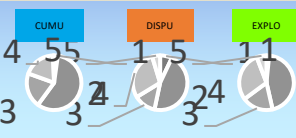
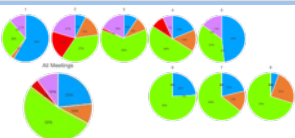
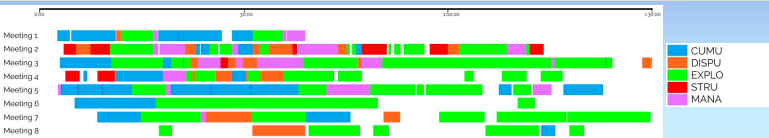
**Different levels of knowledge, depending on the roles and the sessions.....**

**Movements in the dialogue...**

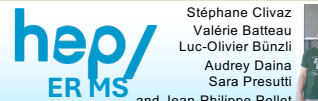
**What are the types of talk?**

**Are they evolving?**

**Is the MKTPS building related to the type of talk?**



**Increase of exploratory talk... and its possible effect...**



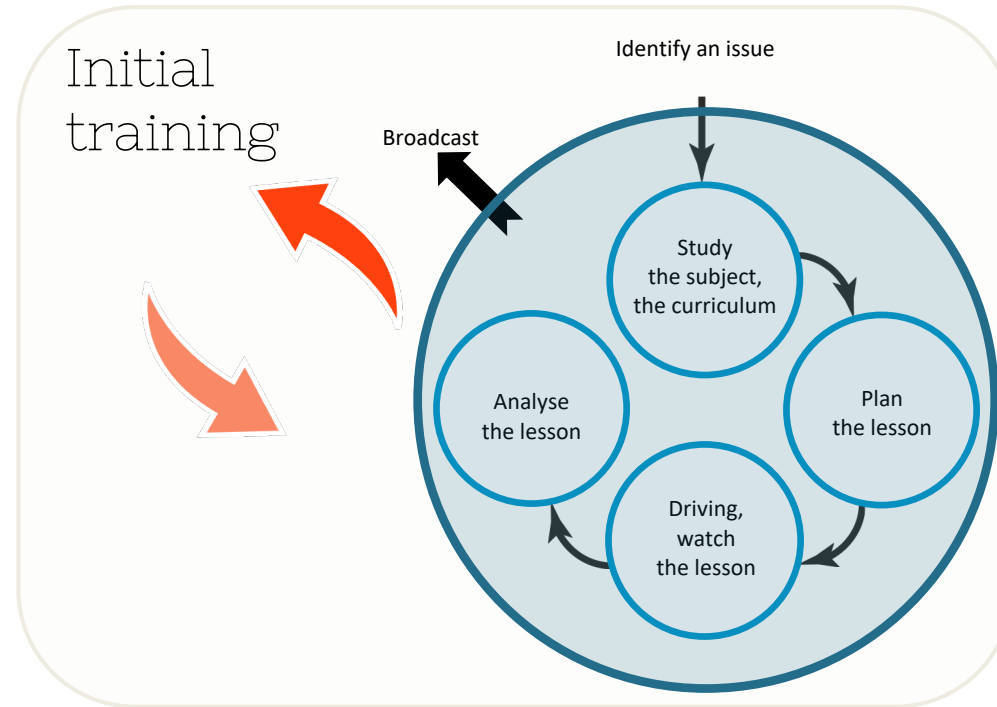
Clivaz, S., Batteau, V., Bünzli, L.-O., Daina, A., Presutti, S., et Pellet, J.-P. (2025). Types of talk and mathematical knowledge for teaching problem-solving: Dialogic analysis of a lesson study. Dans M. Bosch, G. Bolondi, S. Carrera, C. Spagnolo et M. Gaidoschik (dir.), *Proceedings of the Fourteenth Congress of the European Society for Research in Mathematics Education (CEIREM14)* (p. 4465-4472). University of Szeged and ERME.  
Clivaz, S., Batteau, V., Pellet, J.-P., Bünzli, L.-O., Daina, A., et Presutti, S. (2023). Teachers' mathematical problem-solving knowledge: in what way is it constructed during teachers' collaborative work? *Journal of Mathematical Behavior*, 69, 101051  
Clivaz, S., Daina, A., Batteau, V., Presutti, S., et Bünzli, L.-O. (2023). How do dialogic interactions contribute to the construction of teachers' mathematical problem-solving knowledge? Construction of a conceptual framework. *International Journal for Lesson & Learning Studies*, 12(1), 21-37.

Ball, D. L., Thames, M. H., et Phelps, G. (2008). Content knowledge for teaching: What makes it special? *Journal of Teacher Education*, 59(5), 389-407.  
Chapman, O. (2015). Mathematics teachers' knowledge for teaching problem solving. *LJMEAT* (2015-2015 Issues), 3(1), 15-36.  
Dudley, P. (2013). Teacher learning in Lesson Study: What interaction-level discourse analysis revealed about how teachers utilised imagination, tacit knowledge of teaching and fresh evidence of pupils learning, to develop practice knowledge and so enhance their pupils' learning. *Teaching and Teacher Education*, 34(0), 107-121.  
Hennessy, S., Rojas-Drummond, S., Higham, R., Márquez, A. M., Maine, F., Rios, R. M., García-Carrión, R., Torreblanca, O., et Barrera, M. J. (2016). Developing a coding scheme for analysing classroom dialogue across educational contexts. *Learning, Culture and Social Interaction*, 9, 16-44.  
Littleton, K. et Mercer, N. (2013). *Interthinking: Putting talk to work*. Taylor & Francis.



## ADAPTATIONS

Of LS to ITE in mathematics education at secondary level in the canton of Vaud, Switzerland



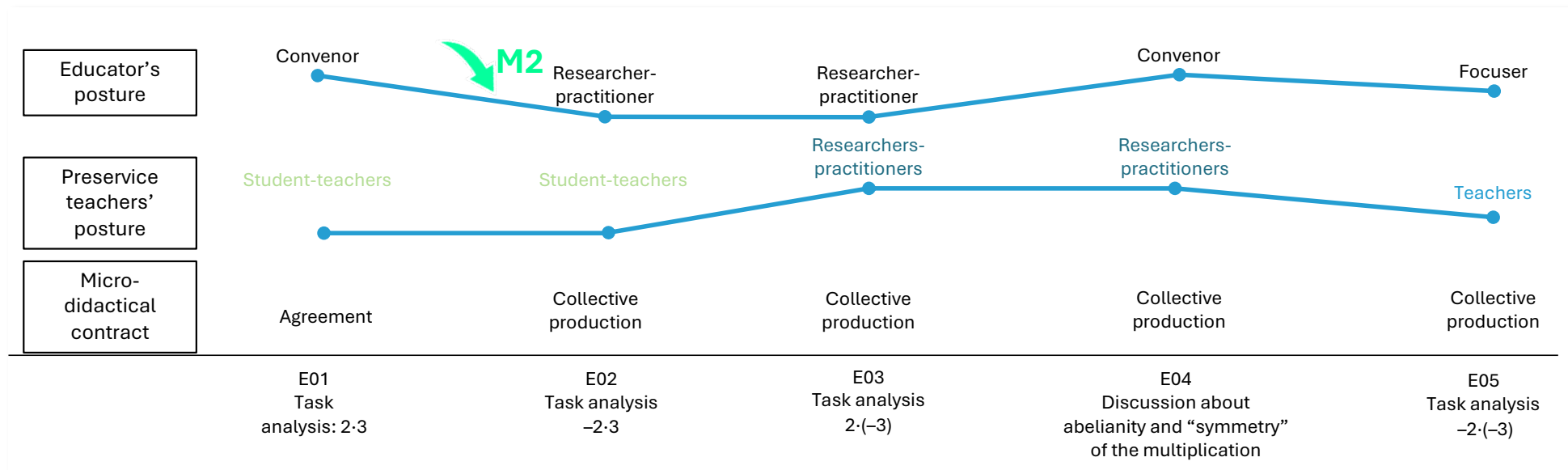
## RELEVANCE

Benefits of a LS-based course for pre-service teachers' learning, added value and possible tensions

# MSPRO-LS (Lesson study in ITE – 2019-2024)

Understanding the **dynamics in the relationships** between the participants of a **LS group in ITE** when learning mathematical and didactical knowledge

- Didactical contract → Evolution of the roles and postures of the teacher educator and of the preservice teachers through the process
- Construction of mathematical and didactical knowledge within the LS



- training pre-service teachers for the teaching profession
- acquiring mathematics teaching knowledge
- Mock lessons (Friedkin, 2020)

## **Challenges and adaptations**

Mock lessons between pre-service teachers and not “real” research lesson with pupils.

