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ORIGINAL ARTICLE

Lesson and learning studies—An edifying story

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Abstract

It would be difficult to find any pedagogical story that is comparable to that of *jugyou kenkyuu* (or lesson study in English) that has been practised for over a century in Japan in isolation and became a method that was used worldwide in less than 10 years. Because of its uniqueness and its history, it is an irrefutable challenge to understand what it is really about, how its basic aspects such as *a lesson* or *teachers' knowledge and its development*, the *culture of education*, the *measurability of educational activities* and other main aspects of education are or can be conceptualised and in which ways these can travel in a globalised arena of education. In this article, we try to give answers to these and some other relevant issues related to lesson study via the author's subjective view and individually-constructed narrative.

1 | INTRODUCTION

It is no exaggeration to say that it would be difficult to find any pedagogical activity that is comparable to lesson study *or jugyou kenkyuu* in the original Japanese (Sarkar Arani, Shibata, & Matoba, 2007). It has been practised for over a century in Japan almost in isolation (Makinae, 2010) and in certain variations in China (Chen & Zhang, 2019). When international researchers learned about it, it spread worldwide in less than a decade. It broke boundaries between social systems, languages, cultures and educational cultures (Matoba, Crawford, & Sarkar Arani, 2006), leading to the creation of a professional world organisation on lesson studies. Even if there were no other reason for devoting attention to lesson study, it would still be worth dealing with this phenomenon in the light of the above. However, there are several other reasons why it deserves attention from both an educational and an educational policy point of view.

2 | WHAT IS IT ALL ABOUT?

Lesson study is a form of teacher collaboration. Teachers—typically from the same school—first select an element of classroom activity from their regular teaching practice and then carry out an in-depth analysis, consulting with one another (and occasionally relevant academic literature). They then start thinking about how the selected element could be developed in classroom practice. Based on their analysis, they design a lesson plan, focusing on the topic selected for classroom research, the students' anticipated reactions and all the details of the planned classroom activity. They also take into consideration its possible long-term impacts on student learning (Lewis, Perry, & Hurd, 2004). When ready, one of the teachers delivers the lesson, whilst other teachers observe with other professionals. This lesson, referred to as a "research lesson" (Lewis & Tsuchida, 1998), is followed by a discussion and an analysis of whether it worked as planned by the collaborating teachers. They may arrive at the conclusion that it needs further development. If so, the teachers reflect on the initial lesson plan and make revisions. The revised lesson is then observed. If it is deemed effective, the activities, results and any new insights will be documented in writing and all the documents of the learning-teaching cycle will be collected and made accessible—in print or digital format—for others in and outside the school. If, however, the learning objective is not achieved, another planning session on the critical point of the lesson follows and teachers observe the impact of the new development. A significant element of these cyclically recurring activities is that an outside, usually senior pedagogical expert referred to as a knowledgeable other, is included by the collaborating group of teachers at certain stages of their work (Takahashi, 2014). This may be during the preliminary planning, but the most important is the discussion following the research lesson and during documentation of the cycle.

Even though some elements of lesson study may be novel for experts outside East Asia, the approach is simple. Lesson study has caught the attention of educational policy experts, researchers, instructors and teacher trainers almost overnight. The most important result is that it has also caught teacher attention. The question then arises, why has such a simple method had such a significant impact in such a short period and among so many education professionals? It is impossible to answer this question in this article and address all the complex factors that contribute to its rapid take-up beyond East Asia. What can be done, however, is to introduce a few questions and their contextual background, together with possible explanations that are also relevant for the other articles in this issue of the *European Journal of Education*.

