

Determinants of Quality Implementation of SLAC and Result-Based Performance Outcomes of Mathematics Teachers: Professional Enhancement Program

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ABSTRACT

This study examined the determinants of School Learning Action Cell (SLAC) implementation and their relationship with the instructional competence of public secondary mathematics teachers in District I, Schools Division of Quezon City. A quantitative descriptive-correlational design was employed among 101 mathematics teachers from 11 public secondary schools. Data were collected through a content-validated, researcher-modified survey questionnaire with an overall Cronbach's alpha of .966. Frequency, percentage, weighted mean, standard deviation, and Spearman rank-order correlation were used to analyze the data. The respondents were predominantly female, generally held Teacher I–III positions, carried five to six teaching loads, and commonly had graduate-level education. SLAC implementation was strongly evident overall ($M = 3.309$), with functioning

professional learning communities ($M = 3.588$), teacher participation and lifelong learning orientation ($M = 3.517$), and regular and sustained sessions ($M = 3.424$) receiving the highest ratings. Teachers' competence was also strongly evident ($M = 3.426$), particularly in caring and inclusiveness ($M = 3.570$), classroom management ($M = 3.475$), and collaboration and teamwork ($M = 3.462$). Respondents' profiles were not significantly related to SLAC determinants, and SLAC determinants were not significantly related to competence ($\rho = .101$, $p = .313$). Length of service, however, had a significant negative relationship with competence ($\rho = -.224$, $p = .025$). The study concludes that SLAC is well established as a collaborative professional-learning mechanism, but stronger transfer to classroom practice is needed. A professional enhancement program was developed to strengthen facilitation, contextualized problem-solving, data-informed instruction, technology integration, adaptive teaching, and outcome-based monitoring.

Keywords: instructional competence, mathematics teachers, professional development, professional learning community, School Learning Action Cell, SLAC enhancement program

INTRODUCTION

Continuous professional development is central to the improvement of teaching quality because instructional demands change with curriculum reforms, learner diversity, assessment expectations, and digital technologies. In Philippine basic education, the School Learning Action Cell (SLAC) provides a school-based mechanism through which teachers collaboratively examine classroom concerns, share effective practices, and plan responses to identified learning needs. Department of Education Order No. 35, s. 2016 institutionalized the Learning Action Cell as a continuing professional development strategy intended to improve teaching and learning through collaborative and needs-based professional inquiry (Department of Education, 2016).

SLAC is consistent with the wider literature on effective teacher learning. Professional development is more likely to influence practice when it is sustained, content-focused, connected to teachers' work, and supported by active participation and collective learning (Desimone, 2009; Garet et al., 2001). It is also strengthened when teachers have opportunities to test ideas in classrooms, receive feedback, reflect on learner evidence, and revise practice over time (Darling-Hammond et al., 2017; Guskey, 2002). These conditions are especially important for mathematics teachers, whose work requires strong conceptual knowledge, precise communication, responsive problem-solving, and the ability to make abstract ideas understandable to diverse learners.

The effectiveness of SLAC, however, depends on implementation quality. Regular meetings alone do not ensure meaningful professional growth. Leadership, protected time, facilitator competence, access to resources, teacher participation, psychological safety, and alignment with school and national priorities shape whether SLAC becomes a genuine professional learning community or merely a compliance activity. Studies of professional learning communities show that shared goals, collective responsibility, reflective dialogue, and sustained collaboration are associated with stronger professional practice and school improvement (Stoll et al., 2006; Vescio et al., 2008).

A further concern is the transfer of professional learning to classroom practice. Collaborative sessions may strengthen collegiality and confidence without producing immediate or uniform improvements in instructional competence. Teacher learning is a complex process influenced by prior knowledge, career stage, school context, opportunities for application, and follow-up support (Avalos, 2011; Opfer & Pedder, 2011). Coaching, mentoring, lesson study, and classroom-embedded feedback can help bridge the gap between discussion and implementation (Kraft et al., 2018; Mendoza et al., 2017).