Under what conditions LS in our context be powerful?

We need a stable team of facilitators to experiment with a suitable LS system and then improve it.

# PEERS (2017-2020)



**Educational Studies in Mathematics**  
<https://doi.org/10.1007/s10649-020-09980-1>

**The effects of culture on mathematics lessons: an international comparative study of a collaboratively designed lesson**

Stéphane Clivaz<sup>1</sup> · Takashi Miyakawa<sup>2</sup>

Published online: 26 August 2020  
 © The Author(s) 2020

**Abstract**  
 This paper reports the results of an international comparative study conducted in Switzerland and Japan of an elementary school mathematics lesson. The principal aim of the study was to advance understanding of the cultural specificities of a mathematics lesson in its entirety using concrete examples of lesson design and implementation and of how cultural factors within and beyond the classroom-level shape and produce mathematics lessons in a particular country. We analyzed two Grade 4 mathematics lessons designed and implemented in Switzerland and Japan by pre-service teachers in the context of a project-based international exchange programme. The lessons, initially designed collaboratively by the pre-service teachers of the two countries, was ultimately realized in different ways in each country. Specifically, we found differences between the Japanese and Swiss lessons in the structure of the lesson and validation of relations. To elucidate these differences and identify the cultural factors that yield them, we analyzed the resources developed and used during lesson design and implementation (lesson plans, official documents, and textbooks). Furthermore, we discuss three aspects of mathematics lessons that account for the main characteristics of each lesson: culture as individual site, teaching and learning, problem-solving lessons, and distance between theory and practice.

**Keywords** International comparative study · Cultural context · Collaborative lesson design

**Notes** Stéphane Clivaz and Takashi Miyakawa contributed equally to this work. The preliminary results of this research have been presented at the International Conference on Mathematics Teacher Education and Research (ICMTER 2019) for the 10th International Conference on Mathematics Teacher Education and Research (ICMTER 2019).

<sup>1</sup> Stéphane Clivaz  
 clivaz@univ-st-gall.ch

<sup>2</sup> Takashi Miyakawa  
 miyakawa@peers.jp

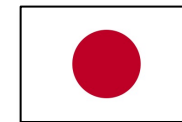
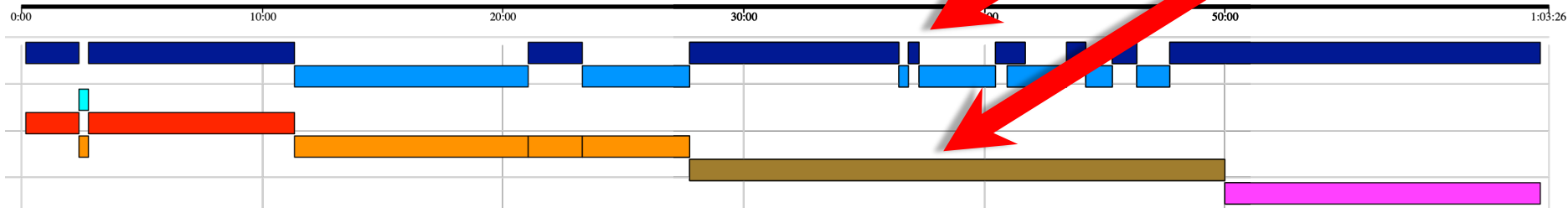
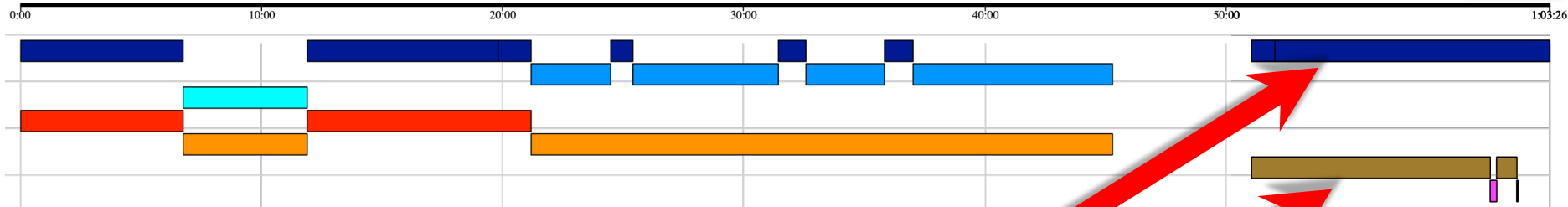
# PEERS (2017-2020)

## Whole-class discussion - Neriage

Whole-class

Group

Individual



Introduction

Research

Whole-class discussion

Synthesis

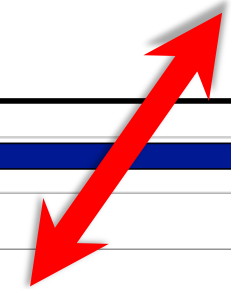
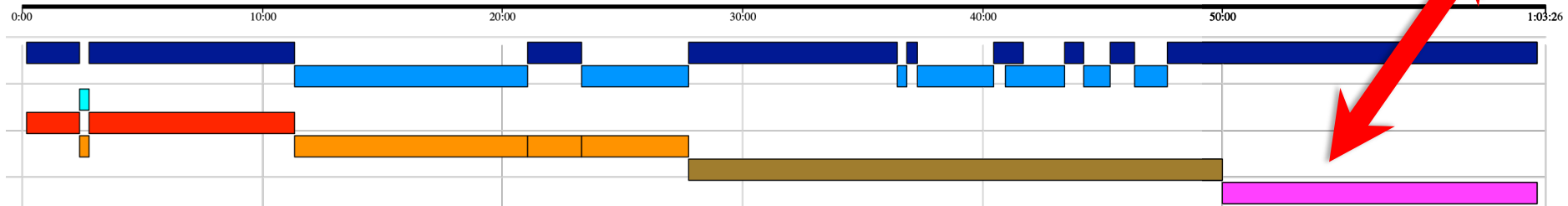
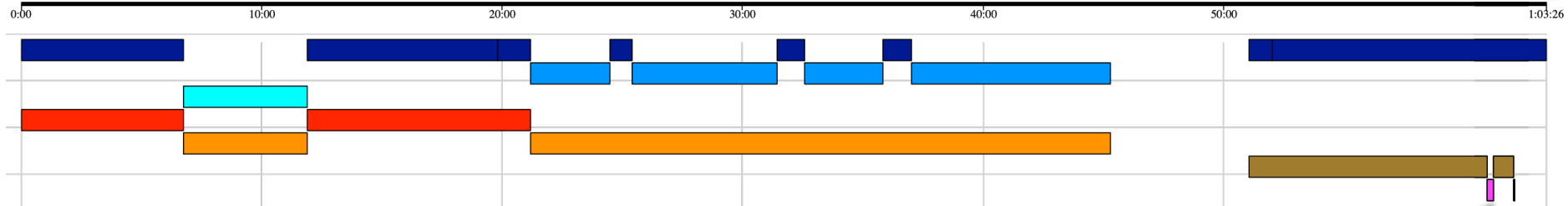
Slide: S. Clivaz. Réf: Clivaz, S., & Miyakawa, T. (2020). The effects of culture on mathematics lessons : An international comparative study of a collaboratively designed lesson. *Educational Studies in Mathematics*, 105(1), 53-70. <https://doi.org/10.1007/s10649-020-09980-1>

