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

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INTRODUCTION

This compendium was compiled by a team at Lausanne Teacher University for a French-Speaking Facilitator Training that took place during the first year of the Covid-19 pandemic (Haan, Hoznour & Grigioni Baur, 2020). It is grounded in our various experiences in facilitating Lesson Study (LS) in Initial Teacher Education (ITE) and within schools in the State of Vaud, Switzerland. Therefore, it may differ from what you are used to doing.

This version of the compendium differs from the original in the sense that it has been adapted to a wider audience, and situated in our cultural-historical context. The reference section is also richer, and the contents has been updated to show the latest variations in our practice.

Some of you have already supervised or are supervising one or more LS groups, while others are planning to do so soon. In this document, we aim to share how we organise and facilitate LS in our part of the world. The purpose of this document is to address the various tasks that the facilitator is responsible for: we will focus as much on organisational and administrative aspects as on the professional gestures and postures that the facilitator can adopt.

You will encounter some references along the way, though this compendium doesn't claim to be an academic research paper, nor a conceptual one. These references are there to help you figure out the framework we work within, and give ideas for further reading in case you don't know them by heart already.

The facilitator is one of the keys to the success of a LS in our country. It's not easy to describe the job in a few words, given the many different roles facilitators can have within a LS. Some see them as an expert, a facilitator, a trainer, while others see them as a guide, a supporter, an acute observer... To make it short, let's say they should be a silent or invisible leader (Mynott & Michel, 2022) who, through active observation of the team at work, adopts various postures to help the group (Hennissen et al. 2008), asks learning-focused questions and believes in the abilities of group members; someone who, through their experience and skills, leads teachers to ask questions, to question their practice, learn to love learning-productive dissonance (Mynott, 2019), and last but not least, to dare experiment and step out of their comfort zone.

All the elements developed in this document are only suggestions, avenues to explore... points of reference, drawn from the many LS already facilitated by members of the Lausanne Lesson Study Laboratory (3LS) of Lausanne Teacher University (Haute Ecole Pédagogique de Lausanne, State of Vaud, Switzerland - HEP VD).

In no way does this document claim to impose a single course of action to be followed when facilitating a LS. Even if there are many similarities between the various LS currently being led by 3LS facilitators, each one remains unique in terms of the specific characteristics of the groups, the participants and the way in which the facilitator(s) organise(s) and run(s) the LS.

The whole of this document is a proposition, a list of ideas and caveats, and is strongly culturally situated in our local practices. It therefore needs to be adapted to your local policies and contexts to be culturally relevant to your LS groups and their learning.

This document is a translated and adapted version of the original compendium and has been validated by all authors of the original one.

Short foreword: the State of Vaud Context and Lesson Study

Since this document is closely linked to our local culture, we thought it would be good to share some of our context with you.

Switzerland is a confederation, and each State has their own autonomy up to a certain extent. That includes school policies, and teacher education systems. Lesson Study is not widespread in Switzerland and there is no country—wide plan to impose it.

At the time of writing, the State of Vaud, in the French-speaking part of Switzerland, has the longest LS history in our country, and it is a short one: it dates back 'only' to the early 2010s. The second state to use LS in our country is Luzern, in the German-speaking part. They started using LS a few years ago («Lesson Study» - News - phlu.ch, viewed on 15/10/2024). This makes LS a bit niche in Switzerland at the moment. However, at HEPL we have a LS laboratory running since 2014, and many international collaborations with LS-running countries like Japan, the USA, Kazakhstan, and European countries like the UK, the Netherlands, Sweden, Ireland, Portugal, Estonia, Cyprus, or Germany. Moreover, our State Education Department is interested in our work and is willing to advertise LS throughout the state schools.

