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# Lesson study in Switzerland: From research to dissemination and back

## Abstract

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### Purpose

This article aims to evaluate the current state and planned progress of lesson study (LS) in Switzerland, specifically focusing on the efforts made by different university teacher education institutions across three language regions of the country.

### Design/methodology/approach

First, a literature review is carried out to establish the LS research situation in Switzerland. In a second step, LS projects implemented in three different language regions across Switzerland and key findings thereof will be presented.

### Findings

LS in Switzerland has progressed in terms of research, as can be seen from the publication of 18 papers from seven different universities and classified into three categories. The majority of these papers stem from the Lausanne Laboratory Lesson Study. Swiss LS has also attracted attention in some neighbouring countries. Nevertheless, the sustainability of the LS process in Switzerland is still in its infancy. Some unfavourable factors are due to the cantonal and versatile structure of the Swiss education system. However, thanks to the centre of expertise for LS at Lausanne University of Teacher Education, LS is expanding to other regions of Switzerland.

### Originality

This paper represents the first literature review specifically addressing LS in Switzerland, offering a comprehensive assessment of its research development. Additionally, it is the first study to examine the development of learning communities across different language regions of the country. Moreover, it shows how LS can be implemented and adapted to the varied educational preconditions in Switzerland.

### Research limitations/implications

While this paper does not delve into extensive research on the development of LS in Switzerland, it highlights the need for further research to analyse the conditions and constraints impacting the sustainability of learning communities in the country.

Originality/value – This paper represents the first literature review specifically addressing

### Keywords

Lesson study, Switzerland, Lausanne Laboratory Lesson Study, Initial professional education, Continuous professional education, Literature review

**Paper type:** Research paper

## 0 Introduction

Lesson Study (LS) in Europe seems to have flourished from different seeds brought by a wind that has spread LS from Japan around the world since the beginning of the twenty-first century. Also in Switzerland LS is spreading. However, the development of LS started quite independently in the different parts of the country. This is partially due to its federalist education system which means that the main responsibility for education is regionally organised resulting in different curricula for the compulsory educational sector but also for vocational and professional training. Even though congruence in education between various regions is well advanced, at times the different national languages in Switzerland can be seen as linguistic cleavage for closer collaboration<sup>1</sup>. This article describes the past as well as the current development of LS in different Swiss educational and research contexts. It does so by providing a literature review first, followed by some concrete examples of how LS is implemented in three different language regions.

## 1 A brief overview of LS in Switzerland

Several LS seeds arrived quite independently in French-speaking Switzerland, more precisely at the Lausanne University of Teacher Education. Influenced by "The Teaching Gap" (Stigler & Hiebert, 1999) and the variation theory (Marton et al., 2004), Daniel Martin, Anne Clerc-Georgy and the teaching and learning unit team started to adapt LS in initial teacher education as part of a module on the regulation and evaluation of learning and in in-service training. They presented these first steps with LS in a paper at the WALIS2008 conference in Hong Kong (Pasquini et al., 2008). Three other scholars from Lausanne came across LS independently: during a student exchange in science education (Morago & Baur, 2017), during a stay in Singapore related to a doctoral dissertation about mathematical knowledge for teaching (Clivaz, 2011, p. 242), and during a new teacher education program for arts and crafts (Didier et al., 2016). These researchers and teacher trainers met in 2012 for a study week in Lausanne with the president of WALIS at that time, Christine Lee.

Following that week, several LSs were launched, one of which would serve as the backbone for founding the Lausanne Lesson Study Laboratory (3LS). Anne Clerc Georgy and Stéphane Clivaz facilitated this LS with a group of eight 3-4 grade teachers from two primary schools in the Lausanne region. For two years, the group worked on mathematics lessons. The particular nature of the supervision provided by the two facilitators, one a specialist in teaching-learning processes and the other a mathematics didactician, enabled a valuable collaboration between a focus on learning and a subject matter approach. This dual-focused approach with two facilitators was decided in order to combine the two approaches and to give the possibility that, depending on the moment, one can facilitate and the other can play the role of a knowledgeable other. This dual facilitation would later serve as a model to most LS developed in 3LS. They would be facilitated by two facilitators who combine, as far as possible, the following additional characteristics: one of them would be a subject matter specialist, the other a pedagogy specialist; one of them would be an experienced facilitator, the other a novice one; or, sometimes, one of them would be from the university of teacher education and the other a practising teacher.

Other LS and other research projects involving trainers from several units, using different and complementary viewpoints, would develop in the wake of this LS and lead to the creation of the 3LS, officially founded in 2014 (Clivaz et al., 2015). The 3LS members are teachers, teacher trainers, researchers and school administrators. Anchored in the local field, its members participate annually in the WALIS conference. Numerous other LSs are being developed in continuing education, further education, and initial education, from pre-school to high school. LS is also practised among teacher trainers, and an online francophone facilitator training was held during the pandemic.