# PEERS (2017-2020) Synthesis - Matome

Whole-class

Group

Individual



Introduction

Research

Whole-class discussion

Synthesis



Slide: Stéphane Clivaz. Clivaz, S., & Miyakawa, T. (2020). The effects of culture on mathematics lessons : An international comparative study of a collaboratively designed lesson. *Educational Studies in Mathematics*, 105(1), 53-70. <https://doi.org/10.1007/s10649-020-09980-1>

- Two-years training for in-service teachers based on LS
- Focus on innovation in mathematics
- «*Les mathématiques autrement*» : doing mathematics differently

[https://www.linkedin.com/posts/hepvaud\\_formation-enseigner-les-math%C3%A9matiques-activity-7374381035624779776-V3wm/?utm\\_source=share&utm\\_medium=member\\_desktop&rcm=ACoAAB3Pg5AB3TbzEet7gVgU33-n6NeRDf-Pupc](https://www.linkedin.com/posts/hepvaud_formation-enseigner-les-math%C3%A9matiques-activity-7374381035624779776-V3wm/?utm_source=share&utm_medium=member_desktop&rcm=ACoAAB3Pg5AB3TbzEet7gVgU33-n6NeRDf-Pupc)

**hepv** 12 191 abonnés  
6 mois · 🌐

**FORMATION** Enseigner les mathématiques autrement ✕ + = ÷

À l'école obligatoire, les mathématiques demandent souvent des approches renouvelées pour capter l'attention et stimuler la motivation des élèves.

Proposé par la HEP Vaud, le CAS Innomath permet aux enseignant-e-s de développer des pratiques didactiques innovantes et de concevoir des projets collectifs, accompagné-e-s par les formateur-trice-s et leurs pairs.

Une formation qui ouvre de nouvelles perspectives pour l'enseignement des mathématiques, l'apprentissage des élèves et la collaboration dans les établissements.

Inscriptions ouvertes de décembre 2025 à février 2026  
Séance d'information: 24 novembre 2025

En savoir plus sur le CAS 🔗  
<https://shor.by/GSYk>

Témoignages complets 🗣️👉  
<https://lnkd.in/e-tGK77j>



aurait pensé à faire avant.

**Benjamin Arnold**  
Enseignant en mathématique,  
physique et science



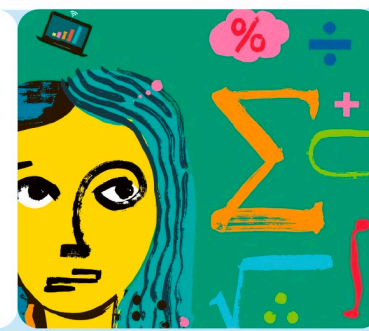
c'est sortir des sentiers battus.

**Sylvain Amaudruz**  
Directeur d'établissement,  
Collège des Trois-Sapins  
à Echallens

### Innovation pour l'enseignement des mathématiques

Formation continue  
certifiée

Certificate of Advanced  
Studies (CAS)

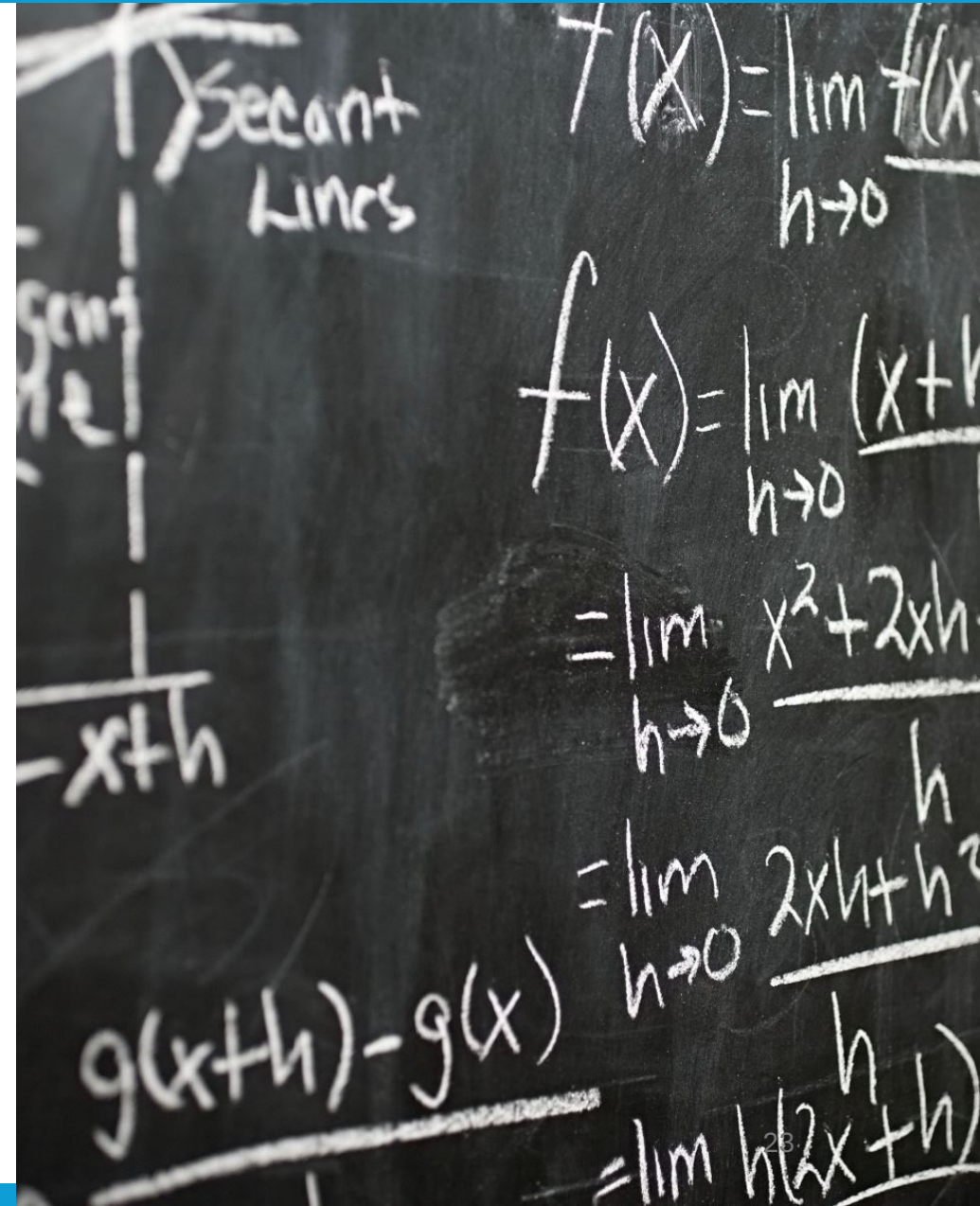


# What do we observe in Lesson Study?

Lesson Study as a professional development tool puts strong emphasis on observing the effect of a prepared research lesson on the students.

But what do we see exactly, and is it the same for the research lesson teacher, the observers and the teacher educator?