Until today, the way LS got into schools in our State was via Lausanne Teacher University educators who actively advertised and facilitated LS groups in schools, or with school leaders asking for a school-wide LS development for a year. In our State, teachers are rather reluctant to engage in top-down Professional Development (PD), meaning those LS cycles are usually loners, and that LS is often not sustained in those schools. In schools where LS was developed on a voluntary base, LS is more sustained, though until now it is difficult to find time in the schedules because PD is not part of a weekly routine: it is a time teacher owe their school (at least four days a year), but there is no common collaboration- or LS-time on teachers' schedules as of yet. Therefore the number of groups in such schools remains low, whilst groups are doing LS each school year.

In our context, **facilitation** is most often double, down to historical reasons: originally, our LS lab was founded by two uni departments: Maths and Science Didactics, and Teaching, Learning and Assessment Departments. This collaboration was translated into practice with the sending out of duets of facilitators to facilitate LS. It turned out that collaboration between a didactic perspective and a more transversal one was learning-productive. We tend to favour collaboration between facilitators to facilitate collaboration between teachers. Our stance is that open discussion creates dissonance which in turn, if the right conditions are met, can produce learning among all team members (Mynott, 2019). Those conditions are in great part down to the facilitators, who are mediators in the situation, from a cultural-historical perspective (Vygotski, 1934/1985). Therefore, having two facilitators who discuss things between meetings can have a greater impact on the LS team's learning because the two facilitators go further in their thinking than one would alone (remember the saying: alone you go faster, together you go further). While our lab grew, including more uni departments and teachers from 'the field', we kept the

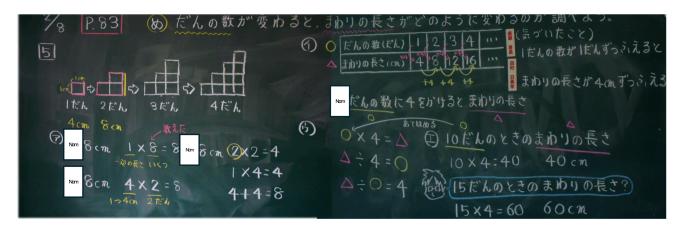
idea of using two facilitators coming from different departments at university (one from didactics and another from a more 'general' department) or one from uni and one school-based facilitator. That diversity introduces variation (Marton & Tsui, 2004) in the thinking, which in turn fosters a

better shared understanding but also creativity in the propositions made to the LS team or decisions made regarding the next meeting.

The feedback from LS participants is very positive regarding the fact there are two facilitators. They feel they have different points of view on the same object, but also see how collaboration allows reflexive decision-making and relevant interactions with the participants. They feel they learn better with two facilitators.

Recently, some facilitators in our region started using **bansho** (Batteau & Clivaz, 2023) as a tool to help LS participants, building on the teachings of Tan (2021) and Tan et al. (2018). *Bansho* is a Japanese term that translates into organisation of board writing (figure 1; Tan, 2021; 2023), and the concept is central to Japanese education. *It is a plan of the lesson, but also a record of it.* It is common classroom practice in Japan, to the point that teachers' books have ready banshos in there, to help teachers.

Bansho can be used in LS to help plan the RL, because it takes all the aspects of the lesson in, from projected outcomes to tasks, pupils' ideas and hypothesis, discussion links, and theoretical moments (here is a link to help you figure out what bansho is: <u>Enhancing your teaching with traditional bansho board writing</u>, viewed on 10/12/2024). Ultimately, bansho is part of the



process of planning a lesson, and therefore has a rightful place in LS.

Figure 1: example of Maths bansho (Tan, 2023).

In September 2024, the first ever platform dedicated solely to bansho has been launched, and is free to roam, at <u>bansho.net</u>. It is a hub for bansho knowledge, and can provide help for anyone interested in using it.

