

METHODOLOGICAL REVIEW ARTICLE

Lesson Study Method: Application and Improvement. Teachers' reflection.

 Renata Bernotienė and Daiva Jakavonytė-Staškuvienė ¹

¹Vytautas Magnus University, Lithuania

RESUMEN (Spanish)

El artículo presenta los resultados de un estudio en el que alumnos de 4º curso (de 10-11 años) recibieron enseñanza cooperativa y el proceso educativo se organizó sobre la base de la metodología Lesson Study. El objetivo del estudio es mostrar cómo la aplicación del Lesson Study en el proceso educativo ha conducido a la mejora de la metodología, a la mejora del aprendizaje de los alumnos y al desarrollo de la propia reflexión de los profesores sobre la experiencia. El estudio se llevó a cabo entre 2019 y 2021 en una escuela primaria de Vilnius, Lituania. El trabajo presenta datos significativos que muestran el cambio en el proceso educativo que se produjo al analizar y comparar los datos del Ciclo 1 y del Ciclo 3. Un equipo de profesores e investigadores trabajó en la mejora del proceso educativo mediante la reflexión y el análisis de los datos de actividades específicas, y presentamos las ideas que han contribuido al cambio. El desarrollo de los criterios de evaluación del rendimiento de los alumnos, que incluyen aspectos del aprendizaje cooperativo, ha sido uno de los puntos principales del proceso de desarrollo, y en este documento se presentan los criterios de evaluación y sus cambios. Creemos que estos criterios son un valor añadido de nuestra investigación. La parte empírica contiene fragmentos de análisis de vídeo, reflexiones y comentarios de alumnos y profesores, que demuestran los elementos de un aprendizaje cooperativo de calidad y los beneficios de este tipo de actividades para el dominio de los contenidos educativos.

PALABRAS CLAVE

Metodología Lesson Study;
Reflexividad;
Educación primaria

ABSTRACT (English)

The paper presents the results of a study in which grade 4 pupils (aged 10-11 years) were taught cooperatively and the educational process was organised on the basis of the *Lesson Study* methodology. The aim of the study is to show how the application of the *Lesson Study* in the educational process has led to the improvement of the methodology, to the improvement of the students' learning and to the development of the teachers' own reflection on the experience. The study was carried out between 2019 and 2021 in a primary school in Vilnius, Lithuania. The paper presents significant data showing the change in the educational process that occurred when analysing and comparing data from Cycle 1 and Cycle 3. A team of teachers and researchers worked on improving the educational process by reflecting on and analysing the data from specific activities, and we present insights that have contributed to the change. The development of the evaluation criteria for student performance, which include aspects of cooperative learning, has been a major focus of the development process, and this paper presents the evaluation criteria and their changes. We believe that these criteria are an added value of our research. The empirical part contains fragments of video analysis, students' and teachers' thoughts and comments, which demonstrate the elements of quality cooperative learning and the benefits of such activities for the mastery of educational content.

KEYWORDS

Lesson Study method;
Reflection;
Primary education

RÉSUMÉ (Français)

Cette contribution présente les résultats d'une étude dans laquelle des élèves de quatrième année (âgés de 10 à 11 ans) ont reçu un enseignement coopératif et où le processus éducatif a été organisé sur la base de la méthodologie de l'étude de leçons (Lesson Study). L'objectif de l'étude est de montrer comment l'application de la méthode de la Lesson Study dans le processus éducatif a conduit à l'amélioration de la méthodologie et de l'apprentissage des élèves, ainsi qu'au développement de la réflexion des enseignants. L'étude a été menée par une équipe d'enseignants et de chercheurs entre 2019 et 2021 dans une école primaire de Vilnius, en Lituanie. L'article présente des données significatives montrant le changement qui s'est opéré dans le processus éducatif, au moyen de l'analyse et de la comparaison des données du cycle 1 et du cycle 3. Le développement des critères d'évaluation des performances des élèves, qui incluent des aspects de l'apprentissage coopératif, a été un axe majeur du processus de

MOTS-CLÉS

Méthodologie de la Lesson Study,
Réflexivité;
Enseignement primaire

CONTACTO Autoría  daiva.jakavonyte-staskuviene@vdu.lt  Education Academy, Vytautas Magnus University, Lithuania.

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développement, et cet article présente ces critères d'évaluation et leurs modifications, qui constituent une valeur ajoutée à notre recherche. La partie empirique contient des fragments d'analyse vidéo, des réflexions et des commentaires d'élèves et d'enseignants, qui démontrent les éléments d'un apprentissage coopératif de qualité et les avantages de telles activités.

1. Introduction

We have selected the aspect of teacher development and provided illustrations of the educational process, such as examples of activities, work results, their analysis. We will introduce the lesson study method, and we will explain how teachers work together to prepare plans and improve them by selecting assignments and adjusting students' self-assessment sheets. It is important to emphasise that a teacher's work involves not only a good subject and pedagogical knowledge of the educational process, but also a cultural competence based on relational sensitivity, communication skills, and a combination of rigour and imagination to persuade, encourage, and manage learners (Ball & Forzani, 2009). The *Lesson study* research was conducted in the context of consulting teachers in activity planning (Bjuland & Mosvold, 2015; Fujii, 2014), what they propose, how and why they propose adjustments in Cycle 1 and Cycle 2 of the activity study, how the content elements change, why they change, whether and why new ideas are included in the lesson content planning. The *Lesson study* allows teachers not only to plan and observe the educational process, but also to analyse it through discussion, sharing of experiences and insights. Such activities provide opportunities for deep reflection and learning from each other (Bjuland & Mosvold, 2015; Fujii, 2014). Working together, teachers can pay more attention to students' learning, noticing what makes the learning process run smoothly and what elements of the curriculum may be getting in the way.

A *Lesson study* involves a group of teachers who want to improve their students' learning, from groups of high and low achievers to aspects of the curriculum that the teachers, after studying the activity, decide they could teach more effectively (Dudley, 2013). Teachers work together to plan a detailed *Lesson study* lesson, with one member of the group leading the lesson and the others closely observing the students' learning and writing observations on copies of the plan. After the activity, the teachers compare what they have observed about students' learning with their predictions, refine their ideas and plan a follow-up activity for the next class. After about three cycles of *Lesson study*, the group of teachers reflects on what they have learned that can help them and others to improve their educational practice. Teachers share these experiences with colleagues through short papers, presentations or invitations to observe the new approach in an open lesson (Dudley, 2013; Fujii, 2014). In our study, the lesson study cycle consisted of three phases, with teachers observing three students of different abilities and recording their learning process. The whole lesson study cycle is illustrated in Figure 1.

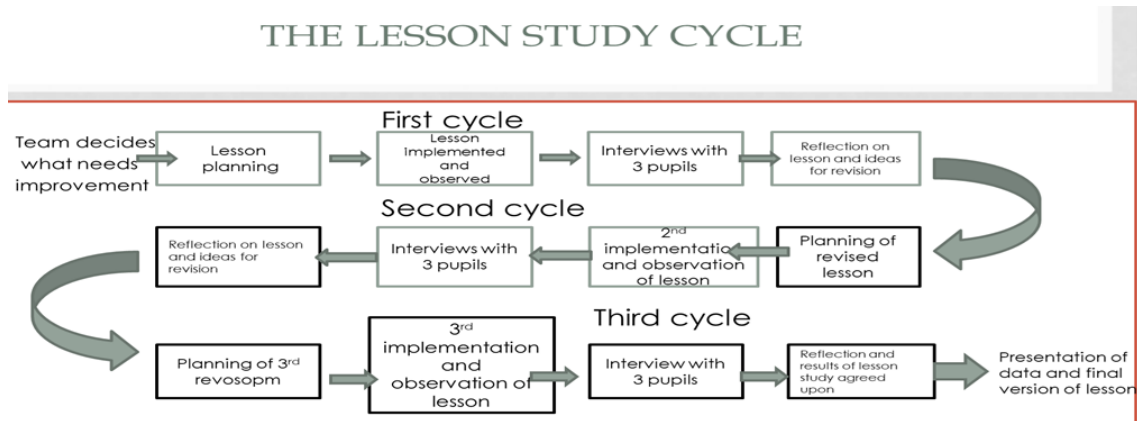


Figure 1. Putting the Lesson Study approach into practice

Figure 1 illustrates the flow of the *Lesson study* approach followed in our study. Our study was carried out in three phases:

Cycle 1. Teachers work together to develop a lesson plan. Students aged 10-11 participate in a science/history lesson. They collaborate in groups, complete tasks, present them to other groups and self-assess the success of the collaboration. Interviews with students.

