Assessing the Viability of Lesson Study as a Professional Development Model for Enhancing the Capabilities of Filipino Teachers

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ABSTRACT

Lesson Study (LS) is a collaborative action to improve the teaching and learning process and enable teachers to contextualize this global perspective to local practice. This paper assesses the viability of LS as a professional development model for enhancing the capabilities of teachers. The research lesson, aims, procedures, and strategies were collaboratively conceptualized and designed by the researchers. One of the researchers carried out the actual implementation of an expert on the subject matter, while other researchers served as observers. The lesson ran for an hour, conforming to the prescribed Philippine Department of Education (DepEd) format for lesson plans. A post-conference and group reflection followed after the implementation of the lesson. Analysis of the qualitative data revealed three central themes that prove the advantage of the utilization of LS in this study: (a) active communication and collaboration of sharing and consolidating best practices in lesson planning; (b) enhanced lesson delivery through contextualized, relevant, and focused teaching; and (c) enriched critical and dynamic culture of professional development through personal and collegial reflection. The paper concludes with some policy recommendations in light of professional development programs and career opportunities for teachers.

Keywords

lesson study, professional development, capability building, instructional decision making, lesson delivery, professional development

Introduction

In recent years, the Philippine Department of Education (DepEd) has refocused its attention on its teaching personnel's continuous professional growth and development by introducing several learning and development programs to address teachers' needs and contexts. In a school system that runs more than 48,000 schools across 17 regions in more than 7,600 islands, DepEd must ensure the effectiveness of its teaching force. Since the classroom teachers play one of the essential roles in their students' success [1], the Department needs to assure teachers' professional development programs at the Central, Regional, or even Division level and down to the School level.

As may be gleaned from Department memorandum circulars, most teacher development programs in the public-school system follow the cascade model of training a pool of National or Regional level trainers who will do an "echo training" at the Division and at the School level. Every summer and during the mid-semester break, schools also provide in-service training programs, which are usually determined by their school heads, who design the training programs with their Master Teachers and Head Teachers based on evaluating teachers' performance. Two years ago, the Department through DepEd Order No. 35, s. 2016 mandated the utilization of learning action cells (LAC) as a continuing professional development strategy to improve teaching and learning. However, some questions similarly posed by Fernandez [2] need to be further clarified and answered: (1) How can teachers benefit professionally from scrutinizing, observing, discussing, and critiquing their daily work? How can teachers reflect on their daily practices and utilize these reflections to help improve their craft?; (2) How can teachers support one another and spur each other's growth and development apart from the regular training programs funded by the government?; and (3) In what ways can teachers be more motivated to work on their professional growth and development?

The purpose of this research is to assess the viability of lesson study (henceforth, LS) as professional development (PD) model for enhancing the capabilities of Filipino teachers. LS originated in Japan but is fast becoming a

principal professional development activity in countries like the United States, Northern, Central, and Southern America, South Africa, Norway, Iran, and in East and Southeast Asian countries like Malaysia, Indonesia, Thailand, and Hong Kong, among others [3]. It has gained increasing attention from educators in the West and throughout Southeast Asia since it was revealed outside the country of its origin by releasing the TIMSS Video Study. Educators from the US attributed the high scores obtained by Japanese students in Mathematics achievement tests to this approach [3] since LS promotes reflective teaching and allows the Japanese teachers to study, understand, and continuously improve their teaching practices individually as a group. Japanese educators argue that LS provides a model for large scale, sustainable professional development. In particular, they draw on LS and the research literature's own experience to describe its characteristic features and examine some of the cultural assumptions that underpin its implementation [4].

Literature Review

As a PD model, LS is a method involving teachers working collaboratively towards a jointly prepared research lesson [5-7]. As such, it strengthens and fosters the continuous fine-tuning and improvement of pedagogical content knowledge, technological pedagogical knowledge, and practice [8-10] and has been known to significantly improve student achievement and teacher quality [12-15]. It reduces feelings of "professional isolation" and gives teachers a heightened sense of being risk-takers in that they are encouraged to explore more strategies to address students' needs [16]. It compels teachers to think and reflect more profoundly about their practices and makes them more analytical in selecting activities that help students [14]. It is a contributing factor to improving the culture of collaboration among teachers, and its practice can help influence both the substance and structure of in-service teacher education [17-18]. In general, LS is recognized as an effective tool to improve students' achievements and teachers' commitment to excellence in primary education and university teaching [3] and fostering teachers' professional growth [18].

