

Will Lesson Study Work Culturally in terms of Pedagogy in China?

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Abstract. Lesson study has been one of the heated topics in the education area of China. By critically reviewing the Japanese Lesson study, this article explores the extent to which this pedagogical culture can be embedded in the Chinese education system. The main argument of this article is that in the context of Chinese pedagogy, lesson study may require additional institutional improvements to accommodate localization in China. This will contribute to providing some references for future educators and teachers about how to conduct lesson study culturally and effectively in the pedagogical implication of China.

Keywords: Lesson study; professional teach community (PLC); teaching and research group.

1. Introduction

The emergence of student-centered learning is increasingly the primary focus of educational reform. Therefore, how teachers view their role in the teaching and learning process is a significant obstacle to the development of student-centered teaching, and their use of new teaching methods depends on their past experiences and regular reflection [1]. He further explained that knowledge production is social, and sociality means that the process of knowledge taught by teachers is inextricably linked to feedback from other teachers or students [1]. Thus, the establishment of a teacher-professional learning community is thought to be beneficial to inclusive learning among teachers and promotes teacher collective efficacy [2]. According to Nelson, a common belief is that collaboration between teachers improves the teaching and learning experience for both students and teachers, as well as teacher-teacher feedback [3]. Forming teacher-based beliefs about education based on traditional knowledge inheritance makes education more innovative [4]. However, when discussing teaching strategies, it is important to consider how the teaching strategies can be better adapted to the specific sociocultural context, which is usually more worthy of attention than the conceptual nature of the teaching decisions themselves, which may be used in new changes in the socio-cultural context, which may lead to the problem of whether educational decision-making deviates from its original vision. As a result, the localized application of professional learning communities for teachers based on traditional Chinese teaching and learning cultural perspectives is hampered.

This paper will utilize the Japanese model of teacher-learning communities as a framework to consider its potential for widespread application and how to deal with the potential of the relationship between learners and instructors in teaching by establishing the differences and connections between the Lesson Study and the traditional Chinese teacher learning communities. This paper concludes with a critical examination of the traditional Chinese teaching and learning model.

2. Literature Review

2.1 The Evolution of PLC in Japan

According to Vygotsky's sociocultural theory, learning happens primarily through interaction with social and cultural contexts, particularly through participation in cultural activities and contexts [5]. According to Vygotsky, the process of knowledge construction can be viewed as a collaborative group learning process that produces social knowledge [5]. Based on his understanding, Sriklaub and Ruengtrakul further emphasized that collaborative learning is an effective way of teaching that

encourages teachers to approach problem-solving from different perspectives and that it brings together teachers' learning experiences with the expectation of improving the way teachers control their classrooms [6]. In fact, the contextual view emphasizes the social nature of learning and sharing with others in teaching and learning. Sriklaub and Ruengtrakul emphasized the significance of the ongoing interconnection between teachers' teaching practices and prior teaching experiences [6].

On the other hand, teachers' knowledge and beliefs emerge through the ongoing interplay of prior teaching experience and teaching practice, ultimately shaping teachers' professional learning [6]. This concept of ongoing interactive lesson planning was explained by Sriklaub and Ruengtrakul as it can connect learners and providers in the learning process, as well as providers to each other through feedback to achieve pedagogical refinement [6].

As a result, in this perspective, the development of socioculturally-based feedback among participants in teaching and learning activities is considered vital in learning activities. According to socioculturalists, students' real feedback reflects individual differences in students' absorption of knowledge, which can usually be better used to measure the real level and effectiveness of classroom teaching [5]. The indigenous educational reform in Japan, the one that is based on this argument, is a very representative case.

