

Building a Community of Practice in a Sustained Culture of Lesson Study: The Case of Saguday, Philippines

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Abstract Lesson study, an international good practice in education, is believed to build a community of practice that leverages the activities towards an efficacious teaching and learning. This case study examines the implementation of a professional community of practice centered on lesson study in the district of Saguday. The study aims to enhance and sustain the practice of lesson study through the establishment of a collaborative learning community among key stakeholders. The study analyzed existing lesson study models in the Philippines, documents of chronological events and surveys done related to lesson study, and field observations. The model presented in this case study indicates that (1) the contextualization and localization of the Saguday's Lesson Study, facilitated by the Virtual Lesson Study platform, empowered teachers and school administrators to adapt the Lesson Study approach flexible in aligning specific lessons, grade levels, and interdisciplinary curriculum goals. (2) Lesson Study served as a platform for the professional development of teachers that effectively addressed the challenges posed by the local effects of the pandemic and in facilitating a seamless transition to the "new normal" teaching methods. (3) Collaboration among stakeholders, including the local government unit providing financial support, schools implementing Lesson Study, and the Department of Education ensuring policy support and logistical continuity, formed a robust triangular support system. The sustainability of the Saguday's Lesson Study aligns with the "MATATAG Agenda" of the Department of Education, which emphasized the support and improvement of teaching practices in line with the Philippine Professional Standards for Teachers. Consequently, a Community of Practice, supported by the Lesson Study triangular system, was developed in the Saguday district. This study recommends the continued implementation of Lesson Study to be integrated in the School Improvement Plan of all schools.

Keywords: community of practice, lesson study, professional development, triangular support system

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1. Introduction

Lesson Study (LS) remains a vital component of in-service training, a tradition that persists even after 130 years since its inception in the Japanese educational system. Its international adoption has been marked by both successes and challenges where it is noted as a process of reinvention [1-4]. In the Philippines, LS is introduced to teachers, administrators, university instructors, and pre-service teachers in various regions [5-7].

The implementation of LS in the Department of Education (DepEd), Schools Division Office-Quirino (SDO-Quirino), began in 2017 through a robust collaboration with stakeholders, including the Provincial Local Government Unit (PLGU) of Quirino. This collaborative effort received support from various entities such as the University of the Philippines-National Institute for Science and Mathematics Education Development (UP-NISMED), Quirino State University (QSU), Marikina Shoe Exchange (MSE), Ropali Group of Companies, Novellino, and other corporate sponsors. The 2017-2018 LS initiative in Quirino led to significant improvements in the professional development for teachers in Mathematics

and Science at both elementary and secondary levels. It fostered the adoption of teaching science through inquiry approach and mathematics through problem-based teaching. Furthermore, it featured a LS action research coaching session, along with science and mathematics training project on LS, in which eight elementary schools and 11 secondary schools showcased their LS portfolios.

In 2019, the LS journey in Quirino continued with a focus on enhancing professional collaboration through the "Professional Learning Community: An Enhancement Program on Professional Collaboration to Enrich Teaching Practice." This program targeted Grades 4-6 science and math teachers, Grades 9-10 science and math teachers, select principals, supervisors, and other staff of SDO-Quirino. The concept of thematic or integrative LS was introduced during this phase.

To deepen the implementation of LS in Quirino, the advocates and SDO-Quirino leaders collaborated with the PLGU and QSU to participate in the 1st National Convention on Lesson Study held at the Science Teacher Training Center Building, UP-NISMED, UP Diliman. Notably, a teacher-representative from SDO-Quirino shared the division's LS practices in a symposium focused on fostering collaborative professionalism. Three schools from Quirino also presented their LS Poster Exhibits. An official from SDO-Quirino, was elected as a member of the Philippine Association of Lesson Study (PALS) Board of Trustees. In practice, LS open classes were conducted with emphasis on the three learning areas: Science, Mathematics, and English. These sessions, including a Division Research LS Open Class, Poster Presentation, and Symposium, garnered the participation of 252 Mathematics, Science, and English teachers.

However, the advent of the CoViD-19 pandemic compelled DepEd to suspend face-to-face instruction. In response, the Saguday District initiated the Virtual Lesson Study (VLS), serving as an alternative mechanism to ensure the delivery of basic education during the "New Normal." This initiative extended support to teachers from Grades 1 to 12 throughout the district, maintaining LS through online platforms. This marked a departure from the traditional LS set-up, which typically targeted specific schools and subjects. The Local Government Unit (LGU)-Saguday and QSU played crucial roles in this initiative, contributing to the development of a novel triangular support system for LS.