The international conference "Lesson Study Diversity: Concepts, Practices and Impacts", held at the 3LS in Lausanne in 2018, marked an important event for the spread of the LS seed to the German-speaking region. In general, the implementation of LS in the German- and also Italian-speaking parts of the country<sup>2</sup> are more individually organised, more bottom-up and depending on a few interested

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<sup>1</sup> For more indications about the federalist Swiss education system, please refer to the *Swiss Conference of Cantonal Ministers of Education* website: <https://www.cdip.ch/en/education-system>

<sup>2</sup> There are four official language regions in Switzerland (German, French, Italian and Raetho-Romanic). But since the authors are not aware of any LS research in the Raetho-Romanic region, the main focus is on the three other language regions.

researchers or practitioners. Some examples of these individual LS projects from these language regions are given in section 3.

## 2 Methodological procedure

The aim of the literature review was to get an overview of LS practice and research in Switzerland as well as international research on LS by Swiss academics. Two databases, FIS-Bildung and ERIC, which are commonly used in educational research in the different language regions of Switzerland, were searched for the keyword "Lesson Study". Papers available in English, French, German and Italian have been selected. Furthermore, a short questionnaire was sent out to universities of education in different language regions of Switzerland and to Swiss academics which were known to be involved in LS. The questions aimed to find out whether LS had been used by these institutions and academics in the last five years, whether any work on LS had been published and where. In the cases where LS was used, they were also asked to hand in their published and written work along with the questionnaire.

The result is a collection of 18 submissions. All of which are from academics employed by a university, with 7 universities in total. Each submission includes one or more ideas for research projects, research papers and/or practical projects using LS. 12 submissions come from the French-speaking part of Switzerland, all of them from Lausanne University of Teacher Education (3LS). 5 submissions come from other universities in the German-speaking part of Switzerland. From the Italian-speaking part of Switzerland there is 1 submission. A search of relevant databases yields only a handful of papers, all of which are also included in the above-mentioned submissions. The languages of the submitted documents represent, apart from English, the three largest of the four language regions of Switzerland and thus indicate the origin of the respective authors: Most publications are written in French or English, a few are written in German, one is written in Italian, none was received in Raetho-Romanic.

With regard to the presentation of concrete examples of LS, each author of the present paper was given the opportunity to describe a LS project that they either successfully implemented themselves or that they extensively analysed. These examples were chosen based on personal experience but then critically reviewed by the other authors. The information on methodological procedures of each of these LS projects are presented within their description.

## 3 Findings of literature review

Overall, different types of publications can be identified, with some papers crossing several of these genres.

- *Papers that are theoretical or descriptive and do not include empirical research data from a specific research project.* These are either descriptions of LS as an approach to teacher education (e.g. Clivaz, 2019; Oberhalter & Beywl, 2019), descriptions of similarities and/or differences in comparison with other approaches (e.g. Buchard & Martin, 2017; Oberthaler, 2024), or theoretical considerations of how and why Lesson Study works (e.g. Clivaz et al., 2023).
- *Papers that draw on empirical data from research.* Such work includes the investigation of the LS approach (e.g. Batteau, 2016; Clerc-Georgy & Martin, 2017; Gutzwiller-Helfenfinger et al.; Oberthaler, 2023), analyses of a specific aspects or components of Lesson Study (e.g. Clivaz & Clerc-Georgy, 2020; Martin & Clerc-Georgy, 2017; Presutti, 2022; Tan et al., 2022), or proposals for a particular theoretical framework in connection with LS (Clivaz & Ni Shuilleabhain, 2017),
- *Papers that investigate a research question using the LS approach as a research method* (e.g. Amrar et al., 2024; Chatelain et al., 2023b; Frank Schmid, 2023).

Most texts begin with a presentation of LS in general, followed by a description of its adaptation to a specific context. This is often followed by an analysis of that experience or the experience is used to exemplify the discourse. Thus, many papers describe and explain the LS adaptations they have chosen to implement according to context, school level and subject. These include situations where it is not possible to attend the research lesson (e.g. initial training, Clerc-Georgy & Martin, 2017; Leuba et al., 2012), or where the subject of study cannot be planned (e.g. pretend play, Clerc-Georgy et al., 2024). Swiss projects using LS range from pre-service teacher training (e.g. Breithaupt, 2020; Clerc-Georgy & Martin, 2017; Didier et al., 2016) to continuous professional development (e.g. Batteau, 2020; Clerc-Georgy & Martin, 2017; Clerc-Georgy et al., 2024). More and more publications are being written about in-service teacher training (e.g. Deschoux & Taisson, 2020; Pache & Breithaupt, 2020). These writings respond to research interests that seem to include teachers' knowledge in a specific domain (disciplinary

or didactic), about teaching or about training, professional practices, including the use of pedagogical tools and resources, collaboration between teachers and university mentors in a LS setting, variations and benefits of LS, the capacity of specific didactic settings in building students' knowledge, and the effects of LS processes on trainers, facilitators or researchers.

