

DOI:10.22144/ctujoisd.2024.298

Lesson study: A cross-cultural analysis between the Philippines and Viet Nam

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Article info.

ABSTRACT

Received 30 Nov 2023 Revised 18 Dec 2023 Accepted 5 Jan 2024

Keywords

Cross-cultural analysis, lesson study, professional development Lesson study is a type of teacher-driven study in Japan in which teachers work together to enhance a specific aspect of their students' learning. It is a cycle of inquiry that encourages instructors to try, observe, and improve. This paper compares respondents' understanding of lesson study's educational potential in various dimensions, analyzing relationships and testing a theoretical model to explain factors influencing its employment in specific educational settings. The study utilized quantitative research and comparative analysis to compare lesson study methods in Quirino, Philippines, and Can Tho, Viet Nam, examining connections between variables. The results show that respondents in their various school and classroom cultures have a generally positive attitude about the setting up and carrying out of the lesson study. The apparent disparity in reactions between Quirino, Philippines, and Can Tho, Viet Nam highlights the importance of local educational traditions and regulations on lesson study adoption. Because of the dynamic interaction between nations, age groups, and views of lesson study, educational institutions may build focused interventions that address specific challenges, utilize generational strengths, and foster a collaborative environment favorable to improve teaching quality.

1. INTRODUCTION

Lesson study (LS), a Japanese method of professional development, which focuses on the group study of actual lessons from classrooms in order to foster an inquiry-based learning environment. The ultimate goal of every LS endeavor is to enable teachers to deliver lessons better (Fernandez, 2001; Zhang, 2020; Helmbold et al., 2021). It expresses the notion of improved learning and escalated intellectual functioning as the group works cooperatively. This results in the development of personal expertise, which is essential to the growth of instructional techniques. Furthermore, the interaction, which is integral to the

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process, is vital to the optimum development of instructional practices (Hosseingholizadeh et al., 2021; Norwich et al., 2021).

In Viet Nam, LS has made significant progress in the teaching performances of the teacherimplementers, specifically on their capability of planning lessons and implementation of lesson plans (Diem & Thathong, 2017; Huong et al., 2021). This is geared towards enhanced sustainability in the teaching process within Vietnamese schools. LS was viewed favorably by teachers as it helps them become better teacher-facilitators and researchers. On the other hand, it was also suggested that proper training may also be conducted by experts from the universities among LS practitioners in basic education (Nguyen et al., 2022).

On the other hand, there is an emerging LS culture in the Philippines stretching from the National Capital Region to the countryside, like the case of Quirino province. LS was first conducted in 2017 through a faculty development program sponsored by the Quirino Provincial Local Government Unit (PLGU), Quirino State University (QSU), and Department of Education, Schools Division Office-Quirino (DepEd-SDOQ), in partnership with the University of the Philippines-National Institute for Science and Mathematics Education Development (UP-NISMED). A number of teacher-education professors from QSU and science and math teachers from DepEd-SDOQ were trained by the LS experts of UP-NISMED. Since then, LS was observed, implemented, and practised in basic education through the involvement of the QSU professors as Knowledgeable Others (KOs). Moreover, a number of LS researches were conducted. The study of Bautista and Baniqued (2021) surfaced an initial documentation of the experiences of the LS-science teacher-implementers in Quirino province. It was found out that LS develops a culture of oneness, crafts teachers' competence through synergism, boosts teachers' morale and confidence, refines the quality of the research lesson, and schemes avenues for critical thinking. Recent research, such as that conducted by Huong et al. (2021) in Viet Nam, and Bautista and Baniqued (2021) in the Philippines, university-based indicates that knowledge organizations (KOs) could play a crucial role in the implementation of LS. Furthermore, subsequent investigations in Quirino, Philippines, by Aquino and Bautista (2023) and Bautista et al. (2023) have examined the influence of LS on teachers' professional development. Collectively, these studies highlight the educational promise of LS and present an opportunity for comparative analysis with partner institutions, thereby establishing improved benchmarks in academic practice.

