Utilizing Lesson Study In Enhancing Teaching Pedagogy


*Philippine Normal University, Philippines
bPasig City Science High School, Philippines
cNueva Vizcaya State University, Philippines
dPhilippine Normal University, Philippines

Abstract: Teacher’s pedagogy is a key factor in achieving better learning from both the teacher and the students through the application of theory and practice in teaching a particular subject and its context. In view of enhancing the teaching pedagogy of teachers, this paper sought to investigate the impact of Lesson Study (LS) in teaching pedagogy through the delivery of netiquette instruction – a topic that was deemed very relevant to young adults in this Information Age. The process of LS revealed themes that pointed out how teaching pedagogy could be enhanced. In the light of the LS process, teachers’ collaboration in the preparation of lesson and conduct of classroom instruction revealed a significant ruminations on how lessons could be improved. In particular, the post-lesson debriefing revealed that the presence of integration of empathy in the conduct of instruction was a positive teaching practice. However, the need for the following concerns to further enhance teaching pedagogy through LS must be considered: a.) give emphasis on researching in detail the material to be taught; b.) capitalize on extracting students’ view and insights in searching for meaning; and c.) lead the students to abstractions. In view of these results, it is concluded that the teachers’ collaboration in the whole process of LS unmasked a significant impact on how the modifications and revisions of teaching strategies and approaches in the delivery of lessons could be done to enhance teaching pedagogy.

Keywords: Lesson study, teaching pedagogy, teacher collaboration

1. Introduction

Pedagogy is a set of strategies in teaching that encourages mental engagement, linkage to the global context, classroom environments that are supportive, and knowledge of individual differences must be administered through subject fields and learning areas. Accordingly, the quality of teaching pedagogies and learning can foster student’s well-being and it can enhance teacher’s and student’s confidence in realizing the purpose of attending school. In the same vein, the UNESCO’s International Institute for Educational Planning [1] stressed that teacher’s pedagogical approaches influence learning, but the potency of the teacher’s pedagogy is dependent on the conditions of the classroom, diversity of learners, and on the specific lesson to be taught. To improve or enhance teaching pedagogy, Lesson Study (henceforth, LS) could be one of the approaches to be employed in planning the teaching and learning processes.

The practice of LS in Japan has encouraged teachers worldwide to have an enhanced approaches to teaching [2]. The high-quality teaching and learning can be contributed by teacher’s collaboration [3] as well as the improvement of the school curriculum became part of the process in the curriculum design process [4]. The collaborated ideas and practices of teachers contributed to the need for revisions of the curriculum and teaching. However, there are consideratons on the transferece of LS in the current Philippine educational system such as the differences of culture, social, economic, and educational situations [5], and it might pose certain challenges [6]. For instance, cultures have distinctive learning style patterns and variations of learners. Therefore, it is important to use diverse teaching methods and strategies in lesson planning; and this could be thoughtfully achieved through the implementation of LS via collegial and collaborative reflection on practice [7].

One of the approaches in implementing LS is to have a collaboration of teachers in the planning of teaching and learning processes. Correspondingly, Poulos, Culbertson, Piazza, & D’Entremont [8] pointed out that teacher’s collaboration in teaching has contributed a positive impact on the improvement of its pedagogical approaches to the learners. Thus, a teacher’s reflection is essential in order to have the appropriate strategies for the diversity of learners. It can strengthen pedagogical expertise and can motivate fellow educators to explore new things if there is an engaging routine among teachers in communicating classroom experiences. Furthermore, Berry, Daughtrey, & Wieder [9] also stressed that teacher’s reflection paves the way to enhance student’s achievement, specifically in sharing best practices inside the classroom. For this reason, the researchers focused on teachers’ collaboration during lesson planning as an approach in the implementation of LS.

Moreover, the study encourages integrative approach which can stimulate learner’s understanding from the different experiences. Thus, the use of various methods can facilitate teaching and learning from the different
disciplines. Significantly, it can establish a common meeting place to developing new method and theory crafted to transcend the new disciplines in order to solve problems [10]. It is also an effective approach that can help students develop multifaceted expertise and grasp the important role interrelationships can play in the real world [11]. This is the reason why teacher’s collaboration is emphasized in this study, especially on how learners are motivated to become more engaged in learning by sharing different insights on a given topic, specifically on the different social media issues posted on several social media platforms was also investigated in the development of the paper.