Training Supervision - Choice of Facilitation Type

There are many ways of framing a LS:

- The **LS can be led by a single facilitator**: they can be a trainer, a teacher- researcher or a teacher with previous experience of LS;
- It can be supervised by two facilitators: this is an arrangement that has been widely tested in the 3LS laboratory. Tandems of this kind generally bring together an educator in disciplinary didactics and an educator in educational sciences. The training is then co-hosted by these two educators. This arrangement enables teachers to benefit from cross-disciplinary perspectives and complementary contributions (including disciplinary knowledge and professional gestures). It also allows the educators to have learning-productive discussions in-between the LS meetings, preparing the next ones while comparing their visions;
- The team can be autonomous, without a so-called "expert" supervising the training. For example, it could be a group of teachers from the same grade group (lower primary, upper primary, secondary, or high school) in the same elementary school. Or it could be a group of teachers from the same discipline, or from different disciplines in secondary schools. During the process, these working groups may organise one or more ad hoc interventions by an external expert called a "knowledgeable other" in English-language papers (Takahashi, 2014; Takahashi & McDougall, 2016).

Facilitation must be thought out prior to training:

- Before starting the LS, it is important to decide the range of facilitation strategies that may be adopted during the LS. To this end, the facilitator must reflect on the nature, quality and pace of their interventions, as well as on the postures they will adopt according to the course of the debates and the specific objectives of each of the different phases of the process. It is also necessary, at this stage of preparation, to consider the nature of the various inputs that may be provided to the teachers (theoretical frameworks, elements of disciplinary knowledge, didactic aspects...), the appropriate moment to bring these resources and the way in which they will be presented to the teachers. Obviously, this may vary according to the group's needs, demands, etc... during the LS.
- Depending on the type of facilitation you choose (with one facilitator or two), this preparation work is of course not the same. In the case of co-facilitation, an in-depth discussion is necessary between the two trainers. This should make it possible to clearly define the expectations of each regarding the training and the role each wishes to play in it. The scope of each facilitator's skills should be discussed, as well as the situations in the LS process in which the intervention of one or the other would be the most legitimate and relevant. It would also be very useful to consider the themes on which the two facilitators could meet and combine their interventions. Finally, the two facilitators should also agree on how to operate throughout the process, so that the research lesson is that of the teachers and not that of the facilitators.
- The facilitator will need to do a great deal of preparatory work between each of the working sessions. We'll come back to this later in the document.

Comments:

A few words about the Lesson Study (LS) currently being conducted in some parts of the world, as well as some preferences about facilitation:

- Let's start with the case of Japan, where LS originated about 140 years ago (Makinae, 2010): within schools, there are people in charge of research and professional development (PD) for teachers. These people are therefore involved in LS as facilitators;
- In many countries, it can be said that LS are generally led mainly by researchers;
- China has had a Lesson Study culture within the school system since the 1910s (Chen & Yang, 2013; Huang, Fang, & Chen, 2017). LS is used both in Initial Teacher Education and within schools;
- We are currently seeing a massive development of LS in several countries 'untouched' before the 1990s (the USA, South-East Asian countries like Singapore, European countries like England, Sweden, France...). As a result of this large-scale development, more and more LS are being conducted by teachers. Today, more than 80 countries use LS or one of its variations as PD (Hallitzky et al., 2021; Yoshida, Matsuda, and Miyamoto, 2021). Several handbooks are also available where LS is described in a culturally-situated way: Lewis & Hurd (2011) and Stepanek et al. (2007) in the USA, Dudley (2014;2019) in the UK (mostly England), Mewald & Rauscher (2019) in Austria, Owens et al. (2023) in Ireland, and Vock et al. (2024) in Germany, to name but a few. 'How-to' guides are also produced, like the one by Saito et al. (2015).
- As a result of spreading among diverse cultures around the world, LS has necessarily been adapted to new contexts (Murata, 2011; Seleznyov, 2018) and its variations have different names, like Learning Study that originated in Sweden (Holmqvist 2011; Ling & Marton, 2012), or Research Lesson Study in England (Dudley, 2014;2019).

Organisation and implementation of LS

In this stage, the facilitator **organises** the training.

The facilitator ...