In the Philippines, some research studies have already been done on LS but very few within teacher professional development. It has now become widely accepted that PD is a critical component of continuing teacher quality [19]. It is considered adequate when it results in positive teacher practices and improved student learning outcomes [8]. As part of a teacher support system, high-quality PD activities need to be provided and implemented to impact teacher practice [20] directly.

Professional development is likely to significantly impact practice if it is closely linked to school initiatives to improve practice. These initiatives could promote teaching professionalization and cost-effective ways to engage more teachers in serious professional development activities. Effective PD is also grounded in knowledge about teaching. Good professional development should encompass expectations educators hold for students, child-development theory, curriculum content, design, and instructional and assessment strategies to instil higher-order competencies, school culture, and shared decision making. It also models constructivist teaching. Teachers need opportunities to explore, question, and debate to integrate new ideas into their repertoires and classroom practice. It offers intellectual, social, and emotional engagement with ideas, materials, and colleagues. Professional development demonstrates respect for teachers as professionals and as adult learners. It also provides sufficient time and follow-up support for teachers to master new content and strategies and integrate them into their practice. It should be accessible and inclusive and should be viewed as an integral part of teachers' work rather than as a privilege granted to "favorites" by administrators [21].

Teachers are only as effective as they know how to be; they are only as effective as how they have been exposed to PD activities and given opportunities and support to grow. Therefore, access and opportunities to attend and participate in high-quality, high-impact PD activities must continuously be provided to all teachers. According to Archibald et al. [20], a PD activity is considered to be of high quality when it possesses the following characteristics:

1.It is aligned with the school's goals and national and regional standards and assessments, including formative teacher evaluation;
2.It focuses on core content and modelling of teaching strategies for the content;
3.It includes opportunities for active learning of new teaching strategies;
4.It provides avenues for collaboration among the teachers;
5.It includes follow-up and continuous feedback.

Since LS possesses these characteristics, the researchers believe it is worth investigating its potential as a PD model. Specifically, this paper aims to address the following questions:

1.How does LS help improve instructional decision making?
2.What are the characteristics of teaching delivery achieved through LS? and
3.How does LS develop a critical and dynamic culture of personal and professional growth and development among teachers?

In the Philippines, there have been some attempts to research lesson study; however, only a few have written about it in Filipino teachers' professional development. Teachers are used to being observed only by their school heads or department coordinators; very few have attempted to come together to work on one topic as a group and approach teaching from a collaborative, reflective, and research-based perspective. Therefore, this paper attempts to contribute to the growing literature on LS by offering it a viable PD model for Filipino teachers.

Methods

The study is a qualitative research that utilized case study as a design. A case study is an "empirical inquiry" that seeks to examine a phenomenon within its own "real-life context" (p. 13) [22]. Case studies enable researchers to find out answers to their questions while dealing with the very environment and intricacies of the phenomenon.

A Grade Six class, with 27 pupils (11 male, 16 female) in a private school in the Philippines, were purposively chosen to serve as study participants. A six-member team of researchers, who are all Doctorate students from a state university in Metro Manila, Philippines, served as the research team. This study is the team's capstone requirement for the graduate school course entitled EDLM 806 (Transforming Education through Emerging Technologies).

The researchers agreed to teach the English topic, The Use of Punctuations and Capitalization. The research lesson, aims, procedures, and strategies were collaboratively conceptualized and designed by the researchers. One researcher who is the subject expert carried out the actual implementation. At the same time, other researchers served as observers. The lesson was implemented for an hour, conforming to the prescribed Department of Education (DepEd) format for lesson plans.

Methodology

Lesson study is a cycle of professional development focused on teachers' planning, observing, and revising "research lessons." In LS, teachers work together to undergo the following procedure: a) form a lesson group and establish norms and policies; b) identify professional development goals; c) form goals for student learning and long-term development. These goals are informed by studying existing curricula and standards and teachers' discussions of the qualities they would like students to have 5-10 years in the future. d) Collaboratively plan a "research lesson "based on immediate and long-term goals. e) Teach the research lesson with one team member teaching while other teachers observe and gather evidence on student learning and development. f) Debrief the notes collected during the lesson observation and use this evidence to revise the lesson, the unit, and the teachers' overall approach to instruction. g) Conclude instructional strategies and student learning that can drive future practice. h) If desired, teach the revised lesson in another classroom to study and improve on it again [23].