3 | FINDING SOLUTIONS TO LOCAL ISSUES AND PROCESSES IN THE GLOBALISED EDUCATION SPACE

Education is bound by place (local and national), language and culture. However, a global education space has also emerged, with a profound impact on the nature of teaching and learning and on education as a social activity in general. The volume of comparative international studies on student achievement, such as TIMSS/PIRLS/PISA, or the international rankings of higher education, growing student mobility, cross-nationally coordinated educational credit systems for schools and universities and the use of English as a *lingua franca* in academic environments in parallel to the local languages worldwide are evidence of this. The globalisation of education does not mean that its local character is less important (Grimsæth & Hallås, 2015; Seddon, Ozga, & Levin, 2013). Nevertheless, schools are increasingly studied, evaluated and compared within the global context. These questions could be put as follows:

> Does our school/education system/educational culture support student development as well as others do, even though they are essentially different from our own?

> Are our teachers as efficient as those in other schools/education systems/educational cultures? Or is there anything to learn from them?

The thoughts behind such questions have been the targets of a great deal of criticism. One of the recurring arguments was that comparison and competition among schools and nations certainly did not embody the essence of education. Moreover, comparisons could be misleading when trying to understand subtle differences across education cultures and identifying approaches that could be adapted because the global education space has gained significance for all involved (including individuals, families, communities), in particular neighbouring schools/teachers/educational systems that outperform others.

One cannot overlook the fact that it was not only out-of-the-blue that the world outside Japan learned about lesson study. It happened in the context of a book, *The Teaching Gap* by Stigler and Hiebert (1999) whose aim was not only to describe the attributes of the Japanese education system (per se), but also to seek answers to the question of why Japanese teachers and Japan's education system had had a more beneficial impact on their students than those in *the rest of the world* (with the implied comparison with the countries of the developed Western world). Thus, the book, whose focus was primarily on lesson study, raised hopes that it *was* the philosopher's stone—or at least *one* of those stones—and that practising it would allow every teacher to compete with East Asian teachers. The reference to those East Asian teachers who by then had outperformed those of the rest of the world, as evidenced by the consistently high results of TIMSS/PIRLS/PISA, was established. Thanks to complex "glocalisation", a combination of globalisation and a very local, very unique national tradition in education, the Japanese *jogyou kenkyuu* very quickly became internationally well-known in the late 90s as a result of comparative education studies. This was followed by a significant effort by educational experts to implement this method in very diverse national educational contexts in different parts of the world. This could never have occurred in the past at this speed and in this way.

4 | CULTURAL RESEARCH AND THE GROWING EMPHASIS ON TEACHERS' WORK AND ITS DEVELOPMENT

Stigler and Hiebert's (1999) publication coincided with a growing concern about the quality of teachers' work. Although teachers' key role has always been self-evident, many prior studies focused only on the relationship between student characteristics and their achievement, such as research carried out to find cultural explanations for the varied qualities of education. To put it very simply: what are the discernible differences between cultures that account for the fact that students in Japan, Singapore, South Korea and China regularly outperform their peers who are educated in other parts of the world? It is no coincidence that Stigler, before he wrote the *Teaching Gap*, had co-authored a book with the doyen of East Asian research, Harold Stevenson, on possible reasons for the apparent learning gap (Stevenson & Stigler, 1992). Had it not been for the fact that, in many cases, it was the students' rather than the teachers' activity that was emphasised in the research, the 1996 Coleman Report in the US (Coleman et al., 1966), which found that teacher characteristics explained variance in student achievement more than any other school factor, or much later the OECD's report, *Teachers Matter* (OECD, 2005) would not have shaken the world of education.

Lee Shulman played a key role in exploring teachers' impact, as he made clear that their knowledge encompassed a range of features that were unique to the profession (Shulman, 1986). What cannot be ignored is the fact that, for hundreds of years, in the so-called pre-professional age of teaching (Hargreaves, 2000), the essence of beliefs concerning education was that being an expert in an area of one of the human knowledge systems enabled one to teach it. It was the emergence of the special requirements of mass education—the demand for highly-qualified teachers who also met centrally-defined standards—that led to the requirement that teachers had also to be trained as educational specialists, since expertise in a field of knowledge was simply not enough (Nilsson-Lindström & Beach, 2013). This led to the creation of the *Ecole Normale Supérieure* in the 18th century (Hayhoe, 2016) which claimed that teachers should be equipped with pedagogical knowledge before commencing their teaching activities. It only became widely accepted by the second half of the 20th century that teacher training that was limited to pre-service learning was not sufficient. Teacher development must be made life/career long. What lends firm ground to this belief is the changes taking place every decade in the effectiveness of teachers in

