INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ECONOMICS & MANAGEMENT SCIENCES

OPEN ACCESS JOURNAL

Vol 14, Issue 3, (2025) E-ISSN: 2226-3624

Lesson Study at School: Challenges, Potential and Options for Future Practice

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DOI Link: http://dx.doi.org/10.6007/IJAREMS/v14-i3/26306

Published Online: 30 August 2025

Abstract

Lesson Study (LS) is important because it provides a structured, collaborative approach to improving teaching and learning based on real classroom practice. Unlike traditional professional development, which is often theoretical or workshop-based, LS places teachers at the center of the improvement process through planning, observing, and reflecting on actual lessons. The discussion of LS is not much discussed regarding the recent challenges and potential, especially for the Malaysian context. Hence, this concept paper aims to describe LS at school by focusing on the challenges, potential, and LS acceleration options in the future. One of the major findings reported that some challenges were stated, such as limited availability of time within the school schedule, lack of trained facilitators and expertise in LS, leadership support and institutional commitment, cultural and mindset barriers, and also resource limitations. The potential and LS acceleration options in the future are also being discussed. The methodology used for this concept paper is reflective writing with a qualitative approach. This paper encourages educators to ensure LS can improve teaching practices, better student engagement, and enhanced learning outcomes—making it a powerful tool for educational improvement. The limitation on this paper can be improved by categorizing the challenges by internal and external factors. This finding has important implications towards the better understanding of the teacher's role and responsibilities in LS. Further research might include the possibility of doing research by exploring innovations in integrating LS with pre-service teacher education and technology-mediated collaboration to support future potential in LS.

Keywords: Lesson Study, LS, School, Challenges, Potential, Options

Introduction

In recent decades, educational research has stressed the significance of teacher professional development as a key determinant in improving teaching quality and student learning outcomes. Among the different approaches that have arisen, Lesson Study (LS) has received a lot of attention because of its collaborative, reflective, and practice-oriented approach. Lesson Study, originally known as jugyō kenkyū in Japan, is an organized way for educators to prepare, observe, and refine classroom sessions together. It distinguishes itself from typical professional development models by situating teacher learning within the context of actual classroom practice. Participants engage in collaborative inquiry, reflect on their practice, and make improvements to their lessons (Hunde et al., 2025). LS's basic concept is that successful teaching may be built via ongoing, collaborative research into teaching and learning. Working in small groups, teachers organize, teach, observe, and discuss a "research lesson" in order to gain a better understanding of how kids learn and how to improve instructional practices. This cyclical process enables teachers to not only improve a single session, but also to expand their pedagogical material knowledge and polish their instructional decision-making abilities over time. LS with its focus on teachers' collaborative and reflective work around issues of pupil learning, is a powerful formative process that may be used in preservice teacher education, sustaining an exploratory teaching approach (Duarte et al., 2025).

One of LS's unique aspects is its emphasis on student thinking. During the observation phase, the focus is not just on the teacher's actions, but also on how the pupils respond to the lesson. This approach allows instructors to uncover gaps between instructional aim and student understanding, which provides essential insights for future course design. In this approach, LS moves the emphasis of teacher education away from the transfer of best practices and toward a thorough assessment of student learning processes. Research has shown that LS generates a strong sense of professional community among teachers. Teachers foster mutual trust, common goals, and a sense of professional agency by collaborating on class planning and review. These characteristics help to foster a culture of continual improvement and shared responsibility for student learning. Furthermore, LS provides an authentic atmosphere for mentorship, allowing both rookie and experienced teachers to learn from each other. Current studies seeks to discern how teachers' interpretation and judgement towards the use of AI may lead them to its future integration in teaching (Calleja & Camilleri, 2025). Besides, Yanar and Ergene, (2025) also integrating artificial intelligence in education and how pre-service mathematics teachers use ChatGPT for 5E lesson plan design.

LS has consequences beyond individual teacher development. Through this process, teachers can gain a deeper under- standing of their teaching methods (Hunde et al., 2025). When incorporated at the school or district level, LS can help to promote institutional learning and instructional coherence. Because it is based on actual teaching practice, LS enables schools to harmonize curricular standards, teaching methods, and assessment processes across grades and departments. It also provides a framework for incorporating instructional innovations in a smart and context-sensitive way. LS has been adopted and used in a variety of cultural and educational settings around the world. Countries like as the United States, Singapore, the United Kingdom, and Indonesia have created localized versions of LS, which are frequently included into existing professional development frameworks. While problems like as time restrictions, teacher workload, and administrative assistance remain, LS's

adaptability across varied settings highlights its potential as a universal model for instructional enhancement.