- contacts the school leaders prior to starting the LS, or responds to a training request from one of them;
- negotiates the number of hours of leave to be granted to teachers with school leaders,
 as this is generally a matter of ongoing training (In western Switzerland, we must do part
 of the training outside teaching time, and in LS, the time that is usually taken over
 teaching time is the research lesson and the following debriefing);
- constitutes a group of teachers: to do that, they can take part in a school meeting to
 present the project, define the area of work for the training (disciplinary,
 cross-disciplinary, transversal, etc.), specify the number of participants and the number of
 sessions planned, etc;
- takes the necessary administrative steps with the Teacher University or School of Education so that LS training can be validated as part of teachers' PD (issue of a certificate to each participant at the end of the LS cycle(s)).

Comment:

Some school leaders give teachers time off to take part in a LS. These few hours should be considered in a more global context. In fact, if they have enabled the professional development of the teachers, they will also have enabled, through the sharing of LS with other colleagues, a certain number of them to learn. This is an important factor when setting up a LS within a school.

First Session: Choice of Subject - Study of Subject

At this stage, the facilitator takes on the role of organiser.

The aim of this session is to define, with the teachers, how the LS team will operate, set ground rules, and then help participants define the issues they wish to explore.

The facilitator ...

- **welcomes participants** to the first LS session, the main aim of which is to get the work underway;
- enables participants to **get to know each other** and provides an **overview of the LS process** (aims, structure, timing, objectives, deadlines, etc.);
- clearly defines the group's ground rules to create a safe learning space for all: equality within the group, listening to each participant, a positive outlook at all times (even if each participant is subject to analysis and doubt), freedom to express oneself, exploratory talk (Mercer, 1996). Teachers must feel free to take risks and not feel judged. The ground rules can also be built with the participants, and many activities are possible to help them redefine the meaning of such overused words as 'collaboration' or 'discussion';
- defines with the group how they will communicate between meetings (email, platform, Teams, Google Drive, What's App...) and reminds participants to include the facilitator in the groups;
- **organises and plans the LS**: sets the training schedule with the group, sets a date for the research lesson, invites the group to consider in which class this lesson will be implemented (this can also be done later in the process);
- facilitates the definition of the research topic to be explored (solving a didactic or learning problem, improving a particular pedagogical approach; studying new teaching resources): highlights participants' expectations of the LS, topics of interest, day-to-day difficulties encountered in participants' classrooms. Helps the group to better define the subject of study and their research question (Hoznour & Perruisseau Carrier, submitted);
- writes and shares a **report** for each session, setting out the group's decisions and objectives. The group may also decide to take charge of drafting the minutes, in which case the facilitator ensures that this is done. Remember that the facilitator takes their own notes, which are substantially different from those of the LS group.

Comment:

The facilitator needs to do some preparatory work between each LS meeting. They must review the last session, highlighting the main points, ensuring that the timing initially set for the implementation of the research lesson has been respected up to that point, and determining the group's next objectives. They should also think about the group's needs in terms of academic or not-so-academic resources. There might be expressed needs that must be addressed, or perceived ones that can be met by suggesting resources. All this information can be included in the introduction to the next session.

Preparing the research lesson (several LS meetings)

During this stage, and through the various meetings, the group of teachers will work out the precise sequence of the research lesson (RL) and the observation that will be carried out during the RL, keeping in mind that while the RL is a 'regular' lesson with learning outcomes for the pupils, it is also a data collection ground to gather evidence to answer the research question.

The facilitator should take on the **role of silent leader, guide, mirror, companion and lever** of the process.

The facilitator ...