In District I of the Schools Division of Quezon City, public secondary mathematics teachers participate in SLAC while responding to demanding instructional and performance expectations. Although SLAC is widely implemented, limited local evidence explains which conditions most strongly support its quality, whether those conditions are associated with teachers' competence, and which areas require targeted enhancement. The absence of such evidence limits the ability of school leaders to design professional development that is responsive to actual classroom needs and measurable instructional outcomes.

This study therefore examined the determinants that facilitate SLAC implementation and the instructional competence of mathematics teachers. It described the respondents' demographic profile; assessed instructional leadership, professional learning communities, session regularity, policy alignment, participation, facilitator expertise, contextualization, focus on teaching and learner achievement, and management support; measured competence across eight professional domains; and tested the relationships among these variables. The findings served as the basis for a professional enhancement program designed to strengthen the practical, contextualized, data-informed, and sustainable implementation of SLAC.

Literature Review

SLAC as School-Based Continuing Professional Development

The Learning Action Cell positions professional development within the setting where teachers confront instructional problems. Its school-based structure allows teachers to connect curriculum standards, learner evidence, and practical constraints to collective inquiry. Department of Education Order No. 35, s. 2016 requires LAC activities to be collaborative, continuous, and responsive to teachers' development needs, while the Philippine Professional Standards for Teachers provide a common reference for professional growth (Department of Education, 2016, 2017). Local accounts similarly describe SLAC as a mechanism for continuous learning, lesson improvement, and professional exchange (Cabral, 2019; Silva, 2021).

Research on professional development indicates that duration and coherence are critical. One-off seminars may increase awareness but seldom produce sustained changes without opportunities for implementation and follow-up. Effective programs connect activities to curriculum goals, teachers' content areas, and classroom evidence, while allowing participants to actively construct and apply knowledge (Darling-Hammond et al., 2017;

Garet et al., 2001). Guskey (2002) further argued that changes in teachers' beliefs often follow evidence that new practices improve learner outcomes, emphasizing the importance of linking professional learning to actual results.

SLAC may therefore be understood as a continuing cycle of needs identification, collaborative learning, classroom application, reflection, and revision. Studies of lesson study and school-based action cells indicate that this cycle can strengthen planning and instructional experimentation when participants jointly examine lessons and learner responses (Gumban & Pelones, 2021; Mendoza et al., 2017). Its potential, however, depends on whether sessions remain focused, evidence-based, and sufficiently supported.

Instructional Leadership and Professional Learning Communities

Instructional leadership establishes the conditions under which professional learning can occur. School heads influence SLAC through expectations, scheduling, resource allocation, facilitator selection, monitoring, and recognition of outputs. When leaders protect time and connect professional learning to school improvement priorities, teachers are more likely to treat collaborative work as meaningful. Conversely, inconsistent support and competing responsibilities can weaken participation and continuity. The literature on professional learning communities identifies leadership, shared vision, supportive conditions, and collective responsibility as foundational elements of sustained collaboration (Stoll et al., 2006; Vescio et al., 2008).

A functioning professional learning community is characterized by trust, reflective dialogue, shared problem-solving, and the exchange of practice-based knowledge. Meta-analytic evidence suggests that professional communities can contribute to student achievement when collaboration is focused on teaching and learning rather than administrative concerns (Lomos et al., 2011). School-based collaboration also creates different learning opportunities depending on the quality of interaction, the specificity of tasks, and the extent to which teachers examine practice together (Jong et al., 2019).

Teacher participation is strengthened when professional learning respects experience while challenging participants to update practice. Sustainable professional development requires shared ownership, opportunities for voice, and a culture in which teachers can ask questions without fear of judgment (Brennan & King, 2022; Meesuk et al., 2021). These conditions reflect collaborative learning principles, where knowledge is constructed through dialogue, social interaction, and shared problem-solving (Valamis, 2022).