LS is used to meet a number of different objectives, often linked to the professional development of teachers, such as to improve (future) teachers' disciplinary or didactic knowledge (*culturally forged conceptual mathematical framework*), to test certain practices (*playing with children*), or to bring about changes in professional conceptions or postures (*analysis of teacher's role, teachers' practices, teachers' communication or facilitators*). The analyses carried out on data collected in LS often aim to identify these elements. However, research can also focus on students' learning, on the role of facilitators guiding a LS or on the training processes of (future) teachers. Sometimes, and this is largely the case with doctoral theses, LS is used as a research method to investigate students' learning or teacher's professional development on a subject-related topic.

The LS projects are carried out with teachers from all school levels (primary generalists and secondary specialists). They cover a range of subjects and topics. In most of the projects in Switzerland, LS is carried out in a mathematics lesson (e.g. Clivaz et al., 2023). However, LS is also used in other school disciplines, such as foreign languages like French (e.g. Deschoux & Taisson, 2020) or in a setting where foreign language learning such as English is integrated to teach another school subject (e.g. Frank Schmid, 2021). In addition, there are LS projects that have been carried out in a wide range of other school subjects, including geography (e.g. Pache & Breithaupt, 2020), physics (e.g. Martin & Clerc-Georgy, 2017), science (Morago & Baur, 2017), music (e.g. Chatelain et al., 2023a), visual arts (e.g. Didier et al., 2016) and pretend play (e.g. Clerc-Georgy et al., 2024).

## 4 Examples of LS in Switzerland

Based on the above presented overview of publications and projects, several distinctive examples of successfully implemented LS projects based on personal experience of the four authors of this article will be presented. To illustrate the regional diversity of the LS landscape in Switzerland even further, an additional exemplary overview of the Italian-speaking part of Switzerland will complete this chapter.

### 4.1 French speaking part of Switzerland

#### 4.1.1 Pretended Play

A significant change in teaching methods in the first grades of schooling, a schoolification of teaching practices coupled with a reduction or even disappearance of pretend play has recently taken place in classrooms in French-speaking Switzerland (Clerc-Georgy & Duval, 2020; Gilliéron Giroud et al., 2014). Teaching practices are no longer sufficiently adjusted to children's needs (increase in individual work on worksheets or in independent workshops). Manipulation and play are being replaced too quickly in favor of teaching symbols (Bouysse et al., 2011)

In order to improve this situation and to compensate for the lack of specific initial training, as well as to promote the evolution of professional practices in the light of the most recent research on early childhood education (e.g. Hedegaard & Edwards, 2023; Pramling et al., 2019) we facilitate LS which focuses on the implementation of imaginary play and the consideration of activities initiated by children.

The feature/characteristic of this kind of LS is that it deals with activities that can scarcely be anticipated. While the choice of subject, problem and learning object are similar to those of a classic LS, the implementation of this type of LS requires certain adaptations (Clerc-Georgy et al., 2024). Preparing a lesson means preparing "yourself" to observe children's play, to intervene, to seize or provoke learning opportunities linked to curriculum objectives. The "lesson" becomes a "time for play", and its planning focuses on identifying the focal points of observation that will enable us to identify pupils' resources and seize learning opportunities. In most cases, the various cycles focus on: 1) observing the play and identifying pupils' resources; 2) taking on a role in the pupils' play to advance the pretend play or provoke learning needs; 3) preparing to lead, at the end of the play, a meta-level discussion based on emerging knowledge observed in the play.

Analyses based on the observations, discussions and productions of the participants show that the teachers have constructed new knowledge about the role of pretend play in child development. They have a better understanding of the conditions for the development of pretend play (time, materials). Furthermore, they have a better appreciation of the issues involved in observing playtime, and of the need to master curriculum knowledge in order to seize or provoke learning opportunities. Finally, they developed their skills as partners in children's play (Clerc-Georgy et al., 2024).

#### 4.1.2 Dialogue in LS and its effect on teachers' knowledge development

The question of measuring or describing the effect of a teacher training type is an important one in educational research. LS in Switzerland are not exceptions, as seen in section 2. A trend of research in 3LS has developed with the goal of describing these effects by video recording the meetings of a LS group, transcribing all the dialogue and using a qualitative data analysis software to analyse the video and the transcript. In the case of the mathematics LS group mentioned in section 1, the data have been analysed by several research projects to study the professional development of teachers from the point of view of the evolution of their practices (Batteau, 2018, first LS-related PhD in French), their pedagogical knowledge, their stance (Clivaz & Clerc-Georgy, 2020) and their mathematical knowledge for teaching (Clivaz & Ni Shuilleabhain, 2019). The roles of the facilitators (Clivaz & Clerc-Georgy, 2020) were also characterised.