The implementation of the LS is carefully planned by the researchers, especially on the preference of the topic to be utilized during the actual classroom instruction, which is primarily focused on the problem goal or vision of a pedagogical practice what would allow the learners to actively construct and make their own knowledge from the different experiences. Hence, the study investigated the impact of LS in teaching pedagogy through netiquette instruction since researchers also intend to develop student’s digital literacy. The use of any social media platforms is very relevant for the students at present that specifically aim to enhance student’s skills in the 21st century skills. The reflections of teachers while conducting the LS can also be helpful for teachers on students react and give personal opinions as well as allowing the students to create their own netiquette. Subsequently, teacher’s reflection is necessary on the process of the LS to suggest possible improvement on the different approaches performed by the teacher.

Teacher’s Professional Development through Lesson Study

Lesson Study (LS) is the most prevalent practiced-based form of teacher professional development in Japan. It is an approach of professional development of teachers which is primarily focused on collaboration that improves a lesson through collaborative work of teachers which includes planning and demonstrating of lesson [12–14]. Thus, teacher’s reflections on their actual experiences can help teachers grow [15]. It can facilitate teacher’s growth through the interaction with colleagues’ content and pedagogical content knowledge [16]. Garfield [17] cited that through LS, teachers will learn to improve teaching approaches as they successfully manage to investigate systematically through teacher’s reflection.

On other hand, there are more teachers who embraced the benefits of LS in teaching as part of their professional growth. According to Fernandez [18], the use of LS can help teacher acquire skills in addressing various goals in teaching through instruction, which is carefully planned before the implementation of the lesson. It is also an approach that shows different strategies that teaches how students learn [2]. It offers many benefits for the teachers to enhance a culture a purposeful professional collaboration. There is also a significant evidence that LS is part of teacher’s education program that can contribute a continuous improvement in teaching and learning [19]. Thus, it is essential that in teaching students, it should be engaging and meaningful for them to become more responsible for learning through LS [20].

Furthermore, there are several studies on the impact of LS to the improvement of teacher’s pedagogy through teacher’s reflection. Significantly, it should be utilized by the teacher to gain understanding of the instruction practices based from the direct experiences [15]. Thus, the proficiency standards in teaching can be attained through teacher’s reflection. For instance, Elipane [7] mentioned that increasing the proficiency standards in teaching Mathematics in the Philippines should be facilitated with teacher’s reflection that should be highlighted with context, upholds the idea of investigative activities, and teacher’s collaboration.

Designing the lesson is the impact of collaborative planning of teachers as one of the essential parts of LS. During the implementation of the LS, one of the teacher-researchers will give the instruction to the students while the rest of the team will be the observers and write down important notes which played an important role of teacher’s reflection during the post-conference. One of the benefits of LS is to improve teaching pedagogy as to facilitate students improve essential skills such as critical thinking through the lesson study which is directly influenced by its environment [21]. Meyer [22] emphasized that there is an impact on teacher’s instructional strategies in any areas of self-reflection, incorporating problem-solving activities, and encourages cooperative learning among students.

2. Methodology

To achieve the purpose of the study presented in the research paper, a qualitative research approach via thematic analysis was utilized. Table 1 exhibits the summary of the whole process of inquiry – following the LS cycle.

Table 1. Summary of Research Process

<table>
<thead>
<tr>
<th>Focus of the study</th>
<th>Participants</th>
<th>Data Collection Instruments/Procedure</th>
<th>Data Analysis</th>
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<tbody>
<tr>
<td>Stage 1: Pre-Lesson Study</td>
<td>Teacher-Researchers</td>
<td>Collaboration of Teachers:</td>
<td>Coding of suggestions from</td>
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<td></td>
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<td>Selection of Topic</td>
<td>the content experts</td>
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Lesson Study