The fundamental premise is that the educational foundations of LS in both the Philippines and Viet Nam are indicative of an incremental advancement in the utilization of this pedagogical approach. This progression underscores the versatility and applicability of the LS methodology within diverse educational contexts. In countries such as Viet Nam and the Philippines, there is a notable dearth of literature concerning a cross-analysis of LS approaches. This study seeks to bridge this gap by systematically examining the nuances and outcomes of LS in the educational settings of Quirino, Philippines, and Can Tho, Viet Nam. The primary research questions guiding this investigation are:

- How do educators in Quirino, Philippines, and Can Tho, Viet Nam, perceive the educational potential of LS?

- What are the comparative strengths and challenges of LS in these two distinct cultural contexts?

- In what ways can LS be optimized in Quirino and Can Tho to enhance teaching and learning processes?

In pursuit of these inquiries, this paper will compare the respondents' perspectives on LS across multiple dimensions including general perspectives, understanding learners, assessing learning, content knowledge, teaching strategies, lesson planning, confidence in teaching, teaching climate, and doing research. Additionally, the study will propose a potential program of activities designed to accelerate the implementation of LS, taking into account the specific conditions in Quirino and Can Tho. Understanding the practices of LS in both locales is pivotal for developing plans for further collaboration, as outlined in the Memorandum of Understanding between the research parties.

2. RESEARCH METHODOLOGY

In this study, a quantitative research design was employed, which means that the researchers used numerical data and statistical analysis to draw conclusions. The primary focus was on conducting a comparative analysis, which involves comparing two or more variables or groups to identify similarities, differences, and patterns. In this case, the researchers were interested in comparing the practices of LS between two specific locations: Quirino in the Philippines and Can Tho in Viet Nam. The selection of these two locations is grounded in the study's aim to explore the nuances of LS in varied cultural and educational contexts. Quirino and Can Tho were chosen due to their distinctive approaches to LS, reflecting broader regional educational practices that could yield valuable insights into the adaptability and application of LS across different settings. This comparative analysis is significant as it illuminates the potential for crosscultural collaboration and learning, contributing to the global discourse on effective teacher development methodologies. It also serves to enhance our understanding of how LS can be tailored to meet the diverse needs of educators and

students in varying socio-cultural landscapes, thereby enriching the implementation and outcomes of LS worldwide.

To collect the necessary data for this investigation, a questionnaire was employed that had been previously developed and validated by the LS group in Quirino. This instrument was subjected to a rigorous validation process involving a group of 20 teacher-implementers who were not part of the study. During this preliminary phase, the questionnaire achieved a Cronbach's alpha of 0.82. Following the validation, no further modifications were deemed necessary, and the questionnaire was then used in its validated form for the official data collection in the current study. The nine parameters assessed by the questionnaire, General perspectives, Understanding learners, Assessing learning, Content knowledge, Teaching strategies, Lesson planning, Confidence in teaching, Teaching climate, and Doing research-were selected for their relevance in comparing cultural practices related to LS implementation across the two geographical locations. In the context of the current study, the questionnaire demonstrated a reliability of .86 via Cronbach's alpha, affirming its consistency for the purposes of our comparative analysis.

The study's survey was administered to 106 teacherpractitioners, the details of which are delineated in Table 1. The demographic variables under examination included the respondents' country of practice and their years of teaching experience, both of which were instrumental as test variables in the study's analytical framework.

Table	1.	Res	pond	lents'	profiles

Profile		Frequency	Percent
Country	Philippines	51	48.10
	Viet Nam	55	51.90
	Total	106	100
Years	in 1-10	49	46.20
Teaching	11-20	38	35.80
Ave=13.20	21+	19	17.90
	Total	106	100

The data gathered for this comparative analysis likely encompassed information related to the LS practices in both locations. This data could include various aspects of the LS process, such as the structure of LS sessions, the involvement of educators, the objectives of LS, and the outcomes or impacts of LS.