Observing the LS's model mentioned earlier, the researchers carefully planned, developed and implemented the lesson to be taught. The DepEd curriculum guide for English 6 served as the primary reference for the fourth quarter's lesson

study and competencies were highly considered due to the time element. Local and foreign references were also utilized and contextualized concepts based on the expected Grade 6 learners' capacities concerning content and performance standards in English 6 and their community features.

One of the teacher-researchers taught the lesson, while the rest of the team served as process observers who took note of the lesson's key highlights. After which, the teacher was called for post-conference. It is where reflections and observations from the teacher and the researchers respectively were thoroughly discussed.

Data was collected through pre-lesson implementation meetings, collaboration on the development and finalization of the research lesson, classroom observation, field notes, and post-lesson conference. The implementation of the research lesson and the post-lesson discussion was videotaped by one of the researchers.

Data Analysis

The data gleaned from the meetings, collaborative discussions, observations, field notes and conference were analyzed qualitatively using thematic analysis. Braun and Clarke (2006) define thematic analysis as a method for identifying, analyzing, organizing, describing, and reporting the themes found with a data set [24].

Analysis for this research followed a six-step process described by Nowell, et al (2017), namely: familiarizing yourself with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. [25]. Significant statements were also transcribed, coded, and quoted. Recurrent themes or patterns were identified. These include ideas, concepts, and terminologies or phrases that kept repeating or iterating. These were further organized into coherent categories.

Results

Based on the observations, evaluation, and through sharing, three recurrent themes have

emerged as results of the implementation of LS: (a) active communication and collaboration of sharing and consolidating best practices in lesson planning; (b) enhanced lesson delivery through contextualized, relevant, and focused teaching; and (c) enriched critical and dynamic culture of professional development programs and career opportunities for teachers.

Discussions

Active communication and collaboration

Consistent with how LS is conducted, the lesson was collaboratively planned, implemented, and discussed by the researchers. In essence, planning the class as decided on by the researchers' group has been a crucial component of the LS process. There was an in-depth designing of the lesson, several rounds of consultations with the group, and several presentations and revisions until the lesson to be delivered was finalized. One of the researchers shared:

"*It took us some time to come up with the lesson to be discussed in class. We have even argued but settled through collaboration and continuous dialogue on the goals, activities, and strategies to be utilized. LS has been a cornerstone of this accomplishment.*" (Researcher #3)

The LS procedure on finalizing a lesson is an opportunity for the researchers to develop an appropriate lesson plan to be implemented collaboratively. A researcher has shared the preliminary activities the group has to undergo to better contribute to the final research lesson:

"*My colleagues and I have examined critically several sources and references before the conduct of planning and finalizing the lesson. LS is a democratic way of considering everyone's suggestion and recommendation to make the lesson appropriate for all the students.*" (Researcher #1)

Bringing a fresh and unique perspective to every lesson is one of LS's well-received features among the researchers. Sometimes, teachers decide it based on their instincts and based on years of experience. Hearing fellow teachers provide a

different angle to a lesson taught a certain way for years enriches one's pedagogical content knowledge and makes one reflect on one's practices and beliefs as a teacher. Three of them verbally shared what they wrote on their field notes after the lesson was implemented:

"*LS is an avenue where teachers could voice out individual recommendations which are valued, respected, and considered to make the lesson worth implementing. It felt great to help enrich a lesson that is not within my field of expertise but to be still able to contribute to its enrichment with some of my suggestions. It also felt great to hear my group mates affirm this after we discussed the lesson implementation.*" (Researcher #5)

"*I have been an administrator now for a long time, and many times I see things from the perspective of an instructional leader. For the past few days [that we have been preparing for the lesson implementation], I did just that, but I also tried to consider things from a classroom teacher's perspective. I am beginning to understand my teachers more, and seeing from their lenses how a lesson should be carefully, collaboratively and democratically planned, discussed, executed, and talked about.*" (Research #2)