More recently, another LS was conducted to analyse even more precisely the participants' dialogue and the type of mathematics problem-solving knowledge for teaching used by the participants, and examine how dialogic interactions contribute to knowledge construction.

The eight meetings of eight primary teachers and two facilitators were video-recorded, transcribed, and coded with the help of qualitative data analysis software. The analysis was conducted by crossing theoretical frameworks from two fields in education: mathematics education and dialogic analysis. The mixed method uses quantitative analysis with Markov chains and cross-tables, as well as qualitative analysis at micro-, meso- and macro-levels. The methodology (Clivaz et al., 2023) and the first results (Clivaz et al., Submitted) have been published, and the analysis is continuing to interpret how the type of talk (Littleton & Mercer, 2013; Wegerif, 2020), and its evolution during the meetings, contributes to the development of mathematics problem-solving knowledge for teaching (Chapman, 2015).

The exploratory talk, "judged to be the most educationally effective" (Littleton & Mercer, 2013, p. 16) is the most prevalent during the meetings (53% of the coded<sup>3</sup> time). It also increases alongside the LS meetings:

- from 28% of the coded time for the first meeting to 70% for the eighth one;
- from 37% for the first post-lesson discussion to 65% during the second. During the first post-lesson discussion, most utterances did not build on the observations of the other participants. In contrast, during the second post-lesson discussion, the participants commented on the lesson by positioning themselves, debating and arguing about previous observations.

The data also shows a higher prevalence of explicit and justified knowledge in exploratory talk and that knowledge tends to be more comprehensively justified during the phases of a meeting characterised by exploratory talk.

## 4.2 German speaking part of Switzerland

### 4.2.1 LS for investigating English in other subjects

An increasing number of public schools in multilingual Switzerland are implementing a Content and Language Integrated Learning (CLIL) approach to teach subjects in a language other than the main language of instruction (Elmiger et al., 2023). Especially with young learners in primary school, CLIL is considered challenging due to learners' basic target language competence. In a recent PhD project (Frank Schmid, 2021), LS was used to prepare the teachers for the implementation of this new approach and to research how primary school pupils used the learning opportunities offered by CLIL to develop their English language competencies as well as subject-specific knowledge in art. An adaption of the UK LS approach (Dudley, 2015) was not only used to observe the learning actions of three case pupils with low, average and high preconditions in English in each of the five CLIL classrooms; but also to investigate the benefits and challenges of CLIL as perceived by the case pupils and teachers. The video-recorded learning activities of all case pupils were coded and tested for significant differences between the three attainment levels. The statements made in the interviews with the case pupils and group discussions with the teachers were evaluated using qualitative content analysis (Kuckartz, 2019). The findings revealed that the group of high- and average English preconditions showed a similar performance, while the group with less favorable target language preconditions used the opportunities for learning English and art in a significant different way. The mixed methods study also concluded that

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<sup>3</sup> Only the parts of the meetings in which the conversation was related to the LS theme were coded.

all learners, regardless of their preconditions of English, achieved the objectives set by the curriculum and that the benefits reported by the participants outweighed the challenges. The teachers also stated that they appreciated how LS helped them gain insights into other CLIL classrooms following the same lesson procedure (Frank Schmid, 2021).

In a similar research setting, LS was used – besides training the teachers – to explore and describe how young English learners make their learning visible in CLIL. Close observation of three case pupils in four research lessons of CLIL in combination with English and sports, arts, or crafts revealed that the case pupils with heterogeneous preconditions in English used different modes of communication, ranging from an extensive use of English, to the use of English supported by translanguaging or trans-semiotising (Liu & Lin, 2021), to the use of very few strategically well-chosen English words, to the silent use of other modes of communication such as gestures, actions or drawings. The study also showed that in less observed situations most learners preferred the main language of instruction as a means for communication. The small qualitative study concluded that the modes of communication were only partly dependent on the preconditions of English but were also highly influenced by the presence of several observers in this research setting and the individual characteristics of the learners (Frank Schmid, 2024)

#### 4.2.2. Laying the foundations for structured workplace learning for second career and pre-service teachers

Drawing on empirical evidence, another recent PhD project sought to summarize what and how teachers learn through LS (Oberthaler, 2023). The study aimed to use the findings for further implementation of LS in a workplace learning context for second career teachers as well as pre-service teachers in the German-speaking part of Switzerland. The study was based on a systematic literature review containing 74 international research projects on LS from 2015 onwards. In relation to the research question of what teachers learn through LS, the work provides an overview of teachers acquired competence during these research projects. It is shown that LS contributes to the (further) development of professional competence in different domains of knowledge (content knowledge, pedagogical content knowledge, pedagogical/psychological knowledge), provided that scientific knowledge is systematically included in the process. LS can also lead to sustainable changes in teachers' professional values, beliefs or goals, motivational orientations and professional self-regulation skills (for the taxonomy of competencies see Kunter et al., 2013). Furthermore, LS contributes to competencies not sufficiently shown by some taxonomies. Nieke (2012) describes these as teachers' perceptual, interactive, communicative, and reflective competencies. As they are fundamental for the further development of one's own competencies, it can be argued that LS not only contributes to the expansion of professional knowledge but also to the lifelong professional learning abilities of teachers (cf. Oberthaler, 2023).