2.2 Japanese Lesson Study – Improvement of Traditional PLC

2.2.1. The origins of PLC development in Japan

The Japanese government first proposed the idea of democratic classrooms as part of a series of educational changes that were initially promulgated in 1872 with the intention of learning from the educational system in the West [7]. This educational reform program can be traced back to the early 19th-century educational changes that were implemented by the Japanese government in democratic classrooms [7]. In the 1990s, Japanese educators decided to introduce the concept of teaching in professional learning communities to Japan after a half-century of research into teaching strategies in other countries [8]. This occurred after the community had been under investigation for the previous half-century. After its introduction into Japan, the Japanese government strongly promoted the integration of traditional professional learning communities with the local Japanese education system and gave rise to a new pedagogy based on teacher collaboration as well as student feedback, which eventually developed into what came to be known as lesson study. In its early stages, however, Lesson study enabled teachers to access pedagogical training in a non-active manner by mandating their participation, rather than encouraging them to actively pursue collaborative and innovative practices. Wang indicated that due to the obligatory nature of taking part in this activity, Japanese educators of the time were not very enthused about taking part in it [9]. Because of this, during the middle those to late 1990s, the educational sector in Japan placed a significant emphasis on actively reforming the school system. This was accomplished by doing away with the requirement that teachers participate in the program and by conducting research into the fundamentals of PLCs [10]. The new teaching reform shattered the teachers' previous, passive experience with standardized instruction and transformed the process of lesson study into a brand-new circumstance driven by the concept of co-teaching [11]. The Japanese educational system was subjected to extensive pedagogical reform for an extended period of time before it was finally able to unite with Lesson Study.

2.2.2. Selective introduction of PLC in different cultures

The Japanese educational system is unique in many respects. Wenger saw that the formation of professional learning communities is inexorably influenced by the particular histories and cultures of the participants [12]. He further explored the optionality of knowledge, noting that whenever knowledge spreads, it is selectively rooted in a particular social context [12]. According to Wang, Japanese educators have demonstrated extraordinary patience in reflecting on teaching based on the culture's long-standing tradition of viewing education as "craft knowledge" [9]. Due to the fact that it is based on such a particular cultural tradition, the Japanese method of instruction is regarded to be difficult to replicate in other nations. In their empirical research, Wang outlined the reasons why it is

difficult to construct a lesson study in the United States [9]. These reasons can be found below. The article points out that the teaching culture in the US requires the new curriculum reform programme to produce significant gains in a short period of time under local US measures of achievement, however, lesson study requires a longer period of time to complete the teaching effect, or rather, lesson study does not focus on assessment of achievement, but rather on student feedback, therefore lesson study did not expand locally in the US initially [9]. At the same time, Wang argued that American educators have demonstrated "too much fear" when it comes to displaying their classrooms to other people [9]. There is a dearth of teaching tradition that is practice-oriented in some emerging nations, such as Indonesia and Kenya, for example. In light of this, Lewis argued that the development of lesson study in these regions shows that the theoretical framework of an ideal teaching and learning philosophy must be integrated with the local teaching and learning situation and the education system and that this will be difficult to develop if it is just a direct imitation [13].

Based on the findings of a study conducted by Saito, teacher orientation training in Indonesia frequently does not include a component that tests teachers' competence to instruct in an actual classroom setting [14]. One such illustration of this may be seen in Kenya, where the educational system's vision does not match its current practice. Increased efforts on the part of the government of Kenya to broaden access to educational opportunities resulted in a precipitous rise in the number of children enrolled in primary and secondary schools across the country. This was one of the primary drivers behind the country's progress toward its goal of achieving universal primary and secondary education. Ampiah pointed out that the high dropout rate can be attributed to the competitive nature of the school system in Kenya, which was brought about by the expansion of both primary and secondary education [15].

Based on what has been mentioned above, when discussing teaching strategies, it is often more necessary to focus on the potential changes that may be brought to teaching strategies in different social and cultural contexts. On the basis of this experience, it is possible that it will be helpful to study the adaption of PLC in other countries if it is imported judiciously according to the local scenario.

2.3 The Application and Improvement of Professional Learning Community in China

2.3.1. The current state of China's indigenous education model

There has been an effort made by Chinese educators to investigate ways to improve and localise instructional theories [16]. Yuan ET. Al summarised the reasons for the delayed development of PLCs in China by examining data on teaching and learning in high schools in developed cities in China [17]. These explanations focus on the inadequacy of accountability regulations and the lack of teacher autonomy. They argue that teaching and learning activities in China tend to follow collectivism, and that following collectivism in the teaching and learning process means that teachers treat themselves as part of a group, with leaders leading them through the teaching and learning tasks, a process that carries coercion [17]. Accordingly, Zheng ET. Al added that part of the reason PLCs are difficult to implement in many areas is that teachers find themselves in a confusing collectivist relationship [18]. Teachers find that they do not have autonomy over their classrooms and the content they teach, that the experience they gain does not come from one another but from a leader, and that they face a collectivist disregard for individuality and are therefore unable to experiment with teaching as they see fit.