3. RESULTS AND DISCUSSION

3.1. Perceptions of the implementation of lesson study

Gleaned in Table 2 are the interpreted perceptions of the respondents on the implementation and adoption of LS.

Parameters	Mode	Interpretation
1. General perspectives	Very true of me	Positive perception and experience
2. Understanding learners	Very true of me	Positive perception and experience
3. Assessing	Much true of me	Reasonable perception and experience
4. Content knowledge	Very true of me	Positive perception and experience
5. Teaching strategies	Very true of me	Positive perception and experience
6. Lesson planning	Very true of me	Positive perception and experience
7. Confidence	Much true of me	Reasonable perception and experience
8. Teaching climate	Very true of me	Positive perception and experience
9. Researching	True of me	Trivial perception and experience

Table 2. General understanding of the respondents on the educational potentials of lesson study

It shows that six of the nine parameters were vouched with very true of me and interpreted as *positive perception and experience*: general perspectives, understanding learners, content knowledge, teaching strategies, lesson planning, and teaching climate. It is in these parameters that the respondents are offered positive perceptions and experiences relative to the implementation and adoption of LS in their school and classroom culture. On the other hand, two of the nine were vouched with *much true of me* and interpreted as *reasonable perception and experience:* assessing

student learning and confidence in teaching. This means that there is a modest perception and experience in building a culture that necessitates its implementation and adoption. Lastly, one of the nine was vouched with *true of me* and interpreted as *trivial perception and experience:* researching. This means that there is an emerging experience that may be cultivated into a practice enshrined with the innate culture of implementing and adopting LS.

Henceforth, LS contributes positively to the professional growth of educators and the

enhancement of pedagogical approaches. As educators continue to engage in collaborative learning and reflective practices, the journey towards more effective and impactful teaching methodologies is likely to be further enriched (Diem & Thathong, 2017; Stokes et al., 2020; Wake & Seleznyov, 2020; Ustuk & De Costa, 2021; Yesilcinar & Aykan, 2022).

3.2. Analyzing and comparing lesson study practices

Table 3 presents the comparison of LS practices in the two settings of the study.

Table 3. Lesson study practices between Quirino, the Philippines and Can Tho, Viet Nam

Parameters		Mean	TI		
ra	rameters	Phil	Viet Nam	U	p-value
1	General perspectives	41.90	64.25	1994	<.001*
2	Understanding learners	39.94	66.07	2094	<.001*
3	Assessing	39.92	66.09	2095	<.001*
4	Content knowledge	37.96	67.91	2195	<.001*
5	Teaching strategies	38.55	67.36	2165	<.001*
6	Lesson planning	38.21	67.68	2182.50	<.001*
7	Confidence	40.28	65.75	2076.50	<.001*
8	Teaching climate	39.77	66.23	2102.50	<.001*
9	Researching	38.75	67.46	2104.50	<.001*

*Significant at .05 level

It shows that all the nine parameters of LS implementation geared significant results at .05 level. It further shows that the practitioners in Can Tho, Viet Nam have better understanding and disposition with regard to LS implementation than their counterparts in Quirino, Philippines. The higher mean ranks of Viet Nam are a clear manifestation of their better concordances and appreciation in regard to the educational significance of LS.

3.3. Lesson study processes in Viet Nam and the Philippines

Researchers in Viet Nam concluded that LS in their locality includes the following processes: collaborative planning, research lessons, postobservation discussion, lesson revision, and iterative cycle (Huong et al., 2021; Choi et al., 2022). On the other hand, LS in the Philippines included collaborative inquiry, LS teams, aaction rresearch, ccurriculum alignment, professional learning communities, and student-centered focus (Cheng, 2011; Chong & Kong, 2012; Sakamoto & Ono, 2014; Lomibao, 2016; Elipane, 2017; Bautista & Baniqued, 2021; Bautista et al., 2023).