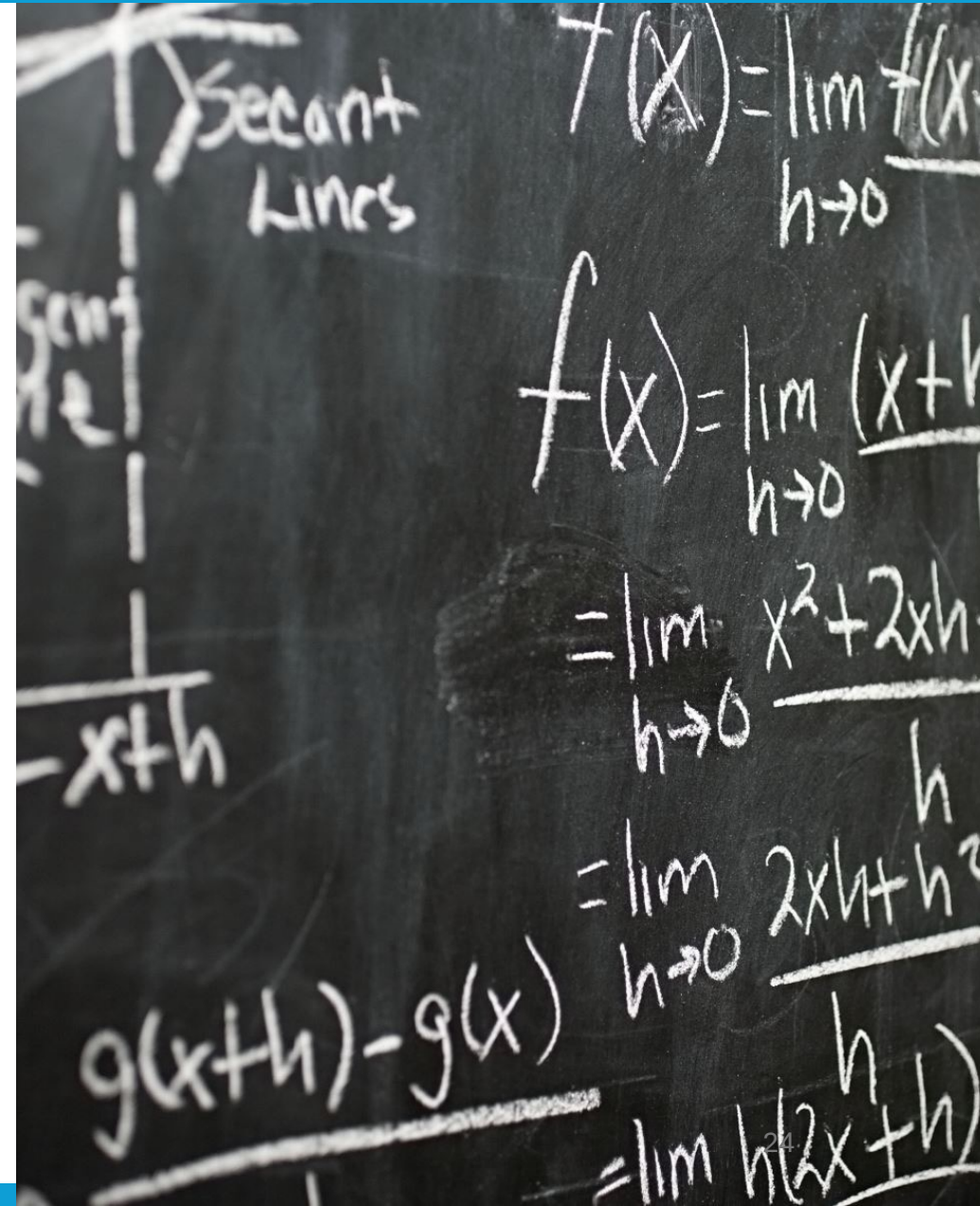
My PhD thesis investigates what mechanisms lie behind observation in Lesson Study, and how this observation helps teachers in a professional development setting build mathematical and didactical knowledge.



# From CAS INNOMATHS to a doctoral research about Noticing

In order to untangle the complex processes behind observation, I use tools from the theory professional teacher noticing which aims to understand how teachers attend to classroom events, interpret them and make decisions to respond to them.

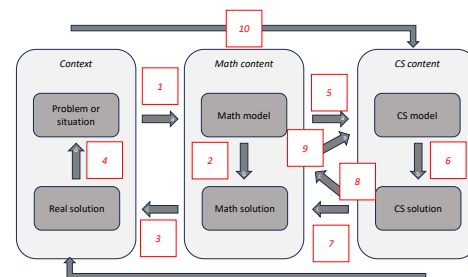
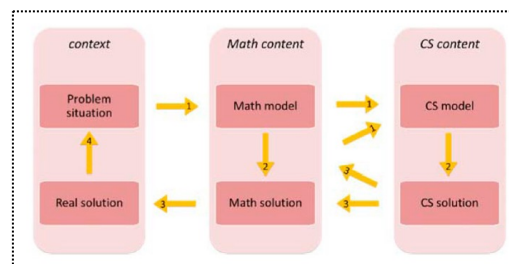
I model the Lesson Study process using the theory of didactical situations, considering the research lesson as a *milieu* for the learning of Lesson Study group. In particular, I am interested in how the underlying didactical contract shapes and constrains opportunities for noticing.



# Computational thinking in mathematics

## Academic research on the teaching of maths problem solving using computational thinking (CT) with data from the LS process

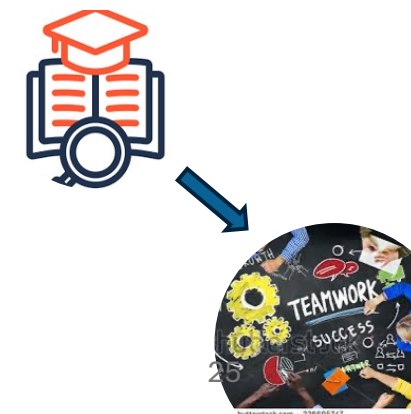
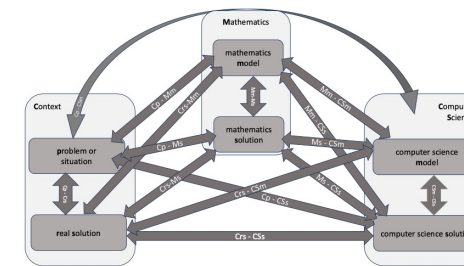
- Research on the CT in mathematics and on the teaching during the research lesson
- Our aim is to investigate mathematical and Computer Science activities of students and teacher, and their links, during the research lesson
- To do so: using, adapting and developing the initial framework of Kallia et al. (2021) to analyse teacher's and students' activities and to plan a research lesson with a mathematical problem that implies CT



## Perspective from academic research to LS

To use this adapted framework as a design tool with teachers during the LS

- To deepen the teaching of CT in mathematics
- To prepare a research lesson
- To identify the students activities and the teacher activities
- To chose who will take care of each math and CS activities and of each transition



# Renens: a multidisciplinary school project

- Public secondary school near Lausanne
- 2016-2020
- LS in mathematics, science, english, social studies
- How to make this LS sustainable over the years ?
  - Training of facilitators:
  - Inside the school
  - Summer school for facilitators (FoFFA)

<https://3ls.hepl.ch/plans-de-lecon/>

## Addition-soustraction des relatifs

Degrés	9VG	Sujet mathématique	Addition et soustraction des nombres relatifs
Plan de leçon réalisé par Daniel Vuille, François Powolny, Ingrid Hoznour, Maud Kaeslin, Olivier Guignard (ES Renens), Laetitia Mauroux, Stéphane Clivaz (HEP Vaud)			

### Table des matières

Introduction .....	1
Plan d'études romand .....	1
Addition-soustraction des relatifs (fiche prof) .....	2
Contenus mathématiques .....	2
Apprentissages visés .....	2
Plan de la leçon .....	2
Déroulement de la leçon et difficultés des élèves .....	4
Suite, prolongement .....	4
Suite des apprentissages .....	5
Commentaires (développement de la fiche prof) .....	6
Connaissances mathématiques visées .....	6
Construction de la leçon .....	6
Déroulement de la leçon et difficultés des élèves .....	6
Référence .....	9
Annexes .....	10

### Introduction

L'enseignement des nombres relatifs demeure un sujet complexe. On pourrait pourtant s'attendre à ce que la notion de nombres négatifs soit familière pour les élèves puisqu'ils rencontrent ces nombres dans la vie courante : températures, ascenseurs, etc. (Groupe Didactique IREM d'Aquitaine, 2008). De nombreuses difficultés surgissent lors de l'apprentissage des opérations avec des nombres négatifs et subsistent en fin de scolarité. Certains obstacles apparaissent notamment lors du passage au calcul littéral.