Despite its enormous popularity, the success of LS is heavily dependent on how it is administered. Key characteristics include facilitation quality, teacher ownership, and time and resource availability. Without sufficient consideration for these components, LS risks becoming a ritualistic exercise rather than a meaningful learning experience. As a result, further research into appropriate LS implementation models is required to maximize its effectiveness. An increasing corpus of empirical data supports LS 's efficacy in improving teacher expertise, cooperation, and student results. Based on the previous research, teachers who participate in LS develop more nuanced understandings of content-specific pedagogy, have greater insight into student thinking, and are more confidence in experimenting with novel instructional practices. Furthermore, schools who implement LS frequently report increased student involvement and academic performance. One of the main advantages of LS is its ability to improve teachers' pedagogical content knowledge through peer collaboration. LS also provides an opportunity for teachers to observe and analyse students' learning processes first-hand (Auliah et al., 2025).

Nonetheless, gaps remain in the literature concerning the long-term sustainability and scalability of LS. Questions persist about how LS can be institutionalized within school systems, how to prepare effective facilitators, and how to document its outcomes systematically. Addressing these issues requires a deeper understanding of both the processes and conditions that support successful LS initiatives. Through this investigation, the paper aims to describe LS at school by focusing on the challenges, potential and LS acceleration options in future.

The motivation of doing this LS is to improve teaching and learning outcomes by carefully reflecting on and revising instructional approaches. Its goal is to solve unique obstacles that students have when grasping essential concepts, increase student engagement, and promote deeper learning. By working with other educators, the study hopes to establish a more effective and student-centered learning environment. This LS is also driven by a desire to bridge the theoretical and practical divide in the classroom. Henceforth, this concept paper aims to describe lesson study at school by focusing on the challenges, potential, and LS acceleration options in the future.

This LS also contributes by helping teachers grow professionally while also improving student learning. It enables teachers to: (a) reflect on and analyze their teaching methods through peer observation and feedback; (b) design and test effective lesson plans based on student needs; (c) develop a shared understanding of best instructional practices; and (d) foster a culture of collaborative inquiry and continuous improvement. The LS benefits students by providing more interesting, tailored, and effective lessons that address specific learning challenges.

Challenges of Lesson Study in Malaysia

One of the most persistent obstacles in adopting **LS** in Malaysia is the scarcity of time within the school calendar. Teachers frequently have demanding workloads that include classroom responsibilities, administrative chores, extracurricular activities, and evaluation assignments.

It was observed that teachers were having difficulty in following the stages of the lesson plan and managing time for different activities. This issue illustrated that even though **LS** positively affected teachers` pedagogic beliefs, they needed more time and practice to execute those strategies during their lesson (Alqatawna, 2025). As a result, giving adequate time for collaborative planning, classroom observation, and post-lesson reflection—all essential components of LS—becomes challenging. Without defined time slots or changes to the school schedule, LS risks being perceived as an extra load rather than a chance for professional development.

Another significant impediment is a scarcity of skilled facilitators and experts in LS approach. Although LS has been implemented in several Malaysian schools and teacher training programs, the level of understanding necessary to effectively execute it varies. Many teachers are unfamiliar with fundamental LS ideas including anticipating student reactions, creating research lessons, and holding reflective conversations based on student learning data. Inadequate training can result in shallow or procedural implementation, with the emphasis shifting from boosting student learning to simply following the instructions.

Leadership support and institutional commitment are also major issues. In certain circumstances, school officials may not fully grasp the aim and long-term significance of LS, resulting in limited support for its implementation. Without strong leadership to provide direction, assign resources, and track results, LS initiatives may lack consistency and fail to gain traction. Implementation of Japanese **LS** in different levels (Anuniwat & Nawanidbumrung, 2024). Moreover, if LS is not integrated into the school's professional development strategy, it may be perceived as a temporary or isolated initiative rather than a sustained effort for instructional improvement.