- by way of introduction, **outlines the research topic** chosen by the group;
- **shares what has already been done and what remains to be done** (always with the research lesson in mind);
- can, if necessary, goes back over the constraints to be taken into account with regard to
 the research lesson (RL) (its duration, often limited to one teaching period, the presence
 of the LS group in the classroom to observe this lesson, potential invited guests like
 colleagues or school leaders, etc.);
- asks the group to **discusses and agree on the class where the RL will be taught** (the timing of this decision should be chosen with discretion; it could be early or later in the process; in any case, this decision should be taken for obvious organisational reasons);
- invites the teacher of this class to present the pupils, their characteristics and particularities if necessary;
- ensures that the group drafts the **RL lesson plan (and bansho, if that was included in the planning)** as the working meetings progress (the facilitator keeps a close eye on the evolution of the lesson plan and, through their questions, encourages clarification of each of its elements, especially any unspoken points or implicit meanings. They also encourage participants to share their experiences, both positive and negative);
- Lets discussions between teachers take place freely, while ensuring that the following topics are discussed:
 - the learning outcomes (with reference to the curriculum). It is very important for the group to clearly define what the students should have learnt at the end of the research lesson;
 - what is offered by official **teaching resources** or other resources related to the research topic:
 - preconceptions, obstacles and learning difficulties related to the subject being taught and anticipation of possible actions by the teacher in response to those difficulties;
 - the precise **wording of instructions**, what will be written on the board, the documents that will be prepared and distributed to the pupils, and finally all the written records that will be produced by the pupils;
 - always keeping in mind the **observation** part, which should be built in parallel with the lesson plan, thus linking it with the research question.
- Other possible topics for discussion will naturally emerge:
 - resources that could be mobilised (materials, manuals, digital media, board, etc.);

- definition of the environment (including the spatial organisation of the classroom or the outdoors...);
- a detailed description of each part of the lesson;
- the **timing** to be set for each of these moments;
- has theoretical, pedagogical and didactic resources ready at hand if the group needs them;
- ensures that the group specifies what will be observed during the RL: for the teacher
 who will teach the RL but also for the other teachers in the group who will observe the
 lesson (in particular observable elements indicating student learning in relation to the
 lesson outcomes and research question);
- throughout this process, invites the teacher of the chosen class (who is not necessarily the one who will teach the RL!) to **react to the planning propositions** made by the group (particularly in relation to the configuration of the class, their work habits, students with special needs, etc.);
- ensures all teachers take part in the discussion;
- revives debates if necessary, re-words statements to clarify them for all, refocuses discussion, guides the group to make decisions and choices, constantly urges teachers to argue their proposals, thus creating exploratory talk and learning-effective dissonance (Mynott, 2019)...
- lastly, when necessary, reminds the group that the RL must be a shared lesson built on group consensus, and must not be the class teacher's lesson. Indeed, the main aim of a LS is to study the effect of a lesson on student learning. This lesson is not a demonstration of a teacher's abilities (the teacher who teachers the RL is nothing but the avatar of the LS team, and though they are humane, and will make unwritten decisions, they are NOT the subject of the group's observation);
- At the end of each preparation session, the **new version of the RL outline is shared** with the whole group. Participants can be invited to reflect on how to improve certain stages of the lesson. However, it is important not to overload the LS team with work between 2 training sessions.

At this stage, you might want to ask 'but when is the RL teacher chosen? And how?'. Indeed, it is a tricky question. 'When?' is easy: as late as possible, to ensure the group works together until the end and each of the teachers 'owns' the lesson. It has happened, in some LS groups, that the teaching representative of the group was chosen too early, and they took the lesson preparation over, leaving nothing much to discuss with the rest of the team: collaboration was lost (Hoznour, 2017, unpublished report).

There are many ways to decide who is going to teach the RL:

- Teachers can decide that among themselves;
- Someone could volunteer;
- The facilitator can trigger that moment (or not);
- Some facilitators advocate a last-minute draw to 'elect' the teacher. In that case, last minute really does mean last minute. The draw is done a few moments before the RL actually starts. The reason behind this is that the group remains focused on bettering and knowing the RL to the last minute, and it ensures that each teacher is master of the work done together. They have become the avatar of the group, and the lesson, and its impact on pupils' learning, can be the actual objects of observation.