Les enseignants semblent majoritairement insatisfaits des séquences d'enseignement portant sur les nombres relatifs. Ces séquences proposent souvent une analogie du type avancer pour additionner et reculer pour soustraire. Cette approche peut ensuite constituer un obstacle important lors de l'apprentissage de la multiplication. Dès lors, il est fondamental de séparer l'apprentissage des nombres négatifs de celui des additions/soustractions de nombres négatifs (sujet de cette leçon) et de celui des multiplications/divisions de nombres négatifs.

### Plan d'études romand

**MSN 32 – Poser et résoudre des problèmes pour construire et structurer des représentations des nombres réels...**

**...en organisant les nombres réels à travers les opérations**

Utilisation de procédures de calcul réfléchi ou de calcul mental avec des nombres entiers relatifs de -100 à +100 (+, -, ·, :)

# FoFFA: facilitators' training (2020-2022)

- Originally planned as a summer school
- Having been postponed twice due to the COVID-19 pandemic, the programme was converted into a **distance-learning course for the 2020-2021** academic year.
- Online presentations and workshops, as well as periods of individual work and flipped learning

The screenshot shows the website for 3LS - HEP Vaud, Lausanne Laboratory Lesson Study. The navigation bar includes links for Welcome, Front Page, Presentation, Research and publications, Resources, 3LS and the world, Contact, and To research. The main content area is titled 'Resources produced by the FoFFa' and includes a sub-header '授業研究' (Jyūgyō Kenkyū). Below this, there are four resource cards: 'Videos: General introduction to LS' with a keyboard and glasses icon, 'Videos: Types of LS' with a circular diagram icon, 'Collection of practices for facilitators' with a group of people icon, and 'Videos: Troubleshooting' with a screen icon. The text below the sub-header states: 'The 3LS laboratory has established a French-language Facilitator Training Program (FoFFa). This distance learning program (asynchronous and synchronous) was conducted during the 2020-2022 academic years and produced a number of resources that are now available.'

# FoFFA: facilitators' training (2020-2022)

## Introductory videos to LS

Julien Buchard November 14, 2022 Presentation of the LS, Resources, Resources produced by the FoFFa, Videos presenting the LS

### Videos produced by FoFFa: general introduction to LS

The 3LS laboratory has established a French-language Facilitator Training Program (FoFFa). This distance learning program (asynchronous and synchronous) was conducted during the 2020-2022 academic years and produced a number of videos that are now available.



[Designs, resources](#)



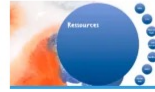
[Development, effects](#)



[Variants](#)



[Conceptions about LS](#)



[Some resources](#)

## Videos on facilitating LS

Julien Buchard November 14, 2022 Presentation of the LS, Resources, Resources produced by the FoFFa, Videos presenting the LS

### Videos produced by FoFFa: Facilitating LS

The 3LS laboratory has established a French-language Facilitator Training Program (FoFFa). This distance learning program (asynchronous and synchronous) was conducted during the 2020-2022 academic years and produced a number of videos that are now available.



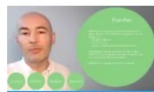
[Introduction](#)



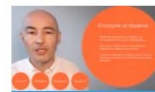
[Building a team](#)



[Determining an object of study](#)



[Plan the lesson](#)



[Implement the lesson](#)



[Analyze the lesson](#)

## Videos about the types of LS

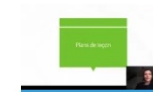
Julien Buchard November 14, 2022 LS presentation videos

### Videos produced by FoFFa: types of LS

The 3LS laboratory has established a French-language Facilitator Training Program (FoFFa). This distance learning program (asynchronous and synchronous) was conducted during the 2020-2022 academic years and produced a number of videos that are now available.



[Japanese LS: an overview](#)



[Japanese LS: lesson plans, facilitation](#)



[Adaptations of Japanese LS for international audiences](#)



[Focus on Learning Studies](#)



[Focus on UK LS](#)

## Videos on problem-solving in mathematics in the LS

Julien Buchard November 14, 2022 Presentation of the LS, Resources, Resources produced by the FoFFa, Videos presenting the LS

### Videos produced by FoFFa: Mathematical problem solving and LS

The 3LS laboratory has established a French-language Facilitator Training Program (FoFFa). This distance learning program (asynchronous and synchronous) was conducted during the 2020-2022 academic years and produced a number of videos that are now available.



[Teaching through problem-solving](#)



[Mathematical thinking](#)



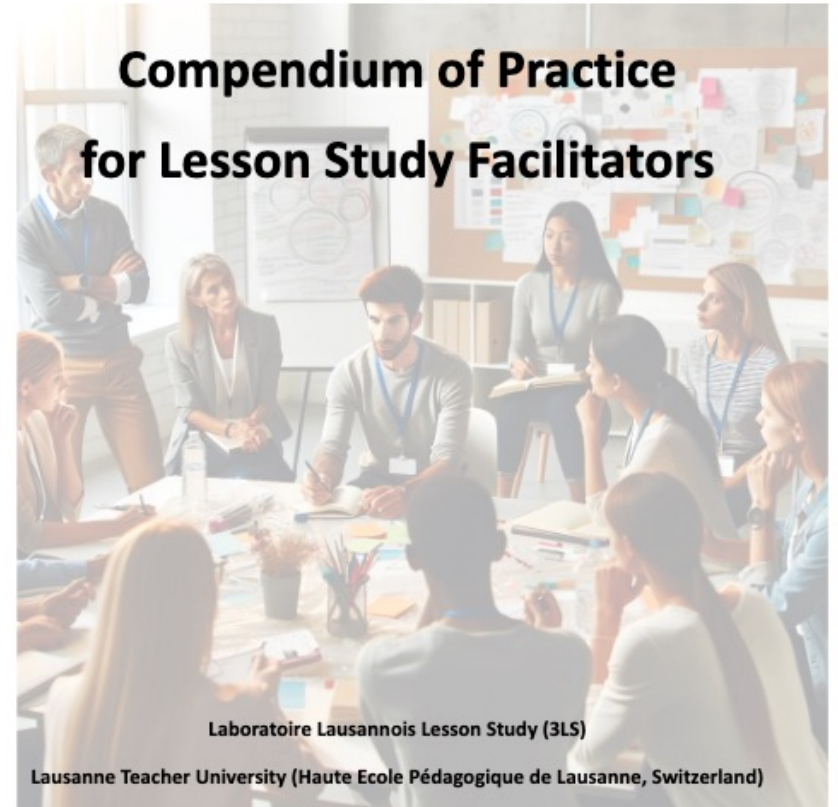
[Problem solving and LS](#)

# FoFFA: facilitators' training (2020-2022)



[Collection of practices for facilitators](#)

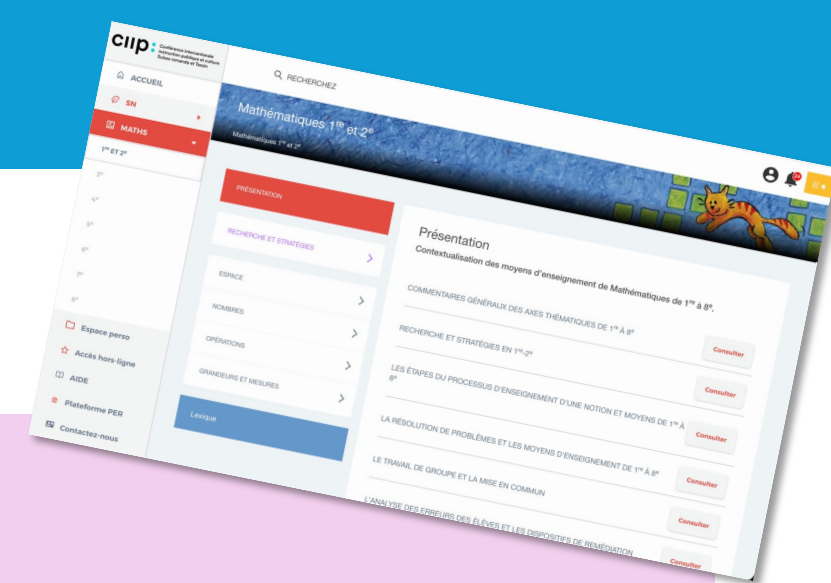
<https://3ls.hepl.ch/wp-content/uploads/Compendium-of-Practice-for-LS-Facilitators.pdf>