"*I have been an English teacher for many years, but it never occurred to me that the lesson can be taught the way it was executed today. Indeed, more heads are better than one. In my mind, I already knew what this was all about, but I was surprised with the way the lesson has improved so much because no one person decided on the lesson design. We all took part in its planning, design, and execution, and because of everyone's inputs, the lesson turned out so much better than the way I pictured it in my head. Truly, we do not know everything, but when we begin to work with others and listen to their suggestions, we are enriched not only in terms of knowledge but also in terms of character.*" (Researcher # 4)

LS as identified, should have the overarching goal of linking the aims and intentions of school and mission statements or plans for improvement, which must be evident in each instructional decision making. The group of researchers has

achieved this through this validation from one of the members:

"*I realized that LS is an opportunity to better guide our decision making in establishing clear bases in instructional design and implementation.*" (Researcher #6)

Through LS, the research lesson was delivered, focused on the specific and identified problem, goal, or vision of pedagogical practice, carefully planned by a group of teachers or colleagues, recorded for analysis and reflection, and discussed by the participants. The LS element proven effective in this study is how students experience the taught lesson. The researchers have all agreed that the lesson they decided to teach should focus on evident learning results about teacher instruction, student activities, and student learning. One of the researchers decided to this finding:

"*In instructional decision making, LS has guided us well to decide on what to teach, how to teach, and how to observe students to prove that indeed there was learning and achievement in class. We are happy to realize the fruit of our efforts in planning, implementing, and evaluating teaching practices through this endeavor.*" (Researcher #4)

Lesson Delivery

Through LS in classroom-based lecture, it was found out that lesson delivery became more effective as evidenced by contextualized, relevant, and focused teaching. Generalizations that are products of observations and reflections show that lesson implementation is greatly enhanced due to the teachers' collaborative efforts who participated in the said academic endeavor.

LS is a form of professional development geared towards improving lesson implementation. It should be the priority of any school-based professional development activity to enhance learners' quality of lesson. LS is conceived to guide teachers to clarify unclear points and to confirm and support the content knowledge needed to implement the lesson effectively. Some of the statements of the researchers who are all

part of the LS conducted in this study support this claim:

"*The LS facilitated an open discussion among teachers on how to carry out the lesson plan effectively. The process of arriving at the final decision may be long, but the way the decision arrived was certainly worth it because it was so much better than what we first thought of. In the context of the LS, there was a greater sense of ownership of the lesson since everybody was part of the decision making, so each person had the same feeling of wanting the lesson to be carried out well for the sake of the learners.*" (Researcher #3)

"*LS has allowed us to explore our unique teaching methods and strategies, and this has resulted in the improvement of our subsequent lesson delivery. It has also taught us to and even compelled us to reflect and be more deliberate about our practices. This is something that is not always done when you're on your own as opposed to when you're in a group.*" (Researcher #2)

"*Through LS, I have realized that there are various ways of delivering the lesson by considering the goals of the lesson, the nature of the students, and other important factors to guide me in teaching the lesson at hand. Sometimes I took these factors for granted, but being with others and allowing them to co-develop and improve the lesson with me had allowed me to explore more [strategies and techniques] that I had not used when I was not in the LS group.*" (Researcher #6)

The implemented LS has resulted in several benefits that can continuously reinforce the teaching and learning process as manifested through this interview with one of the researchers:

"*LS is an effective tool in making us realize that when we teach, we should have the focus on the lesson with the consideration of other factors such as the context and relevance of the said topic to the students' lives.*" (Researcher #5)

Teachers and significantly the students greatly benefit from the conduct of LS. The researchers who performed the LS claimed to have improved

their perspectives on their teaching practices on both content and delivery. This is possible due to the reflective and collaborative feature of LS that promotes self, peer, and students' appraisal of the delivered lessons in class.

LS is an effort to build and improve the teaching and learning process by a group of teachers collaboratively and continually. Further, this confirmed that LS is an avenue to give teachers new insights on the students' needs, increased awareness of different teaching strategies, and the importance of cooperation among faculty members. More specifically, LS is believed to strengthen lesson delivery, which ensued through the emergence of (1) contextualized teaching because of the collaboration of teachers who share the same goal and purpose; (2) relevant teaching based on detailed observation and consideration of the students direct learning styles and preferences; and (3) focused teaching due to the consistency and accuracy on achieving the established lesson objective through appropriate teaching strategy.