Contextualized, Data-Informed, and Technology-Supported Learning

Professional learning becomes more useful when topics respond to specific learner gaps, classroom challenges, and school priorities. Generic sessions may be informative but are less likely to alter practice when teachers cannot see their relevance to current work. Needs-based planning should draw on classroom observations, assessment results, teacher reflection, and school improvement data. Monitoring and evaluation studies of SLAC emphasize that planning, implementation, and follow-up must be integrated if professional learning is to remain responsive and accountable (Madriaga, 2021; Tian et al., 2021).

Data-informed instruction requires teachers to interpret learner evidence and use it to adjust content, pacing, grouping, intervention, and assessment. This capacity is not developed by access to data alone; teachers need structured opportunities to analyze evidence, discuss possible responses, and evaluate the results of instructional decisions. Professional learning communities can support this work by making learner evidence the object of collaborative inquiry. Such practices also align with contemporary expectations for teacher competence and sustainable professional development (Sumaryanta et al., 2018; UNESCO, 2023).

Technology integration presents a related challenge. Teachers' adoption of digital tools is influenced by knowledge, confidence, beliefs, access, and school culture (Ertmer & Ottenbreit-Leftwich, 2010). Reviews of technology integration similarly identify training, infrastructure, institutional support, and pedagogical relevance as major determinants of use (Akram et al., 2022). Within SLAC, collaborative lesson design, demonstrations, peer coaching, and classroom-based experimentation can make technology learning more practical and reduce the gap between tool awareness and purposeful instructional application (Ghavifekr & Rosdy, 2015).

Teacher Competence and Transfer of Professional Learning

Teacher competence involves the integrated application of knowledge, skills, professional judgment, and dispositions in specific instructional contexts. It is demonstrated through planning, communication, classroom management, assessment, engagement, collaboration, inclusiveness, and adaptability rather than through qualifications alone (Roelofs & Sanders, 2017). The Philippine Professional Standards for Teachers similarly frame competence as progressive and practice-based, requiring continuing development across career stages (Department of Education, 2017).

The relationship between professional development and competence is not automatic. Program features may create opportunities for learning, but changes in practice depend on participation quality, relevance, implementation support, and time. Coaching has shown positive effects on instruction because it provides modeling, observation, feedback, and repeated opportunities for refinement (Kraft et al., 2018). More broadly, professional learning is shaped by interactions among individual teachers, professional activities, and the organizational environment (Opfer & Pedder, 2011).

Experience also requires continuous renewal. Years of service can provide deep practical knowledge, yet rapid changes in curriculum, assessment, technology, and learner needs may reduce the usefulness of established routines when professional learning is not sustained. Competence should therefore be supported through differentiated learning opportunities that recognize career stage and current developmental needs. Research on instructional competence emphasizes continuing reflection, targeted feedback, and deliberate follow-up as necessary for maintaining professional effectiveness (Macayan & Abalos, 2023; Sumaryanta et al., 2018).