*Image generated with Microsoft Copilot.*

English version: December 2024, Hoznour, Haan, Grigioni Baur

Original French version: November 2020, Haan, Hoznour, Grigioni Baur



## Context

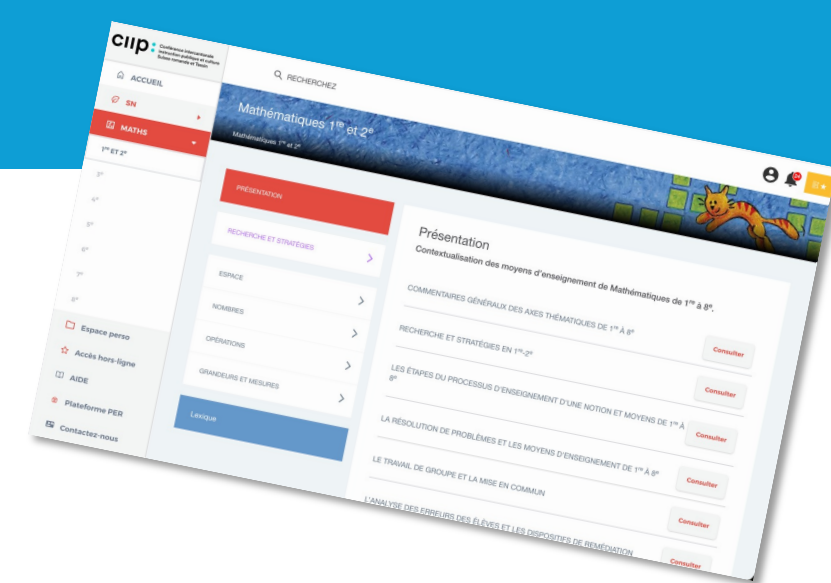
- New textbooks
- Train all the primary school teachers of the Canton de Vaud (around 4000), 93 primary schools
- During 4 years (1 day/week) between 2020 to 2025: 1 year to prepare the training with a LS process and the next one to give the training
- A training for discuss mathematical content and math education questions, to present and take ownership these new textbooks, resources and tools for teaching mathematics, tips to better understand the challenges of the activities

## 4 Objectives of the LS

- Co-training
- Constituting a team with different profiles (new educators that are also primary school teachers of degrees 1-2 until degree 7-8, experienced educators and mathematic education researchers)
- Preparing training
- Design resources  
(<https://sites.google.com/view/fcmermathshepl/home>)

**LS team with 31 persons who participated for 2 to 4 years**

**2 researchers lead this processus, 3 LS teams with 3 facilitators (educators and/or researchers) in parallel**

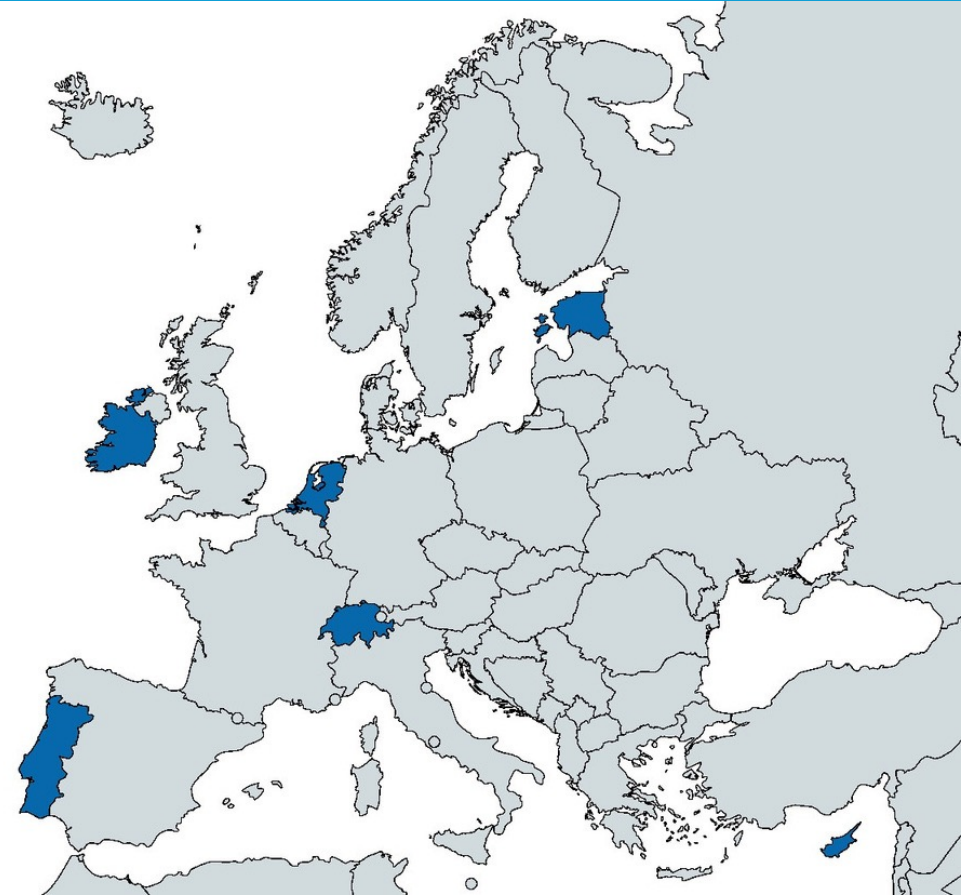


Réf.: Balegno, M., Batteau, V., Bünzli, L.-O., Ceria, J., & Daina, A. (2025). Des lesson study pour se coformer et constituer une équipe de formatrices et formateurs d'enseignant-es en mathématiques. In S. Breithaupt & V. Batteau (Eds.), *Livre 3LS. Formation et pratiques d'enseignement en questions*, Revue des HEP et institutions assimilées de Suisse Romande et du Tessin.

Ceria, J., Daina, A., Hanssen, L., Hugli, C., Javet Schlegel, S. & Gardes, M.-L. (2022). *De l'enseignement en classe a la formation d'enseignants : présentation d'un dispositif de formation de formateurs*. Paper presented at the 48è Colloque COPIRELEM, Toulouse.