In relation to the research question of how teachers learn with LS, learning is analysed in the context of micro, meso and macro level preconditions (Hadfield & Jopling, 2016). The analysis shows that while far too little research has been done on the macro level, at the level of the LS cycle (micro level) and at the level of the school (meso level), several process-related and quality-related aspects play an important role for professional learning with LS (cf. Oberthaler, 2023). Regarding the process-related aspects, it is important to create conditions to structure the learning process of teachers with sufficient time, support, and appropriate organisation and to establish a learning process for teachers in which learning intention and learning outcome correspond. Regarding qualitative aspects, it is necessary to consider conditions that help teachers use scientifically validated information, maintain high quality dialogues (exchange, reflection, argumentation, negotiation), as well as collaborate successfully and take the perspective of pupils and members of the LS team (cf. *ibid.*).

In 2024, two projects have been launched at the University of Teacher Education Northwestern Switzerland and the Zurich University of Teacher Education to incorporate these findings into the workplace learning of people teaching without former teaching qualification in Switzerland. One project aims to support people with a career in a domain which is not teaching who are given the opportunity to teach in primary and secondary schools without qualification mainly due to the acute shortage of teachers in German-speaking Switzerland. The other project is part of the qualification of primary school students who are doing their in-service training in schools as part of their university education.

### 4.3. Italian speaking part of Switzerland

The use of LS in the Italian-speaking part of Switzerland is still in its infancy. Indeed, at the Department of Education and Learning of the University of Teacher Education in the Canton of Ticino, within the master program for the teaching qualification at the level of secondary school, several courses using LS

have been operational since 2018. In response to these courses, some groups of teachers have conducted LS as part of their master thesis work for the qualification to teach mathematics in secondary school. One of these LSs focused on arithmetic problem-solving (Rosso, 2019) and the other on geometric problem-solving and the generalisation process (Fiore, 2023). Both theses confirmed the positive impact of LS on professional growth, collaboration, critical awareness and teaching competence. Furthermore, the studies highlighted the significant influence of organisational and institutional conditions on the potential for LS to flourish. Despite the approach's demonstrated large suitability for the Ticino school context, characterised by workshops with small groups of pupils and the possibility of co-teaching, the studies also identified factors that may act as barriers to its implementation.

## 5 Conclusion

This paper aimed at presenting the research landscape of LS in Switzerland based on a descriptive overview of how LS in Switzerland initiated as well as spread on the one hand, and a literature review complemented with a few concrete examples on the other hand.

The literature review resulted in an overview that shows a rather diverse picture of research interests in LS in Switzerland, albeit with a strong emphasis on school-subject didactics and mathematics didactics in particular. It also revealed that LS is used for various purposes, from a procedure for professional pre- or in-service teacher education to a framework for research on various school levels. Both the descriptive overview and literature review confirmed that LS in Switzerland was mainly established thanks to the initiative and effort of the combined working force of scholars at the Lausanne University of Teacher Education who eventually founded the 3LS. Over the last few years, the 3LS has developed into a centre of expertise for LS well beyond the Lausanne region and is the main driving force for LS research in Switzerland. In recent years, the seed of LS has been gradually spreading from Lausanne to other language regions of Switzerland and to some neighbouring countries. In the German-speaking part of Switzerland, there are currently at least three Universities of Teacher Education where individual researchers and people responsible for professional teacher development use LS for diverse projects. However, in contrast to Lausanne, the LS projects are less coordinated at these universities and depend on the initiative of these experts. Similarly, at the University of Teacher Education in the Italian-speaking part of Switzerland, LS is gaining momentum too.

Carrying out a literature review has certainly helped to gain a more in-depth understanding of the LS research situation in Switzerland. However, if time and resources had permitted, a more thorough systematic literature review would have provided an even more comprehensive picture of the Swiss LS landscape. Thereby, other concepts related to LS but not labelled as such might have been identified, too.