- In some LS groups, the class teacher is not, as a rule, the one who teaches the RL, because of the unprecedented possibility of observing pupils they are used to teaching. They might therefore have new vistas open, discover attitudes they wouldn't have expected, or notice pupils they weren't used to noticing before for various reasons.

Comments:

- Facilitation can also take place with a lot of **silence** and very occasional interventions from the facilitator. This can take the form of (metacognitive) **questions** which would generate and encourage the development of a **reflective posture** among the teachers and promote **dissonance-rich and exploratory debate**;
- As well as working with teachers to prepare the lesson, there are a number of organisational and ethical aspects to be taken into consideration and discussed in the group and/or with the teacher of the class in which the RL will be taught:
 - Parental consent for any images photo or video to be sought
 - Letter to the school principal requesting the group's arrival in the classroom and the replacement of all teachers in the group (including substitutes at the end of the research lesson, during the hot post-lesson discussion)
 - Invitations to other teachers and/or school leaders if the group decided to
 - Space available for observers
 - Classroom layout and precise identification of each student if needed
 - Reserve a space close to the classroom for the post-lesson discussion;
- At the end of the preparation meetings, when the RL is finalised, the facilitator ensures that all the teachers have the information they need to set up and teach the RL:
 - Time teachers arrive in class
 - Placing of observers in the classroom
 - Observation modalities (one observer for a group, or every observer observes the whole class, case pupils, etc...)
 - Observers may not interact with students
 - Attitudes to adopt, including whether to move around the classroom during the lesson
 - Taking notes and photos to keep a precise record of everyone's observations
 -;
- Throughout the RL preparation sessions, the group can use a computer (possibly connected to a projector) to facilitate real-time, shared updating of the lesson plan;
- During the LR, teachers can be provided with tablets (iPads) equipped with the Lesson note application (http://lessonnote.com). With this application, the facilitator or the teacher can pre-record the layout of the classroom and the exact position of each student on each tablet. This enables the teacher-observers to take precise notes for each student. Another interesting feature is the simultaneous start-up of the application at the beginning of the lesson, giving all observers the same time reference points. This can give the group the opportunity, during the post-lesson discussions, to compare observations made at the same point in the lesson about different pupils, or about the same ones. If this application is to be used, the facilitator needs to plan a training session to enable teachers to familiarise themselves with its use.

Implementation and observation of the research lesson

In this phase, the facilitator takes on the role of **observer** of the process.

Before the LR (often at the time of requesting the usual authorisations), the facilitator ensures that the teacher of the chosen class explains to the pupils that the LS group of teachers is trying to improve a lesson they planned, with the result that several people will be observing its progress. As the aim is to improve pupils' learning about the chosen subject, it is advisable for the teacher to mention to the students that they may be interviewed about their experiences, and that they will receive feedback on the results of the research. The teacher can also explain to pupils that the lesson will be an opportunity for all participants - pupils, teacher, observers - to learn about the teaching of a given subject. Everyone in their role contributes to the learning of all the others. The whole RL and observation phase also makes it visible for pupils that teachers are learners as well.

The facilitator...

- reminds teachers that the RL has been prepared by the whole group. It therefore belongs to the whole group. As a result, he reminds them that the RL teacher will follow the lesson as closely as possible, and that observers should focus their attention not on the teacher, but on the pupils (their behaviour, their learning, their interactions...). Because each teacher might be placed in a particular spot in the classroom, specific observations can be made about certain focus groups, if decided so during the RL preparation meetings. These observations can nourish the post-lesson discussion;
- is responsible for setting up the **video equipment and recording**, if the group or researchers choose to video the RL;
- reminds each member of the group to keep a timed record of their observations during the lesson (it is the data they will use to answer their research question; and it will be capital for all these observations to be linked to the timing of the lesson to be comparable with those of other observers);
- invites teachers to leave the room at the end of the lesson and move to the post-lesson discussion area.

Hot Post-Lesson Discussion

The purpose of the Hot Post-Lesson Discussion is to **share** and **compare** observations, with a view to reflecting on relevant modifications to the lesson plan.