Cycle 2. Improved lesson plan. Discussion with teachers. The number of tasks is reduced. Improved students' self-assessment form, clarified concepts, aiming at students' self-assessment of their academic and social skills. Conversations with pupils.

Cycle 3. Improved lesson plan. Teachers discuss the adaptation of the tasks. They decide to adjust the tasks so that pupils can better demonstrate their ability to work together, so that there is greater/clearer interdependence within the group. Conversations with pupils.

In the empirical part of the paper, we present the detailed data from Cycle 1 and Cycle 3 of the study, which will illustrate the changes in the content and organisation of pupils' activities that have been adopted during the discussion and reflection among teachers and researchers.

2. Evaluating oral activities during the educational process

To realise the potential of formative assessment, it needs to become a creative and systematic classroom practice (Clark, 2012). A holistic perspective of action is crucial in educational practice, linking an interpretive gaze and the ability to act in a given situation and context (Macintyre, Buck, & Beckenhauer, 2007), which can be analysed through concrete evidence from practice. It is important that the activity is meaningful and that the analysis of the activity relates the process and outcome of the activity to the learner's ability and effort. Making meaning of learners' activities can be organised on the basis of individual and group work (Clark, 2012; Macintyre, Buck, & Beckenhauer, 2007). P. Black & D. Wiliam (2009) and E. Eisner (2005) have described the educational process as an artistic process that emerges from the qualitative judgements of teachers and students, corresponding to particular moments of activity, where the response needs to be in the here and now. It is important that all participants in the educational process actively reflect and respond to

changing conditions (Black & Wiliam, 2009; Clark, 2012; Eisner, 2005). Researchers J. Campos & J. O'Hern (2007) have identified the reasons why formative assessment can be unsuccessful and learning ineffective:

- 1) When students are not clear about what they need to know;
- 2) When activities focus on sorting students rather than motivating them;
- 3) When pupils do not take responsibility for their learning;
- 4) When pupils are not given appropriate feedback on their work and are not encouraged reflecting on their learning.

For quality assessment to take place in the educational process, learners need to know why they are doing the activities, how they should be done and what signs will indicate whether the activities have been done correctly. It is also important to teach pupils how to ask for help when they need it for learning (Campos & O'Hern, 2007; Clark, 2012). The most important observation relates to the development of independent/self-directed learning strategies, i.e. developing each student's formative assessment skills that can support their learning improves their performance and the development of competences necessary for lifelong learning (Black & Wiliam, 2009; Bose & Rengel, 2009; Clark, 2012; Irving, 2007; Nicol & Macfarlane-Dick, 2006). L. M. Macintyre, G. Buck & A. Beckenhauer (2007) recommend that teachers should be trained to gain insights into four key areas of assessment in the performance process: *observation*, *relational knowing*, *conscious content meaning making* and *continuous assessment*. By working in the area of observation, teachers can encourage students' attention so that control of learning comes from the learning situation itself. In the domain of relational knowledge, teachers can make connections between the student, the teacher and the content of the subject. By making conscious sense of the content, teachers can work with pupils to create concrete conditions for inquiry in the educational process. By continuously evaluating the educational process, teachers can support and reinforce learning processes. The framework encourages practice that teachers and students can use to gather evidence and plan the next steps in the learning process.

Teachers still face difficulties in assessing students' spoken language and reasoning (Lafontaine, Dumais, & Pharand, 2016; Vega, 2015), especially when spoken language is not taught in a targeted way. Of course, it is difficult for teachers to know what to assess and to have realistic expectations if they have not been taught it. For example, S. G. Chartrand, J. Émery-Bruneau, & K. Sénéchal (2015), L. Lafontaine (2011) and R. Nolin (2015) revealed that teachers evaluate spoken language without covering important elements. If teachers agree before the activity on the specific oral items to be worked on, as well as on the criteria for assessing the activity; then teachers know what to assess; students can practise, which enables teachers to observe and reflect on how to recognise the items in practice, and to infer the learning situation from the students' oral phrases. Research has shown that it is possible to use a range of feedback tools and peer review of performance (Dumais, Lafontaine & Pharand, 2015). Tools such as observation and evaluation charts, reflection sheets and questionnaires can be used (Dumais, 2011a). In addition, peer assessment in three phases, self-assessment, peer feedback and teacher assessment (Dumais, 2011b), allows students to become more involved in the assessment process. The aim of this assessment tool is for students to collaborate with each other and to help each other learn about their own strengths and weaknesses in order to improve their skills. According to L. Li,

X. Liu & A. L. Steckelberg (2009) and L. Lafontaine, C. Dumais, & J. Pharand, 2016, when individuals, i.e. the assessor (the one giving feedback) and the assessed (the one receiving feedback), collaborate with each other, it allows for real learning for both the assessor and the assessed, and also promotes the development of communication competence and critical thinking (Dumais, 2008, 2016).

Strengthening learning assessment systems (2019) emphasises that improving the learning process is possible if evidence is gathered and assessment focuses on activities that seek to consolidate or enrich knowledge (both about the subject being analysed and about the learning process). For all this to take place in the educational process, methods and tools should be used to help solve problems. The effective use of assessment data is an essential element of the education system. It is not possible to determine whether a country is providing quality education to all its citizens without data on the learning process of its students. Assessment of the learning process can be an effective tool for improving national education systems if it is based on a detailed description of the context and the collection of contextual data (Clarke, 2012). Advanced educational practices focus on assessment in the educational process and the use of summative assessment results to improve educational practice (Archer, 2017). However, there is often too little reliance on assessment results (Wagner, Wolf, & Boruch, 2018).

3. The role of reflection in Lesson Study

In educational practice, a learner/developer is understood as an author or creator. A learner in the broadest sense is a person who thinks and creates. The quality of education is based on the ability of all those involved in education to reflect (both on the process and on the outcome). This can only be achieved through the development of metacognitive skills that help to optimise and improve the quality of education and learners' achievement (Sagnier, 2013; Stalder, 2016, 2019). No problem can be solved without deep reflection skills. In order to discuss any issue, we need to have basically answered ourselves what is going well in this area, what I can do differently and how I can do it differently to change the situation for the better and to learn even more. The deep reflective skills of some researchers (Blons-Pierre, 2016; Gohard-Radenkovic, 2017; Gohard-Radenkovic & Veillette, 2016; Macaire, 2007; Tardif, Borges, & Malo, 2012; Morrissette, & Charara, 2015; Stalder, 2016, 2019; Perez-Roux, 2017) identifies it as an essential pedagogical competence, which is also the basis for the development of the competence of reflection on the pupils' activities, which is essential in the educational process when analysing activities according to the Lesson Study methodology. Continuous reflection before, during and after an activity is a prerequisite for achieving a quality result (Miskovic, Efron, & Ravid, 2012). The teacher's ability to apply the right learning strategies, to support the pupil or group at the right time and at the right pace, is a prerequisite for achieving quality results. Educational didactics refers to the actions and decisions, including methodology, curriculum content, performance objectives and specific tasks, when designing the teaching/learning process for pupils in any field. The ultimate goal expected of a progressive educator is a daily educational practice imbued with a reflective approach based on theoretical foundations and methodological-strategic choices for the learner's learning. These reflective, reflexive skills are particularly important in identifying problem areas in the educational process that can be corrected (Macaire, 2007; Jakavonytė-

Staiškuvienė, 2017) planning activities with the same content in other classes using the *Lesson study* methodology.

