

How to Improve Teacher Collaborative Learning in Using Lesson Study in Schools: A Case Study of Rose City Elementary School in USA

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Abstract: *In the growing field of education and teaching, improving student learning requires a shift in teacher professional development training, which help teachers embrace innovative sources of knowledge and teaching strategies in an active learning environment. It will strengthen teacher's capacity for collaborative learning and improve student learning and promote the school curriculum.. This paper analyses the potential of lesson study in an American elementary school to help teachers work more collaboratively.*

Keywords: *curriculum development; collaborative learning; lesson study; Teacher Leadership*

1. Introduction

In a rapidly changing academic climate, institutions and professionals are always challenged to make better structures and devise inventive courses that will lead to higher student achievement. Teachers must master new approaches of teaching that have a major impact on student learning in order to educate students with sophisticated analytical abilities to handle the educational and work demands of the twenty-first century. This necessitates a shift in how teacher professional development training are approached in order to assist teachers in embracing innovative sources of knowledge and pedagogical strategies in active learning environments. International educators have attempted to adopt Lesson Study in their local situations. They envision Lesson Study as a paradigm for teacher collaboration, professional learning communities, and a knowledge creation platform. To enhance teacher personal and professional growth, which is also a critical component for teacher leadership. Teacher development programmes must address underlying psychological factors that enable teacher motivation for sustained involvement in order for new teaching approaches to be successfully implemented. According to empirical data, teacher collaborative learning environments enhance teacher effectiveness, which has been scientifically related to better student success and teacher psychological well-being, adaptation, and adjustment. Since the mid-to-late 1990s, lesson study has been a focal point of Japanese primary teachers' professional development [5]. Lesson Study was established in Japan as a method to improve instructors' professionalism. It arose in a bureaucratically regulated and standardized educational environment in the service of a national curriculum. Lesson Study is a skills-based training strategy used within a professional learning community to identify and define practical wisdom in order to develop knowledge that can be used to improve teaching practise [27]. The lesson study is an effective method in which 'research lessons' constitute an important component of the professional inquiry. Its conceptual framework gives a variety of platforms for teachers to participate in diverse thinking, judgment, and reflective processes [15]. Through collaborative learning, Teachers can use lesson study to enhance teaching plans and pedagogic skills [2]. Teachers' collaborative learning could serve as a significant tool for mobilizing instructional change and pedagogical methods, as well as improving student success. It can be difficult to change a school's insular culture to one that is more collaborative. The Japanese model of 'lesson study', which has lately gained popularity in the U.S.A, provides a highly planned formulation of collaborative professional growth [7]. Since the 1990s, lesson study has become the central focus of Japanese primary school teachers' professional development, which according to the analysis, contains conditions that are found in effective collaborative learning structures. Professional ability growth is linked to and aligned with educational requirements and goals since it is embedded inside the framework of the academy's instructional objectives, which instructors are already concentrating on [17].

This essay is going to take a case study in the United States, which the teachers involved in the lesson study group are all have a minimum of ten years' experience as a teacher. The purpose of the essay is to demonstrate the potential of lesson study in assisting teachers in working together more collaboratively based on the case study and This essay will be presented in four parts: the first part is a general introduction, the second part is literature review about lesson study, teacher collaborative learning, and the current state of lesson study in the world, then about third part is a detailed analysis of the case study of the Rose City group, including school context, implementation and result. The fourth part is a conclusion of this essay.