Henceforth, it can be concluded that LS implementation varies in the two settings as the details, appreciation, and implementation have evolved according to their cultural endowments. On the other hand, LS, in both nations, is known and considered as a means of enhancing teaching quality

and professional development, but the specific approaches and emphases may vary based on local educational priorities and cultural factors.

Moreover, the divergence in LS implementation in these distinct settings is a testament to the profound impact of cultural endowments on education. In one context, the specifics of LS implementation may be deeply ingrained in the local culture, reflecting not only the educational priorities but also the broader values and traditions of the society. This results in a nuanced appreciation for LS, tailored to the cultural ethos and historical context. In the other context, the implementation might have taken a different path, shaped by a contrasting set of cultural norms and values. These differences might manifest in the design, content, and methods used within LS, as well as the role of technology in education, which could be viewed through a different cultural lens.

It is worth noting that despite these variations, the common thread between these two nations is the acknowledgment of LS as a vital tool for enhancing teaching quality and professional development. The shared belief in the potential of LS to improve education underscores its global significance. However, the differences arise when it comes to the specific approaches and emphases applied. These divergences are a reflection of the unique local educational priorities and cultural factors at play. For instance, in one nation, LS may be used to bolster traditional teaching methods and values, while in the other, it might be more focused on fostering innovation and adapting to rapidly changing global educational trends. In essence, this cultural lens not only shapes how LS is perceived but also influences how they are integrated into the larger educational landscape.

Therefore, the difference in LS implementation between these two settings highlights the significant impact of cultural factors on education. While LS are recognized as valuable tools for educational enhancement, the details, nuances, and approaches diverge in response to the cultural context, reflecting both the specific needs and aspirations of each society. Understanding these cultural dimensions is crucial for creating effective and contextually relevant LS implementations that truly benefit learners and educators.

3.4. Variations in lesson study perception and implementation related to years of teaching experience

Table 4 presents a comparison of the perceptions of respondents grouped by their years of teaching experience. The analysis indicates that the number of years spent in teaching significantly affects assessments, teaching climate, and research engagement, with other areas showing no significant variation. The data suggest that teachers with more years of teaching experience tend to have a more positive perception and richer experiences, as indicated by the post hoc test results.

 Table 4. Lesson study practices in Quirino, Philippines, and Can Tho, Viet Nam, categorized by years of teaching experience.

Lesson study		Mean ranks			H p- value	
		1-10	11-20	21+	п)- value
1	General perspectives	48.80	58.54	55.55	2.384	.304
2	Understanding learners	48.44	57.89	57.76	2.715	.257
3	Assessing	44.55A	61.99B	59.61B	8.869	.012*
4	Content knowledge	46.22	58.55	62.16	5.680	.058
5	Teaching strategies	46.99	59.17	58.95	4.603	.100
6	Lesson planning	49.33	57.86	55.55	2.124	.346
7	Confidence	48.10	59.13	56.16	3.758	.153
8	Teaching climate	46.14A	58.30B	62.87B	6.411	.041*
9	Researching	46.19A	59.83B	62.78B	6.409	.040*

*Significant at .05 level; similar letters within rows suggest comparable results

Previous studies have examined the influence of teaching experience on the implementation and adoption of LS. These investigations suggest that the duration of an educator's teaching career impacts their accumulation of experience and expertise, adaptability, educational philosophy, receptivity to feedback, proficiency with technology, and interactions with peers (Diem & Thathong, 2017; Kihara et al., 2021; Bulterman-Boss, 2022; Dick et al., 2022; Masouminejad et al., 2022; Yesilcinar & Aykan, 2022). It is essential to acknowledge the unique characteristics, diverse needs, and varied experiences of teachers. Addressing these elements is pivotal in fostering a supportive and inclusive professional learning environment (Arani et al., 2010; Ponte et al., 2022; Azhar et al., 2021; Norwich et al., 2021; Ruhi et al., 2021; Bautista et al., 2023).