# LIFT – Lesson Study in Future Teacher Education in Europe

- At the ground base of this project: teacher shortage in Europe and the necessity to better train pre-service teachers
- LS in initial teacher education is relatively new, but it has been proven to be an effective method to develop reflexivity skills and inquiry stance, as well as self-effectiveness
- Lesson Study in Future Teacher Education (LIFT) is an ERASMUS+ project (2024 - 2027) that aims to develop a European blueprint for the professional development approach Lesson Study to support pre-service teachers and their teacher educators in initial teacher education. Experts come from the Netherlands, Ireland, Estonia, Cyprus, Portugal and Switzerland

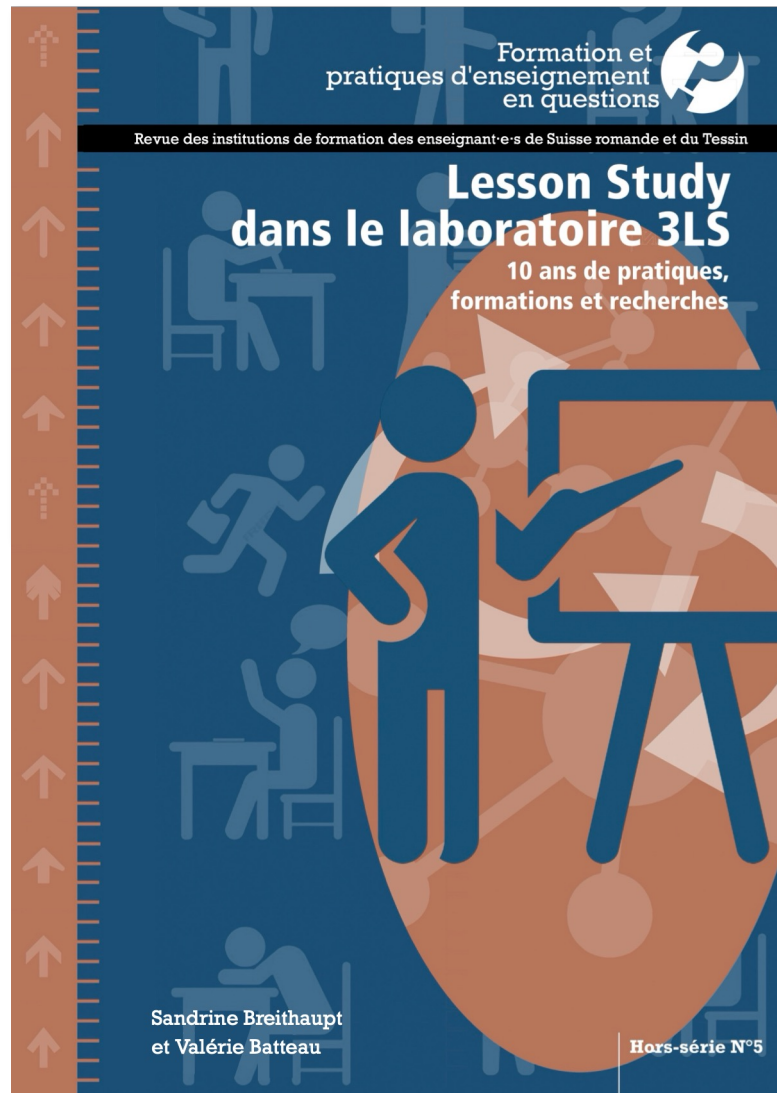


**LIFT**  
Lesson Study



<https://liftproject.eu/>

# A collective contribution from 3LS members (2024-2026)



## Lesson Study dans le laboratoire 3LS: 10 ans de pratiques, formations et recherches

Numéro coordonné par Sandrine Breithaupt et Valérie Batteau

### TABLE DES MATIÈRES

#### PRÉFACE ET TÉMOIGNAGE

<i>Des expérimentations locales aux implications internationales: les importantes contributions des Lesson Study du Laboratoire Lausannois Lesson Study (3LS)</i> Catherine Lewis	7
<i>Local experimentation with International Implications: The Powerful Contributions of Laboratoire Lausannois Lesson Study (3LS)</i> Catherine Lewis	15
<i>Témoignage. Réflexions sur le parcours du Laboratoire Lausannois Lesson Study</i> Christine Lee	21
<i>Reflections. The Journey of Lausanne Laboratory Lesson Study</i> Christine Lee	23

#### INTRODUCTION

<i>Lesson Study dans le laboratoire 3LS: 10 ans de pratiques, recherches et formations</i> Valérie Batteau et Sandrine Breithaupt	27
--------------------------------------------------------------------------------------------------------------------------------------	----

#### PARTIE 1

<i>Naissance et développement des LS à Lausanne</i> Stéphane Clivaz et Anne Clerc-Georgy	37
<i>LS: défis, conceptions et questions fréquentes</i> Sandrine Breithaupt et Valérie Batteau	45
<i>Différents types de Lesson Study</i> Sandrine Breithaupt et Anne Clerc-Georgy	55
<i>Effets des Lesson Study: études menées dans le laboratoire 3LS</i> Anne Clerc-Georgy et Stéphane Clivaz	67
<i>La facilitation au cœur des pratiques du laboratoire 3LS</i> Pia-Ingrid Hoznour et Sara Presutti	77
<i>Enrôler? De l'usage des pronoms à la formation d'un groupe LS</i> Sandrine Breithaupt et Santiago Hernandez	85
<i>Lesson Study - La leçon de recherche: une fenêtre sur l'enseignement-apprentissage</i> Pia-Ingrid Hoznour et Claire Perruisseau-Carrier	95

*Une des forces des Lesson Study: une observation orientée et réfléchie de l'apprentissage des élèves*  
Pia-Ingrid Hoznour et Myriam Garcia Perez

111

#### PARTIE 2

<i>Adaptation des Lesson Study aux activités initiées par les enfants</i> Anne Clerc-Georgy, Isabelle Truffer Moreau et Myriam Garcia Perez	121
<i>Récits d'expériences et perspectives</i> Tristan Aeby et Olivier Guignard	131
<i>Le dispositif LS au service de l'introduction et de l'appropriation des nouveaux moyens d'enseignement d'histoire</i> Béatrice Rogéré Pignolet et Marilena Cuozzo	139
<i>Des Lesson Study pour se conformer et constituer une équipe de formatrices et formateurs d'enseignant·es en mathématiques</i> Martine Balegno, Valérie Batteau, Luc-Olivier Bünzli, Julie Ceria et Audrey Daina	151
<i>Lesson Study dans les disciplines artistiques et techniques: enjeu de collaboration, créativité, distance critique et communication</i> John Didier, Sabine Châtelain, Pia-Ingrid Hoznour et Nicole Goetschi Danesi	163
<i>Lesson Study en Formation Initiale à la HEP vaud</i> Valérie Batteau, Julien Buchard, Sara Presutti et Sylvie Vanlind-Muguerza	173
<i>Innover pour l'enseignement des mathématiques: quel rôle pour les LS?</i> Stéphane Clivaz	183
<i>Témoignages de mentor·e·s participant au dispositif de formation Mentoring Conversation Study-MCS</i> Soraya De Simone	191