terms of the changing aims of education, the content and the tools of effective teaching. Turning this into practice, however, has been hindered by the ineffectiveness of in-service teacher training. Teachers' continuing professional development has long been delivered through monotonous, course-like university programmes, which were also customary in initial teacher training. These could equip practising teachers with new and subject-relevant knowledge, but could tell them nothing about how such knowledge could be applied in classrooms that greatly differed. Even if the issue of how it would be possible to contextualise the development of teacher knowledge, or at least make it more contextualised than what the typical university in-service teacher development courses offered, the way to achieve this was not clear. In such a situation, it was already evident for the participants of the world of education that "teachers mattered" and that raising the level of the quality of teaching should be based on continuous and contextualised pedagogical knowledge development rather than on occasional professional development courses. It was in this vacuum that lesson study emerged. It embodied a promise, as it had already been in widespread use in Japan (in practically every elementary and many secondary schools) and had proved effective for teacher development for about 100 years. Moreover, by the end of the 20th century, Japan had regularly outperformed the other educational cultures of the world, including the "West".

All these elements, however, raise further questions, such as: what kind of teacher knowledge can be developed through a context-dependent approach such as lesson study? And what traditions can be identified in (Western) pedagogy to which it could be adapted? To answer the first question, it was Lee Shulman's pedagogical content knowledge theory (Shulman, 1986) that helped, as it gave a key to understanding that the pedagogical knowledge complex of individual sciences not only comprised theoretical elements of knowledge which were independent of educational contexts and were universal in terms of space and time, but also comprised a whole range of knowledge elements which were strongly educational-context dependent. Besides, to make lesson study a friendlier terrain for the Western educational world, it was possible to establish a link to educational action research (based on Kurt Lewin's original action research method in organisational psychology) (Adelman, 1993) or Stenhouse's system of ideas (Elliott, 2019). Lesson study, as it was understood at the turn of the century, could also be linked to aspirations to support the autonomous and democratic development of teacher knowledge. This was a kind of emancipatory effort in the face of the centralisation of education that was intended to increase the level of autonomy of individual teachers and independent professional groups of teachers.

5 | EPISTEMOLOGICAL QUESTIONS AND EDUCATIONAL POLICY

Parallel to the above developments, in the educational cultures that welcomed lesson study—especially the United States and parts of Western Europe—, a strong demand emerged to develop the evidence base of the conditions for the effective implementation of lesson study, teacher capacities and their impact. It was almost certainly inevitable that such questions would arise at the turn of the century, given the competition between East Asian and Western educational systems. The processes targeting a higher effectiveness level, in other words the educational reforms, had an evidence base in these educational cultures. Nevertheless, the researchers seeking answers to the questions raised were soon shocked by two by no means unrelated factors in connection with the original Japanese lesson study. First, as the international group of researchers soon realised, lesson study had already been a regular practice in Japan for 100 years without a coherent, clear, professionally-firm theoretical basis (Elliott, 2012; Huang & Shimizu, 2016; Stigler & Hiebert, 2016; Wood, 2018a, 2018b). Second, the method had never been accompanied by any study on its effectiveness in the Western sense where a rigorous examination of the approach would have been carried out to analyse the short- and long-term impacts on student learning and the implications for teacher learning and development. These "deficiencies" may seem to be *simply of a methodological nature*. However, much more profound theoretical and practical considerations stand behind them. A narrower aspect of these characteristics concerns questions on the very essence of teaching, such as: what is teaching? An art (Eisner, 2004)? A craft (Hird, Larson, Okubo, & Uchino, 2014)? A science? (Lindley, 1970), or a combination of

these? (Gage, 1963; Marzano, 2007). The order of the three metaphors is no accident, as the theories concerning the nature of teaching evolved historically in this order. In a sense, once new paradigms were elaborated, it questioned those that preceded them, whilst not invalidating them. Rather, they presented a new way of understanding the preceding paradigms as valid.