The concrete examples of LS projects presented in this paper underpin the diversity of Switzerland's LS landscape further. The illustrated variety of examples represents a potential strength and weakness of the current status of LS in Switzerland. On the one hand, the adaptability and flexibility of LS allow it to be tailored to the diverse educational contexts and regional regulations typical of the Swiss federalist education system. All examples confirmed that the various LS projects offered a valuable source for teacher development or contributed to meaningful research findings for a specific context. On the other hand, the educational as well as linguistic diversity in each region poses the main challenge of a more coordinated expansion and sustainable incorporation of LS that should be manageable in a small country like Switzerland. Nevertheless, in the near future, the development of LS in Switzerland would benefit from a closer collaboration between the experts of LS across the language regions. In this sense, a small country like Switzerland, with its linguistic diversity, might be a good laboratory for studying "Lesson study, improvement, and the importing of cultural routines" (Stigler & Hiebert, 2016). The WALIS 2023 conference in Zwolle (Netherlands) helped to connect some experts of LS from different Universities of Teacher Education all over Switzerland. The need to share knowledge and experience as well as to use the combined resources to publish on LS was thereby established with the aim of making this promising approach more public nationwide. With the publication of this present article, the first milestone for a closer collaboration has been achieved. Further research and coordinated LS projects are planned to root LS in a more sustainable way all over Switzerland.

## References

- Amrar, L., Clerc-Georgy, A., & Dorier, J.-L. (2024). Preschool Teacher Practices During a Collective Play-Related Thinking: Dialectic Between Pretend Play and Mathematics. In H. Palmér, C. Björklund, E. Reikerås, & J. Elofsson (Eds.), *Teaching Mathematics as to be Meaningful – Foregrounding Play and Children’s Perspectives: Results from the POEM5 Conference, 2022* (pp. 27-38). Springer International Publishing. [https://doi.org/10.1007/978-3-031-37663-4\\_3](https://doi.org/10.1007/978-3-031-37663-4_3)
- Batteau, V. (2016). Professional development of primary teachers during a lesson study in mathematics.
- 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>
- Batteau, V. (2020). Évolution des pratiques d’une enseignante d’école primaire lors d’un dispositif de formation et de recherche en mathématiques. *Recherches en didactique des mathématiques*, 40(1), 13–53. <https://revue-rdm.com/2020/evolution-des-pratiques-dune-enseignante-decole-primaire-lors-dun-dispositif-de-formation-et-de-recherche-en-mathematiques/>
- Bouysse, V., Claus, P., Szymankiewicz, C., Delaubier, J., Jardin, P., Loarer, C., Pétreault, G., Caraglio, M., Granier-Fauquert, M., & Grosmaire, A. (2011). L’école maternelle (Rapport n 2011-108). *Inspection générale de l’Éducation nationale*.
- Breithaupt, S. (2020). Lesson study: dialogue de sourds ou de professionnalisation? *Processus et dispositifs*, 103.
- Buchard, J., & Martin, D. (2017). Lesson Study... and its effects. *Hellenic journal or research education*, 6. <https://doi.org/10.12681/hjre.14809>
- Chapman, O. (2015). Mathematics teachers’ knowledge for teaching problem solving. *LUMAT*, 3(1), 19–36. <https://pdfs.semanticscholar.org/327b/973f1bccfc73f888aad4532f4c3b98f16a24.pdf>
- Chatelain, S., Trajanoski, A., & Chapuisat, F. (2023a). Écouter et voir : identifier des connaissances musicales lors de transcréations visuelles avec un outil numérique. *14(1&2)*, 10-23. <https://api.nakala.fr/data/10.34847/nkl.f76a4uhe/e91e372dfa0d51adb0dbfcce58252f3240a0c186>
- Chatelain, S., Trajanoski, A., & Chapuisat, F. (2023b). Écouter et voir: identifier des connaissances musicales lors de transcréations visuelles avec un outil numérique.
- Clerc-Georgy, A., & Duval, S. (Eds.). (2020). *Les apprentissages fondateurs de la scolarité. Enjeux et pratiques à la maternelle*. Chronique Sociale.
- Clerc-Georgy, A., & Martin, D. (2017). Les lesson study : un dispositif pour favoriser l’usage des savoirs théoriques dans l’analyse de la pratique. *Formation et Profession*, 25(1), 20-33. <https://doi.org/http://dx.doi.org/10.18162/fp.2017.393>
- Clerc-Georgy, A., Truffer Moreau, I., & Richard, S. (2024). Former des enseignantes à une didactique du jeu : Un dispositif de formation continue inspiré des Lessons Studies. *Education et Formation*, e-321, 27-40.
- Clivaz, S. (2011). *Des mathématiques pour enseigner, analyse de l’influence des connaissances mathématiques d’enseignants vaudois sur leur enseignement des mathématiques à l’école primaire*. [Thèse de doctorat, Université de Genève]. Genève. <http://archive-ouverte.unige.ch/unige:17047>