The facilitator ensures that discussions run smoothly and encourages relevant reflection (relating to the lesson's impact on pupils' learning).

It's important to organise this discussion soon after the RL, ideally **directly following the lesson.**Before getting started, teachers can be invited to take a short time to format the notes of their observations and choose key points they would like to share.

The discussion can be structured around three main moments: the feedback from the RL teacher, the feedback from the observers and the feedback from the facilitator.

The facilitator ...

- first **gives the floor to the teacher who taught the RL**. The aim is to gather their feelings, elements of satisfaction and what did or did not work, based on their observations;
- then opens the discussion to the whole group. The aim is to share the results of everyone's observations;
- ensures that teachers' speech is evidence-based;
- limits their own interventions, in order to leave room for discussion among the teachers. For this discussion to run smoothly, participants must be open to critical viewpoints and suggestions. This discussion should be seen as a privileged moment of collective learning, so dissonance should be nurtured by the facilitator to provide opportunities for learning. The debriefing should provide food for thought in preparation for the cold post-lesson discussion, which is when RL modifications and amendments are discussed;
- refocuses discussion on the outcomes defined in the RL (both learning outcomes and data about the Research Question). In addition, the group can focus on teaching elements observed during the lesson (how they might have helped or hindered learning, what technical aspects of this teaching could be modified to further improve student learning, etc.);
- communicates a summary of the elements highlighted and discussed during the session.
 These elements will be taken into account when revising the lesson.

Comments:

- Since the post-lesson discussion should preferably take place right after the RL, the facilitator needs to be able to take a step back in a very short space of time to formulate the questions or comments needed to nourish and enrich the discussion, without hindering the teachers' autonomous reflection. This is particularly delicate when two educators are facilitating the LS, and in that case, they need to take a moment to reach an agreement before the post-lesson discussion takes place;
- An "external moderator" can be appointed to lead the debriefing (someone capable of leading the discussion in a positive way). The "moderator" may also be responsible for closing the discussion. In this case, they must listen attentively to all the debates and, in the end, synthesise the key elements of the discussion. The facilitator can also invite a

- person from outside the group with expertise in the disciplinary field addressed by the RL. That person is called a knowledgeable other (Takahashi, 2014; Takahashi & McDougall, 2016; Lewis & Hurd, 2011);
- In the UK, LS is called Research Lesson Study (RLS), and involves three loops of plan-teach-observe-analyse. The RLS uses 'case pupils', who are the focus of observation (Dudley, 2019). These pupils, often three of them, are representative of three groups of different levels in the class where the LS is implemented, or three approaches to the subject, task, or skills involved (Dudley & Lang, 2020). The aim of the group of teachers is to determine the competencies of each of these students in relation to the subject area covered by the lesson, to define and modify learning tools precisely when planning the lesson, and finally, to define precisely what each of these three students should have learnt by the end of the RL. At the end of the lesson, interviews are conducted with students from the class. These may be the three case pupils, or other students belonging to the same work groups as the three students. These interviews can cover a wide range of topics: what students particularly appreciated about the lesson; what they learned from it (what they can do now that they couldn't before); what it means to them now; what would need to be changed in the lesson if it were to be taught in another class... These interviews are short. They can be organized individually or in groups. Ideally, they should take place immediately after the RL. Teachers are asked to transcribe the content of these interviews faithfully and to note the precise words used by each student to share with the LS team during post-lesson discussions (Dudley, 2019; Dudley & Lang, 2020);
- In the Netherlands, post-lesson interviews are organised between selected students and observers. The content of these interviews subsequently feeds into the post-lesson debriefing discussions (De Vries, Prenger & Poortman, 2017).

Lesson Review

This stage involves using the observations gathered by the RL observers and the reflections of the LS team to modify and finalise the lesson plan before it is shared within the school and/or the LS network (or before being re-taught, re-analysed,...).