Cultural and mindset barriers further complicate LS implementation in the Malaysian context. Many teachers are not accustomed to open, critical discussions of classroom practice, especially in group settings. The critical reflection events are productive instances of how teachers interpreted specific classroom events that happened in their classrooms to further the goals of their LS cycle (Choy, 2025). Concerns about judgment, fear of criticism, or hierarchical relationships among colleagues can inhibit honest reflection and collaborative inquiry. Changing this mindset requires time, trust-building, and a supportive professional culture that encourages vulnerability and mutual learning—elements that may not yet be fully embedded in all school environments. These challenges underscore the urgent need for innovative and transformative approaches to teacher professional development in intercultural education (Qin, 2024).

Finally, resource limitations, particularly in rural and under-resourced schools, present practical constraints. These schools may lack access to materials, teaching aids, or technological tools that support collaborative lesson planning and observation. Travel distances, internet connectivity issues, and shortages of teaching staff can further restrict participation in LS activities. To ensure equity in implementation, strategies must be tailored to account for these contextual differences, offering flexible models and support systems to schools with varying capacities.

Challenge	Description	Proposed Solution
Time Constraints	Teachers have limited time due to excessive workloads and administrative responsibilities, making it impossible to complete full LS cycles.	Allocate time in the school schedule for LS activities. Integrate LS into existing PLC or CPD sessions to prevent adding new responsibilities.
Lack of Trained Facilitators	Many educators are unfamiliar with LS technique, resulting in ineffective or superficial adoption.	Provide targeted professional development in LS, including facilitator training. Collaborate with colleges or educational specialists to steer the process.
Limited Leadership Support	School administrators may not prioritize LS or fully comprehend its long-term benefits, resulting in inadequate support and implementation.	Workshops or briefings can be used to educate school officials on the benefits of LS. Include LS in school improvement programs and make it consistent with national education priorities.
Cultural and Mindset Barriers	Teachers may be hesitant to engage in open talks regarding their teaching out of fear of criticism or hierarchical conventions.	Create a culture of trust and collaboration by fostering teamwork, providing peer assistance, and gradually introducing reflective techniques. Encourage non-evaluative, growth-oriented feedback.
Resource Limitations	Rural and under-resourced schools sometimes lack access to instructional materials, the internet, and time for collaborative preparation.	Use digital platforms to enable remote or asynchronous LS. Develop low-cost, context-sensitive LS models that may be tailored to local conditions.

Accelerating Lesson Study: What options that we have?

To speed the implementation of Lesson Study (LS) in schools, one of the most important tasks is to include LS into school policies and strategic planning. Rather than treating LS as an optional or ad hoc activity, school leaders should incorporate it into the school's annual professional development plans. Establishing LS as a key component of the school improvement agenda will help to ensure ongoing participation and alignment with teaching and learning objectives.

Allocating committed time within the school schedule is critical for instructors to actively participate in the LS process. Many schools fail to apply learning strategies due to time restrictions and excessive teaching loads. To address this, administrators might modify their timetables to include regular collaborative planning sessions, either during school hours or during dedicated professional learning periods. This structural support demonstrates institutional commitment and reduces the possibility of LS being overshadowed by other tasks.

Providing professional development and training for LS facilitators is another key option. Effective facilitation is crucial to guide teachers through the LS cycle, support reflective dialogue, and maintain a focus on student learning. Investing in a cadre of well-trained

facilitators—such as senior teachers, subject heads, or instructional coaches—can help scale the quality of LS across schools. Training should emphasize not only LS procedures but also group dynamics, data interpretation, and pedagogical leadership. LS should be integrated at various levels within educational structures. Future research should investigate whether it is imperative to establish a formal organizational structure to sustain LS in schools, or if local support from school leaders is sufficient (Borg & Finne, 2024).

To build momentum, schools can begin by testing LS with small, concentrated groups, such as a particular topic department or grade level. Starting small allows schools to test the model, tailor it to their own needs, and generate early successes that may be utilized to encourage wider acceptance. Pilot groups can document their approach and outcomes, and share their findings in staff meetings or professional learning communities to gain support from other teachers.