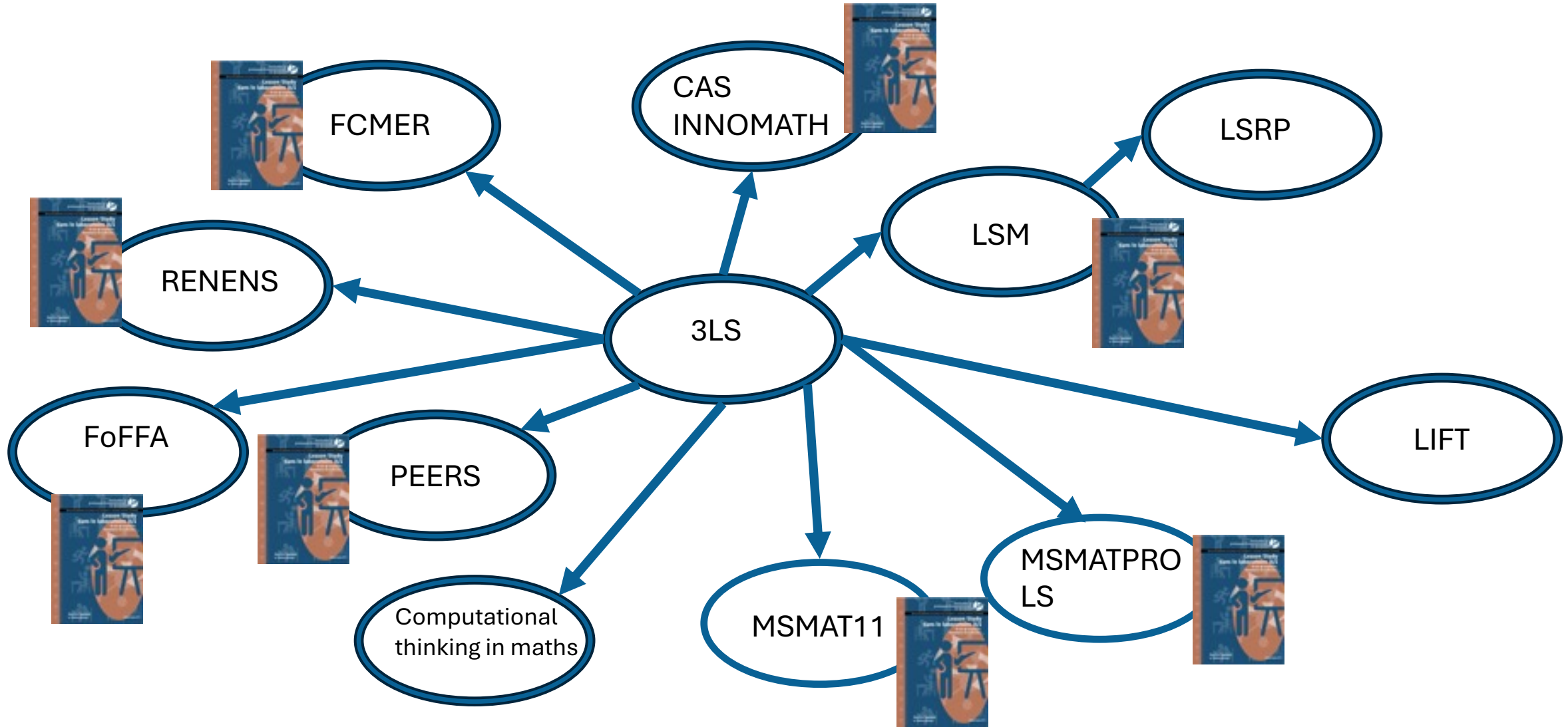
#### PARTIE 3

<i>Les pratiques d'enseignantes d'école primaire dans un dispositif de Lesson Study</i> Valérie Batteau	205
<i>Lesson Study: dialogue de sourds ou de professionnalisation?</i> Sandrine Breithaupt	215
<i>Le dispositif Lesson Study (LS) transféré au dispositif de recherche-formation Mentoring Conversation Study (MCS) portant sur l'analyse d'entretiens</i> Soraya De Simone	225
<i>Enjeux et défis dans une adaptation des LS pour la formation initiale</i> Sara Presutti	237
<i>Didactiser l'imprévisible: la Lesson Study au profit des apprentissages fondamentaux</i> Myriam Garcia Perez et Anne Clerc-Georgy	251

#### CONCLUSION

<i>Une décennie de Lesson Study à Lausanne - Bilan et perspectives</i> Sandrine Breithaupt et Valérie Batteau	263
------------------------------------------------------------------------------------------------------------------	-----

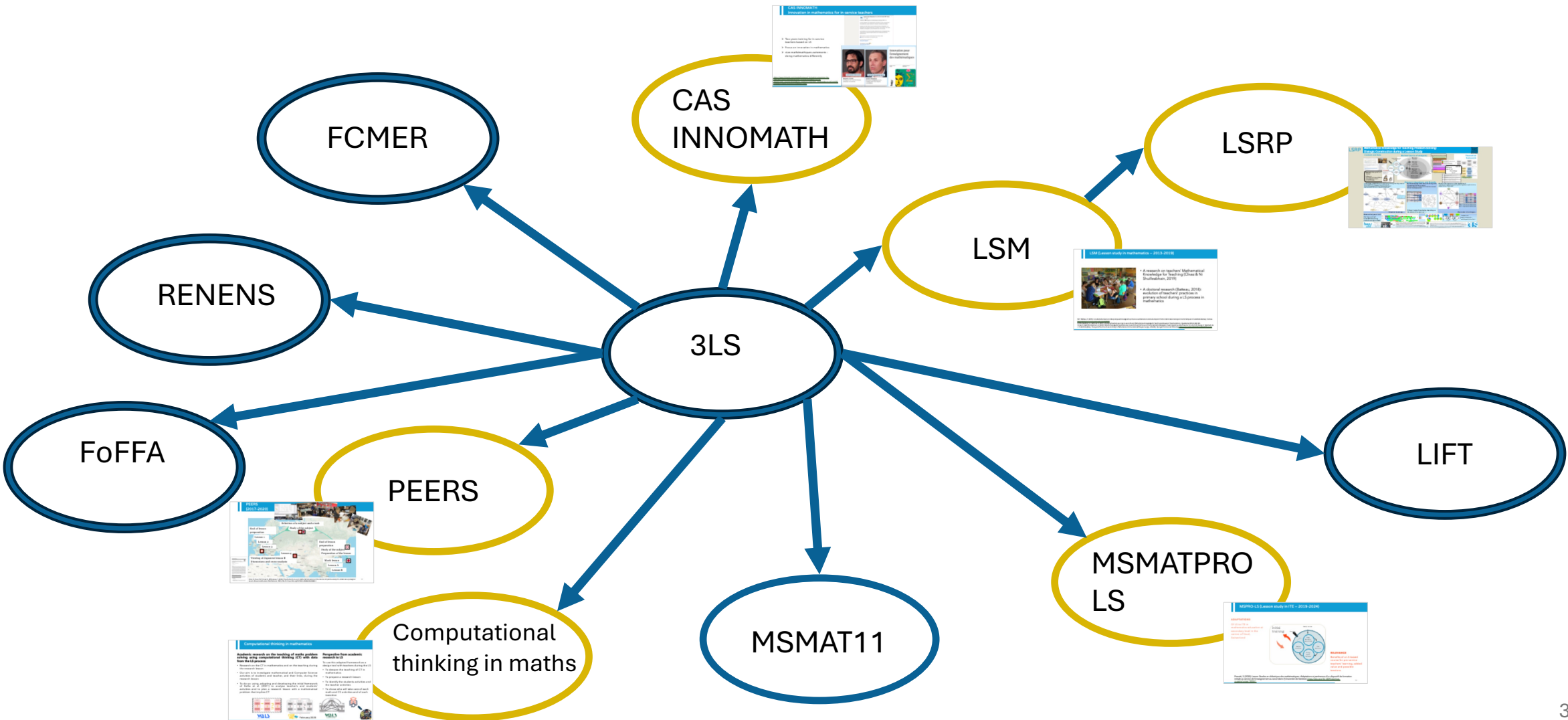
# A collective contribution from 3LS members (2024-2026)



- **The impact of LS on teachers' professional development**
  - Practices
  - Mathematical Knowledge for Teaching (from Ball work)
  - Noticing
- **How LS work**
  - Role of the facilitator
  - Adapting LS to pre-service teaching

# Research interests and questions

LS connected with academic researches



- Importance of the **collective**
- Improvement of **interventions** and focus on their **effects**
- Attention towards the **impact of teaching** on **learning**
- Shift : from a focus on the teacher, towards a **focus on pupils**
- Development of new **strategies to support student learning**
- Improvement in the **implementation of key phases** of a lesson
- Awareness of the importance of **lesson preparation work**
- Importance of **iteration**

(Clerc-Georgy & Martin, 2011, 2017; Clivaz & Miyakawa, 2020; Didier et al., 2016; Ducrey Monnier & Gruson, 2018; Martin & Clerc-Georgy, 2015; Morago & Grigioni Baur 2017; Trisconi et al., *soumis*;) )

- LS in Lausanne has developed slowly and changed over time
- Multiple factors drove the development:
  - **Need for professional development** (in-service teachers, pre-service teachers, teacher educators)
  - Academical research interests (research **on LS** and **with LS**)
  - **International projects**
- **What about the future ?**
  - New projects, expansion into different institutions and cantons
  - Research and professional development
  - Challenge : which sustainability for LS projects ?

Obrigado pela atenção!

É a hora das perguntas...