The paradigm that conceives teaching as an art is based on the epistemology that its construct evolves through experience. It is therefore difficult to articulate and share. If it is described, this can only happen informally. It would be impossible to develop an evidence base whereby it could be codified. The point is that the essential knowledge constructed by experience cannot be identified and measured by formal methods. The paradigm that conceives teaching as a craft is a mixed concept, whilst understanding teaching as a science is based on thinking that it has its roots in positivism, implying that it can only be developed if the elements of the knowledge it creates are communicated clearly and precisely and each mode of action of the whole process may be brought under control.

It is impossible not to see a connection between this professional-theoretical pressure and the fact that only a few years after lesson study gained visibility in the profession, a new version which relied on a firm foundation in a Western pedagogical theory known as learning study emerged in Hong Kong. This new approach was developed by Ference Marton and his Hong Kong colleagues (Lo & Marton, 2011; Wood, 2018b). It is also impossible to ignore the fact that their implementation in the United States was accompanied by thorough and explicit impact measurement (Perry & Lewis, 2010). Parallel to this, a clarifying process ensued to decide whether to implement lesson study in a spontaneous, planned or centrally-organised manner. These dilemmas evoke the underlying metaphor: is teaching (and its development) an art, a craft or a science? In other words, lesson study, in stepping out of its birthplace, became an educational policy issue that posed both scientific and practical questions.

As lesson study gained access to educational contexts of an incredible diversity, the answers given to these questions were both similar and extremely varied, which was no doubt partly due to political, ideological and professional issues. In contexts with centralising tendencies, it was seen as a similarly centralised educational policy endeavour (Khokhotva, 2018; Wilson, Turner, Sharimova, & Brownhill, 2013), whilst, in less centralised contexts, it remained within the scope of local, professional circles. Not surprisingly, in the light of the above, there were cases in which it became part of a centralised educational system, whereas in others, it became a means of directly extending the teacher's autonomy. In certain places, lesson study started to make an immense contribution to the development of educational science as such, whilst, in others, it became a dominant form of teachers' social experience-based knowledge-community development (Moghaddam, Sarkar Arani, & Kuno, 2015; Saye, Kohlmeier, Brush, Maddox, & Howell, 2008).

6 | *WHAT* IS A LESSON? WHO OWNS IT?

Finally, it is impossible to bypass a professional question which is educational-dependent and so evidently "invisible" that it did not emerge for centuries in non-Eastern Asian pedagogies. It could perhaps be worded as follows: *What is a lesson, and, accordingly, how does it evolve and what is its form of existence?* It must be added that "lesson" here refers to any element of the teaching-learning activity, so it is not limited to teacher-student interactions that take place in the classroom.

The implicit Western theory behind the "lesson", which was held for centuries, is that teaching and the lesson evolve in a way that the teacher first obtains a certain uniform knowledge and a methodological system through teacher training which is then continuously translated and adapted according to the specific needs of a given group of students, also keeping in sight considerations such as the object of learning, the object of the lesson and the attributes of the given school and class. In this sense, the lesson as a product is owned by the teacher (ignoring here the fact that, as a process, it is construed as a series of interactions between the teacher and the students).

Lesson study and its East Asian variants, however, reveal a paradigm of an essentially different educational culture. The firm belief behind this paradigm is that the lesson is the result of the collaboration of certain experts of education so it is by no means an individual achievement (Emerling & Graff-Emerling, 2013). This collaborative product conceived as a process can span several ages and generations and its essence is manifest in the common activities of the new participants who jointly refine, clarify, and make something that has already existed for some time more sophisticated. Thus, the lesson is commonly owned and shared, which means that each participant assumes responsibility and the moral professional obligation to do his or her best for its improvement, development and refinement, that is, to turn it into an elaborate tool to be used and not owned by individual teachers, even if adapting the tool to the object and the given group of students is carried out by the teacher. It is not a discrete entity which is unique and momentary, but the product at a certain stage of its development of the never abating creative work of the community of teachers.