This study is highly influenced by the process of LS. Accordingly, the LS involves a process of collaboration of teachers in expressing solutions to encountered challenges in their teaching and learning procedures [23]. Guided by a field expert on LS, teachers-researchers in this study were given time to collaborate in planning the topic to be taught, prepare lesson plan and execute instruction, and facilitate a post-lesson discussion using the notes jotted from classroom observation to gather teacher’s insights and reflections on how the whole process of lesson study impacts teaching pedagogy in netiquette instruction. Specifically, the actual implementation of the lesson is performed by the teacher who is assigned to conduct the instruction. Highlights of the netiquette instruction include the following activities performed by the students as reflected in the lesson plan:

a. Students reactions and comments in the social media issues that emerge in the Philippines such as:
   1. Sarah Geronimo’s Wedding – A singing sensation popstar who pursued marriage without her parent’s consent.
   2. ABS-CBN franchise renewal – Largest broadcasting corporation in the Philippines who happens to have expired franchise
   3. Frequent suspension of classes - due to monsoon rains and typhoon visits in the country.
   4. Offensive/funny memes - includes someone’s picture used for laughingstock, and picture that depicts poverty and violence.
   5. Trending Quotes – depicts someone’s love and sarcasm
b. Students are guided to answer process questions
c. Students were tasked to present own netiquettes in several forms such as taglines, oath, commandments, yell, and reminders.

Participants of the Study

Purposively, the chosen participants are composed of 25 grade 12 students aged 16-21 from a STEM strand of Department of Education school located in the Philippine’s city capital. The K-12 curricular program for senior high school specifically in the course, Empowerment Technologies include the netiquettes topic in which served as the basis in choosing the participants of the study.

Instruments
Observation notes - served as the teachers’ notes during classroom observation in the implementation of netiquette instruction.

b. Student worksheets/tasks recordings – logged the students’ outputs from the activities provided by the teacher that served as the data on students’ participation and reactions.

c. Video recordings – captured the whole process of lesson implementation that served as the review materials in noting students’ participation, comments, reactions, as well as the teacher’s responses in the class situation.

d. Post-lesson discussion – served as the tool for gathering teachers’ reflections after the conduct of classroom observation.

3. Results and Discussion

The data presentation and discussion in this study is the result of the teachers’ collaboration, which includes a profound planning of the lesson plan in order to establish the meaning and context of the lesson as well as the emphasis on higher order thinking skills in delivering the lesson. Other relevant part of the LS is the preparation of instructional materials and securing of permit before the actual experience of the teacher during the actual implementation of the lesson. The vital role of the rest of the teachers is to observe and jot down important notes that are significant during the post-conference of the teachers. In fact, the investigation is to focus the impact of LS to the teacher’s teaching pedagogy.

Furthermore, the whole process of LS is critical in gathering important details based from teachers’ observations, comments, and reflections on the teaching pedagogy demonstrated in the conduct of netiquette instruction. Thus, Table 2 presents the summary of data discussed by the teachers during the post-conference.

Table 2. Summary of Teachers’ Observations, Comments, and Reflections

<table>
<thead>
<tr>
<th>Emerging Themes</th>
<th>Observations, comments, and reflections culled in the conduct of lesson study</th>
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</thead>
<tbody>
<tr>
<td>Give emphasis on researching in detail the material to be taught</td>
<td>- There was a problem in the preparation of learning materials.</td>
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<td></td>
<td>- Probe first how they use social media</td>
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<td></td>
<td>- Time may be needed and be critical in giving activities</td>
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<tr>
<td>Capitalize on extracting students’ view and insights in searching for meaning</td>
<td>- Task students to react quickly on the concept “no poverty”</td>
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<td></td>
<td>- Too many issues are out.</td>
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<tr>
<td>Lead the students to abstractions</td>
<td>- Integrate logic / fallacies in the discussion / Revolve discussions on logic /</td>
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<tr>
<td></td>
<td>- Good on letting the students take on the shoes of people who posted /</td>
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<tr>
<td></td>
<td>- Empathy was good in the lesson</td>
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<td></td>
<td>- Push more on social learning theory</td>
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<tr>
<td></td>
<td>- Summarize the sentiments of the students</td>
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<td></td>
<td>- Push the students for better knowledge</td>
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</table>

Table 2 reveals observations, comments, and reflections of teachers in the entire process of investigation where the bulk of impact of lesson study on pedagogy could be observed. There should be giving of emphasis on researching in detail the material to be taught, capitalizing on extracting students’ view and insights in searching for meaning, and leading the students to abstractions were the themes that emerge in the conduct of LS.