In many cases, for reflective practice to develop, educators need mutual support, quality and constructive feedback, collegial communication and collaboration, where members of the school community can complement, advise and support each other, rather than compete. Colleagues can also provide the necessary support in the event of an unusual situation, where their professional experience can be helpful (European Commission, 2017). Meanwhile, a young, newly graduated teacher can also be a facilitator in the school community in certain areas, for example, according to the European Commission (2017), only a quarter of children in European schools are taught by teachers who are confident in their digital competences. Hence, providing mutual feedback and peer-to-peer mentoring in a school's learning and continuous improvement community is seen as one of the most essential and meaningful ways of learning. European Commission (European Commission / EACEA / Eurydice, 2019) suggests that collegial feedback can take different forms: mentoring, working together to develop innovative practices in the school, peer assessment and scheduled meetings with the head of school to provide personal, social and professional support. Thus, learning between teachers with different pedagogical backgrounds and competences can take place in different forms and in different settings. High-quality, motivated and valued teachers are at the heart of excellent education (European Commission, 2017; Jakavonytė-Staiškuvienė, & Ignatavičiūtė, 2022).

E. Maleyrot (2013; 2015) proposes to focus on the goal or outcome of the reflexive activity, which can be divided into 7 categories of reflexive goal:

1. To think differently or more clearly, i.e. to develop new concepts and evaluation procedures, criteria to bring clarity to the educational process.
2. To justify one's pedagogical orientation/position on the basis of evidence.
3. To reflect on actions or decisions on the basis of action analysis.
4. To change their thinking by defining a clear, evidence-based, knowledge that can be 'seen'.
5. To carry out or refine actions by clarifying, refining, redirecting or generally reformulating the course of action.
6. Improving student learning by promoting rich and meaningful activities.
7. To transform one's own activity or society through personal and social moral education.

Two aspects of this classification of reflection are worth noting. The first four categories focus on the interior of pedagogical activity, while the last three focus on the exterior of the activity, which has an impact on society at large. The inner domain of performance is linked to teachers' inner moral attitudes, including feelings, emotions, interests, attitudes and values. There is a difference in the expression of the former, which is more oriented towards understanding, action and analysis, which is more concerned with the individual, and the latter, which values the movement beyond the self into society. In order to master the workings of reflection, it is necessary not only to be able to detach and reflect, but also to link theoretical knowledge with practical activities. Reflective capacity is presented as a skill or posture (Perrenoud, 2013) that a prospective teacher or teacher needs to develop gradually by learning to reflect on what he or she is actually doing and what he or she is

mobilising in teaching others (Altet, 2013, Maleyrot, 2015). Therefore, a prospective teacher becomes a reflective practitioner only when he/she is able to organise processes such as action-reflection-return-to-action or practice-theory-practice cycles. A teacher who already has pedagogical experience is associated with mastery. The professionalism of the teacher's activity is changing, as it is no longer just a question of being a reflective practitioner, but even more so of being able to bring together knowledge from several different perspectives, i.e. from practical experience, disciplinary knowledge (constant updating of subject knowledge) and knowledge of educational research, in order to be able to choose the best possible strategies in a given situation and to act as a competent professional. It is more important for the school leader to encourage the teacher to practise "critical analysis of his/her own performance" in order to improve teaching and consolidate his/her teaching skills (Morrissette, & Charara, 2015). The reflective stance is not constructed in the teacher's work, but presented as already existing, even if it is not yet fully expert. Pedagogical tools that help to develop reflective skills include collective development of lesson/action plans, where teachers can confer and discuss reflection together (Morrissette, & Charara, 2015); technical advice that builds pedagogical knowledge; and the development of teaching tools that incorporate a reflexive dimension (Altet, 2013, Maleyrot, 2015). French postgraduate studies are permeated with integral reflexive activities. It is believed that this training of master teachers will lead to a return to the contextualisation of the knowledge taught and to the conceptualisation of the practices that give meaning to professional university teaching. Reflective mechanisms are one way of promoting this. However, it is acknowledged that these measures to promote the integration of different types of knowledge are quite costly and depend on a collegial culture that is not very common in universities (Pérez-Roux, 2013; Maleyrot, 2015), while reflection through small group deliberation provides an opportunity to gain experience of the process of mastering reflection (Bourassa & Picard, 2014). However, the reflection process can also be ineffective if teachers are not prepared to take action in response to the issues raised when the conditions for change are not met (Morrissette, & Charara, 2015). Some teachers find it difficult to understand openness, to accept openness and uncertainty, and to create an atmosphere of respect and mutual trust (Borges, & Gervais, 2015). It is very important for teachers to take stock of their experience and skills before the activity, then there is a much better chance of achieving positive results without frustration. If the reflection activity involves not only teachers but also university lecturers, it is useful to find out during the first meeting about teachers' experiences, expectations, problematic situations where they would like to receive help (Morrissette, & Charara, 2015). Such a step is likely to improve the quality of not only the planning but also the implementation of the activities that teachers will reflect on in the future. And the role of the teacher during reflection is seen as a safeguard, to help develop the preservice teacher's discernment and critical skills (Borges, & Gervais, 2015).

4. Methodology

4.1 Data collection tools and method of analysis

Before and after the activity, the teachers reflected on their experience by verbally expressing their observations of the activity that took place. Before the lesson, the teacher elaborated on her expectations and outlined the lesson objectives and the activities. After the activity, they talked more about their impressions of how the pupils were learning. It is important to note that all these conversations were filmed and recorded. Thematic content

analysis (according to Paillé & Mucchielli, 2003; Lafontaine, Dumais, & Pharand, 2016) was used to analyse the data. In order to assess how students reflect on their oral experiences, the context of their learning and their knowledge, we have developed a very detailed performance assessment grid, consisting of criteria related to the objects analysed orally during the activity, taking into account the discussion and reflection aspects of the *Lesson study* methodology:

- whether the pupil asked for help (expressed in different ways, verbally, with the help of aids (e.g. examples, gestures, drawings, sketches, paraphrased ideas/explanations);
- whether he/she has substantiated what he/she has said or accepted the observations and suggestions of others (e.g. explanations, clarifications, evidence, conclusions, and therefore);
- whether he/she actively analysed the content (was engaged in the activity);
- the student was supportive (concerned not only about his/her own learning but also about the learning of classmates with whom he/she was in a group).

4.2 School and lesson context

Subject: History (knowledge of the world).

Grade: 4 (children 10-11 years). This paper presents the activities of two Year 4 pupils in one school, using collaborative learning and a lesson study, where teachers worked with researchers to analyse pupils' activities and adjust plans. Teachers from these primary schools also participated in the study. They observed each other's activities and made suggestions for improving the plan.

Topic: Lithuania's Historical Eminent Personalities.

Learning situation: students know Lithuanian personalities, are able to answer questions, discuss, draw conclusions, argue; according to the criteria, they are able to self-assess their work.

Objective: To develop historical thinking through application of historical knowledge of Lithuanian personalities.

The result of the lesson: Prepare and present posters on outstanding Lithuanian historical figures and self-evaluate each activity according to criteria.

Methods: storytelling, discussion, collaborative group learning, self-assessment of activities.

Working in a group. The rules of working in a group are learned and the roles are divided.

The task. Make a poster on two prominent historical figures of Lithuania. Before work, students discuss the criteria for assessment of the activity, which will serve as the basis for each student's self-assessment at the end of the work.

Tasks in the group. Preparing the poster. The teacher appointed a leader in each group. Students divide their tasks into groups and work: provide key information on two historical personalities (during Phase I and II). This task has been adjusted in phase III, leaving one personality instead of two, but with specific questions that group members must answer.