Moreover, researchers contend that, as a logical extension of the previously discussed factors, it is crucial to give due consideration to the distinct traits, diverse requirements, and unique experiences of users engaging with Learning Systems. Put simply, when implementing LS in educational settings, it is imperative to acknowledge the nonuniform nature of learners, recognizing their preferences, varving learning styles, and backgrounds. This recognition allows educational institutions and instructors to tailor their methods to better accommodate this diversity, ultimately fostering a more inclusive and supportive professional learning environment (Arani et al., 2010; Diem & Son, 2021; Kihara et al., 2021; Yesilcinar & Aykan, 2022; Bautista et al., 2023).

This perspective offers the potential for numerous favorable outcomes. Firstly, when LS is customized to cater to the specific needs and attributes of the individuals utilizing them, these systems can prove more effective in facilitating the learning process. This, in turn, contributes to an overall enhancement of educational quality. Secondly, the acknowledgment of diverse learner needs can advance equity and inclusivity in education, ensuring that LS is accessible and advantageous to a broad spectrum of students, regardless of their individual backgrounds or aptitudes, thereby promoting fairness and justice within the educational system.

Furthermore, recognizing the distinctive experiences of users is of paramount importance, as it aids in tailoring LS to align with learners' existing knowledge and skills. This, in turn, fosters a more engaging and pertinent learning experience. Additionally, this acknowledgement of learners' life experiences can play a pivotal role in cultivating a sense of belonging and active engagement within the educational process.

Thus, researchers underscore that recognizing and responding to the individual characteristics, diverse needs, and experiences of LS users is not merely a pedagogical necessity, but also a method for establishing a supportive, inclusive, and effective professional learning environment. This approach advocates for personalized and equitable education, improved engagement, and a sense of belonging among all learners.

4. RECOMMENDATIONS

Building upon the insights derived from the comparative analysis of LS practices in Quirino, Philippines, and Can Tho, Viet Nam, it becomes evident that specific strategies are required to foster a conducive environment for LS. The significant impact of cultural, institutional, and individual factors on the adoption and success of LS underscores the need for tailored approaches. The recommendations put forth are designed to address these nuanced factors, ensuring that the implementation of LS is not only effective but also sustainable.

These strategies are not simply a response to the findings; they are a proactive step towards enhancing the quality of education through collaborative professional development. As such, the transition from theory to practice, from research to application, necessitates a concerted effort from all stakeholders involved. The recommendations aim to harness the strengths and address the challenges identified in the research, paving the way for a transformative educational experience through LS.

Both the QSU, Philippines and CTU, Viet Nam should consider implementing cross-cultural exchange programs. These programs can facilitate collaboration between educators from both regions, allowing them to share their experiences and best practices regarding LS. This can help bridge the gap in perceptions and foster a deeper understanding of each other's educational cultures.

Educational policymakers in both universities should invest in research and development initiatives focused on adapting LS to local contexts. This may involve tailoring the methodology to align with the specific needs and preferences of educators in different regions. Funding can be allocated to support research projects that explore the effective integration of LS within diverse educational systems.

To address the divergence in responses across age groups, educational institutions can organize professional development workshops. These workshops should target educators of different age groups and provide training on the principles and benefits of LS. This can help older educators embrace innovative pedagogical approaches and encourage younger educators to benefit from the experience of their senior colleagues.

There should be online platforms or communities of practice where educators from various regions and age groups can collaborate virtually. These platforms can facilitate discussions, resource sharing, and the exchange of LS lesson plans and outcomes. It is essential to leverage technology to overcome geographical and generational barriers to collaboration.

Educational policymakers in both universities should review and update existing policies to include provisions for LS implementation and support. Policies should be flexible enough to accommodate variations in local educational cultures while emphasizing the importance of collaborative professional development. Policymakers should also consider providing incentives or recognition for schools and educators that excel in LS implementation.

The two universities may organize international research conferences or symposia that focus on LS and its impact on teaching practices. These conferences can bring together educators, researchers, and policymakers from different countries to share insights, discuss challenges, and formulate collaborative strategies. Encourage cross-border research partnerships to explore the effectiveness of LS in diverse settings.