Give emphasis on researching in detail the material to be taught

One of the important aspects in the LS is preparation of instructional materials which can facilitate teachers to have a smooth delivery of the lesson. Statistically, students taught with visual instructional materials have better performance and achievement in class compared to students taught without Instructional Materials (IMs) [24]. However, there are challenges in the preparation of instructional materials. This was pointed out in the study of Wagura [25], accordingly, some of the reasons in the challenges that teachers face in the preparation and utilization of teaching materials in mathematics include the inadequacy of instructional resources and the heavy
workload they do in school. However, in this study, the LS process emphasized that teacher’s collaboration can facilitate teachers to efficiently deliver the lesson, especially if the necessary IMs are all prepared. In addition, the preparation of the IMs in the LS process requires significant attention to achieve a complete, ready, and relevant to students’ interest and customs in the lessons being taught without the sole burden from a single teacher. Thus, the smooth effluence of teaching practices in the lesson development could be assured.

Significantly, the development of the lesson plan as part of the LS process guides the teacher in achieving the success of student’s engagement in learning. Thus, part of the LS is to develop and learn how to ask thought-provoking questions to the students that would encourage students’ interest. In fact, Arslan [26] pointed that the strongest tool of teachers in teaching is their ability to dispose abstract questioning because it teaches the students how to think. Indeed, one of the techniques to be considered includes the disposition of questions that will be doled out to students.

For instance, it was noticed by the observers that questions asked by the demo teacher only gathers data and anticipated that students are using social media when these questions are asked: “What did you post today? and How do you feel as you post on My Day?” Nonetheless, the demo teacher had built rapport with the students. Moreover, in the teachers’ reflection, it was mentioned that it could have been better if there was a probing first on how students used the social media. This would encourage students to think and reflect as to how they made use of the social media thus, engaging them more even at the start of the lesson. Additionally, this will tell us that in the lesson planning, the art and quality of questioning should be considered in detail in order to probe on students’ interest and customs making the lesson relevant and meaningful in their life experiences. To emphasize, Corley and Rauscher [27] posited that there is an enhanced learning across content areas when teachers provide higher order questions that gives students opportunities to deep explanations. For this reason, it is noted that questions that probes students’ interest and customs is necessary to be prepared in the lesson planning to make students connect the lesson in real life scenarios.

In addition, time is equally valuable in the lesson development. Each activity must be given appropriate time allotment in order to finish the learning process on time. During the instruction, it is noticeable that students are given opportunity to share their comments from the templated worksheets in paper tarpaulin showing social media platforms. It was a very interactive activity with student collaboration on how they would present their comments regarding on the particular social issue presented and assigned per group. Learners were also encouraged to impart their impressions on the assigned social issue by answering the question: “What do you feel?”. However, students’ enthusiasm to participate and share ideas took longer time to shift in the next task. This instance resulted to having an extended time to proceed with the next learning activity. With this observation, it is significant to remark that time allotment for every activity given to students must be indicated and be followed strictly in the planning of lesson. This is supported in Goldsmith’s [28] study that the strict pacing of activities favored more time for varied learning opportunities such as allowing more time for paired activities and communication of ideas among students. For this reason, the LS made the researchers to realize the importance of giving attention to details such as time allotment and activity pacing in the planning and execution of lesson, thus making a more organize teaching pedagogy.

Capitalize on extracting students’ view and insights in searching for meaning

Learning of students in a particular lesson is influenced by how they find personal meaning on it through the consideration of different types of learning context. In addition, the aspect of learning context indicates how students presents solutions to solve a given problem [29]. Important to realize, the constitute of meaning and context is indeed important to encourage deeper realizations from the learners. In this study, it was noted that there should be further establishment of meaning and context in one of the activities during the lesson proper. For instance, there was a group activity that challenged the learners to react with emoticons as the students’ reactions, we come up with the realizations that it could have been better if students were tasked to react quickly about their insights on the pictures being presented. Also, if the teacher were able to substantiate givi
way, students might reorganize, rethink, and reformulate their learnings on how to use social media appropriately. Indeed, the need to establish meaning and context in the lesson proper is imperative and needed in the study to encourage more learners to have a better understanding of the lesson being taught for they see the relevance of the lesson in their life. Just like in the study conducted by Kanellopoulos and Darra [30], their LS included the plan of teachers that will channel students in gaining knowledge on a particular subject through brainstorming in a fruitful dialogue context. In this case, the researchers realized the need to reorganize and re-plan on improving the structuring of meaning and context in the lesson through considering activities that extracts students’ views and insights in order for teachers to utilize them in facilitating comparison with other students’ perspectives. Thus, encouragement of rethinking among students could be achieved.