The facilitator's role is to **encourage teachers to adopt a reflective posture** on their lesson and their observations, to help them make the lessons learned from the whole LS process visible in the lesson plan. The facilitator should also encourage teachers to highlight what they have learned during the process, and how this has been transposed into their professional practice.

The facilitator...

- returns to the elements discussed during the post-lesson debriefing;
- invites the group to review in detail the RL as it was observed. The group draws on the observations made in the classroom and on the elements already discussed during the post-lesson discussion;
- The entire group is given the original RL lesson plan (either on-screen or in a paper version). The facilitator invites the group to **discuss each moment of the lesson in turn**;
- can offer the group a selection of video extracts (if the research lesson was filmed). These
 extracts can enable a more in-depth analysis of specific moments in the RL. They can
 support the observations reported by the teachers, as well as suggestions for improving
 the lesson plan;
- encourages teachers to debate and confront ideas. The facilitator can keep a low profile, but nonetheless intervene to ensure that all proposals are evidence-based. They also ensure that dissonance produced within the discussion is built upon, potentially producing learning or at least a proposal for comments within the lesson plan;
- ensures the production of a final document (lesson plan with comments) that considers
 the modifications decided by the group of teachers. Several options are available. The aim
 is not to produce a "perfect" lesson, but for the group to take a critical look at how it was
 carried out, and to suggest various ways of improving it before sharing their work with a
 wider community of learners.

Comments:

After the debriefings, the facilitator should encourage the teacher who usually teaches in the class in which the LR took place to carry out a **debrief with the pupils**, and then discuss it again with colleagues. If significant elements emerge, they could be included in the final lesson plan or at least in the reflexive text surrounding the lesson plan;

- At the end of the LR review, the group can embark on a new LS cycle, but this is not mandatory;
- However, if this is the case, this second cycle may allow the RL to be implemented again in another class. This can be an interesting approach, as it enables the group to observe, in a classroom situation, the effects of modifications made to the RL initially prepared.

Sharing LS Work with Others

The facilitator ensures that the lesson plan produced by the teachers is forwarded to the Teacher university Lesson Study Laboratory (or any other academic body responsible for LS) for **online publication**. If the LS team's school has a **shared-resources platform** or a LS shared folder, the lesson plan is also shared there, with a notification to colleagues that new material is available.

The aim is to share the fruits of this process with the teaching community, as well as with the academic and research communities. The lesson plans thus produced are to be considered as **pedagogical**, **didactic and thought-provoking resources**.

The facilitator can organise a discussion at the LS team's school:

- 1. At the end of the training course, they can help organise a time for the LS group members to share their work and experience with other colleagues from their school. The teachers involved in the LS present what they have learnt about and improved in their teaching practices.
 - This discussion is usually based around a presentation including videos and photos (please note that prior authorisation is required);
 - The facilitator agrees with the group on the organization of such a moment from the start of the LS. This can encourage teachers to reflect throughout the PD.
 - 2. They can guide the group in writing the lesson plan and sharing it online:

A lesson plan is produced by the group: it presents the context of the lesson, the anticipated obstacles etc... and the sequence of events in the research lesson, accompanied by comments on the observation of the lesson in class and suggestions for improvement. The idea is not to propose a "perfect" lesson, but rather to highlight all the salient elements that the work on this lesson has brought to light.

Comments:

- The facilitator can encourage the school to grant LS group teachers additional release time
 to enable them to support other teachers in implementing the lesson they have worked
 on through LS. Asking LS group members to explain what they've learned to other
 colleagues encourages them to master the new pedagogical/didactic elements they've
 explored during the LS;
- At the end of the training session, the facilitator makes sure to highlight in a positive and constructive way all the work accomplished by the group: everything that has been learned and shared;
- To share the fruits of LS training as widely as possible, a panel dedicated exclusively to this training can be created and placed in the school's teacher's room. This can allow discussions to continue afterwards and foster the development of a school culture based on collaborative work.

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