Since LS involves a comprehensive instructional planning process, lesson implementation, and teaching and learning evaluation, teaching becomes more contextualized. This addresses the students' specific needs, which results in the realization of the various lesson objectives. This is validated by one of the researcher's findings during the observation and discussion of LS evaluation:

"*Because of the planning phase of the LS, the teaching of the lesson on punctuations and capitalization rules become contextualized by using strategies that are familiar and suited to the learning styles of the students with the utilization of dynamic activities that better provide situational analysis that make the learning experience authentic.*" (Researcher #1's notes)

One of the specific activities in the LS conducted in this study was the conceptualization of goals and plans, which required background information of the learners and anticipation for the challenges that the teacher may face in the actual lesson implementation. In response, teachers will develop the foresight and be better prepared with strategies to be utilized to address the said aspects

of teaching and learning with LS. Another researcher-member confirms this:

"*With the planning stage, the group has specifically considered the lesson's objectives and the students' grade level and possible concerns to be addressed, which led the teacher to achieve a more effective lesson delivery*." (Researcher #2's notes)

The LS's implementation phase has provided the researchers an opportunity to validate whether the activities and strategies planned and conducted effectively achieved the students' desired learning objectives. One of the researchers has noted this observation:

"*I am glad that we were able to observe directly students' engagement in all the class activities employed by the teacher. I can say that most of the students enjoyed and learned a lot from the organized individual, pair, and group learning tasks. The teacher was also flexible in attending to the emerging needs and concerns of the students*." (Researcher #3's notes)

Additionally, sharing ideas and practices during the LS's discussion phase became an eye-opener for all those involved teachers. The demo teacher has proven that incorporating each observer's constructive feedback and continuing the contextualized teaching strategy and activities applied significantly advance the lesson and fortify its implementation.

"*When I was teaching the lesson to the Grade 6 students, I was amazed by their active participation due to the technology I have used and the practical activities they could relate to (writing to a friend and finding errors and correcting them). I have proven that once the learning activities are contextualized, learning and teaching will be more effective. I am fulfilled. I am thankful to the observers who gave viable and constructive feedback on how I have handled the whole class.*" (Teacher/ Interview)

As suggested, LS has also promoted relevant teaching of topics in class to achieve students' optimum learning. It is but proper for every teacher to make instruction relevant to students.

This is done by ensuring that teachers should establish the appreciation of students on the essence of the lesson not only on their academic endeavors but also on their lives at the onset of the teaching session. A researcher has expressed that the demo teacher did this during the LS application:

"*When Sir Jonald presented the objectives of the lesson, he emphasized the crucial contribution of knowing the punctuation and capitalization rules in making and maintaining a friendship with other nationalities so as not to insult but rather respect, accept and understand each other. Likewise, there was the integration of the value of helping and working together as reflected through the group tasks done.*" (Researcher #4's notes)

LS is an avenue for the teachers to realize the vital role of values integration and inculcation of appreciation of the lessons at hand with its practical and actual application. After carrying out the LS study, the researchers have all contributed to identifying aspects to be improved, refining the elements to be sustained, and addressing challenges. These initiatives are geared towards making the lesson teaching relevant to students as articulated by one of the researchers:

"*LS helped us make the lessons more relevant by acknowledging the advantage it gives to students when we teachers present the lesson objectives in such a way that we will encourage the students to listen and actively participate in the discussion for it attentively will be helpful to them.*" (Teacher/Interview)

Finally, LS is known to focus on the students' practical learning, which is anchored on the effective delivery of lessons, which should be the cornerstone of all initiatives in improving instruction. One of the researchers reinforce such idea with these realizations:

"*LS has helped me appreciate the necessity to prepare better for our lessons.*" (Teacher/Interview)

"*LS inspires me to resort to a more focused teaching that is teaching effectively to achieve set lesson goals and objectives.*" (Teacher/Interview)

Participants in the LS expressed that this academic activity helps utilize useful and interesting strategies and activities that facilitate students' better learning. Relatively, it was suggested for educational institutions to make LS integrated into the curriculum and the school instructional programs and activities. It is considered helpful to beginning teachers to learn strategic and effective lesson delivery from seasoned teachers.

LS can be considered as a robust professional development for teachers to undertake for them to be equipped with inputs and outputs to continuously improve their teaching practices, thereby also improve student learning and achievement.