**Lead the students to abstractions**

The teacher’s skill in drawing and managing students’ intuition and interest toward an issue could be used as a springboard in leading the students to abstractions through the integration of logic and fallacy in the instruction. This importance of fallacy integration in lesson is stressed in the study of El Khoiri & Widiati [31] when they mentioned that the students’ problem in critical thinking causes them to believe in fallacious claims. For this reason, there is a need to challenge the claims of students to reorganize their thinking. For instance, in this study, the teacher posted a picture of the singer and ‘Popstar Princess’ in the Philippines, Sarah Geronimo, who was currently in hot seat due to not informing her parents about her wedding. In the Philippines, it is a culture to have your parents’ blessing and approval before the wedding. However, the singer did not inform her parents because they were not in favor of her husband. Because of this, some students reacted in favor of Sarah and some others in favor of her mother. Particularly, some students uttered the following:

S: “Sana palayain na sya ng nanay nya. Trenta na yan, kaloka!.” (I hope her mother will let her free. She’s already 30!)

The teacher entertained some students’ claims from both sides and then afterwards, the teacher asked them to take on the shoe of the person (the mother) and further asked them to answer, “If you are the mother of Sarah, what would you feel and what would you do if you were not informed about the wedding of your daughter?” This question obviously prompted some students to pause and rethink. Side comments coming from other students like:

“The mother is only protective of Sarah and obviously, she loved her daughter very much.”

This indicates that the integration of logical fallacy (ad hominem) through the use of the phrase “taking on the shoe of others”, opened a way for students to think deeper and reorganize their thinking on standing with false claims or looking only into one perspective. Moreover, this scenario showed that teacher’s responsibility and ability to lead the students to generalizations must be developed. To materialize this, the study of Jabeen [32] suggested that through the revisions of teaching methods according to teacher and student feedback, fallacy teaching could be a venue to correct invalid arguments of students and thus, becomes a turning point for broader learning.

Pushing the teacher’s approaches more on the use of social learning theory to show students other perspectives on some issues posted in the social media could help them to think critically. Accordingly, the social learning theory explains that what learners could see and observe in their environment will let them the tendency to imitate and display behaviors similar to their family members, friends, influential models, and other members of the society [33]. Obviously, many social media platforms have no control on cyber-bullying including “memes” that were created as a laughingstock. This was mentioned by the teacher as part of the discussion when a ‘meme’ was posted, students laughed, and asked them. For example, the teacher allowed the students to have their comments on a meme that showed “Manny Pacquiao’s defeat in boxing with his coach crying”. One of the comments from the students include:

“Naku Manny, Gurang ka na. Lipas na oras mo. Hahaha!” (You’re old Manny, your time has ended. Hahaha!)

That comment prompted the teacher to post the question: “What if you are the person on the meme? Would you like it?” One student commented that, “It is offensive and hurtful” These questions could have triggered the students to rethink that their intuition to have comments like that is only one side of their knowledge. Again, teacher’s responsibility in using the intuition of students in making them to rethink deeper could be possible by leading them to connect their knowledge with other perspectives of reality in life. Thus, making their learning more meaningful when teachers led them to generalize.