Another effective strategy is to leverage existing Professional Learning Communities (PLCs) as a foundation for LS. In many schools, PLCs are already in place, though their effectiveness varies. By integrating LS into PLC activities, schools can provide structure and purpose to these groups. Instead of generic discussions, PLCs can engage in lesson design, implementation, and reflection—the core elements of LS—thus transforming passive meetings into active learning experiences**.** LS**,** a collaborative and practice-based approach to teacher professional development, offers a pathway to enhance educators' abilities in facilitating intercultural learning (Qin, 2024).

Utilizing digital tools and platforms can greatly enhance the reach and efficiency of LS. Technology allows teachers to plan collaboratively online, record and analyze lessons through video, and engage in asynchronous reflections. Especially in geographically dispersed or resource-limited schools, virtual LS communities can overcome barriers of time and space. Tools such as shared drives, discussion boards, and video conferencing platforms like Zoom or Google Meet can support collaborative practice without requiring constant in-person meetings. The study by Auliah et al., (2025) fills that gap by mapping how LS is integrated into innovative learning models in Indonesia. Through a bibliometric approach, this study not only presents publication trends and researcher collaborations, but also displays patterns of LS integration within the broader framework of learning innovation.

Partnerships with universities, teacher education institutes, and education consultants can help to improve the quality and legitimacy of LS projects. These partners can offer expert advice, research support, and coaching, especially during the initial implementation phase. Collaboration with academia also opens up opportunities for recording and publicizing LS outcomes, which can help to promote evidence-based practices and increase the model's validity in the school community.

Involving school leaders and administrators in the LS process is another important acceleration tool. When principals and senior leadership teams actively participate in or witness LS activities, they not only show support but also obtain a better understanding of classroom difficulties and teacher development requirements. Leadership participation ensures that LS is regarded as more than just a teacher-driven project, but as an essential component of school-wide instructional development.

Developing a system of recognition and incentives for teacher participation in LS can motivate broader engagement. The teachers had multiple things to do at same time as they learnt the language practices and doing LS. As such they still faced challenges in elaborating meanings and engaging leaners (Mwadzaangati & Adler, 2024). While intrinsic motivation plays a role, formal acknowledgment of teachers' efforts—through certificates, career progression, or inclusion in performance reviews—can help sustain momentum. Incentives should emphasize professional growth and collaboration rather than competition, reinforcing the core values of LS.

Finally, schools should set up a method to monitor, document, and evaluate LS practices. By gathering evidence of what works and what doesn't, schools may improve their strategy, demonstrate effect to stakeholders, and make educated scaling decisions. Reflection reports, student learning data, and teacher comments may all be combined and evaluated to track progress and pinpoint areas for growth. This continuous learning cycle reflects the LS process and promotes a culture of constant professional inquiry.

Lesson Study in Malaysia: Future and Potential

The future of LS in Malaysia appears promising, particularly in light of the nation's commitment to educational transformation under the Malaysia Education Blueprint 2013–2025. With its emphasis on quality teaching, student-centered learning, and teacher collaboration, LS aligns seamlessly with national reform objectives. As Malaysian schools strive to adopt more reflective and research-informed teaching practices, LS offers a practical framework to realize these aspirations through structured, collaborative inquiry into classroom instruction. The further action may underscores cultural, policy, and historical influences on LS implementation, advocating for broader educational perspectives in enhancing teacher education programmes (Tan et al., 2024).

One of LS's biggest strengths is its ability to promote teacher professionalism through continual, context-based learning. Unlike traditional professional development, which frequently involves external experts conducting one-time training sessions, LS encourages teachers to participate as researchers into their own practices. In Malaysia, where teacher autonomy and reflective practice are still developing, LS offers an organized and supportive environment for educators to enhance their teaching in a methodical, evidence-based approach. The use of LS in Malaysia can also assist address common pedagogical difficulties in classrooms, such as teacher-centered instruction, surface-level questions, and low student involvement. By emphasizing lesson planning and anticipating student responses, LS helps teachers to create more dynamic and intellectually challenging lessons. Through post-lesson discussions, educators critically analyze student learning and refine their instructional strategies. This process has the potential to gradually shift classroom culture towards deeper learning and higher-order thinking.