This study also draws upon Wenger's concept of Communities of Practice (CoP) as groups of people who share a common concern or passion, collaborating and learning over an extended period [8,9]. Wenger's seven principles for cultivating CoP, including designing for evolution, opening a dialogue between inside and outside perspectives, inviting different levels of participation, developing both public and private community spaces, focusing on value, combining familiarity and excitement, and creating a rhythm for the community, provide a framework for understanding and strengthening the LS practice in the context of the triangular support system involving the LGU, DepEd, and schools in Saguday district.

Thus, this study seeks to bolster LS through the establishment of CoP that involves all stakeholders, creating a unique triangular support system with the financial backing of LGU, lesson implementation by

schools, and logistical support from DepEd. This approach aims to ensure the sustainability and effectiveness of LS in the ever-evolving landscape of education.

2. Methodology

This is a case study research that focuses on the professional CoP built in Saguday through LS. The analysis will be looking into the system or case developed in Saguday to show if it is indeed a CoP as described in the Theory of Community of Practice and the seven design principles for cultivating CoP as advanced by cognitive anthropologist Etienne Wenger [8,9].

The participants in this study were the 12 schools of Saguday District composed of 11 elementary schools and one secondary school. Data collection used the method of literature review approach, survey through open-ended questions, and observation through observation activities in the field.

3. Results and Discussion

A. The LS Practice in Quirino Province

Before 2017, the PLGU-Quirino recognized the vital role of education in fostering development and actively engaged in efforts to bring sustainable improvements to the educational landscape. Acknowledging the concerning low levels of student achievement in Science and Mathematics, particularly in international assessments like the Trends in International Mathematics and Science Study (TIMSS) and national assessments like the National Achievement Tests, the PLGU took steps to address these challenges. These actions were guided by an understanding of the educational performance data from SDO-Quirino.

In pursuit of strategies to enhance education, the officialdom of PLGU-Quirino sought expertise from the UP-Cesar Virata School of Business. The intention was to identify a professional development model that could be championed by the PLGU to improve teaching and learning in Science, Technology, Engineering, and Mathematics (STEM) within the province. Lesson Study was recommended, a model originated from Japan as early as 1872, which had gained international recognition through its discussions in various conferences but was relatively new in the Philippines.

The former Governor promptly gathered support from accomplished professionals who were former students of the College of Business, now successful entrepreneurs and business owners, to provide logistical assistance. Additionally, they harnessed the educational expertise of UP-NISMED in LS, and fostered collaboration with the DepEd SDO-Quirino and QSU.

On February 21, 2017, a Project Partners Meeting was convened, attended by key stakeholders including PLGU-Quirino, UP NISMED, DepEd SDO-Quirino, QSU, and corporate sponsors such as MSE, Ropali Group of Companies, PR Bank, and Calabria Company Limited. This meeting was instrumental in finalizing the terms of agreement for conducting a Training-Workshop on LS. This training aimed to enhance the teaching of

Mathematics and Science through problem-solving and inquiry-based approaches for elementary and high school teachers in Quirino. During this meeting, the budget was approved, and the commitment of all parties involved was solidified. It was decided that teachers would be taken to UP-NISMED for content and pedagogy training, instructional planning workshops, and an introduction to the LS model.

On March 14, 2017, the LS teams were organized. Eight LS groups in Elementary Science, composed of 32 Grades 4-6 Science teachers, were formed, with one LS group from one school in each of the eight districts. Each LS group consisted of three teachers and one subject area coordinator or department head from the same school. A similar structure was applied to create eight LS groups for Grades 4-6 Elementary Mathematics, as well as for Grades 9-10 Science and Mathematics.

In addition to teachers, select school heads, education program supervisors, and specialists from the SDO-Quirino were identified and allocated to different LS groups based on their areas of expertise. These experienced individuals played a crucial role as Knowledgeable Others (KOs) or outside advisors, complementing the content and pedagogy experts from QSU system.