One example that is often brought up in conversation is the teaching and research groups (TRGs). TRGs are a group teaching and learning exchange activity in China with all teachers as participants. The content of these group teaching exchanges is generally divided into two parts. The first part includes the regular teaching and learning required by the school, for example, the group leader will lead the teachers in a discussion about the topics to be taught, how these topics should be distributed in units throughout the semester, and the planning of different teaching units [19]. In addition, the team leader leads a discussion about the more frequent problems that arise in the classroom for both teachers and students [19]. The management system of Chinese education system tends to adopt a

top-down management system, and the leaders of teaching and research groups are often appointed directly by the Education Bureau; as a result, in some areas the teachers who are leaders are not the leaders that the teachers recognize, and so in the case of TRG, teachers do not conduct teaching workshops with each other, except to observe other teachers' public classes [20].

Due to mandatory participation and reporting, teacher group collaboration in China is characterized by top-down leadership management, a practice that has been seen to have the disadvantage of stifling efforts to achieve effective coordination and build authentic teacher autonomy. Yuan noted that through a survey of a secondary school in mainland China, when conducting TRGs, the headmaster, as the direct leader of the teachers, would strictly check teacher participation and emphasised the need for all young teachers to participate in the exchange, yet this exchange was perceived as meaningless, and they were still expected to listen to the group leader's teaching experiences [17]. In this manner, many younger teachers tend to listen directly to the strengths of more experienced teachers and are therefore more likely to take a passive rather than an active role in discussions. In addition, Chen conducted a survey of a school in eastern mainland China and noted that teachers involved in TRGs must also complete the necessary school management tasks [21]. Their findings were presented in the form of a hypothesis [21]. The educators in this case felt that the TRGs would allow teachers to expand the focus of their teaching from mutual learning to additional matters related to accountability in education regulations.

As a result, Miguel noted that although some teachers may have a certain amount of freedom and agency, as well as a strong sense of conviction regarding their profession, the behavior of the vast majority of teachers is still primarily influenced by the education system as a whole [22]. These cases demonstrated that top-down interventions and pressure from leadership not only fail to increase positive communication among young teachers when they are carrying out teaching activities, but they can also be counterproductive, at least to some extent. The above illustrates that traditional top-down leadership measures with collectivism at their core while aiming to increase academic exchange between experienced and other general faculty, can create realistic dilemmas in the process of establishing TRGs that run counter to this vision.

2.3.2. A comparison of TRGs and lesson study teaching visions

After reviewing the ways of Lesson Study (LS), this paper provides below what makes it different from the activities of the teaching and research groups.

It is a widely held belief that teacher in China frequently takes on additional responsibilities in addition to teaching, including activities related to teaching as well as administrative work [18]. This is due to the fact that the teaching and research groups that were established in 1952 in China continue to have an impact on teaching activities in China [23]. According to Yang, in addition to activities that are directly related to teaching, teachers frequently engage in administrative responsibilities such as constitutional advocacy, focusing on building connections between families and schools, and the requirement that teachers take part in volunteer activities within the city [23].

In light of this fact, it takes a significantly longer amount of time to complete lesson research and teaching group activities in China in comparison to Japan, where such activities are conducted [24]. Although the lesson study focuses on changing students' learning attitudes and learning abilities through long-term reflective teaching, each unit of lesson study is administered for a much shorter period of time, teachers spread this goal over a process of improvement based on daily feedback from students.

The below Table 1 illustrates the observation and insights of differences between TRGs and LS.

Table 1. Observation and Insights of Differences between TRGs and LS.

Observation	Insights
Lesson study in which teachers are engaged in different ways	Lesson studies are integrated into the teachers' daily teaching tasks and are used spontaneously by teachers to identify problems in student learning, while TRGs are mandatory.
Lesson study is carried out differently depending on the content	Lesson study is based on real time feedback from the students in the classroom, looking at the effectiveness of the teaching and the students' understanding and mastery of the lesson, and TRGs are used by the teachers to observe the completion of the tasks they have set for the students, and to discuss the development of the next task when the students have achieved the required level of completion.
The number of participants varies between Lesson study and	Lesson studies are mostly formed by two teachers who work together to examine and iterate on the feedback of students in the classroom, or possibly more than one teacher, depending on the school's class placement. TRGs, on the other hand, are made up of all teachers from across the year and are a lesson study project in which all teachers are involved
Lesson Study eludes a monolithic top-down hierarchy	The relationship between teachers does not need to be connected through a 'leader-subordinate' relationship, but rather a mutual discussion of teaching issues on an equal footing