Another interesting aspect of LS in Malaysia is its ability to strengthen professional learning communities (PLCs). Collaborative structures, such as PLCs, are already supported in Malaysian schools, but their efficiency varies greatly by school. LS offers a clear, systematic method that helps revitalize PLCs by giving them a focused, purposeful activity to engage in. This, in turn, improves teacher collaboration, trust, and collective efficacy—qualities required for long-term school success. Malaysia's multicultural and multilingual education system also

provides a unique opportunity to experiment with localized LS modifications. Teachers can use LS to collaborate and investigate how language, culture, and socioeconomic background influence student learning, resulting in more culturally sensitive education. This adaptability of LS makes it especially suitable for Malaysia's diverse classrooms, where a one-size-fits-all approach often fails to meet students' varied learning needs.

The integration of digital technologies with LS represents a powerful avenue for future growth. Digital tools can facilitate lesson sharing, virtual observations, and asynchronous reflections among teachers across different schools and regions. These findings from Kussin et al. (2024) substantially enhance the efficiency of lesson planning, accelerate idea generation, and simplify the overall process. This study suggests that educational practitioners must adopt artificial intelligence (AI) in lesson plan development, given its increasing acceptance and advantages. This is particularly relevant for Malaysia, where rural and remote schools often struggle to access in-person professional development opportunities. A digital LS model, supported by platforms such as video conferencing, cloud-based lesson repositories, and online discussion forums, could expand access and participation in professional learning.

Sustainability will require institutional support from school leaders, district executives, and policymakers. For LS to progress beyond discrete pilot initiatives, it must be integrated into the daily flow of school life. This necessitates dedicated time in the school schedule, recognition of teacher effort, and clear advice on how LS fits into current national frameworks such as the Standard Guru Malaysia (SGM) and the School-Based Assessment (PBS) system. Without this support, LS risks becoming a burden rather than a professional development opportunity. Teacher training institutions and colleges play an important role in establishing LS throughout Malaysia. By integrating LS into pre-service teacher education and postgraduate programs, future educators can develop collaborative inquiry abilities from the start. Furthermore, scholarly research on LS implementation, teacher experiences, and student outcomes might give useful evidence for refining and scaling the model effectively across Malaysia's diverse educational environments.

Beyond specific institutions, LS has the potential to act as a national tool for curriculum creation and instructional coherence. When applied across schools in a district or cluster, LS can encourage horizontal coordination of teaching practices and collaborative problem-solving around common instructional goals. It can also help curriculum developers and school officials by providing practical insights into what works in real classrooms, resulting in improved adaptability and context-sensitive education changes.

In conclusion, LS holds considerable promise for the future of teacher development and instructional improvement in Malaysia. LS aims to transform how teachers conduct their classrooms, with an emphasis on problem-solving and shared practices (Borg & Finne, 2024). Its alignment with national education goals, flexibility to adapt to diverse school contexts, and potential for enhancing teacher agency and student learning make it an effective long-term strategy. For this potential to be fully realized, however, Malaysia must invest in capacity building, policy integration, digital innovation, and research support. With these elements in place, LS can become a cornerstone of Malaysia's journey toward educational excellence and equity.

Conclusion

Overall, these results indicate that several challenges reported such as limited availability of time within the school schedule, lack of trained facilitators and expertise in LS, leadership support and institutional commitment, cultural and mindset barriers also resource limitations. One of the potentials of LS is its capacity to develop teacher professionalism through continuous, context-based learning. LS acceleration options in future that can be move forward is to embed LS into school policies and strategic planning. Due to practical constraints, this paper cannot provide a comprehensive review of LS using systematic review. This paper just a reflective perspective only. This can be improved by using systematic review literature and meta-analysis from high indexed journal database. The interesting part in this concept paper is when the discussion explores the LS from different angle and perspectives of challenges, potential and LS acceleration options in future that we can move forward. This finding has important implications for developing a new understanding of applying LS, especially for teachers and peers. The teachers will use this information to improve their pedagogical practices be more variety and dynamics. Future studies on the current topic of LS are therefore recommended. Further study could extend of doing research on teacher collaboration during LS that builds deep pedagogical content knowledge of Artificial Intelligence (AI) and to examines the effect of LS not only on teacher practice but also on student engagement and learning outcomes.

Acknowledgment

We thank everyone from Ministry of Education that provided insight and expertise that greatly assisted the research. We also gratefully acknowledge financial support from Dana Penyelidikan SDG Fpend 2024 (GG-2024-044) by Universiti Kebangsaan Malaysia (UKM). We thank all my friends for assistance with constructive comments.

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