During April 24-27, 2017 (Phase 1) and April 28-30, 2017 (Phase 2), SDO-Quirino teachers, division leaders, and QSU professors participated in the Professional Development Program for Elementary and High School Science and Mathematics Teachers and Teacher-Educators of Quirino Province, led by UP-NISMED, PLGU-Quirino, and QSU. Phase 1 of the training focused on teaching Science through inquiry for Science teachers and teaching Mathematics through problem-solving for Mathematics teachers. Phase 2 emphasized the implementation of the LS model. The then Director of UP-NISMED, emphasized the importance of conducting LS after teachers had participated in a training program, ensuring their readiness to implement learner-centered teaching practices. Lesson study groups agreed on a plan for the LS timeline and implementation.

Between July and September 2017. The LS groups convened to review roles, responsibilities, and timelines. They collaboratively planned research lessons, focusing on competencies that were challenging for students to learn or for teachers to teach. The process involved a comprehensive study of available teaching and learning materials, such as curriculum guides, textbooks, teacher's manuals, modules, video lessons, worksheets, and lesson exemplars, in addition to research studies, instructional practices, and the student learning process, which included pre-requisite concepts or skills, common misconceptions, and areas of difficulty. Teachers shared their experiences, successes, challenges, and feedback from former students. The research lesson development encompassed defining the task, formulating teacher questions to promote conceptual understanding, anticipating student responses (both correct and incorrect), and planning how teachers would respond to students during the lesson. Moreover, teachers discussed strategies for documenting their LS experiences through Observation Notes, while considering potential obstacles to achieving lesson objectives. Some LS groups conducted mock-lessons to refine their research

lessons based on the evaluation of outcomes. On September 13, 2017, the research lessons were finalized with inputs from content and methodology experts from QSU.

On September 26-27, 2017 (Phase 3), the Application of Learning of the Professional Development Program was held. Lesson Study groups implemented the research lessons they had collaboratively developed focusing on teaching Science through inquiry and Mathematics through problem-solving. Post-lesson reflection and discussion were facilitated by content experts from QSU and UP-NISMED who served as KOs during the first and second lesson implementations in Science and Mathematics. Key informant interviews were conducted with learners and LS implementers. The LS groups improved the research lessons based on students' responses during the lesson implementation and feedback from the KOs. The then Assistant Schools Division Superintendent observed a notable improvement in learners' thinking, evident through their active participation in explaining, justifying, and abstracting concepts in Science and Mathematics.

On February 5, 2018, an LS Action Research Coaching Session was conducted to capture the experiences of the LS groups, learners, and school heads. Each LS group was required to submit a portfolio of their experiences, which would be converted into individual or collaborative action research. The coaching session provided guidance on conducting LS research, including an exploration on the effects of LS on the learner's understanding of select topics.

During February 13-14, 2018, SDO-Quirino, UP-NISMED, QSU, and PLGU-Quirino conducted Phase 4 of the Science and Mathematics Training Project on LS. This phase involved the application of learning including the first and second lesson implementation of Batch 2 LS groups.

On February 15, 2018, the closing program took place at the Quirino Watersports and Tourism Complex. Four LS groups, representing various school levels and subjects (Elementary Mathematics, Elementary Science, Secondary Mathematics, and Secondary Science), presented their LS action researches. Eight participating elementary schools and 11 secondary schools showcased their LS portfolios.

On January 26, 2019, SDO-Quirino and PLGU-Quirino conducted the Professional Learning Community program focusing on enhancing professional collaboration to enrich teaching practice. The program was attended by Grades 4-6 Science and Mathematics Teachers, Grades 9-10 Science and Mathematics Teachers, select principals, supervisors, and SGOD Staff. The thematic or integrative LS was introduced.

On April 11-12, 2019, SDO-Quirino LS practitioners, LS advocates, officials, PLGU-Quirino, and QSU participated in the 1st National Convention on Lesson Study held at the Science Teacher Training Center Building, UP-NISMED, Diliman. During the convention, a teacher-representative from SDO Quirino shared the division's LS practice in a symposium on Fostering Collaborative Professionalism with UP-NISMED. Additionally, three schools from Quirino presented LS Poster Exhibits. An official from SDO-Quirino was elected as a member of the PALS Board of Trustees. Quirino Province was also selected to host and organize the 2nd National PALS Convention which was tentatively scheduled on May 7-9, 2020.

During February 18-19, 2020, Lesson Study Open Classes were conducted focusing on Science, Mathematics, and English across elementary and secondary schools in the entire division. The LS practice gained momentum with LS-trained teachers disseminating its principles and methodologies to other grade levels and learning areas. This grass-root efforts were fully supported by school heads who embraced the concepts of communicative, integrative, collaborative, problem-based, and inquiry-based methodologies and content. The collaborative atmosphere provided fertile ground for CoPs to flourish within schools.