Students can ask questions of other groups. Information on two well-known historical figures in Lithuania must be found and at least three important statements made about them, presented on the poster, aesthetically.

Self-assessment and activity reflection. Each group evaluates the results of their group (fills in the grid). As part of their self-assessment, each child should consider whether they were aware of information regarding the personalities, or seeking information, as well as how they worked in the group or helped each other. After self-assessment, each group presents the results of the self-assessment to the entire class.

Figure 2 shows the table that was used for each group to evaluate the tasks for the whole lesson of Cycle 1. From the information given in the figure, it can be seen that students are asked to reflect on whether they worked individually, provided help or asked for/received help from other children in the class:

Tasks Names of pupils	EXERCISE I Circle method				EXERCISE II Preparation of posters			EXERCISE III Presentation of a poster	
	I did it myself	Support		Group work	I already knew that	I was searching for information	Group work	Poster presentation	Friends' note
		I was helped	I helped						



- it has been well done



- not all is accomplished



- it was not done

Figure 2. Example of a pupil performance evaluation grid (Cycle 1)

We would like to say that the evaluation aspect is very important and that the students reflected and evaluated the activities very thoroughly during the Cycle 1 lesson, but said that they did not need help from their classmates in most cases. These comments from the children suggested to the teachers and researchers that the positive interdependence aspect of cooperative learning was only partially fulfilled. For this reason, the team of teachers and researchers decided to further refine the criteria for the assessment before the activities of Cycle 2 and Cycle 3, and at the same time to improve the format of the task (especially the poster), so that the children could clearly understand that each member of the group should contribute to the selection of information about the historical figure and to the writing down of certain facts. The fact that each pupil should be an active participant in the group activity can be seen in Figure 3 from the fleshed-out evaluation criteria:

Tasks Names of pupils	EXERCISE I Circle method				EXERCISE II Preparation of posters				EXERCISE III Presentation of a poster	
	I found information about a famous person	Support		How did you manage to verify the information in the circles	I had enough information about the personality	My proposal was discussed in the group	I was helped (shared, completed, advised, etc.)	I helped (shared, added, advised, etc.)	I attended the poster presentation	I asked a question / I answered the question
		I was helped to determine what information was relevant	I helped to determine what information was relevant							




 - it has been well done
 - not all is accomplished
 - it was not done

Figure 3. Example of a pupil performance evaluation grid (Cycle 3)

We would like to point out that if the practice of performance evaluation is similar to Figure 3, and the collaborative group consists of 3-5 pupils, it is necessary to spend at least 10-15 minutes on the evaluation. Otherwise, the children do not have time to discuss and discuss how they should evaluate the activity. The time limit is therefore an important factor in the reflection process.

4. Results: analysis of empirical data

Lesson study method used in the planning, organisation, analysis and improvement of the educational process (Bjuland & Mosvold, 2015; Dudley, 2013; Fujii, 2014). The lesson study approach aimed to integrate teaching and research, theory and practice; to mobilise and nurture a community of teachers; to foster collaboration and reflection between teachers and students; to improve the quality of the content and the quality of the educational process; and to integrate new ideas into the planning of the lesson. Researchers and teachers have observed the educational process of the lesson study approach, recording significant information on student engagement, cooperation, positive interdependence, teacher support for students in the lesson, etc. The information gathered during the discussions was discussed, analysed, and aspects that have been successful and could be improved were identified. In each cycle, the lesson plan was refined according to the teachers' observations of the educational process and the researchers' insights.

As the lesson in Cycle 2 did not record significant information and change due to the lack of students' skills in collaborative learning and the lack of reflective skills that could not be demonstrated in the lesson, information is provided on the process of improving the lesson plans and students' results in Cycle 1 and Cycle 3. As regards Cycle 2, before the study, the teacher's classroom focus on students' individual independent activities made it difficult for the children to do the activities individually; even if they were encouraged to collaborate (they preferred to do the activities individually and did not tend to consult with each other).

Table 1 shows the presentation and lesson preparation of the Cycle 1 and Cycle 3 classrooms in which the study was conducted:

Classroom context for Cycle 1	Discussion/suggestions from researchers and teachers to improve the plan after Cycles 1 and 2	Classroom context for Cycle 3
<p>Before this lesson, students have already been interested in Lithuania's great personalities. They have been collecting information and discussing in groups. They are able to answer questions, discuss, draw conclusions and argue. In this lesson, they will repeat and consolidate their knowledge by making posters about two of Lithuania's great historical figures. For a boy with special needs in one of the groups, a girl from the same team has prepared a list of key information about certain historical figures before the activity.</p>	<p><i>In the post-lesson interview, the boy for whom the material was prepared mentioned that he did not want to receive an exclusive sheet anymore, as he can find the information himself. We took this into account and before the lesson of cycle 3, each child prepared a memoir about each person before the activity: they signed the name of the person, the main facts of his/her life, the place, the profession.</i></p> <p><i>Please note the different class sizes. There are 29 pupils in the cycle 3 class. In view of this aspect, it is important to review the structure of the lesson, to adjust the wording of the tasks and to instruct the pupils on how to perform the tasks more effectively.</i></p>	<p>The pupils were interested in the lives of Lithuania's famous people. They gathered various information and discussed in groups. Students are able to ask and answer questions, participate in discussion, draw conclusions and make arguments. In this lesson, pupils will work in groups to repeat and consolidate the knowledge they have acquired by making posters about one prominent Lithuanian historical figure, structuring the information and writing it down (with roles and contributions) on different coloured posters.</p>

Table 1. Presenting the context for preparing for cooperative learning activities

To summarise the data presented in Table 1, the context of the classrooms is similar: the lesson plans describe the learning situation/classroom context and reveal that the pupils of the fourth grade have already acquired knowledge and interest in Lithuania's prominent historical figures. It also describes what the pupils already know, such as how to answer questions, discuss, draw conclusions and argue them. Thus, the cooperative learning lesson will focus on summarising and consolidating content. During the teachers' reflection, it was agreed to make a significant change in the preparation: the structuring of information about historical figures before the lesson. In addition, the criteria for the evaluation of pupils' performance were also fleshed out (see Figures 2 and 3). According to J. Ivaškienė & D. Malinauskienė (2021), when planning and organising the educational process, teachers are guided by the following principle: education must be student-centred. In order to achieve this, it is important to get to know the pupils, to take into account their individual needs and abilities, and to use teaching methods, forms and tools that will help each of them to develop qualitatively. Therefore, in the preparation phase, it is important to find out what pupils know, what most of them already know, what difficulties they experience in the educational

process and how they solve them. Learning objectives should be set in the light of pupils' existing knowledge and skills.