In accordance with the essence of the lesson conceived as such, the methods used in its research and development cannot be identical to the traditional methods which are based on what is applicable in natural sciences. Lesson study is one of the options in this research development paradigm. In the case of such epistemological and knowledge systems it does not emerge as an option to develop some kind of an abstract essence of the teachers' knowledge in universities or research institute labs which they must later adapt to the teaching context. Instead, it is analysed, understood and developed in its own context. It is the lesson that stands as a creation which can be recreated by refinement, but it will never become *only* Mr./Mrs. Y's lesson. This is what makes it difficult for the European-American educational culture. The teachers involved in the research lesson stage of the lesson study cycle do not observe the lesson held by Mr./Mrs. Y' or Q. They observe and analyse a lesson which has been developed and improved by a multitude of teachers, including the given lesson study group of teachers, and which, in the current work process, happens to be presented by Mrs. W. The core thought behind the whole process is that the lesson is the most important tool of the educational process in the teacher-student interactions and it is this tool that is continuously being developed and not the lesson of a given teacher (Emerling & Graff-Emerling, 2013). So, when it is studied, the aim is to explore at what point and how it could be improved and not how the lesson of a given teacher could be better. We must admit that this Eastern philosophy of the lesson does not square well with the Western tradition that focuses on the contingent nature of teaching and the need to adapt to individual learner needs.

7 | WHAT DOES LESSON STUDY DEVELOP?

Finally, the question arises, what does lesson study actually develop? As evident from its name, it develops primarily the lesson by using a research method based on observing it in action. However, via teachers' professional learning (Dudley, Xu, Vermunt, & Lang, 2019), it also develops the teaching culture and knowledge and practice-tied communities, whilst encouraging self-reflection and activity as teachers (Mewald & Mürwald-Scheifinger, 2019). Most importantly perhaps, it has an impact on teachers' beliefs and attitudes concerning teaching and its development (Khokhotva, 2018; Sarkar Arani, Lander, Shibata, Lee, & Kuno, 2019). The changes thus brought about are typically indirect, only becoming apparent in the long run, so it is impossible to measure the impact with traditional research methods which focus on short term and immediate impacts. The measurable impact may not be immediate, but it certainly contributes to the evolution of the school as a learning community by providing a tool for permanent development and improvement. Through these processes, lesson study does develop a given field of education (e.g., the methodology of teaching a certain subject) and thus contributes to the systematic development of educational systems. Also, it connects teachers and researchers (Runesson, 2019) and via their shared activities develops teachers' research abilities for their own practice and narrows the gap between practice and research. Finally, lesson study contributes to the development of education as a social activity. In the light of all the above, it is not surprising that it has become the focus of attention of educational policy makers worldwide and its position in the centre of attention seems to be still growing.

Everything in this article is essentially the author's view and his individually construed narrative on what lesson study and its rapid spread in the world of education are all about. Certainly, there are other visions and narratives concerning the topic which are essentially different from my own: other understandings born in the contexts of other educational narratives. This issue of the *Journal* includes works of authors on lesson and learning study who carry out their activities in Japan, China, the UK, Austria and Sweden. As the reader will certainly see that lesson study as a phenomenon and story means something different for each of them, there are different aims, understandings and educational visions outlined in the different theoretical and research approaches. Lesson and learning study, whether implicitly or explicitly, appear in the works of these authors as a form of criticism that highlights a variety of rigid educational phenomena. In addition, the constraints of lesson and learning study that the authors present also differ. Despite the differences, each study of this volume is imbued with a kind of hope and optimism to which—despite the long history of the original method in East Asia—we can all add something new, important and relevant for the issues of education in a world where the importance of the highest possible professional level of the teachers has become greater than ever before.

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