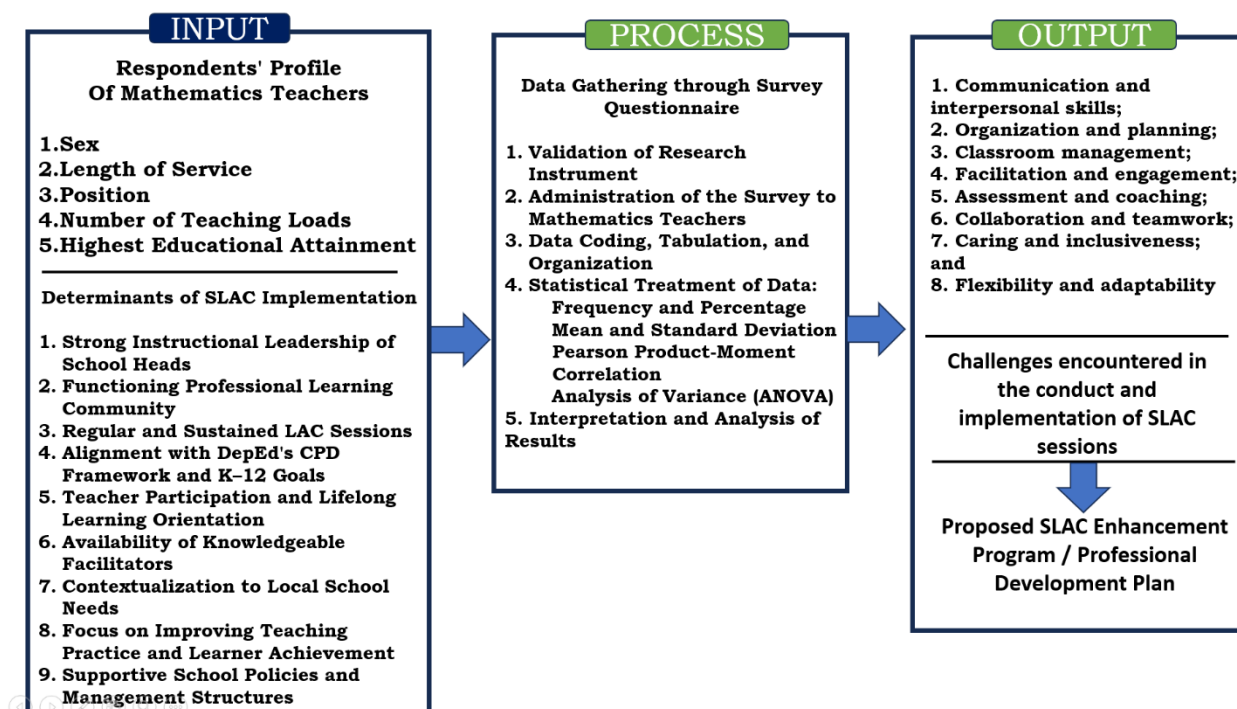


Figure 1. *Conceptual framework of the study.*

METHODS

Research Design

The study employed a quantitative descriptive-correlational research design. The descriptive component was used to characterize the respondents, the determinants of SLAC implementation, and the level of teachers' instructional competence. The correlational component examined the associations between demographic variables and SLAC determinants, between SLAC determinants and instructional competence, and between demographic variables and competence. The design measured naturally occurring conditions without manipulating the study variables.

Research Locale

The study was conducted in District I of the Schools Division of Quezon City in the National Capital Region, Philippines. The district includes public secondary schools serving learners from varied socioeconomic contexts and implementing SLAC as a school-based professional development strategy. The locale was selected because of its established mathematics departments, active SLAC implementation, and sufficient population of secondary mathematics teachers.

Participants and Sampling Technique

The participants were 101 public secondary mathematics teachers from 11 secondary schools in District I. The sample represented the participating schools proportionally, while institutional identities were withheld to preserve confidentiality. The sample size was determined using a 95% confidence level and a 5% margin of error. Eligible respondents were teachers assigned to mathematics and involved in SLAC activities during the study period.

Research Instrument

Data were gathered through a researcher-modified survey questionnaire adapted from indicators in the literature on SLAC implementation and teacher competence. Part I collected demographic information on sex, length of service, position, number of teaching loads, and highest educational attainment. Part II assessed nine determinants of SLAC implementation: instructional leadership, functioning professional learning community, regular and sustained sessions, alignment with DepEd frameworks, teacher participation, facilitator expertise, contextualization, focus on teaching practice and learner achievement, and supportive policies. Part III assessed eight competence domains: communication and interpersonal skills, organization and planning, classroom management, facilitation and engagement, assessment and coaching, collaboration and teamwork, caring and inclusiveness, and flexibility and adaptability. Responses used a four-point scale from 1 (Strongly Disagree) to 4 (Strongly Agree). The instrument underwent content validation and demonstrated high internal consistency, with an overall Cronbach's alpha of .966 for 85 items.

Data Gathering Procedure

The researcher secured the necessary institutional and school permissions before administering the instrument. Participants received information about the study and provided informed consent. The questionnaire was distributed electronically through Google Forms, and responses were organized and checked before statistical processing. Official documents and relevant literature were used as secondary sources to contextualize the analysis.