Observing the actual lesson conducted provided an opportunity for teacher-researchers to see exciting information on teaching capacity and classroom dynamics. LS covers more, which interweaves the entire process involved in coming up with a good lesson.

Continuous Professional Development

Implementing a lesson study could promote quality teaching. As the research team continuously reflected throughout the LS cycle, these constant inquiries, reflections, and even negotiations became avenues for the researchers to consider what added professional undertaking can contribute to the ongoing lesson development until the entire cycle was completed. LS "forces" each group member to further enrich their group's output. There was no way but to be conscious of what one shares with the rest of the members.

As the researchers commented,

"T*oday, I appreciated the way our colleague carried out this lesson (use of capitalization and punctuations). What he showed was innovative and creative, and I could try it in my classroom too!*" (Researcher #6)

"*I love how we started with just a simple discussion on what are the rules of capitalization and punctuation...the going back and forth of*

ideas...the sharing of expertise...the debate on what particular method to use and even on what specific content to show during the implementation of the research lesson...and now how we ended with what we have just taught to the students. I love how it evolved from the day we started planning for this." (Researcher #5)

"*I did not expect that some of the things I said during our pre-lesson implementation planning sessions would get implemented the way they did...it felt wonderful because we deal with the same principles in teaching even if we belong to different disciplines. I am glad that I got to see this perspective come to life in teaching English since I belong to the Science group*". (Researcher #1)

"*I have not been teaching for a long time since I became an administrator many years ago. So, when we did the lesson study, I was refreshed, and this has made me draw from my experiences how I can add to the administrative aspect of the lesson; that is, how an administrator would see the way it is being carried out*". (Researcher #2)

Teachers sometimes struggle with just making sure that the competencies have been covered. The lesson was taught and delivered as planned, without being aware that equally important is the way the lesson was implemented. LS allowed the team to revisit their practices and reflect on what they could also correct some conceptions borne out of a teacher's everyday life. As one of the teacher-researchers said,

"*Honestly, at first, I was worried that we will not be able to cover the lesson. When we removed some of the activities, I was so glad because we had a better chance in finishing the lesson. But as we ended the lesson, I realized that completing the lesson was not the point. It was delivering it well. It did not matter if we could not cover it (the lesson) entirely (but I am so glad we did!), as long as we could give the learners an excellent session for our lesson study. This (session) was a good reminder.* (Researcher #4)

As the group reflected during the post-lesson discussion, they all agreed that LS could be a

viable model for Filipino teachers' professional development.

"*If just one session of LS could have this kind of impact on our team, what more if we continue to do this on a daily or weekly basis when we go back to our schools. Imagine the growth and transformation this could bring!*" (Researcher #6)

"*When we did the LS for this capstone activity, we always put our best foot forward. We knew we had to attend our meetings prepared because we were preparing something special. If this could become the norm in our schools, no one teacher would ever say that teaching is routinary and fixed. There is something to look forward to every day because each person in the team is sharing something that adds up to another's wealth of experience*". (Researcher #2)

"*Assuming we adopt LS in our schools, I predict that we would be more prepared, more engaged, more reflective, and more evidence-based. We are forced to be like that when we let others in and invite them to see how we are doing. If someone's looking at what you do all the time, you have higher chances of doing the work way better than how you do it alone. This would surely accelerate our own faculty's growth and development since it is true--iron sharpens iron. Constant exposure and even (a healthy kind of) pressure to do well will lead to only one outcome: an even better version of ourselves as educators*." (Researcher #5)

"*I realized after all of these that LS is like mentoring -- and so much more. When you do mentor, it is not necessarily getting to see your mentor daily at work. You could have someone mentor you without him or her seeing your performance.   But in LS, everything is transparent. You plan, argue, and debate with one another, collaborate, negotiate, and do things together, and reflect on your practices and even outputs all the time. That's having somebody give you 360-degree feedback while also forcing you to up your ante and do your best in every session!*" (Researcher #1)

"*If LS will become a culture of practice in the school, even teachers who are specialists in their subject areas will deepen further their understanding on the contents and curricular scope and sequence.*" (Researcher #5)

"*LS is going beyond the DepEd's curriculum content and program standards. While the Curriculum Guides (CGs) set the minimum standards, LS facilitates optimized learning that leads to mastery of the skills and competencies of both teachers and students.*" (Researcher #3)

After going through LS, the researchers perceived the activity as one that (1) stimulated their growth as teachers, (2) increased their professional confidence, (3) had their peers collaborate and contribute more, and (4) necessitated peer coaching, which improved their abilities more effectively.