Chichibu and Kihara critically noted, after conducting research on the manner in which lesson study is delivered in Japanese elementary schools, that lesson study in Japan frequently does not have a discernible theme [11]. This is due to the fact that the subject matter of teachers' reflections is determined by the amount of new information that was taken in by the students on that particular day. It is because of the focus on each lesson that the discussion among the teachers does not follow a pre-determined theme. Instead, the discussion among the teachers is more focused on whether the classroom instruction will produce surprises, students' experiences, and authentic student feedback, while in the classroom, the teachers are involved in the review walk and take notes among the students to ensure that the students' feedback is authentic [11]. The teaching and learning activities that take place in mainland China's schools, on the other hand, are carried out on a weekly or longer cycle, and the content of the reflection is based on feedback on the teaching and learning topics that were presented in the previous teaching and research cycle [20].

According to the research done on Japanese classroom instruction, one of the most prominent pedagogical practices involves instructors having pre-lesson conversations about the material that will be covered in the following lesson [9]. This practice contributes to the formation of a shared knowledge system that is widely regarded as highly developed [9]. However, when conducting teaching and research group activities, the activities were led by only one teacher. Lesson study demonstrates a newer, more democratic breakthrough in the way activities are organized. This breakthrough lies in the significant change in the way leaders are elected from top to bottom to all teachers [11]. According to this, participants in lesson study learning communities are supposed to involve all teachers equally for democratization reasons. However, it is worth exploring further as to whether this form of participation in Lesson study makes the teachers involved subject to the limitations of the general teachers' perceptions of educational concepts. In contrast, Ye noted that lesson study group activities are seen as helping teachers to learn more under the guidance of a leader with advanced pedagogical ideas, yet central to this is the headmaster's sensitivity to regional differences [25]. In other words, the lesson study philosophy is more inclusive of regional differences than the group activities, and leadership seems to be redundant when knowledge and teaching experiences belong to all teachers.

2.3.3. The challenge of PLC compatibility in the Chinese local teaching model

Furthermore, while early iterations of educational reforms frequently occurred in TRGs-centered teaching and research activities and reflective teaching in the form of public classrooms, surprisingly little was discussed about the practical implications of the PLC teaching philosophy. It is important

to note that although different academics have given different additional definitions to professional learning communities, in a broad context, it is designed to build a student-centered teaching philosophy with ongoing reflection and inclusive collaboration, of which student feedback is central. On the basis of the feedback received, educators working within professional learning communities need to engage in critical reflection regarding the question of whether or not they are effectively engaging in productive engagement with students [26]. Nonetheless, the sense of identity held by the instructor is brought up on multiple occasions throughout the process. Wang pointed out that the teacher's presence seems to be an obstacle to this teaching method [9]. Even after receiving training, a teacher's identity as it relates to their classroom practice needs to be carefully evaluated [27]. According to Zhang and Pang, the heavy intervention of the Chinese education system makes it difficult for professional learning communities in China to be compatible with each other due to the inability to effectively engage with students and instead allow them to demonstrate their learning [28]. This is where there is a clear dichotomy between the explicit identification of the teacher and the implicit identity of the teacher in the student learning process.

3. Conclusion

The paper concludes by arguing that traditional Chinese teaching and research group-based teaching and learning activities do not deal well with the dilemma of teacher autonomy in teaching. Schools often ignore teachers' voices and fail to get authentic feedback from students in conducting teacher-driven teaching and learning activities. This state of affairs stems from the leadership election model rooted in Chinese culture, which in some contexts is perceived to be better at managing teachers and students up to a certain size, reflecting the relative autonomy of Chinese teachers. However, by comparing the Lesson Study in Japan, this paper identifies a possibility that PLC should avoid the intervention of the education system or develop leadership sensitivity to regional differences, that is, decentralizing the actual authority of headmasters over teaching and learning in the pedagogical reform and placing more emphasis on their ability to coordinate the deployment of teachers in professional learning communities.

Further research will consider the potential impact of the focus of education should not be on management, but rather on clarifying how to place students in the position of beneficiary subjects, for example how leadership changes can lead to increased teacher autonomy and allow teachers more spaces to develop in dealing with teaching and learning issues as well as focus on student feedback in class. This will be a critical part of overcoming the conflict between the professional learning community and the Chinese localized teaching model in the future. At the same time, further research is needed on the extent of this decentralization, lest this localized transplantation could be a direct departure from the spirit of cooperation among teachers advocated by the PLC and reduce it to another form of teaching and research group activity. Future investigations are necessary to validate the kinds of conclusions that can be drawn from this study.

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