Table 2 provides insights into how the content of the introductory part of the lesson was improved:

Content of the introductory part of the lesson in Cycle 1	Discussion/suggestions from researchers and teachers to improve the plan after Cycles 1 and 2	The content of the introductory part of the lesson in Cycle 3, adjusted in the light of reflective insights from researchers and teachers
<p>Pupils use the syllables to make key words for the lesson topic.</p> <p>Compose a topic "Prominent personalities in Lithuanian history" from individual words. Together they formulate the lesson objective.</p>	<p>M1: <i>After formulating the problem, you can go back to the questions at the beginning.</i></p> <p>M2: <i>I also agree with remembering and discussing the rules of cooperative learning. They should be named by the students and the teacher can ask targeted questions.</i></p> <p>M3: <i>Isn't it more valuable to remember the rules of cooperation first? And only after the title of the topic has been arranged, to remember why we talk about certain people after their death? What personalities do we remember, what did they do? Because the whole lesson is about remembering and discussing more personalities.</i></p>	<p><i>The pupils discuss with the teacher what is important in a cooperative group, what rules need to be followed and why it is important to divide responsibilities.</i></p> <p>In groups, they make words out of individual letters:</p> <p>Using the individual words, create a lesson topic "Prominent Lithuanian historical figures and their most important works" (the lesson topic has been changed according to the size of the class, so that each group gets one word). The pupils are asked why do we talk about certain people after their death? What personalities do we remember and what did they do?</p> <p>Together they formulate a lesson objective. In a group, they say the names of famous Lithuanian historical figures and their deeds.</p>

Table 2. Example of an analysis of how to improve an introductory part of a lesson (Cycle 1 and Cycle 3). Note: *The ideas expressed by researchers and teachers during the reflection process are identified as M1, M2...*

The discussion on improving the introductory part of the lesson plan draws attention to the suggestions made to recall and discuss the rules of cooperative learning, encouraging

students themselves to identify these in the lesson. Teachers are encouraged to ask questions in a targeted way only. The introductory part highlights the important aspects necessary for deeper student learning and clearer direction in learning, i.e. the formulation of a specific task and the anticipation of action steps. According to researchers (Neifachas, Slušnienė, & Butvilas, 2022), objectives specify what the learning outcomes should be. Statements, usually expressed in terms of student behaviour, are formulated by teachers and students. An appropriate learning objective is understood by the pupils and gives an indication of the quality of the lesson. Thus, the formulation of a learning task with students helps to create a collaborative interaction between teacher and students in the classroom, to enhance students' motivation to learn and to understand why the material is needed, how to learn effectively, and where and how to use the knowledge acquired.

Table 3 provides insights into how the main part of the lesson has been improved, taking into account suggestions from the teachers' and researchers' reflective discussion:

Content analysis of the main part of the lesson plan and lesson activities for Cycle 1	Discussion/suggestions from researchers and teachers to improve the plan after Cycles 1 and 2	The content of the main part of the lesson in Cycle 3, adjusted in the light of reflective insights from researchers and teachers
<p>Pupils take out the circles and their parts and key words from the envelopes. They divide the work into groups. They plan the activity and work. They write the deeds and names of famous people from Lithuania in the circles: checks that they have done the task correctly. In this way, they learn to work together in a group.</p> <p>Evaluate the work of each member of the group in the table (in colours).</p> <p>Pupils discuss the evaluation process, with children in one group saying <i>that working in a group was great because we helped each other. Also, we didn't get angry</i> (12:59).</p>	<p>M4: <i>The question for me here is how the task itself could be better formulated, so that all the members of the group are genuinely employed and interdependent (so as to make the interdependence of the members of the group more evident).</i></p> <p>M5: <i>Maybe you should ask each child to write a statement. Then they would be obliged to discuss who knows what and who gets to write what down. And that would really be the result of everyone working together.</i></p>	<p>Pupils take out the circles and their parts and key words from the envelopes. They divide the work into groups. They plan the activity. They divide responsibilities and plan their activities:</p> <ul style="list-style-type: none"> - Tell what they know about specific famous people, - research the clues they have received about them, - make circles to discuss the work they have done, - check that they have done the task correctly. <p>They learn to work cooperatively in a group. They evaluate the work of each group member in a table.</p> <p><i>Working in groups, the pupils discuss how each will contribute</i></p>

<p>The other group says that <i>it was great to work in the group, we did everything by ourselves, but I got a bit hung up because some of them were slow</i> (13:45).</p> <p>Children in Group 3 emphasise <i>that the work was successful because they paid attention to the condition of the task</i> (14:27).</p> <p>The fourth group mentioned that <i>everyone agreed and everyone did their job</i> (14:35).</p> <p>Working in groups, the pupils find information about two famous Lithuanian historical figures and make a poster about them. They write at least 2-3 statements and stick up the pictures. They find out in which ethnographic region this person lived. Prepare for the presentation of the work. Allow 10 minutes. At the beginning of the activity, the teacher introduces the sources of information that can be consulted in case her group mates do not know:</p> <p>Present their project - a poster.</p> <p>It was important that the children in the groups divided up their roles when presenting their work, for example, different historical figures were presented by different members of the team.</p>	<p>M2: <i>The weaker ones could take care of the dates, while others would think and formulate statements about the person's activities, valuable works, ideas...</i></p> <p>M3: <i>And be prepared to answer questions from other groups about this personality. Maybe even think about the questions themselves.</i></p>	<p><i>to the poster and what part of the poster they will fill in. Each of them will write on his/her card the necessary information about the life and activities of a Lithuanian historical figure (date of birth, place of residence, ethnographic region, educational path, activities, major works, etc.) and glue it on the poster.</i> In the activity episode, the children are divided into different roles and write on different pieces of paper the important deeds of a historical figure.</p> <p>Students work in divided roles. In addition, we can see that before the lesson, they have made flashcards with information about all the historical figures that are analysed in the lesson. These reference books are important for the quality of the task.</p> <p>They present the project they have made - a poster.</p> <p>Pupils in other groups listen carefully to the presentation. They may ask questions of the presenters.</p> <p><i>Pupils work in groups to decide which part of the timeline they will stick the pictures of famous people they have received.</i></p> <p>We can see that the revised idea of a poster where children wrote the answers to different questions on different coloured slips of paper, and glued historical</p>
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<p>Students in other groups listen carefully to the presentation. In addition, other teams ask the presenters questions from the activities of the historical figures presented.</p> <p>The pupils work in groups to decide on the part of the timeline where they will glue the pictures of the famous personalities they receive.</p>	<p><i>Important: the timeline is sorted from the oldest object to the present.</i></p> <p><i>That the years of a person's life will help to determine age...</i></p> <p><i>That there will be personalities that fall into several ages.</i></p>	<p>figures on a timeline (according to the period of their lives) has been confirmed. In addition, each group glued the name of the presented personality on a map of Lithuania where the person lived:</p>
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Table 3. Example of an analysis of how to improve the main part of a lesson (Cycle 1 and Cycle 3)

After Cycle 1, the main part of the lesson emphasised the need to adjust the formulation of the task to ensure that all group members are truly engaged and interdependent, in order to better/more obviously realise the interdependence of group members. This draws attention to the more effective use of the collaborative learning approach, which aims at the involvement of each pupil and the acquisition and disclosure of personal experiences of

learning success. It is also important for students to understand how each individual's contribution to the group activity contributes to the overall group outcome. As Gillies (2014) argues, cooperative learning is recognised as a teaching strategy that promotes learning and socialisation. Research shows that learners acquire the necessary skills when they have opportunities to communicate with each other, listen to what others are saying, share ideas and information, ask questions, critically evaluate others' ideas and use the information to reason and solve problems together. Formulating and answering questions is an important aspect of classroom activities. Students are encouraged to formulate their own questions and to prepare to answer other groups' questions about historical figures. It is also suggested to point out/remind the pupils, if there is a need to do so, that on the timeline the personalities should be pasted according to their age, i.e. the period in which the person lived. We can say that the adjustments were successful, as the posters in Cycle 3 were of a higher quality and the distribution of roles was clearer for the children, i.e. it could be clearly seen that all members of the group were doing the task and contributing their part to the overall result.