On March 11, 2020. SDO-Quirino conducted a Division Research Lesson Study Open Class, Poster Presentation, and Symposium, which was attended by 252 Mathematics, Science, and English Teachers.

The proposed hosting of the 2nd National Convention on Lesson Study, scheduled for May 7-9, 2020, was a major undertaking, involving collaboration between the Philippine Association of Lesson and Learning Studies (PALS), PLGU-Quirino, SDO-Quirino, and QSU. An official of SDO-Quirino was named as the Conference Chair. Although planning conferences and site inspections were conducted in preparation for the event, the convention was eventually canceled due to the CoViD-19 pandemic.

Between April and September 2021. Saguday District conducted VLS in the New Normal, emphasizing interdisciplinary teaching. The program was launched on April 23, 2021. Sessions were conducted for teacher implementers and observers and KOs on Documenting and Analyzing Student Responses and LS Practice. The first and second research lesson implementations took place in June 2021 with Professional School District Supervisors (PSDSs) and Education Program Supervisors (EPSs) serving as KOs. The action researches derived from LS implementation were presented during the research conference titled "From Grit to Great: The Virtual Lesson Study Journey of Saguday", which was held on September 7, 2021.

On June 15, 2021. Maddela 2 District organized a Virtual Enrichment Training on Lesson Study for Key Stage 3 for Mathematics Teachers focusing on the PENTA MATH-SIMPLE Episode 14.

From November 29 to December 2, 2021. The effective LS practice in Quirino Province was showcased at the World Association of Lesson Studies (WALS) 2021 Conference. At least eight Quirino proposals for poster presentations, one paper presentation, and one symposium were presented. The conference marked the deepening understanding and widespread adoption of LS among teachers in Quirino.

The LS journey in Quirino province has been marked by significant growth since its introduction in 2017. The practice expanded beyond Mathematics and Science into various learning areas and interdisciplinary studies. Works by Quirino LS practitioners had been shared in national and international research conferences and received funding and awards. Lesson Study has been a remarkable learning and development model in DepEd Quirino, contributing to the Civil Service Commission PRIME-HRM Maturity Level 2 (Bronze Award).

Here is the list of presentations from Quirino that were featured at the WALS 2021 Convention:

SYMPOSIUM

Title: "Local Government, State University and Department of Education: A Triangular Partnership towards Institutionalizing Lesson Study in Quirino Province, Philippines"

Presented by: Provincial Local Government of Quirino, Quirino State University, DepEd SDO Quirino Proper, Saguday National High School, Maddela Comprehensive High School, Diffun National High School

POSTER PRESENTATIONS

Title: "Developing Communicative Competence on Prepositions: The Schools Division of Quirino Research Lesson Experience"

Presented by: Cabarroguis District

Title: "Improving Numerical Techniques Using Enriched Real-Life Varied Activities through Lesson Study (Intervals) on Probability of Compound Events"

Presented by: Cabarroguis District

Title: "Kinethic Hydraulic Cycle-Diorama Model in Improving the Science Performance of Grade IV Learners of SDO Quirino: A Lesson Study"

Presented by: Cabarroguis District

Title: "Lesson Study and the Learners' Understanding of the Basic Parts and Functions of the Digestive System of Grade 8 Students of Diffun National High School"

Presented by: Diffun I District

Title: "Lesson Study on the Learners' Understanding in Proving Pythagorean Theorem: Case of Grade 9 Students of Diffun National High School, Quirino Province, Philippines"

Presented by: Diffun I District

Title: "E2 GOAL Implementation: A Lesson Study Trail"

Presented by: Maddela I District

Title: "Improving Learning Motivation and Understanding of Monohybrid Crosses Using Guided Inquiry Approach: A Journey to Lesson Study Episodes of Maddela II"

Presented by: Maddela II District

Title: "Transforming Student Learning on Special Right Triangles through Problem Solving: Maddela District II Teachers' Narratives"

Presented by: Maddela II District

Title: "Shifting to Virtual Platform: The Lesson Study Experience of Grade 5 Teachers of Saguday, Quirino, Philippines"

Presented by: Saguday District

Title: "Blending Opportunities for Lesson Study in a New Normal Classroom"

PAPER PRESENTATION

Title: "From competition to collaboration: Unraveling teachers' lesson study experiences"

Presented by: Quirino State University

On August 17-18, 2022. Saguday District further enriched the implementation of LS through the 2-Day Lesson Study Enhancement Workshop under Project PRoBE (Pioneering Research on Basic Education) of LGU Saguday. The project received sponsorship from the LGU-Saguday, with support from the PLGU.