2. Literature Review

2.1 Lesson study

Lesson Study is a collaborative framework that guides teachers to share teaching methods and close gaps in curriculum change [3]. Lesson Study has proven to be so effective in enhancing teaching abilities and achieving educational goals in Japan that efforts have been made to adapt it to other nations. In order to develop their lesson plans, teacher participants in the lesson study were required to articulate specific objectives and steps. To enable lesson improvisation, the respective subject teams developed fresh concepts, made observations, and offered helpful feedback. The team designed the lesson, resulting in a sense of shared ownership and responsibility. Since the early 1990s, most primary and many middle schools have been using this strategy, which was created in Japan. It has been tested and documented in educational institutes across the United States [8]. Teachers can demonstrate together within school, along a district, or in large public demonstrations that also conduct lesson study. Lesson study refers to professional ability growth is linked to and aligned with educational requirements and goals since it is embedded inside the framework of the academy's instructional objectives, which instructors are already concentrating on [1]. Japanese teachers employ lesson study, a collaborative, school-based leadership training strategy, to improve teaching and learning in the classrooms [19]. In a lesson study cycle, small groups of 4-6 instructors from the same grade level and/or subject area collaborate to construct a research lesson that would enhance students' learning. While the others gather to assess the likelihood of its successful implementation, one team member will present this novel lesson to a group of students. The observers make notes about how the teachers behave, how the students act and interact in the classroom, and what they do while they are in class. The team gets together once more to discuss, discuss, and refine the research lesson. Under the supervision of the team, one team member instructs a different class of students in the updated lesson. Normally, it takes 6 to 9 weeks to finish this cycle, which is repeated. Teacher professional learning is more than merely adding new material to one's existing knowledge base; It is a constant process in which instructors must reorganize their attitudes and awareness and incorporate new material into their practical knowledge depending on their teaching experiences[20]. Moreover, the feasibility and value of collaborative Lesson Study as a medium for the growth of teacher learning. Researchers discovered that the Lesson Study method increased their students' learning, and that cooperation assisted them in developing less teacher-centered approaches and creating a greater sense of teacher community; Lesson Study has the potential to be an alternate or supplementary model for teacher learning, but researchers discovered that extending its use might pose significant organizational obstacles .

Here, it focus on school level, Planning, Doing, Checking, and Acting (PDCA) is a typical practice for teacher professional development [18]. The common process is : To begin, a group of three to five instructors choose a topic that is relevant to a larger region. Teachers within the same grade get together on a routine basis to plan a series of sessions, one of which is a "research lesson." Then, They develop a comprehensive teaching materials, and one of them delivers the team's "research lesson," when the other instructors observe and take down notes. Next, because the attention throughout the process is on academic achievement, monitors concentrate on students and make judgments supported by facts but instead of critiquing instructor behavior depending on previous situations. Following the course, every one of the teachers gather for a debriefing session to go through the feedback. Teachers now modify the lesson, re-teach it, assess and remark on it, and communicate their thoughts[17].

2.2 Collaborative Learning

Collaborative learning is the basic level on lesson study.

Collaborative learning means that teachers typically meet on on a frequent schedule to foster a

sense of shared responsibility for their pupil's academic performance. These strategies enable teachers to engage in shared engagement and interactions with colleagues in a related results to critically analyze their classroom instruction while working collaboratively to update present practices [4]. The joint projects that focus learning on improving instructors' topic knowledge and teaching strategies are the most fruitful. These may be obtained via chances for in-depth study of novel teaching techniques up until they were capable of using them confidently and on their own in their classrooms. They would take place through active participation, which includes having meaningful discussions, organizing classroom activities, observing skilled and experienced teachers, reviewing typical student learning difficulties, getting feedback on teaching through observation, and having reflective discussions about the learning processes [24]. Collaboration among some educators has just been identified among the important components of a school community that fosters career progression, teacher fulfillment, effective teaching, and learner accomplishment [11]. Individuals create ideas, thoughts, and meanings together during social interaction. Information is not primarily transferred during such interactions; rather, it is created through cooperation on a common goal [21]. In teacher collaborative learning, there are some practice methods- talk for the teachers to develop the teaching ability. Procedure talk, also known as working orders or rules of procedure, is the conversation in which group members discuss the practical aspects of how to establish the group's work on a practical level. Participants discuss the working schedule, the task instructions, and how the work will be shared among them. Teaching experiments talk focuses on the specific details of the planned experiments, such as point in time, when to schedule a teaching experiment period during the school year, whether to place the experiment in required or elective courses, and discussion of the subject matter for selecting the experiment's topic. The episodes in which the participants talk about their own teaching experiences are collectively referred to as experience talk. Speaking about one's own teaching methods or explaining how to teach a particular home economics subject are all examples of sharing one's teaching experiences. As experience talk, episodes in which participants discuss students' or pupils' actions or reflect on their experiences, attitudes, and attentions to learning or home economics content are also included [22]. These approaches allow teachers to critically analyze their classroom instruction while collaborating in a positive environment to update existing methods through sharing engagement and interactions with colleagues.