Data Analysis

Frequency and percentage were used to describe the respondents' profile. Weighted means and standard deviations summarized ratings of SLAC determinants and teacher competence. Mean scores were interpreted as Strongly Agree (3.26–4.00), Agree (2.51–3.25), Disagree (1.76–2.50), or Strongly Disagree (1.00–1.75). Spearman rank-order correlation was applied to test the relationships among study variables at the .05 level of significance.

Ethical Consideration

The study followed the institution's research ethics procedures and applicable Department of Education research-management guidelines. Participation was voluntary, and respondents could decline or withdraw without penalty. No names, school identifiers, or personal contact information were reported. Data were stored securely and used only for the stated academic purpose. Results were presented in aggregate form to protect anonymity and minimize professional risk.

RESULTS AND DISCUSSION

Profile of the Mathematics Teachers

Table 1. *Demographic profile of the respondents*

Profile Variable	Category	f	%
Sex	Male	41	40.6
	Female	60	59.4
Length of service	1–3 years	17	16.8
	3–5 years	11	10.9
	5–10 years	28	27.7
	10–15 years	15	14.9
	15–20 years	8	7.9
	20–25 years	9	8.9
	25–30 years	7	6.9
	30–35 years	4	4.0
	35 years and above	2	2.0
Position	Teacher I–III	81	80.2
	Special Science Teacher I–III	6	5.9
	Master Teacher I–III	14	13.9
Teaching loads	5–6	101	100.0
Educational attainment	Undergraduate	13	12.9
	Master's degree	52	51.5
	Doctorate	8	7.9
	CAR–Master's	25	24.7
	CAR–Doctorate	3	3.0

The respondents represented a professionally experienced mathematics-teaching workforce. Females comprised 59.4% of the sample, while 80.2% held Teacher I–III positions. The largest length-of-service category was 5–10 years (27.7%), and every respondent carried five to six teaching loads. More than half held a master's degree (51.5%), while an additional 24.7% had completed the academic requirements for a master's degree. The profile indicates substantial graduate-level preparation, although the concentration in classroom-teacher positions suggests that most respondents remained directly engaged in instructional delivery.

Determinants of SLAC Implementation

Table 2. *Summary of the determinants facilitating SLAC implementation*

SLAC Determinant	Mean	Interpretation	Rank
Functioning professional learning community	3.588	Strongly Agree	1
Teacher participation and lifelong learning orientation	3.517	Strongly Agree	2
Regular and sustained LAC sessions	3.424	Strongly Agree	3
Supportive school policies and management structures	3.319	Strongly Agree	4
Alignment with DepEd CPD framework and K–12 goals	3.265	Strongly Agree	5
Strong instructional leadership of school heads	3.244	Agree	6
Availability of knowledgeable facilitators	3.210	Agree	7

Contextualization to local school needs	3.169	Agree	8
Focus on improving teaching practice and learner achievement	3.042	Agree	9
Overall	3.309	Strongly Agree	

The determinants of SLAC implementation obtained an overall mean of 3.309, interpreted as Strongly Agree. The highest ratings were recorded for a functioning professional learning community ($M = 3.588$), teacher participation and lifelong learning orientation ($M = 3.517$), and regular and sustained sessions ($M = 3.424$). These results indicate that the strongest aspects of implementation involved collaboration, teacher engagement, continuity, and professional support. Such findings are consistent with research showing that sustained professional communities promote shared learning, reflection, and collective responsibility (Lomos et al., 2011; Meesuk et al., 2021; Vescio et al., 2008).

The comparatively lower domains were facilitator expertise ($M = 3.210$), contextualization to local school needs ($M = 3.169$), and focus on improving teaching practice and learner achievement ($M = 3.042$). Although all remained positively rated, they reveal a transfer problem: teachers experienced SLAC as collaborative and regularly implemented, but less strongly as a source of practical coaching, school-specific solutions, and evidence of improved learner outcomes. Effective professional development requires not only participation but also content relevance, active application, feedback, and follow-up (Darling-Hammond et al., 2017; Desimone, 2009).