In exploring the viability of LS as a PD model for Filipino teachers, DepEd and teacher education institutions must keep in mind that while public spending on professional development activities has been increasing, these magnify the need to improve teacher competencies and motivation.

While Lesson Study is an effective mechanism in improving learning outcomes, it is recommended for more significant support to teachers to enhance their classroom competencies and effectiveness. There should be more substantial alignment between professional development planning, career development, and performance incentives. Only then will efforts to provide adequate teachers to all schools translate into better quality and improved learning outcomes.

Limitations and Future Studies

The study was conducted only once, and a follow-up session is needed in order to further analyze how the potential of LS can be further explored as a PD activity in other learning areas. Moreover, the teachers who sat down and collaborated on the research lesson are already highly experienced teachers. It will be interesting to find out how the LS experience would turn out if the teachers involved were novice.

Not much has been written on LS as a professional development activity. Hence, the authors highly recommend that other researchers further explore this topic since LS possesses the characteristics and features of PD activities which may be contextualized for novice or experienced teachers.

Conclusion

This paper summarizes significant highlights of LS in professional development and the effective implementation of the curriculum. Thus, the following realizations were drawn in light of the conduct of this study:

a. LS does not solely highlight the improvement of instruction but also yields on professional sharing of effective teaching practice. Beyond doubt, lesson study created a clear paradigm of intense professional and collaborative engagement, decision making, and contextualized teaching-learning process;

b. Specifically, LS tries to look for practical ideas in implementing effective curriculum through experiences of teacher-experts in the field. Likewise, LS serves as an evident way to share new methodologies from new teachers in the field;

c. research is an integral part of LS. Thus, a strong research practice will explore opportunities for staff development and empowerment and system improvement;

d. LS helps institutionalize a culture of excellence through sharing of best practices without compromising teaching standards set for Filipino teachers; and

e. The mechanism as suggested by LS helps the school administrators to create an improved approach to improve teaching-learning practices
The researchers successfully explored the viability of lesson study as a professional development model for enhancing Filipino teachers' capabilities. However, certain conditions must be met to ensure that adopting LS in schools and learning centers will yield the outcome it is expected to provide, namely: (a) DepEd should take the lead in offering a thorough capacity building on LS to all schools and learning centers; (b) School Heads must carefully "mix and match" the members of the different LS teams to ensure that each member will benefit from the teams formed; (c) As in any project or activity, timely and well-planned monitoring activities must guide and inform professional development activities, and (d) School Heads must constantly instill a culture of continuous improvement and excellence in their employees.

Acknowledgement

References

[1] Hill, Rowan, & Ball, (2005) in Coskun, (2017)

[2] Fernandez, C. (2002). Learning from Japanese approaches to professional development, The case of lesson study. Journal of Teacher Education, 53(5), 393-405. DOI: https://doi.org/10.1177/002248702237394

[3] Elipane, L. and Bonus, B. (2018). Institutionalizing lesson study in teacher education institutions in the Philippines. Retrieved from https://www.researchgate.net/publication/324067788_Institutionalizing_Lesson_Study_in_teacher_education_institutions_in_the_Philippines/download

[4] Doig, B. & Groves, S. (2011) Japanese Lesson study: teacher professional development through communities of inquiry. Mathematics Teacher Education and Development. 13.1, 77-93. Retrieved from https://files.eric.ed.gov/fulltext/EJ960950.pdf

[5] Rock, T. C., & Wilson, C. (2005). Improving teaching through lesson study. Teacher Education Quarterly, 77-92.