On February 24, 2023. The Saguday District showcased its LS journey in the SDO-Quirino and Saguday District at a conference held at the University of the Philippines in Iloilo City. This event was part of an effort to document the LS journey through teacher practice records, which was officially recognized by the district board of education.

Between 2018 and 2023. Action research studies on LS were conducted in SDO-Quirino to document teachers' LS practice. Some of these studies were presented at division, regional, national, and international research conferences. Several received funding from the DepEd Basic Education Research Fund (BERF), and some even received major awards at the Regional Basic Education Research Conference. Lesson Study had been highlighted as a best practice of SDO-Quirino in the PRIME-HRM Congress and has been a subject of strategic benchmarking activities by other agencies for the Learning and Development core area.

B. Saguday institutionalized lesson study in all of its 12 schools in the district

The contextualization and localization of LS in Saguday, through its VLS initiative, granted teachers and school heads the creative autonomy to adapt and customize the LS approach to their specific needs. This adaptation was facilitated by the triangulation model, which fostered an evolving design focused on particular lessons and grade levels while integrating an interdisciplinary approach. Virtual Lesson Study allowed the Design for Evolution principle by Wenger et al. [5] to be implemented effectively. This principle highlights the importance of cultivating CoP within the LS process. The evolution of LS in Saguday began before the pandemic continued during the pandemic. This earned robust support system from DepEd, LGU-Saguday, PLGU-Quirino, and QSU.

Role of the Local Department of Education (SDO-Quirino): SDO-Quirino introduced LS to Saguday in 2017, initially involving one secondary school and three elementary schools in the Saguday District with a focus on science and mathematics subjects. This was followed by sustained efforts in 2018 where the same secondary school and three elementary schools participated, focusing on three subjects: English, Mathematics, and Science. Despite the challenges posed by the CoViD-19 pandemic, Saguday District persevered in its LS implementation, with critical support from SDO-Quirino. The SDO-Quirino played a vital role by offering technical assistance especially during the implementation phase.

Role of the LGU and PLGU: Both the PLGU-Quirino and LGU-Saguday extended significant support to LS activities in Saguday District. During the initial LS implementation, PLGU-Quirino sponsored teachers who

participated in the workshop conducted by UP-NISMED while LGU-Saguday allocated funding from the Special Education Fund, approved during the Local School Board Meeting, to finance the program. This support was instrumental in laying the foundation for LS in Saguday. The sustainability of LS in Saguday was further supported by LGU-Saguday through Project PRoBE (Pioneering Researches on Basic Education), aimed at enhancing educational research development. A Lesson Study Research Enhancement Workshop was conducted through a hybrid platform, with both face-to-face and online participation. This activity aligned with the research agenda of SDO-Quirino and DepEd focusing on LS research outputs from teachers. The PLGU-Quirino contributed to the project by accommodating speakers from Japan and UP.

Role of Teachers and School Heads: The teachers' role is pivotal in the implementation and sustainability of LS. In Saguday District, all teachers from Grades 1 to 12 participated in the VLS program during the CoViD-19 pandemic. LS teams were formed, each comprising 3-6 teachers from the same grade level. The LS process in VLS was adapted from Cerbin and Kopp of the University of Wisconsin-La Crosse involving stages like forming a team, developing learning goals, designing the lesson, planning the study, teaching and observing, analyzing and revising, and documenting and disseminating. Collaboration and teamwork were at the core of LS implementation in Saguday with teachers working together to design, implement, and improve lessons. This collaborative approach allowed them to share feedback and best practices. This improved the quality of their teaching.

Opportunity for Professional Development: LS in Saguday provided every teacher with the opportunity for professional growth and development. Collaborating with other teachers enabled them to plan and execute lessons with two teacher implementers, creating a dynamic learning environment. Teachers documented their experiences, challenges, and reflections to share with their students, co-teachers, and KOs. They came together as a team to share their best practices, improve their teaching methods, and design effective materials and strategies that students could apply throughout their lives.