Summarizing the sentiments of students during the discussion is another task that the teacher needs to focus on. It is important to keep in mind that summarizing provides a venue for students to recognize and understand when there is an unclear meaning and it helps them to detect and remember the main ideas [34]. In this
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investigation, when the teacher posted a snapshot on “#WalangPasok” (#noclasses), many students tended to share several information including their feelings and experiences during the announcements of no classes. One commented that “PAGASA suspended it but there was no rain at all, it was a wasted day but of course happy.”, “Sayang ang araw” (wasted day), “Lugi negosyo” (businesses are bankrupt). However, social media platforms also has no control on the spread of fake news. The activity given to students was to write comments on the spread of fake news stating that classes are suspended. Here are some of the comments from the students:

a. “Nakakainis yung mga taong nagpapakalat ng fake news! Muntik nako di pumasok! (The person who spreads fake news is annoying! I almost did not attend my classes!)

b. “Akala ko totoo! :( Pati ba naman yan paasa !!! #umasa” (I thought it was true! :( It made me hopeful on it!!! #hopeful)

With these comments coming from the students, teacher could help in summarizing the knowledge of students about the spread of fake news. Moreover, it could also be a venue to extract from the students some possible explanations on why mistakes in weather forecasting is possible and on how to combat spread of fake news. It is in this sense that it makes another proof of using the student’s intuition about the fake news and by summarizing their sentiments, the teacher must develop the skills to manage these ideas of students to lead them to be more critical in using social media. Thus, it also served as an opportunity for teachers to lead students to making generalizations. This is supported in the study of Lundstrom, Diekema, Leary, Haderlie, & Holliday [35] when they found out that the synthesis in lesson benefitted the students through knowing how to integrate information making them an information literate student.

In like manner, there are instances in the lesson where students are already knowledgeable on a certain degree about main concepts of the topic. It is imperative also to further push the students for better knowledge. In the case of this investigation, the instruction is all about netiquettes. At the end of the lesson, it could be inferred that students understands the meaning of netiquettes however, pushing them for better knowledge is another key point. At the latter part of the lesson, students were tasked to present their own version of “netiquettes” through several forms and these are the following outputs:

a. “You are what you post, so post the right things.”;

b. “Follow the commandments for a peaceful social media”;

c. “Share expert knowledge”;

d. “Respect other people’s privacy”; and

e. “Think before you click.”

This was the ending activity in the lesson and it lacks follow-up questions that could challenge these knowledges of students that are obviously common ideas on netiquettes. It is therefore necessary for teachers to develop supplementary activity or task that would direct students to relate their outputs in practical applications. To implement this, the study of Mainali[36] suggests the vitality of higher-order thinking for quality education granted that its success of implementation means the modification of techniques in instruction and dedication to a teaching-learning environment that embraces student-centered activities. Indeed, pushing students toward better knowledge requires the responsibility of teachers to develop and plan activities that would use intuitive knowledge and interest of students in directing them towards the universal and practical aspect of the concept being taught.

Given these points, based on the emerging themes found in the table, it implies that the conduct of the lesson study pointed out some positive outcomes during and after the teaching and learning process. However, it also suggests that there is a need to further enhance the learning process to better transfer and provide a deeper learning opportunity for the students. This could be achieved by reviewing and revising the part of the learning procedure based on the emerging themes that require better teaching and learning approach or techniques.

4. Conclusion

In this paper, LS revealed three themes on its impact to observed pedagogy. Whole LS process made teachers realize that to further improve pedagogy in teaching, teacher must have to develop skills in giving emphasis on researching in detail the material to be taught, capitalizing on the extraction of students’ view and insights in searching for meaning, and leading the students to abstractions.
Giving emphasis on researching in detail the material to be taught such as the preparation of instructional materials that are complete, ready, and relevant to students’ interest including the choice of relevant inquiries in probing their interest and customs, and the strict appropriation of time allotment for each task and activity were realized to influenced better teaching pedagogy due to the LS process.

Moreover, the LS process revealed that teachers need to further enhance their skills in extracting views and insights of students in searching for the meaning of the lesson being taught in the real-life situations. In this way, exposing students with other perspectives could also teach them to think deeper and broader.

Lastly, teacher’s management to lead the students to abstractions could be done. The process of LS suggested that teachers should capitalize on using the intuitive knowledge and interest of students in leading them to generalizations. In this study, it is realized that this could be done through the integration of logic and fallacy, social learning theory, summarizing students’ sentiments, and designing activities that would push students for better knowledge in the learning procedures and approaches.

The whole lesson study process provided realizations that is very essential for the enhancement of teaching pedagogy. It also guides the teachers to focus and get involved in the planning of the new lesson. Lessons that will help teachers to practice better approaches to boost better learnings and realizations among students.

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