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Lesson Study: Professional Learning for the Next Generation

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Introduction

For the last thirty years, physical education has witnessed a significant increase in the time and money spent on teachers' professional development, both at the national and local levels. While these professional development efforts are to be welcomed and encouraged, concerns have been regularly voiced about the nature and quality of these experiences (Armour and Yelling, 2007; Harris et al, 2011). Consequently, we are beginning to see a steady shift in the professional development scene. The once dominant format of teachers attending one-off, short courses has broadened and now includes longer-term, on-going, on-site possibilities. A significant catalyst for this shift has been the global rise of teacher inquiry. This movement has been a positive step forward and has encouraged teachers to produce evidence to inform their own practice. However, a number of challenges remain. One challenge is that teacher inquiry can be frustrating due to a lack of explicit frameworks to guide the process. Being invited or told to 'do inquiry' without a sufficient structure to initiate the process may result in difficulties that stifle long-term progress. Another challenge is that teacher inquiry is not always a collaborative endeavor and crucial opportunities may be missed to work with, learn from, and be challenged by colleagues.

Lesson Study is one model that can provide 'hands-on' guidance for teacher inquiry. Not only does Lesson Study align with the contemporary demands of long-term, on-going, on-site professional learning but it also creates collaborative opportunities to engage in the complex nature of classrooms (McMillan and Jess, 2021). With Lesson Study starting to receive attention in physical education, this article will first explore the model in more detail and share the potential for teacher professional development. We then present snapshots from two Lesson Study projects to highlight how the long-term, collaborative nature of the experience has a role to play in transforming the practice of participants.

What is Lesson Study?

Lesson Study was developed in Japan in the late-1800s as a teacher-led approach to professional development. It was adopted in the U.S. at the end of the 20th century and has since spread rapidly to many other countries. As Lesson Study has travelled around the world, various adaptations have emerged to suit the demands of different national contexts. Collaboration remains at the core of Lesson Study because it involves teachers working in small groups to plan and execute ‘research lessons’ to investigate an aspect of their practice. Lesson Study in the UK has been framed as a ‘cycle’ (see Dudley, 2016) and five main stages are summarised in Figure 1.

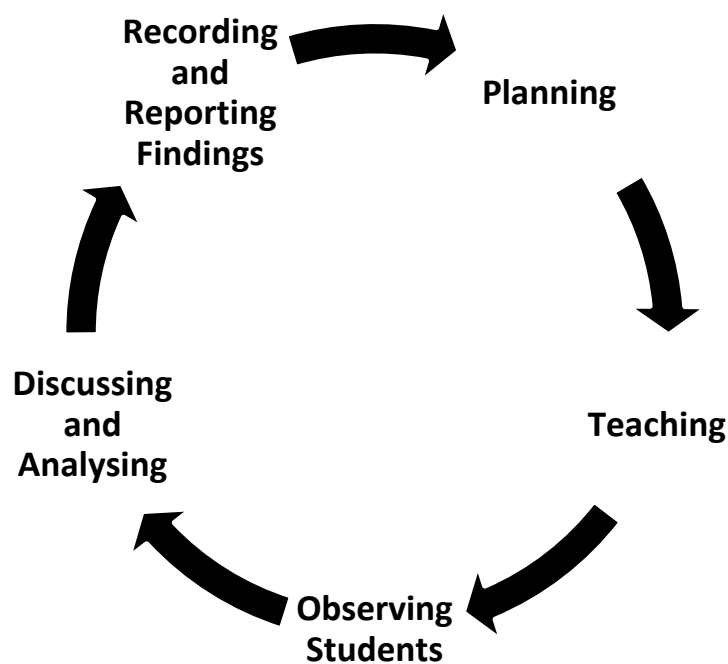


Figure 1: The Lesson Study Cycle (adapted from Dudley, 2016)

The planning stage involves a small group of teachers meeting to decide the focus of the project and to complete a detailed research lesson. This group could be three or four teachers from the same secondary physical education department or a collection of physical education teachers from different primary schools. The focus of the project should be agreed at the planning meeting. A helpful guide is that the focus for the project should be based on a ‘real-life’ issue that these teachers are grappling to comprehend in their practice; this prevents the commitment to inquiry feeling like an ‘add-on’ to the busy schedule of a teacher. Models-based practice (e.g. Sport Education, Teaching Games for Understanding, Teaching Personal and Social Responsibility), aspects of physical education in current education policy (e.g.