Table 4 shows the change in the content of the final part of the lesson:

Content analysis of the lesson plan and lesson activities for the final part of Cycle 1	Discussion/suggestions from researchers and teachers to improve the plan after Cycles 1 and 2	The content of the final part of the lesson in Cycle 3, adjusted in the light of reflective insights from researchers and teachers
<p>Students answer one of the selected questions:</p> <p><i>Which famous Lithuanian historical figures do we remember?</i></p> <p><i>Who was easy and who was difficult?</i></p> <p><i>How was the group work?</i></p> <p><i>Was it easy to share the work?</i></p> <p>Each child writes and sticks the answer to one question on the sheet. They support their answers with explanations. Discuss and draw conclusions.</p> <p>The teacher emphasises that she will adjust the educational</p>	<p>M2: <i>At this point, it would be useful to make those personal observations, i.e. why we remember these personalities, why they are worth talking about, what we can learn from them ...</i></p> <p>M3: <i>The reflection questions should be made more specific, so that children can think about their</i></p>	<p>Pupils answer the questions and discuss:</p> <p><i>What famous Lithuanian historical figures do we remember?</i></p> <p><i>How did you find and write down the three most important statements about famous people?</i></p> <p><i>How do you feel about group cooperation?</i></p> <p><i>How did you manage to share your work in the group?</i></p> <p><i>How did you find out which part of the timeline to stick the pictures of the personalities?</i></p> <p>On reflection, they say that the best way was to agree and share the work. <...> <i>It was more difficult to gather all the information.</i></p>

<p>process next time according to what the children have written, what went wrong or what was unsuccessful.</p>	<p><i>involvement in the joint work, their contribution.</i></p>	<p>Another group mentions that the easiest part was to describe famous people and the hardest part was to check (D.J.-S.'s comment, i.e. to weigh up because of lack of time). One group identifies that the work did not go smoothly, so next time they will listen to each other's opinions more carefully.</p> <p>They support their answers with explanations.</p>
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Table 4. Example of an analysis of how to improve the final part of a lesson (Cycle 1 and Cycle 3)

In order to summarise the results of the lesson and to clarify the students' experiences in the educational activities, students were asked reflection questions at the end of the lesson. The questions were adjusted after Phase 1 to encourage students to reflect more deeply on the practical activities and to express their personal observations, i.e. why we remember these historical figures, why they are worth talking about, what we can learn from them, etc. As N. M. Florea & E. Hurjui (2015) argue, the ability to think critically is acquired by allowing children to express themselves spontaneously, without constraints, whenever there is an appropriate learning situation. They should not feel ashamed or afraid of others' reactions to their point of view, so children eventually learn to trust their ability to reflect.

After Cycle 1, the reflection questions were adjusted to encourage students to reflect on their individual contribution to the lesson, their group activity/cooperation, and the meaningfulness of the information analysed in the lesson. The qualitative specification/rephrasing of the questions is a clear indication of the direction in which the student should be thinking in answering them. This helps the pupil to focus on the part of the educational process that is essential. In this way, the pupil deepens his/her understanding of the subject and of his/her personal contribution to the process. Question 1 of Cycle 1 has been kept unchanged as it is specifically related to the topic covered in the lesson. During the discussion for the lesson's development, the teachers decided that it was specific enough to guide the pupils' thinking about the historical figures they were studying. Question 2 in Cycle 1 was replaced by more specific questions focusing on students' activities and their performance in the lesson, in order to provide a deeper analysis of how students specifically learned, selected information and used it to fill in the timeline. In Cycle 3 it was decided to change this question to questions 2 and 5. The reflection questions on collaboration in Cycle 1 (questions 3 and 4) have been modified to help students reflect on their experience during the activity and to strengthen their reasoning skills. In Cycle 3, it was decided to change these questions to questions 3 and 4. In addition, we would like to point out that in Cycle 3, the research activities took place in a large classroom with 29 students, which meant that 7 groups were formed. This meant that more time was needed to listen to everyone's views and this type of collaborative learning activity takes place over at least two joint lessons, i.e. 1 h 30 min.

5. Discussion and conclusion

The analysis of the empirical data supports the advantage of the Lesson study from the teachers' perspective, because by discussing the lesson activities, students' learning and results together, teachers relax, feel that they are not alone, and listen to the observations of researchers and colleagues. They also realise that each stage of the activity is not exhaustive and can be improved. In this way, teachers reflect on their experiences to improve professionally (Jansen et al., 2021; Shúilleabháin, 2015). This is also evidenced by the aspects of the evaluation of the activities that were fleshed out in our study, which were directly linked not only to the content of the activity, i.e. the tasks, but also to the methodology of cooperative learning, in particular thinking about each student's contribution to the achievement of the overall result and not only fulfilling his/her own contribution, but also learning the content of the educational content presented by other group mates (Jansen et al., 2021; Shúilleabháin, 2015). Teachers reflected on the experience of each lesson in discussions with the researchers. After cycle 1, they decided to adjust the lesson plan to take into account the different experiences of the students, their learning skills, the pace of the lesson, and the students' collaborative learning, i.e. the success of the approach in achieving interdependence within the group. These findings are similar to research by other scholars who have found that teachers learn best when they are actively involved in the classroom, the place of professional activity (Dudley, 2011; Opfer & Pedder, 2010). The tasks in the lesson were adjusted to give students a hands-on experience of the importance of each group member's activity for the overall outcome. If the individual contribution is not sufficient, then the result of the group work is not maximised and is not what is expected. Students should therefore understand and accept the individual and collective responsibility of the whole group to achieve the intended outcome of the lesson. We would also like to point out that the details of the poster were chosen only during the discussion of cycle 2. Also, the descriptions of two personalities were dropped, leaving one personality per group, as the children were able to reflect in more detail on that person's contribution to the state of Lithuania and his/her significance in the context of the historical events in Lithuania. All these didactic solutions led to improved learning and motivation of the pupils (Dudley, 2013; Hadfield et al., 2011). The insights of scholars on the meaning of reflection reveal that reflective thinking involves looking back at the object or situation under analysis and seriously and consistently considering what changes need to be made. Such thinking is methodical, cautious and highly focused (Hebert, 2015; Virozerovienė, Bernotienė & Mazgelytė, 2022). In reflective practice, the teacher consciously reflects back on the activity and then, already on the basis of professional knowledge, reflects and learns from the experience, continuously improving his/her competences (Morrissette & Charara, 2015; Thompson & Pascal, 2012). Whatever the object of reflection, there is a consensus that both process and practice are beneficial: they increase teachers' self-awareness, improve decision-making and practical problem solving (Altet, 2013; Greenberger, 2020; Maleyrot, 2015). It is clear that the benefits of reflection for the growth of teachers' professional excellence are significant. Reflecting on their professional practice by focusing on relevant issues of improving the educational process allows teachers to gain a deeper understanding of how to manage and, more importantly, how to improve the process. In this way, they can aim for higher student achievement and encourage students to reflect on their learning experiences.

Deep reflection on students' activities requires more attention and time, so it is practically impossible to complete an activity in 45 minutes (although this is still the norm in Lithuania), and it is possible to complete and reflect on an activity in 1 hour 30 minutes. This aspect was highlighted in our Phase 3 activity. In addition, much more time needs to be allowed for collaborative learning in a large classroom. Less time is needed when fewer pupils are involved in the educational process. The time factor is important because if not enough time is allocated, the quality of the lesson activity suffers immediately as children get angry at not being able to complete the task and do not get to grips with the newly presented task. Learning time issues have also been analysed by other researchers (Cattaneo, Oggenfuss, & Wolter, 2016), who argue that less able pupils would actually need more instructional time to achieve similar results as more able pupils. D. A. Farbman (2015) argues that a large body of evidence shows a strong link between more time spent in school (both in general and time spent on specific activities) and better student outcomes, e.g. especially for those who otherwise lack productive learning outside school. Increased time spent on specific activities in the educational process leads to a greater depth of academic knowledge, a greater mastery of subject content, or the implementation of other enrichment that deepens engagement and broadens horizons. Learning time where children interact and collaborate more with students and teachers expands opportunities for learning and growth.

The quality of the activities, where learning is collaborative and the activities are organised on the basis of a lesson study, is usually determined by the details. For example, the different coloured poster sheets ensured a smoother group work. Also, the teacher's mastery of the method of working, for example, if the teacher has rarely used the cooperative learning methodology during the 4 years of teaching, it is likely that the quality of the activity will not necessarily be the same in Year 4, as the children will be used to working individually. This phenomenon was revealed in our study by the Cycle 2 activity, where the pupils worked more individually in groups, without discussing with each other, and the teacher did not stress the importance of the assessment activities, saying that they would be able to evaluate after the lesson. These findings of our study are similar to those of other researchers, Campos & O'Hern (2007), who suggested that certain teaching experiences may be the reason for the inability to assimilate a new methodology.