School Heads as Influencers: School heads played a crucial role in driving the LS implementation in Saguday. Their leadership, motivation, support, and positive stance significantly influenced each stage of the LS process. School heads also served as curriculum leaders. They provided knowledge of connections within and across curriculum areas, the relationship between content and students, content knowledge, and understanding of approved learning resources. Their support was indispensable as LS requires essential resources including time, physical resources, and human resources. Additionally, school heads ensured that the LS process was implemented successfully in their schools.

School Heads as Consultants, Motivators, and Overseers: School heads in LS teams acted as motivators and overseers in monitoring and evaluating the effectiveness of LS activities and ensuring teacher participation. They also assisted master teachers in maintaining the quality of lesson plans and materials prepared by the teams. School heads acted as consultants

and advisers helping monitor the implementation of online lessons and supporting the teaching process.

Role of outside KOs – Technical Assistance Provider: Knowledgeable Others, including EPSs, PSDSs and some school heads were assigned to observe online LS classes from Grades 1 to 12. After each implementation, LS teams reviewed the observations with KOs providing feedback and technical assistance for improvement [10]. This collaborative approach led to the refinement of LS research output by teachers. The KOs offered valuable insights and contributed to the enhancement of the LS process. Their role was crucial in ensuring the quality of LS implementation.

In summary, the success and sustainability of LS in Saguday District are attributed to the collaborative efforts of teachers, school heads, SDO-Quirino, LGU-Saguday, PLGU-Quirino, and the support of KOs. This multifaceted approach, combined with adaptability and a commitment to professional development, has allowed LS to flourish and evolve even in challenging times like the CoViD-19 pandemic.

C. The role of LS in overcoming or addressing the challenges of the local effects of the pandemic

The VLS implemented in Saguday serves as an exemplary model of a triangular support system that offers an adaptable mechanism for delivering quality basic education in the New Normal. This approach effectively combines the principles of CoP particularly open dialogue between inside and outside perspectives, and the active engagement of various stakeholders [8,9]. This dynamic and functional system was established by team leaders, school heads, and stakeholders who have a comprehensive understanding of the needs of the groups or teams involved. They invited relevant outside perspectives in fostering varying levels of intensity and frequency of interactions. By design, every team member contributes to this process, which encourages collaboration and open communication, thereby creating opportunities within the CoP [8]. Virtual Lesson Study has successfully addressed the challenges presented by the local effects of the pandemic in the Saguday District.

Motivation for Teachers' Continuing Education: VLS has significantly motivated teachers to ensure the continuity of learning as they observed the remarkable benefits of researching, planning, implementing, observing, discussing, and reflecting on lessons with their colleagues and external specialists [10,11]. These gains were achieved through a structured approach, one lesson at a time. Teachers have discovered valuable insights including instructional practices that work effectively, common misconceptions and areas of difficulty among students, and the link between anticipating student responses and the successful implementation of lessons. Moreover, the joy of sharing ideas and experiences with like-minded teachers who share a passion for teaching and learning has been a powerful source of inspiration. Teachers' dedication and commitment to impart knowledge to students, who have been significantly affected by the pandemic and the absence of face-to-face learning, were reinforced [12]. Virtual Lesson Study has created a platform for teachers to collectively address essential learning competencies that were challenging for

both students and teachers, particularly during the pandemic when face-to-face interactions were limited.

Enhanced Learning Experiences for Students: Virtual Lesson Study offered a dynamic learning environment that has substantially improved student engagement and interest in lessons. It has replaced the monotony of working with self-learning modules and activity sheets by orchestrating class discussions that allow students to make their thinking visible [10]. This approach encourages students to share their thoughts, interact with their teachers and peers, and learn from these interactions. VLS has also embraced an interdisciplinary approach, providing students with the opportunity to work on integrated outputs that manifest their competencies across curriculum areas. This approach is a welcome departure from isolated, subject-specific outputs that could be mentally taxing for students [10,13]. The enhanced student-teacher relationship, trust, and collaboration in the digital learning environment have contributed to the success of VLS. The involvement of parents in the preparation of online classes and their consent for their children's participation further reinforce the support for this approach [14].

Transformation of Hesitations into Motivation: The VLS conducted was instrumental in transforming initial hesitations about digital learning into strong motivations for authentic learning experiences in the digital realm. It has encouraged teachers and students to adapt to the modern learning environment by allowing them to see learning from a student's perspective. This empathetic approach to teaching and learning has been valuable in thriving in the digital learning environment, enhancing the overall educational experience, and building resilience in the face of change [15-17].