- Clivaz, S. (2019). Weiterbildung, Forschung und Ferment einer neuen Unterrichtskultur: Lernen sukzessive verbessern. *Weiterbildung*, 3/2019, 35-37.
- Clivaz, S., Batteau, V., Pellet, J.-P., Bünzli, L.-O., Daina, A., & Presutti, S. (Submitted). Teachers' mathematical problem-solving knowledge: How is it constructed during teachers' collaborative work?
- Clivaz, S., & Clerc-Georgy, A. (2020). Facilitators' roles in lesson study: from leading the group to doing with the group. In A. Murata & C. Lee (Eds.), *Stepping up Lesson Study: An educator's guide to deeper learning* (pp. 86–93). Routledge.
- Clivaz, S., Daina, A., Batteau, V., Presutti, S., & 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.  
<https://doi.org/10.1108/IJLLS-03-2022-0031>
- Clivaz, S., Grigioni-Baur, S., Batteau, V., Clerc-Georgy, A., & Martin, D. (2015). Lausanne Laboratory Lesson Study. *International Journal for Lesson and Learning Studies*, 4(4), 416-417. <http://www.emeraldinsight.com/doi/pdfplus/10.1108/IJLLS-12-2014-0049>
- Clivaz, S., & Ni Shuilleabhain, A. (2017). Analysing mathematics teacher learning in lesson study - a proposed theoretical framework. In T. Dooley & G. Gueudet (Eds.), *Proceedings of the Tenth Congress of the European Society for Research in Mathematics Education (CERME10, February 1-5, 2017)*. DCU Institute of Education and ERME. [https://keynote.conference-services.net/resources/444/5118/pdf/CERME10\\_0123.pdf](https://keynote.conference-services.net/resources/444/5118/pdf/CERME10_0123.pdf)
- 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)
- Deschoux, C.-A., & Taisson, C. (2020). L'altérité dans la voileure: une lesson study pour un sillage collaboratif en didactiques des langues. *Recherches en didactique des langues et des cultures. Les cahiers de l'Acedle*, 17(17-2).  
<https://doi.org/https://doi.org/10.4000/rdlc.7422>
- Didier, J., Perrin, N., & Vanini de Carlo, K. (2016). Créativité et conception. Une Learning Study au service de la transformation de l'enseignement des activités créatrices et manuelles. *Créativité et apprentissage: un tandem à ré-inventer?*, Hors-série(1), 113-127.
- Dudley, P. (2015). Lesson Study: a handbook.  
<http://lessonstudy.co.uk/2015/11/download-a-free-copy-of-the-lesson-study-handbook/>
- Elmiger, D., Tunger, V., & Siegenthaler, A. (2023). Zweisprachiger Unterricht in der Schweiz: Kritische Literaturübersicht zum Stand der Forschung & bibliografische Datenbank: Daniel Elmiger, Verena Tunger, Aline Siegenthaler; Wissenschaftliches Kompetenzzentrum für Mehrsprachigkeit.
- Fiore, K. (2023). *Lesson study e problem solving geometrico: nel contesto del laboratorio didattico di Il media Scuola universitaria professionale della Svizzera Italiana*.  
<https://tesi.supsi.ch/4762/>