References

- Archer, E. (2017). The Assessment Purpose Triangle: Balancing the Purposes of Educational Assessment. *Frontiers in Education*, 2(41). <https://doi.org/10.3389/educ.2017.00041>
- Ball, D. L., & Forzani, F. M. (2009). The work of teaching and the challenge for teacher education. *Journal of Teacher Education*, 60(5), 497–511.
- Bjuland, R. & Mosvold, R. (2015). Lesson study in teacher education: learning from a challenging case. *Teaching and Teacher Education*, 52, 83–90.
- Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), 5-31.

Blons-Pierre, C. (2016). Mobilités et compétences en langues étrangères et dans le domaine interculturel: outils et réflexions pour la description, l'évaluation et la reconnaissance de ces compétences. *Journal of international Mobility*, 1(4), 91–108.

Bose, J., & Rengel, Z. (2009). A model formative assessment strategy to promote student-centered self-regulated learning in higher education. *US-China Education Review*, 6(12), 29-35.

Borges, C. & Gervais, C. (2015). L'analyse des pratiques et l'approche de « l'argumentation pratique » : un dispositif de formation et de transformation. *Questions Vives*, 24, 1-21. DOI : 10.4000/questionsvives.1845

Bourassa, B. & Picard, F. (2014). *Apprendre, c'est changer : codéveloppement professionnel de conseillers d'orientation du secteur scolaire*. Présentation au congrès international AIOSP, Québec, 4 juin.

Campos, J., & O'Hern, J. (2007). *How does using formative assessment empower students in their learning?* Unpublished Master of Arts in Teaching and Leadership Saint Xavier University & Pearson Achievement Solutions. Retrieved from <http://www.eric.ed.gov/PDFS/ED496594.pdf>

Cattaneo, M., A., Oggenfuss, Ch., & Wolter, S. C. (2016). The More, the Better? The Impact of Instructional Time on Student Performance. Discussion Paper No. 9797. Germany: IZA. <https://docs.iza.org/dp9797.pdf>

Chartrand, S. G., Émery-Bruneau, J. & Sénéchal, K. (2015). *Caractéristiques de 50 genres pour développer les compétences langagières en français* (2^e éd.). Québec, Canada: Didactica. <http://www.enseignementdufrancais.fse.ulaval.ca/fichiers/site_ens_francais/modules/document_section_fichier/fichier_a0567d2e5539_Caracteristiques_50_genres.pdf>

Clark, I. (2012). Formative Assessment: A Systematic and Artistic Process of Instruction for Supporting School and Lifelong Learning. *Canadian Journal of Education*, 35(2), 24-40. <https://www.jstor.org/stable/canajeducrevucan.35.2.24>

Clarke, M. (2012). What Matters Most for Student Assessment Systems: A Framework Paper. Washington, DC: Banque mondiale.

Dudley, P. (2011). *Lessons for Learning: How Teachers Learn in Contexts of Lesson Study*. Unpublished doctoral thesis, University of Cambridge.

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, 107-121. <https://doi.org/10.1016/j.tate.2013.04.006>

Dumais, C. (2008). *Effets de l'évaluation par les pairs sur les pratiques d'expression orale d'élèves de troisième secondaire : une description*. Mémoire de maîtrise inédit, université du Québec à Montréal.

Dumais, C. (2011a). L'évaluation de l'oral. In L. Lafontaine (dir.), *Activités de production et de compréhension orales : Présentations de genres oraux et exploitation de documents sonores* (pp. 17-46). Montréal, Canada : Chenelière éducation.

Dumais, C. (2011b). L'évaluation de l'oral par les pairs : Pour une inclusion réussie de tous les élèves. *Vie pédagogique*, 158, 59-60.

Dumais, C. (2016). L'accompagnement et la coopération : éléments centraux du développement de la compétence à l'oral des enseignants et des futurs enseignants. *Revue internationale de communication et de socialisation*, 3(1), 16-31.

Dumais, C., Lafontaine, L. et Pharand, J. (2015). Enseigner et évaluer l'oral en milieu défavorisé au Québec : premiers résultats d'une recherche-action-formation au 3e cycle du primaire. *Langage et littérature*, 17(3), 5-27. DOI : [10.20360/G2M596](https://doi.org/10.20360/G2M596)

Eisner, E. (2005). What can education learn from the arts about the practice of education? In E. Eisner (Ed.), *Reimagining schools: The selected works of Elliot E. Eisner* (pp. 205 –214). NY: Routledge.

European Commission (2017). *Communication from the Commission to the European parliament, the Council, The European economic and social committee and the Committee of the regions: School development and excellent teaching for a great start in life*. <https://op.europa.eu/en/publication-detail/-/publication/aa9ffc00-4524-11e7-aea8-01aa75ed71a1/language-en/format-PDF>

European Commission/EACEA/Eurydice. (2019). *Teaching Careers in Europe: Access, Progression and Support*. <https://op.europa.eu/en/publication-detail/-/publication/435e941e-1c3b-11e8-ac73-01aa75ed71a1/language-en>

Farbman, D. A. (2015). *The Case for Improving and Expanding Time in School: A Review of Key Research and Practice*. Eric: National Center on Time & Learning, 1-15. <https://eric.ed.gov/?id=ED561994>

Florea, N. M., & Hurjui, E. (2015). Critical Thinking in Elementary School Children. *Procedia - Social and Behavioral Sciences*, 180, 565–572. Doi: 10.1016/j.sbspro.2015.02.161

Fujii, T. (2014). Implementing Japanese Lesson Study in Foreign Countries: Misconceptions Revealed. *Mathematics Teacher Education and Development*, 16(1), 65–83.

Gillies, R. (2014). Cooperative Learning: Developments in Research. *International Journal of Educational Psychology*, 3(2), 125-140. doi: 10.4471/ijep.2014.08. <http://dx.doi.org/10.4471/ijep.2014.08>

Gohard-Radenkovic, A. (2017). Contre-point. Quand la toute-mobilité peut devenir l'immobilisation des acteurs de la mobilité... et quand sociétés d'accueil et de départ produisent du "brain waste". *Journal of International Mobility*, 1(5), 157–176. <https://www.cairn.info/revue-journal-of-international-mobility-2017-1-page-157.htm>

Gohard-Radenkovic, A., & Veillette, J. (2016). De nouveaux espaces dans de nouvelles logiques migratoires? Entre mobilités et immobilités des acteurs. *Cahiers internationaux de sociolinguistique*, 2(8), 19–46. <https://www.cairn.info/revue-cahiers-internationaux-de-sociolinguistique-2015-2-page-19.htm>

Greenberger, S. W. (2020). Creating a guide for reflective practice: applying Dewey's reflective thinking to document faculty scholarly engagement. *Reflective Practice*, 21 (4), 458–472.

Hadfield, M., Jopling, M., & Emira, M. (2011). *Evaluation of the National Strategies' Primary Leading Teachers Programme*. Wolverhampton: University of Wolverhampton.

Hebert, C. (2015). Knowing and/or experiencing: a critical examination of the reflective models of John Dewey and Donald Schön. *Reflective Practice*, 16(3), 361–371.