There are three conditions that support teachers change in personal development [16]. To begin with, when leadership training became integrated into their curriculum and instructional contexts, instructors believed they learned more, according to their research. It contributes to the development of a common culture among instructors build a shared knowledge of educational objectives, teaching techniques, learning difficulties, and solutions [9]. Second, According to teachers, professional development that emphasized on a limited percentage of publicly articulated intended learning outcomes and gave opportunities for supervised learning helped them learn more. Effective educational training programs based on Collaborative learning frameworks must guarantee that basic tools and information are subject-related and acquired inside and near the contexts where they will be utilized more frequently [10]. The last one, teachers must discover common times to meet on a regular basis and for an extended period of time during the school year. Administrators must foster a teacher group learning setting in which instructors are able to set aside opportunity to engage with one another [6].

3. A Case Study: Rose City Elementary School in USA

3.1 School Context

Rose City Elementary School serves about 450 students in grades pre- kindergarten through eighth grade and is situated in a little town of roughly 2000 inhabitants. The community is 98 percent white, and more than half of the students at the school receive free or discounted meals. The lesson study project first was proposed by a staff who asked a former pupil who had completed a lesson study project as a class assignment if she would be willing to start a group in her school, then the Rose City group was born. All of the instructors had a minimum of ten years of classroom experience. Therefore, there was one teacher in this origin group of four who was somewhat experienced with lesson study and three who were unfamiliar with it: two first grade teachers, one kindergarten teacher, and one second grade teacher.

3.2 How Implemented Lesson Study

The researchers sent each teacher a pamphlet outlining lesson study to assist them get started. The

lesson study method required instructors to gather weekly after school for 3 months to design a couple of lessons, which they delivered a lecture at the end of term. On Wednesday afternoons, for 10 two-hour sessions, the Rose City group convened. Their sessions took place in February and lasted through till presentation on May 9, 2002. Their plan and design, and the delivery of the lecture and subsequent reflection. Four teachers made up the Rose City group. Laurie first approached Carol, who had completed a modified version of lesson study as an assignment for a Laurie class. Carol, a first-grade teacher, recruited Sarah, a first-grade teacher, a second-grade teacher, and a kindergarten teacher. Jill, the adviser given to them, was fairly familiar with lesson study and with the teachers, and she was quite enthusiastic about the initiative. Laurie from the Rose City group attended two planning sessions, and the other observers both attended the Rose City lesson teaching and debriefing. Field notes taken by researcher during and after the participation in planning meetings, lesson observation, and debriefing sessions; reports with feedback on the lessons prepared by the researchers for each group following the lesson study, with responses from teachers to the feedback; reports prepared by the groups and their advisors following the lesson study; audio transcripts of the debriefing sessions. According to the research data, lesson study might well have led instructors in this research to cooperate in ways they had never achieved before; teachers in the next survey samples claim that they were inspired to take part in a particular kind of educational and communication as a consequence of their lesson study. The example in Rose City group highlights why lesson study leads to the sort of cooperation that refers to as “joint work,” as well as how instructors may face any of the difficulties that come with this transformation ^[14]. The researcher also mentioned that the issue of selecting instructional strategies for the class was a major source of contention between the lesson group and the mentor. The research found that the leader should consider teachers’ autonomy on sharing their professional development. This case shows that the lesson study not only had instructors talking, but it also got them talking about subjects they wouldn’t normally talk about.