At the indicator level, the use of SLAC-generated data to track and support student learning received one of the lowest ratings ($M = 2.822$). Opportunities to discuss school-based instructional challenges and the provision of practical examples by facilitators were also comparatively weak. These gaps support the need for facilitation that moves beyond presentation toward modeling, coaching, collaborative analysis, and classroom-based problem-solving. The results also reinforce the value of systematic monitoring and evaluation in linking SLAC outputs to actual instructional improvement (Madriaga, 2021; Tian et al., 2021).

Level of Teachers' Instructional Competence

Table 3. *Summary of teachers' instructional competence*

Competence Domain	Mean	Interpretation	Rank
Caring and inclusiveness	3.570	Strongly Agree	1
Classroom management	3.475	Strongly Agree	2
Collaboration and teamwork	3.462	Strongly Agree	3
Communication and interpersonal skills	3.426	Strongly Agree	4.5
Assessment and coaching	3.426	Strongly Agree	4.5
Flexibility and adaptability	3.382	Strongly Agree	6
Organization and planning	3.372	Strongly Agree	7
Facilitation and engagement	3.291	Strongly Agree	8
Overall	3.426	Strongly Agree	

Teachers reported a high overall level of instructional competence ($M = 3.426$). Caring and inclusiveness received the highest mean ($M = 3.570$), followed by classroom management ($M = 3.475$) and collaboration and teamwork ($M = 3.462$). These strengths indicate that respondents placed strong emphasis on learner welfare, ethical and respectful practice, safe classroom conditions, and positive professional relationships. Competence in these areas is consistent with practice-based conceptions of teaching, where effective performance integrates knowledge, judgment, interpersonal skills, and responsiveness to context (Roelofs & Sanders, 2017).

The lowest competence domains were facilitation and engagement ($M = 3.291$), organization and planning ($M = 3.372$), and flexibility and adaptability ($M = 3.382$), although each was still interpreted as Strongly Agree. Within these domains, data-informed instructional strategies ($M = 2.931$), the use of suitable technologies to enhance engagement ($M = 3.158$), proactive integration of resources and technology in planning ($M = 3.168$), and resilience in unforeseen situations ($M = 3.129$) were among the comparatively weaker indicators. These findings suggest that foundational competence was well established, but contemporary instructional demands require more

targeted support in data use, digital pedagogy, and adaptive expertise (Akram et al., 2022; Ertmer & Ottenbreit-Leftwich, 2010).

Relationships Among the Study Variables

Table 4. *Relationship between respondents' profiles and SLAC determinants*

Variable	Profile	ρ	p	Decision
SLAC determinants	Sex	.041	.685	Not significant
	Length of service	-.017	.868	Not significant
	Position	.094	.351	Not significant
	Highest educational attainment	.005	.982	Not significant

Table 5. *Relationship between SLAC determinants and teachers' competence*

Variables	ρ	p	Decision
SLAC determinants and teachers' competence	.101	.313	Not significant

Table 6. *Relationship between respondents' profiles and teachers' competence*

Variable	Profile	ρ	p	Decision
Teachers' competence	Sex	-.054	.590	Not significant
	Length of service	-.224	.025	Significant
	Position	.049	.626	Not significant
	Highest educational attainment	-.182	.069	Not significant

Sex, length of service, position, and highest educational attainment were not significantly related to teachers' ratings of SLAC determinants. This indicates that implementation conditions were experienced relatively consistently across demographic groups. A strong professional learning culture should provide common opportunities for participation and shared responsibility regardless of position or qualification, which may explain the uniform perceptions observed in the study (Brennan & King, 2022; Stoll et al., 2006).

The relationship between SLAC determinants and instructional competence was weak and not statistically significant ($\rho = .101$, $p = .313$). High ratings in both sets of variables therefore did not mean that variation in SLAC implementation predicted variation in competence. This result does not imply that SLAC lacks value; rather, it indicates that collaborative structures may influence competence indirectly and over time. Professional development effects depend on implementation, classroom application, feedback, and the interaction of individual and organizational factors (Avalos, 2011; Opfer & Pedder, 2011).