Both CTU and QSU should establish resourcesharing initiatives where educators can access a repository of LS materials, case studies, and success stories. This centralized resource hub can serve as a valuable reference for educators looking to implement LS effectively.

framework for ongoing monitoring Α and evaluation of LS implementation should be developed. Regular assessments can help educational institutions identify areas of improvement, measure the impact of interventions, and ensure that collaborative environments for enhancing teaching quality are sustained.

By implementing these academic policies and avenues for collaboration, educational institutions and policymakers can promote the effective use of LS as a tool for improving teaching practices and fostering a culture of continuous improvement in education. These strategies will help bridge cultural and generational gaps and create a more inclusive and dynamic educational landscape.

5. CONCLUSION

The findings reveal a generally favorable disposition towards the implementation and conduct of LS among the respondents in their respective school and classroom cultures. This underscores the potential effectiveness and benefits of LS in enhancing teaching practices and promoting

REFERENCES

- Aquino, M. U., & Bautista, R. G. (2023). Impact of lesson study on the teaching practices of teachers in a schools-district of Quirino, Philippines. *American Journal of Educational Research*, 11(11), 746-751. https://doi.org/10.12691/education-11-11-3
- Arani, A. M., Keisuke F., & Lassegard, J. P. (2010). "Lesson study" as professional culture in Japanese schools: An historical perspective on elementary classroom practices. *Japan Review*, 22, 171–200. https://doi.org/10.1016/B978- 012373990-2.00002-9
- Azhar, A., Nurgaliyeva, G., Nurlan, A., Kairat,
 O., Berikzhan, O., & Mariyash, A. (2022).
 Implementation of the lesson study: Approach to develop teacher professionalism. *Cypriot Journal of Educational Sciences*, 17(2), 652-663.
- Bautista, R. G., & Baniqued, W. B. (2021). From competition to collaboration: Unraveling teachers' lesson study experiences. *International Journal of Evaluation and Research in Education*, 10(3), 921-929. https://doi.org/10.11591/ijere.v10i3.21101
- Bautista, R. G., Samoy, H. F., Cua, D. C. E., Indunan, C. R., & Celestino, K. G. N. (2023). Lesson study and its impact on professional development: The case of Quirino Province, Philippines. *International Journal* of Social Sciences and Humanities, 8(2), 73-86.

collaborative professional development. The trend towards positive perceptions aligns with the growing recognition of LS as a valuable methodology for improving instructional techniques and fostering a culture of continuous improvement within educational and cultural settings;

The evident divergence in responses between Quirino, Philippines and Can Tho, Viet Nam underscores the impact of local educational cultures and policies on the reception of LS. Educators from each country appear to have distinct inclinations and concerns, which should prompt educational policymakers to tailor their strategies accordingly. Lessons can be drawn from countries where positive perceptions prevail, potentially informing initiatives to foster similar enthusiasm in regions where apprehensions may persist. On the other hand, the discernible contrast in responses across age groups intricate illuminates the interplay between experience and openness to innovative pedagogical approaches.

With the dynamic relationship between countries, age groups, and perceptions of LS, educational institutions can design targeted interventions that address specific concerns, leverage generational strengths, and create a collaborative environment conducive to enhancing teaching quality.

- Bulterman-Bos, J. (2022). Barriers to creating a science of the art of teaching via participative action research learning from the tribulations of lesson study in different epistemic cultures. *Educational Action Research*, 30(1), 22-38.
- Cheng, E. (2011). How lesson study develops preservice teacher' instructional design competency? *The International Journal of Research and Review*, 7(1), 45–66.
- Chong, W. H. & Kong, C. A. (2012). Teacher collaborative learning and teacher self-efficacy: The case of lesson study. *The Journal of Experimental Education*, 80(3), 263–283. https://doi.org/10.1080/00220973.2011.596854
- Dick, L. K., Appelgate, M. H., Gupta, D., & Soto, M. M. (2022). Continuous improvement lesson study: A model of MTE professional development. *Mathematics Teacher Educator*, 10(2), 111-128.
- Diem, H. T. T., & Son, N. K. T. (2021). The status of lesson study and scientific research of high school teachers in Can Tho city. *Can Tho University Journal of Science*, 57(2), 184-194. https://doi.org/10.22144/ctu.jvn.2021.053

Diem H. T. T., & Thathong, K. (2017). Applying lesson study among high school biology teacher Vietnam. *International Journal of Educational Science and Research*, 7(4), 7–18.