Retrieved March 16, 2019, from https://files.eric.ed.gov/fulltext/EJ795305.pdf

[6] Coşkun, A. (2017). The application of lesson study in teaching english as a foreign language. İnönü University Journal of the Faculty of Education, 18(1), 151-162. DOI: 10.17679/inuefd.297845

[7] Coenders, F. & Verhoef, N. (2019). Lesson study: professional development (PD) for beginning and experienced teachers. Professional Development in Education. (45) 2, 217-230. DOI: 10.1080/19415257.2018.1430050

[8] Darling-Hammond, L., Hyler, M. E., Gardner, M. (2017). Effective teacher professional development. Palo Alto, CA: Learning Policy Institute. Retrieved from https://learningpolicyinstitute.org/product/teacher-prof-dev

[9] Schmitt-McQuitty, L., Worker, S.M., & Smith, M.H. (2019). Lesson study model of 4-H professional development: Data-driven improvements to educator practice. Journal of Youth Development. 14(1). 131-154. DOI: https://doi.org/10.5195/jyd.2019.693

[10] Özdemir, S.M. (2019). Implementation of the lesson study as a tool to improve students' learning and professional development of teachers. Participatory Educational Research. 6(1), 36-53. http://dx.doi.org/10.17275/per.19.4.6.1

[11] Nami, F., Marandi, S. S., & Sotoudehnama, E. (2015). CALL teacher professional growth through lesson study practice: an investigation into EFL teachers' perceptions. Computer Assisted Language Learning, 29(4), 658–682. doi:10.1080/09588221.2015.1016439

[12] Elipane, L. (2012a). Towards the embodiment of competency standards: Incorporating the elements of lesson study in the pre-service mathematics teacher education in the Philippines. The Asia-Pacific Education Researcher, 21(2), 365-374.

[13] Elipane, L.E. (2012b): Integrating the essential elements of lesson study in pre-service mathematics teacher education, IND skriftserie no. 27, Copenhagen: Department of Science Education.

[14] Lomibao, L.S. (2016). Enhancing mathematics teachers' quality through lesson study. SpringerPlus, 5(1590), 1-13. DOI 10.1186/s40064-016-3215-0. Retrieved from https://link.springer.com/content/pdf/10.1186/s40064-016-3215-0.pdf

[15] Vermunt, J.D., Vrikki, M., van Halem, N., Warwick, P. & Mercer, N. (2019). The impact of lesson study professional development on the quality of teacher learning. Teaching and Teacher Education. 81, 61-73. DOI: https://doi.org/10.1016/j.tate.2019.02.009

[16] Cajkler, W., Wood, P., Norton, J., Pedder, D. & Xu, H. (2014). Teacher perspectives about lesson study in secondary school departments: a collaborative vehicle for professional learning and practice development. 30(2), 192-213.DOI: https://doi.org/10.1080/02671522.2014.887139

[17] Uştuk Ö. & Çomoğlu İ. (2019). Lesson study for professional development of English language teachers: Key takeaways from international practices. Journal on Efficiency and Responsibility in Education and Science. 12(2), 41-50. DOI: https://doi.org/10.7160/eriesj.2019.120202S

[18] Widjaja, Wanty, Vale, Colleen, Groves, Susie and Doig, Brian 2017, Teachers' professional growth through engagement with lesson study. Journal of Mathematics Teacher Education, 20(4), 357-383. DOI 10.1007/s10857-015-9341-8

[19] Phillipps, P. (2008). Professional development as a critical component of continuing teacher quality. Australian Journal of Teacher Education, 33(1), 37-45. Retrieved from https://files.eric.ed.gov/fulltext/EJ1069624.pdf

[20] Archibald, S. Coggshall, J., Croft, A. and Goe, L. (2011). High-quality professional development for all teachers: Effectively allocating resources. National Comprehensive Center for Teacher Quality. Retrieved from https://gtlcenter.org/sites/default/files/docs/HighQualityProfessionalDevelopment.pdf

[21] Zepeda, Sally J., (2013) Professional development: What works. 2nd ed. USA: Routledge Taylor & Francis Group.

[22] Yin, R.K. (2003). Case study research design and methods. 3rd ed. Thousand Oaks: Sage Publications.

[23] Hurd, J. and Licciardo-Musso, L. (2005) Lesson study: teacher-led professional development in literacy instruction. Language Arts, 82(5), 388-395. https://www.jstor.org/stable/41483503

[24] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3, 77–101. doi:10.1191/ 1478088706qp063oa

[25] Nowell, L.S., Norris, J.M., White, D.E., & Moules, N.J. (2017). Thematic analysis: striving to meet the trustworthiness criteria. International Journal of Qualitative Methods, 16, 1-13. DOI: 10. 1177/1609406917733847