In conclusion, the implementation of VLS in Saguday has been a transformative and adaptive approach to education. It has motivated teachers to provide quality education and has enriched the learning experiences of students. Moreover, it has enhanced the collaboration and trust between teachers and education leaders and has gained the support and involvement of parents. The approach has proven to be a valuable and dynamic mechanism for addressing the challenges presented by the New Normal in education [14].

D. LS creating a support group for the teachers to understand the new modality or delivery of learning

Adapting to the Pandemic: The implementation of LS during the peak of the pandemic demanded the teachers to navigate virtual meeting platforms and various learning applications to facilitate continued learning while students were at home. The LS groups made thorough preparations including becoming proficient in the use of tools like Google Meet and other relevant apps and extensions, which were essential for Blended Learning and Online Distance Learning (ODL). The support provided to students who encountered challenges, such as screen sharing, online discussions, and internet connectivity issues, was crucial. This real-time feedback from both teachers and students was instrumental in ensuring that learning continued despite the constraints of the pandemic. This allowed the educators to confidently embrace the new normal teaching methods.

Community of Practice Principles: The principles of CoP, as outlined by Wenger et al. [8], played a pivotal role in establishing a support system that helps teachers adapt to the new mode of learning. This support system encompasses both public and private community spaces, where interactions among stakeholders have created opportunities for the VLS teams to thrive through interconnected relationships within the community [20,21]. Collaborative discussions during formal meetings were complemented by informal conversations that occurred afterward, strengthening individual relationships within the community. The central focus has consistently been on value specifically the value of sustaining LS during and after the pandemic - the reason why LGU-Saguday's Local School Board has institutionalized funding for the LS Program. The primary aim is to enhance the Knowledge, Skills, and Attitudes (KSA) of teachers in teaching ultimately leading to an improved learning outcome.

Knowledge Sharing and Creativity: The sharing of knowledge, expertise, and experiences among teachers in the group has expanded the horizons of teaching and learning instilling a sense of positivity in the educational process in the new normal [22]. Embracing this innovative learning modality has nurtured teachers' creativity through VLS. The adaptation to new teaching methods and technologies has fostered a spirit of creativity and innovation, which is essential for effective education in these challenging times.

In summary, the educators' adaptability, reliance on CoP principles, and their commitment to knowledge sharing and creativity have enabled LS to thrive during the pandemic. Teachers have successfully navigated the challenges of remote learning, ensuring that education continues with a strong focus on value and positive outcomes.

E. LS strengthening the relationship between the teachers, among the schools and the parents, and between DepEd and the teachers

Combining Familiarity and Excitement: The implementation of LS in Saguday adheres to the CoP principles outlined by Wenger et al. [8]. Notably, the combination of familiarity and excitement is evident in the Project PProBE (Pioneering Research on Basic Education) initiated by LGU Saguday. This project was specifically designed to ensure the sustainability of LS. Lesson Study teams across different schools became familiar with the routine and practices of LS. This created a comfort level that facilitated the sharing of knowledge and experiences. Furthermore, there was a shared sense of adventure as the LS teams proudly presented their achievements and actively participated in various National and International Research Conferences including the prestigious World Association in Lesson Study (WALS) Conferences. In fact, Saguday had the distinction of having two LS Teams participate in the 2021 WALS Conference even in an online modality.

Creating a Rhythm for the Community: The establishment of a rhythm within the community is another salient feature of the VLS experience. This rhythm was created through the Triangular Support System Model that brought together the collaborative efforts of DepEd Saguday, LGU, PLGU, and QSU. The coordinated approaches of these entities in the

implementation of the LS program strengthened the LS community and its operations.

Enhanced Collaboration with Parents: The VLS has facilitated a deeper collaboration between schools and parents especially during the pandemic when in-person classes were prohibited. The remote learning experiences bolstered parent participation as they ensured stable internet access for their children, enabling them to benefit from the VLS. This increased engagement of parents in their children's education is a valuable outcome of VLS.

Collaboration with DepEd and Knowledgeable Others (KOs): The VLS experiences strengthened collaboration between DepEd, represented by supervisors acting as KOs and outside advisors/specialists, and teachers. These KOs from SDO-Quirino played a crucial role by providing inputs and support at each stage of the VLS process. They helped LS groups in various ways, such as identifying valuable resources, offering feedback on lesson plans, attending research lessons, and providing final commentary. Additionally, KOs supported VLS team members in documenting their LS practices through research. They also organized capability-building opportunities including LS orientation, Brain-Based LS Fair, WALS Convention, research conferences, and invitational open classes. Knowledgeable Others also introduced VLS teams to LS experts, both locally and internationally. This collaboration and support from DepEd and KOs enriched the VLS journey and educational practices.