3.3 Result

The Rose City case focused on the correlation of collaboration, autonomy and struggle. During the interview, the researchers concentrated on one member of the group in particular, Sarah, who shown the most resistance to lesson study while also taking the most inquiry-based position. After the Lesson study, which have created settings conducive to Sarah’s inquiry and progress. Sarah’s simultaneous resistance and curiosity during the lesson study process do not contradict past studies on the transition toward a more collegial culture. Teachers tend to feel more effective when they work in a setting where others are encouraging ^[29]. Community and collegiality must be the norm for this to happen. However, it is difficult to determine whether people are actually helpful while transitioning from solitude to prospective partnership. There is a well-established correlation between collaborative effort, collegiality, and favorable educational outcomes. Because of its collaborative nature, Career learning is supposed to be aided by lesson study. The Rose City group demonstrates how participating instructors participate in lesson preparation, as a consequence, to foster an atmosphere of collaboration and inquiry among themselves. From the Rose Group case indicates that these are some of the benefits of lesson study to be a type of leadership training would be that it concentrates largely on the educator. The Rose City case highlights the significance of taking into account all groups’ interests, ensuring that everyone’s autonomy is honored, and recognizing that the path to teamwork may be bumpy. The lesson study in the Rose City case provides a different structured collaborative approach that enables educators to collaborate with one another, take charge of the strategies they choose, implement educational interventions in their classrooms, and assess the success of those efforts. There is a type that is characterized by “opportunistic” communication between instructors to share experiences from their classrooms, cementing rather than changing current teaching methods. ^[23]

4. Conclusion

This essay focus on how to improve teacher collaborative learning in using lesson study in schools, and a case study of the Rose City group in the United State. Through the case’s result, it is obviously that using lesson study to improve teachers leadership through collaborative learning. However, the best way to improve teaching techniques is through collaboration, but it may be challenging since it requires moving from a private to a public setting and acknowledging that you don’t know everything and that you might be able to learn from someone else. This is challenging given the competitive, exclusive environment that prevails in the majority of US schools^[25]. One of the reasons a healthy collaborative workplace is so difficult to achieve is because, even while working together, instructors

must preserve their autonomy. This implies they must be able to choose when and how to participate. It also implies that, when exchanging ideas, instructors must believe that they have the authority to determine whether or not to employ the ideas^[26]. Lesson study allows instructors to take control of their own professional development by allowing them can choose their own schedules and pick their own topics of study In the classroom, lesson study develops an environment of collaborative education for learners from real-world experiences. Lesson study also allows for open debate of concepts, participants were able to question the assumptions of others and themselves, as well as experience study goes through the doors from students. on the classroom level, lesson study develops an atmosphere of collaborative learning and get learning information from real-world experiences and allows that open debate of concepts, with participants able to dispute each other' s and their own perspectives^[13]. Lesson study helps teachers to collaborate in education and learning by bringing into or expressing their opinions about just how kids understand, reply in school, and how to create their train of thought recognizable during the developing, perceiving, and representing stages, and the method also encourages teachers to learn from one another during the designing, perceiving, and representing stages^[12]. This characteristic is crucial since it is thought that lesson study has the ability to improve instructors' topic understanding. These examples demonstrate that even when topic knowledge is discussed and promoted by others, teachers may first pay attention to aspects other than subject matter expertise. The lesson study group through enhance teacher leadership by creating a culture of teacher sharing and regular teacher group discussions to allow teachers who are encouraged to collaborate and share in order to enhance their own leadership development abilities. The Lesson Study technique is a professional development strategy based on a community of practise that aims to assist educators improve their topic knowledge and pedagogical abilities. He adopted Lesson Study in a graduate teaching techniques course comprised of students with educational career aspirations in order to increase their levels of teaching experience. He discovered that both experienced and rookie instructors' teaching self-efficacy ratings grew significantly over the semester, with novice teachers showing the largest development^[28]. To summarize, teacher collaborative learning is an important part of the procedure of establishing teacher leadership and teacher development.

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