- Frank Schmid, S. (2021). *CLIL in der Fächerfusion Englisch und Bildnerisches Gestalten in heterogenen Primarschulklassen: die Chancen und Herausforderungen von bilingualen Modulen als Ergänzung zum Englischunterricht*. Gunter Narr Verlag.
- Frank Schmid, S. (2023). The communicative CLIL classroom: Insights into heterogenous learners' spoken communication in English about art in Swiss primary schools. *Journal of Immersion and Content-Based Language Education*.
- Frank Schmid, S. (2024). *Lesson study in Content and Language Integrated Learning (CLIL): Making young case pupils' learning visible with or without English* [unpublished manuscript].
- Gilliéron Giroud, P., Meyer, A., & Veuthey, C. (2014). Pratiques déclarées d'enseignement et d'évaluation dans les premières années scolaires: note de recherche: Patricia Giroud Gilliéron, avec la collab. de Anne Meyer; et Carole Vetheuy; Unité de recherche pour le pilotage des systèmes pédagogiques (URPS).
- Gutzwiller-Helfenfinger, E., Schäfer, D. K., Lauener, S., Schmid, R., & Spiess, N. Mit Lesson Studies den hybriden Raum gestalten.
- Hadfield, M., & Jopling, M. (2016). Problematizing lesson study and its impacts: Studying a highly contextualised approach to professional learning. *Teaching and Teacher Education*, 60, 203-214.
- Hedegaard, M., & Edwards, A. (2023). *Taking Children and Young People Seriously: A Caring Relational Approach to Education*. Cambridge University Press.
- Kuckartz, U. (2019). Qualitative Text Analysis: A Systematic Approach. In G. Kaiser & N. Presmeg (Eds.), *Compendium for Early Career Researchers in Mathematics Education* (pp. 181–197). Springer International Publishing.  
[https://doi.org/10.1007/978-3-030-15636-7\\_8](https://doi.org/10.1007/978-3-030-15636-7_8)
- Kunter, M., Baumert, J., Blum, W., Klusmann, U., Krauss, S., & Neubrand, M. (2013). *Cognitive activation in the mathematics classroom and professional competence of teachers: Results from the COACTIV project*. Springer Science & Business Media.
- Leuba, D., Didier, J., Perrin, N., Puozzo, I., & Vanini De Carlo, K. (2012). Développer la créativité par la conception d'un objet à réaliser. Mise en place d'un dispositif de Learning Study dans la formation des enseignants [oui]. *Education et francophonie, Volume XL:2*, 177-191. <http://hdl.handle.net/20.500.12162/5055>
- Littleton, K., & Mercer, N. (2013). *Interthinking: Putting talk to work*. Taylor & Francis.  
<https://books.google.com.my/books?id=C26pAgAAQBAJ>
- Liu, J. E., & Lin, A. M. (2021). (Re) conceptualizing “Language” in CLIL: Multimodality, translanguaging and trans-semiotizing in CLIL. *AILA Review*, 34(2), 240-261.
- Martin, D., & Clerc-Georgy, A. (2017). La lesson study, une démarche de recherche collaborative en formation des enseignants ? *Phronesis*, 6, 1-2(1), 47.  
<http://www.cairn.info/revue-phronesis-2017-1-page-35.htm>
- Marton, F., Runesson, U., & Tsui, A. B. M. (2004). The space of learning. In F. Marton & A. B. M. Tsui (Eds.), *Classroom discourses and the space of learning* (pp. 3-40). L. Erlbaum Associates.
- Morago, S., & Baur, S. G. (2017). Intercultural Competence and Teaching Diverse Learners. In J.-L. Gilles (Ed.), *Linking Research and Training in Internationalization of Teacher Education with the PEERS Program: Issues, Case Studies and Perspectives*. Peter Lang. <https://doi.org/10.3726/b11697/28>
- Nieke, W. (2012). *Kompetenz und Kultur: Beiträge zur Orientierung in der Moderne*. Springer-Verlag.

- Oberhalter, U., & Beywl, W. (2019). Gewinn für Lehrende und Lernende. *Weiterbildung*, 3/2019, 10-13.
- Oberthaler, U. (2023). *Professionelles Lernen in der Praxis: Erkenntnisse zum Beitrag von Lesson Study an die Lehrer/-innenbildung*
- Oberthaler, U. (2024). Mit Lesson Study zur Professionellen Lerngemeinschaft - Erfolgsfaktoren und Herausforderungen. In I. Benischek & R. Beer (Eds.), *Erziehung & Unterricht, Österreichische Pädagogische Zeitschrift* (pp. 334-341).
- Pache, A., & Breithaupt, S. (2020). Des pratiques langagières favorisant le processus de secondarisation dans le cadre de leçons de géographie au cycle 2. *Schweizerische Zeitschrift für Bildungswissenschaften*, 42(3), 631-641.
- Pasquini, R., Clerc, A., Martin, D., Barioni, R., & Perrin, N. (2008). Incorporating "learning study" at primary teacher preparation: an exploratory research. WALIS 2008, Hong Kong.
- Pramling, N., Wallerstedt, C., Lagerlöf, P., Björklund, C., Kultti, A., Palmér, H., Magnusson, M., Thulin, S., Jonsson, A., & Pramling Samuelsson, I. (2019). *Play-responsive teaching in early childhood education*. Springer Nature.
- Presutti, S. (2022, 2022-02-02). Relevance and adaptations of a lesson study process within the context of initial teacher education in the canton of Vaud, Switzerland. Twelfth Congress of the European Society for Research in Mathematics Education (CERME12), Bozen-Bolzano, Italy.
- Rosso, T. (2019). *Lesson study e problem solving: analisi di una prima esperienza nel contesto della scuola media ticinese* Scuola universitaria professionale della Svizzera Italiana]. <https://tesi.supsi.ch/2718/>
- Stigler, J.-W., & Hiebert, J. (1999). *The teaching gap: best ideas from the world's teachers for improving education in the classroom* (1st Free Press trade pbk. ed.). Free Press.
- Stigler, J. W., & Hiebert, J. (2016). Lesson study, improvement, and the importing of cultural routines [journal article]. *ZDM*, 1-7. <https://doi.org/10.1007/s11858-016-0787-7>
- Tan, S., Clivaz, S., & Sakamoto, M. (2022). Presenting multiple representations at the chalkboard: bansho analysis of a Japanese mathematics classroom. *Journal of Education for Teaching*, 1-18. <https://doi.org/10.1080/02607476.2022.2150538>
- Wegerif, R. (2020). Orientations and ground rules: A framework for researching educational dialogue. In R. Kershner, S. Hennessy, R. Wegerif, & A. Ahmed (Eds.), *Research methods for educational dialogue* (pp. 27-46). Bloomsbury Academic.