critical pedagogy, health and wellbeing, lifelong learning, meaningfulness), formative assessment techniques (e.g. questioning, feedback, peer assessment, self-assessment) are all possible starting points for the Lesson Study cycle. These research lesson planning efforts are guided by selecting a small number of ‘case students’ in the chosen class. Justifications for selecting case students can vary and can include a cross-section of motivations, abilities, and interests in physical education. The characteristics of these students are used to design and shape the research lesson in line with the chosen topic for the project.

In the teaching and observation stages, *one* teacher leads the research lesson with a class while the other teachers observe. A major point to highlight is that the observing teachers are observing the case students (not the teacher) to investigate how the planned material unfolds in practice. Observations are, therefore, geared towards the students: observing the students in order to understand and investigate the teaching. This form of observation departs from conventional approaches in schools, which tend to involve teachers being evaluated annually by their line manager to confirm that their practice is at a satisfactory standard. The shift in emphasis in Lesson Study – to co-planning, an agreed area of interest, and focussing on students – re-positions observation in schools as a productive and shared part of teachers’ professional learning.

The discussing and analysing stage of the Lesson cycle involves the teachers in an in-depth reflective discussion about the lesson. These discussions are partly underpinned by the notes taken during lesson observations and partly from data gathered by informally interviewing the case students immediately after the lesson. The post-lesson discussion has been recognised as generating the most ‘teacher learning points’ (Dudley, 2016). It fosters deep awareness of the student learning, provides opportunities to re-assess existing ideas, and challenges individual and group misconceptions. These data-informed discussions are used to debrief the lesson and, at the same time, feedforward into subsequent Lesson Study cycles.

The final recording and reporting stage is a central part of Lesson Study. It involves dissemination of the findings to colleagues. There are various formal and informal possibilities to report the findings – formal conversations with department colleagues, a verbal overview at department meetings, an infographic for discussion at whole school training days, a presentation or round table discussion at a regional physical education event, a poster at a conference, a blog post on the school website, an article in a physical education

magazine, and so on – all of which can be seen as ‘giving back’ to the learning of the wider school community.

Does Lesson Study Work?

A question that many ask about Lesson Study is: ‘does it work?’ The short answer is ‘it depends’. It can be highly successful if appropriate conditions are put in place to support the teachers in a school community. Table 1 presents three commonly identified enabling conditions for Lesson Study success.

Table 1: Conditions for Lesson Study Success

<ol style="list-style-type: none">1. Recognition of long-term, on-site professional development.2. Support for Lesson Study at school and wider levels of the education system.3. Provision of high quality resources, time, and space to collaborate with colleagues.
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With these enabling conditions in place, Lesson Study can start to improve teacher practice in schools. Given that Lesson Study facilitates teacher collaboration, reflection has been credited for much of the positive changes to teacher practice. Confronting underlying beliefs, experimenting with new pedagogical approaches, further developing content knowledge are all possible with Lesson Study and *more likely* to happen when reflecting in collaboration with others (Dudley, 2016). Collaborative reflection is a central feature of Lesson Study, and reconceptualises teacher learning in a school as a ‘community of inquiry’. It involves acknowledging individual differences, discussing challenging issues, building trust while investigating topics over time, and sharing the outcomes of a project with others in the school community.

Crucially, for teachers to work collaboratively and to deeply examine an aspect of their teaching practice, the expectation is that they complete several cycles of Lesson Study. It is on-going and long-term, rather than a ‘quick-fix’ approach to professional development. A one-off cycle is unlikely to unravel the answers to the type of challenging practice issues that

are typically placed at the heart of Lesson Study projects. An initial Lesson Study cycle often raises more questions than answers and these insights tend to inform subsequent areas for inquiry. Similarly, while Figure 1 depicts a continuous and straightforward process, the application of Lesson Study in practice is a far messier affair. The complex nature of teaching, various levels of teacher experience, and general familiarity with Lesson Study itself, are just some of the factors that can impact on how teachers journey through, and experience, the different stages of the cycle.