In conclusion, the VLS and LS initiatives played a pivotal role in adapting to the new normal in education, fostering collaboration, sharing knowledge [23-26], and ensuring quality learning despite the challenges brought about by the pandemic. The combination of familiarity and excitement, the creation of a rhythm for the community, enhanced parent collaboration, and strengthened collaboration with educational authorities and specialists are key components of the successful implementation of LS in Saguday.

F. From the LS model of Saguday, the key takeaways for future expansion of lesson study

Triangular Support System: The LS model in Saguday exemplifies a robust triangular support system among key stakeholders, particularly involving the LGU, PLGU, and QSU. The LGU and PLGU consistently provided financial support to the LS program in Saguday with the intention of perpetuating LS practices. On the other hand, QSU took the role on supporting teacher training. As part of the initiative in the pre-service teacher training, LS was incorporated into the curriculum.

Integration into DepEd Programs: The implementation of LS aligns with Vice President Sara Duterte's MATATAG agenda, which includes a strategic focus on providing support to teachers to enhance their teaching capabilities. With research results substantiating the effectiveness of LS as a professional development strategy, it is strongly recommended that LS be institutionalized as a mechanism for delivering professional development programs for teachers. The incorporation of LS enhanced the teaching procedures to specific subject areas like Reading, Science and Technology, and Math. It also permeated across diverse curriculum domains. Lesson Study is advantageous as it fosters collaboration grounded

in mutual trust, respect, cooperation, and interdependence. Furthermore, it created a professional learning community driven by the shared commitment to continuous improvement.

Learning Continuing Recovery and School Improvement Plans: The institutionalization of LS should be an integral component of the development and execution of various educational plans, such as the Learning Recovery Plan (LRCP), Enhanced School Improvement Plan, and other implementation plans. By doing so, support for the sustainability of LS practices is ensured. In the District of Saguday, this institutionalization process is already underway with 12 schools incorporating LS as one of their Programs, Activities, and Projects (PAPs) in their School Improvement Plans (SIP). This proactive step reflects the 'G' component of the MATATAG Agenda, which is "Give support to teachers to teach better" by embracing innovative, responsive, and inclusive teaching approaches that align with the Philippine Professional Standards for Teachers (PPST).

In conclusion, the LS model in Saguday demonstrated a strong network of support through its triangular support system, its alignment with national educational agenda, and its integration into educational planning and school improvement initiatives. This concerted effort aimed to empower teachers, elevate teaching standards, and foster continuous improvement in education.

4. Conclusion

The professional CoP that blossomed in Saguday through LS is a testament to its transformative power. This journey leads to three key conclusions:

Contextualization and Localization for Flexibility: Saguday's LS, manifested through its VLS, demonstrated the exceptional ability to empower teachers and school leaders with creative authority. This adaptability allowed them to finely tailor LS to the local context, imbuing it with the flexibility to evolve over time. The adopted model, which emphasizes the design for evolution, meticulously focuses on specific lessons and aligns grade-level lessons with curriculum standards using an interdisciplinary approach.

Addressing Local Challenges during the Pandemic: LS became a beacon of hope during the pandemic's local challenges in the District of Saguday under the leadership of its PSDS. It provided a means to sustain education with confidence, embracing the new normal teaching methods. This exemplified the resilience and adaptability of teachers and students, proving that learning can continue even amidst adversity.

Triangular Support System for Sustainability: The collaboration of key stakeholders, representing a triangular support system, was instrumental in ensuring the sustainability of LS in Saguday. The LGU played a pivotal role by providing financial support. Schools implemented LS at the grassroots level while the DepEd ensured the logistic continuation of this vital educational practice through policy support. This collaborative effort aligns perfectly with the MATATAG Agenda of the DepEd, which underscores the importance of providing support to teachers to enhance their teaching quality using innovative,

responsive, and inclusive approaches in line with the Philippine Professional Standards for Teachers (PPST).

In light of these achievements, it is highly recommended that LS be sustained and formally incorporated into the School Improvement Plans (SIP) of all schools in Saguday. This step will further solidify the CoP nurtured through LS and ensure its enduring impact on the educational landscape, ultimately benefiting teachers, students, and the entire community.

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