Irving, K. (2007). *Teaching science in the 21st century: Formative assessment improves student learning*. National Science Teachers Association (NSTA) <http://www.nsta.org/publications/news/story.aspx?id=5355>

Ivaškienė, J., & Malinauskienė, D. (2021). Pradinių klasių mokinių ugdymas: kokybės aspektas [Education of primary school students: The quality aspect]. *Švietimas: politika, vadyba, kokybė*, 13(1), 10-21. <https://doi.org/10.48127/spvk-epmq/21.13.10>

Jakavonytė-Staškuvienė, D. (2017). The policy of integrated languages didactics in Lithuania. *Problemy Wczesnej Edukacji*, 37(2), 111–122. <https://doi.org/10.5604/01.3001.0010.5584>

Jakavonytė-Staškuvienė, D. & Ignatavičiūtė, L. (2022). Experience of mentors and beginner primary school teachers in applying the principles of shared leadership during the school adaptation period: The case of Lithuania. *Cogent Education*, 9(1), 2070054, DOI:10.1080/2331186X.2022.2070054

Jansen, S., Knippels, M.-C.P.J., & van Joolingen, W.R. (2021). Lesson study as a research approach: a case study. *International Journal for Lesson and Learning Studies*, 10(3), 286-301. <https://doi.org/10.1108/IJLLS-12-2020-0098>

Lafontaine, L. (2011). *Activités de production et de compréhension orales*. Montréal, Canada : Chenelière.

Lafontaine, L., Dumais, Ch., & Pharand, J. (2016). L'oral au 1^{er} cycle de l'école primaire québécoise : assises théoriques et démarche d'enseignement et d'évaluation. *Reperes recherches en didactique du français langue maternelle*, 54, 101-119. <https://doi.org/10.4000/reperes.1096>

Li, L., Liu, X., & Steckelberg, A. L. (2009). Assessor or assessee: How student learning improves by giving and receiving peer feedback. *British Journal of Educational Technology*, 41(3), 525-536. DOI : [10.1111/j.1467-8535.2009.00968.x](https://doi.org/10.1111/j.1467-8535.2009.00968.x)

Sagnier, C. (2013). *Metacognition et Interactions en Didactique Des Langues: Perspectives Sociocognitives*. Berne: Peter Lang.

Shúilleabháin, A. N. (2015). *Lesson Study as a Model of in-school Professional Development: Case studies in two post-primary schools*. School of Mathematical Sciences University College Dublin. <https://ncca.ie/media/2136/lesson-study-pd.pdf>

Stalder, P. (2016). 'J'existe, car je me souviens'. La réflexivité au profit du management interculturel. In Dans P. Banon & C. Blons-Pierre (Ed.), *Didactique du français langue étrangère et seconde dans une perspective plurilingue et pluriculturelle* (pp. 241–258). Berne: Peter Lang.

Stalder, P. (2019). Creativity in intercultural teams: Which indicators, facilitators and competencies? In *IACCM-IESEG Research conference 31st of October to 2nd of November 2019, Paris. Conference proceedings* (pp. 9–27). <https://iaccm-congress.ieseg.fr/wp-content/uploads/sites/21/2018/12/1-IACCM-IESEG-Conference-Proceedings-2019-okok.pdf>

Macaire, D. (2007). Didactique des langues et recherche-action. Recherches en Didactique des Langues et Cultures. *Les Cahiers de l'Acedle, Association des chercheurs et enseignants didacticiens des langues étrangères*, 4, 93-119. hal-00554863

Macintyre, L. M., Buck, G., & Beckenhauer, A. (2007). Formative assessment requires artistic vision. *International Journal of Education & the Arts*, 8(4), 1 – 23.

Maleyrot, E. (2015). La visée réflexive des dispositifs d'accompagnement à l'entrée dans le métier des enseignants du premier degré : étude diachronique par les missions des maîtres formateurs. *Questions Vives*, 24, 1-20. DOI : 10.4000/questionsvives.1796

Maleyrot, E. (2013). *Les professeurs des écoles maîtres formateurs saisis par les épreuves professionnelles*. Notes du CREN n° 16.

Miskovic, M., Efron, E. S., & Ravid, R. (2012). Action Research in Action: From University to School Classrooms. *Education Research International*, Hindawi Publishing Corporation, Vol. 2012, Article ID 389736, 1-11. doi:10.1155/2012/389736

Morrisette, J., & Charara, Y. (2015). Le groupe de codéveloppement : un levier de réflexivité des enseignants en transition professionnelle ?. *Questions Vives*, 24, 1-17. DOI:10.4000/questionsvives.1805

Neifachas, S., Slušnienė, G., Butvilas, T. (2022). *Mokyklų pasirengimo diegti atnaujintas pradinio, pagrindinio ir vidurinio ugdymo bendrąsias programas veiklos tyrimas* [Study on schools' readiness to implement the updated general curricula for primary, basic and secondary education]. Tyrimo ataskaita. Vilnius: Nacionalinė švietimo agentūra.

Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199-218.

Nolin, R. (2015). Portrait des pratiques déclarées d'enseignement et d'évaluation de l'oral en classe du primaire au Québec. In R. Bergeron, C. Dumais, B. Harvey et R. Nolin (dir.), *La didactique du français oral du primaire à l'université* (p. 69-84). Côte-Saint-Luc, Canada: Peisaj, coll. Cogito.

Opfer, V. D., & Pedder, D. (2010). Benefits, status and effectiveness of continuous professional development for teachers in England. *The Curriculum Journal*, 21(4), 413-431.

Paillé, P., & Mucchielli, A. (2003). *L'analyse qualitative en sciences humaines et sociales*. Paris: Armand Colin. DOI : [10.3917/arco.paill.2012.01](https://doi.org/10.3917/arco.paill.2012.01)

Perrenoud, P. (2013). La blessure la plus rapprochée du soleil. Ambivalences et résistances face à la posture réflexive. Dans M. Altet, J. Desjardins, R. Etienne, L. Paquay & P. Perrenoud. (Dir). *Former des enseignants réflexifs : obstacles et résistances* (pp. 79-93). Bruxelles : De Boeck Université.

Perez-Roux, T. (2017). Une forme de recherche collaborative impulsée par les praticiens : enjeux, démarche, déplacement(s) des acteurs. *Education et socialisation - Les cahiers du CERFEE*, Presses Universitaires de la Méditerranée. Collaborations chercheur(s)-praticien(s): nouvelles formes, nouveaux enjeux ? [10.4000/edso.2494](https://doi.org/10.4000/edso.2494). [hal-01714813](https://hal.archives-ouvertes.fr/hal-01714813)

Renforcement des systèmes d'évaluation de l'apprentissage [Strengthening learning assessment systems]. (2019). Global partnership for Education. <https://www.globalpartnership.org/sites/default/files/document/file/2019-07-Renforcement-systemes-evaluation-apprentissage.pdf>

Tardif, M., Borges, C., & Malo, A. (2012). *Le virage réflexif en éducation. Où en sommes-nous 30 ans après Schön ?* Bruxelles : De Boeck.

Thompson, N., & Pascal, J. (2012). Developing critically reflective practice. *Reflective Practice*, 13 (2), 311-325.

Véga, M. (2015). Les pratiques d'évaluation de l'oral de deux enseignants de français observés durant l'étape du jugement dans le processus d'évaluation. In R. Bergeron, C. Dumais, B. Harvey & R. Nolin (Ed.), *La didactique du français oral du primaire à l'université* (pp. 109-125). Côte-Saint-Luc, Canada : Peisaj, coll. Cogito.

Virozerovienė, L., Bernotienė R., & Mazgelytė R. (2022). *Bendrojo ugdymo mokytojų reflektavimo ir mokymosi mokytis kompetencijos tobulinimas*. [Improving the reflection and learning to learn competences of general education teachers]. Metodinis leidinys. Vilnius: Nacionalinė švietimo akademija.

<file:///C:/Users/Daiva/Desktop/Reflektavimo%20ir%20mokymosi%20mokytis%20kompetencijos%20tobulinimas.pdf>

Wagner, D., Wolf, Sh., & Boruch, R. F. (2018). *Learning at the Bottom of the Pyramid: Science, Measurement and Policy in Low-Income Countries*. Paris: UNESCO IIEP. <https://unesdoc.unesco.org/ark:/48223/pf000026558>