Lesson Study in Physical education

There are encouraging claims being made about Lesson Study, but the focus to date has remained predominantly on literacy, numeracy and the sciences. Studies in physical education, while in very limited numbers, have started to appear and are similarly displaying encouraging signs. These early studies have generally placed attention on student learning during initial teacher education or on in-service teacher professional development. The positive examples during initial teacher education reveal how Lesson Study can help students to better negotiate the demands associated with teaching in schools (e.g. Lamb, 2015). While successful examples of in-service professional development have shown how Lesson Study enhances teachers' abilities to teach physical education (e.g. Kihara et al., 2020) while also guiding the experimentation of new teaching strategies in schools (e.g. Slingerland et al., 2021).

Lesson Study: Recent Examples of Physical Education Projects

In this final section, we briefly share examples of our involvement in two longitudinal Lesson Study projects. With only very limited attention thus far, these examples aim bring Lesson Study to life in Physical Education settings and to showcase the potential for initial teacher education and in-service teacher professional development. These two projects – one recently completed and one still on-going – bear the long-term and collaborative hall marks of Lesson Study, which readers will hopefully recognise in the descriptions that follow.

Project 1: Lesson Study in primary physical education

This project was based in Japan and involved 30 generalist classroom teachers participating in nine rounds of Lesson Study over a three-year period. The participant teachers started with limitations in their teaching of physical education and were committed to the project to positively influence their competence, confidence and motivation. Following an initial

meeting to set the scene in April 2014, there was a focus on different stages of Lesson Study as the project unfolded (see Table 2).

Table 2: An Overview of Lesson Study during Project 1

Lesson Study Rounds	Date	Lesson Study Stages
Introduction	April 2014	Sharing project aims followed by a Planning Session
1	July 2014	Research Lesson Planning
2	October 2014	Teach and observe research lesson
3	January 2015	Research Lesson Discussion
4	April 2015	Lecture and discussion
5	July 2015	Research Lesson Planning
6	November 2015	Teach and observe research lesson
7	April 2016	Research Lesson Discussion
8	September 2016	Research Lesson Discussion
9	November 2016	Reporting Findings to others using a showcase Lesson

The findings of this three-year study have recently been published (Kihara et al., 2020). They highlight how the long-term, collaborative nature of Lesson Study fostered a context for the teachers to engage in co-planning, observation, and co-reflection that led them to develop a more articulated and connected approach to their teaching of physical education.

Project 2: Lesson Study in Initial Teacher Education

This on-going project began in 2016 and is set within the four-year MA Physical Education programme at the University of Edinburgh. Physical Education Curriculum and Pedagogy (PECP) is a common course that features in each year of the 4-year programme. The overarching aim of these PECP courses is to support the students in their long term engagement with complex adaptive practice (see McMillan and Jess, 2021). Lesson Study is a recurring thread that appears in each PECP course, but the number of cycles and focus differs to reflect the changing development needs of students in their complex adaptive practice journeys (see Table 3).

PECP Course	Focus of Lesson Study	Number of Cycles
1	Instruction and Feedback	3
2	Flexible Learning Intentions	2
3	National Curriculum Policy	3
4	Vision and Adaptive Teaching	2

As a student progresses from years 1-4 of the programme, they participate in ten interlinked cycles of Lesson Study. While the students are in the early stages of ‘becoming’ a teacher, the support from Lesson Study introduces them to the long-term, collaborative, on-going nature of teacher learning and development. In the next phase of the project, we plan to continue to listen to the voices of students about their learning during Lesson Study, produce a resource to support deeper engagement with the process, and track their journey with the model as teachers in the early career phase.

Conclusion

Professional development has been steadily shifting in the 21st century. Teachers are increasingly taking charge of their own professional development journeys by investigating ‘real life’ issues in their own classes and with their own students. In this article, we have presented Lesson Study as a coherent framework to support this rise of teacher inquiry. While Lesson Study may be in its infancy in physical education, early research findings and the projects showcased in this article provide examples of the possibilities of this model for teachers’ professional learning. The stages of the Lesson Study cycle – planning, teaching, observing, discussing and analysing, recording and reporting – provide a clear collaborative framework to guide teachers’ long term professional development. In future articles, as we continue to listen to the voices of our teacher educator colleagues, our student teachers and early career teachers, we will discuss the successes and challenges of this powerful addition to teachers’ professional development.

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