Elipane, L. (2017). Introducing lesson study as a professional development model in the islands of the Philippines. *American Scientific Publishers*, 23(2), 1126-1129.

Fernandez, C. (2001). Learning about lesson study in the United States. *New and old voices on Japanese education*, 56-72.

Helmbold, E., Venketsamy, R., & van Heerden, J.
(2021). Implementing lesson study as a professional development approach for early grade teachers: A South African case study. *Perspectives in Education*, 39(3), 183-196.

Hosseingholizadeh, R., Golmakani, Ahanchian, N., & Baniasad, S. (2021). Understanding teachers' lived experience of conducting the lesson study and action research programs in primary schools in Mashhad. *New Strategies for Teacher Education*, 7(12), 1-26.

Huong, L. T. T., Thi Thuy Quynh, N., Thi Ngoc, N., & Mau Duc, N. (2021). Applying the lesson study model in developing teaching capability for young teachers in Vietnam. *European Journal of Educational Research*, 10(4), 1755-1768.

Jhang, F. H. (2020). Teachers' attitudes towards lesson study, perceived competence, and involvement in lesson study: Evidence from junior high school teachers. *Professional Development in Education*, 46(1), 82-96.

Kihara, S., Jess, M., McMillan, P., Osedo, K., Kubo, K., & Nakanishi, H. (2021). The potential of lesson study in primary physical education: Messages from a longitudinal study in Japan. *European Physical Education Review*, 27(2), 223-239.

Lomibao, L. S. (2016). Enhancing mathematics teachers' quality through lesson study. *SpringerPlus*, 5(1), 1590.

Masouminejad, R., Madadlou, G., Babaie, Z., Masouminejad, Y., & Lamei, A. (2022). Identifying the lesson study framework in order to improve the implementation of curricula in elementary school. *Research in Teaching*, *10*(4), 211-182.

- Norwich, B., Benham-Clarke, S., & Goei, S.L. (2021). Review of research literature about the use of lesson study and lesson study-related practices relevant to the field of special needs and inclusive education. *European Journal of Special Needs Education*, 36(3), 309-328.
- Ponte, J. P., Quaresma, M., & Mata-Pereira, J. (2022). Teachers' learning in lesson study: Insights provided by a modified version of the interconnected model of teacher professional growth. *Mathematics Education*, 54(2), 373-386.
- Ruhi, M., Tahmasebzade S. D., & Parvari, A. (2021). The mediating role of school culture on the relationship between effective school components and the quality of lesson study among primary school teachers. *Journal of Teaching Research*, 9(3), 77-102.
- Sakamoto, R., & Ono, Y. (2014). Transforming practice through pre-service recognition: An innovative use of lesson study in the Philippines. *NUE Journal of International Education Cooperation*, 8, 9-16.
- Stokes, L. R. E., Suh, J. M., & Curby, T. W. (2020). Examining the nature of teacher support during different iterations and modalities of lesson study implementation. *Professional Development in Education*, 46(1), 97-111.
- Ustuk, O., & De Costa, P. I. (2021). Reflection as metaaction: lesson study and EFL teacher professional development. *TESOL Journal*, *12*(1), 1-16.
- Wake, G., & Seleznyov, S. (2020). Curriculum design through lesson study. *London Review of Education*, 18(3), 467–79.
- Yesilcinar, S., & Aykan, A. (2022). Lesson study and 21st-century skills: Pre-service teachers reason, produce and share. Participatory Educational Research, 9(3), 315-329.