Length of service was significantly and negatively related to teachers' competence ($\rho = -.224$, $p = .025$), whereas sex, position, and educational attainment were not. The relationship was weak, but it indicates that longer service alone did not ensure higher perceived competence. Experienced teachers may possess substantial practical knowledge while requiring renewed opportunities to engage with current technologies, data-use practices, and evolving curricular expectations. The finding supports differentiated professional development based on current needs and career stage rather than relying on tenure or formal qualification as substitutes for continuing learning (Sumaryanta et al., 2018).

Proposed Professional Enhancement Program

Table 7. *SLAC professional enhancement program*

Key Result Area	Objective	Core Activities	Expected Output
Instructional coaching and facilitation	Strengthen the practical coaching capacity of Master Teachers and SLAC facilitators.	Facilitator training; lesson modeling; peer observation; mentoring; feedback conferences.	Facilitators provide classroom-based guidance and actionable feedback.

Contextualized problem-solving	Align SLAC agendas with actual school, mathematics, and learner needs.	Needs analysis; problem clinics; case discussions; collaborative lesson and intervention design.	School-specific solutions and contextualized action plans.
Data-informed teaching and learner achievement	Improve the use of assessment evidence in instructional decisions.	Data-literacy workshops; item and error analysis; progress monitoring; intervention planning.	Teachers use learner data to adjust instruction and monitor outcomes.
Instructional planning and resource integration	Strengthen technology-supported planning and instructional-resource use.	Digital-tool demonstrations; collaborative lesson design; resource curation; microteaching.	Technology-integrated, learner-centered mathematics lessons.
Adaptive teaching and resilience	Develop flexible responses to learner diversity and unforeseen classroom conditions.	Reflective dialogue; scenario-based planning; differentiated strategies; peer-support activities.	Improved adaptability, confidence, and differentiated instruction.
Monitoring and evaluation of SLAC impact	Connect SLAC outputs with classroom implementation and learner performance.	Output tracking; implementation logs; coaching follow-up; classroom evidence review; quarterly evaluation.	Documented transfer of SLAC learning and evidence-based program improvement.

The proposed program directly addresses the weaker areas identified in the study. Coaching and facilitation activities are intended to convert SLAC discussions into practical classroom support; contextualized problem-solving connects topics to local needs; data-literacy activities strengthen evidence-based instruction; technology-integrated planning addresses digital competence; adaptive-teaching activities respond to the significant relationship involving length of service; and monitoring mechanisms link professional learning to observable instructional and learner outcomes. These components reflect evidence that sustained, job-embedded, collaborative, and feedback-rich professional development is more likely to influence practice (Darling-Hammond et al., 2017; Kraft et al., 2018).

CONCLUSION

The study concluded that SLAC was strongly established as a collaborative and continuing professional-learning mechanism among public secondary mathematics teachers in District I, Quezon City. Its most evident strengths were the functioning professional learning community, active teacher participation, sustained conduct of sessions, and supportive management structures. Teachers also demonstrated strong instructional competence, particularly in caring and inclusiveness, classroom management, collaboration, communication, and assessment.

Nevertheless, the findings revealed a gap between the regular and collaborative implementation of SLAC and its measurable association with instructional competence. SLAC determinants were not significantly related to competence, while contextualization, facilitator support, data-informed teaching, technology integration, and classroom transfer received comparatively lower ratings. Length of service had a weak but significant negative relationship with competence, underscoring that experience must be accompanied by continuous updating and purposeful professional learning.

The study contributes an evidence-based professional enhancement program that reframes SLAC from a regularly conducted meeting into a more practical, contextualized, coached, data-driven, and outcome-monitored process. Strengthening these features can improve the relevance and sustainability of professional learning while preserving the collaborative culture already evident in the participating schools.

Recommendation

School administrators should sustain protected and regularly scheduled SLAC sessions while improving the quality of facilitation. Master Teachers and resource persons should receive preparation in instructional coaching, lesson modeling, questioning, feedback, and classroom-based technical assistance. SLAC agendas should be developed from learner performance data, classroom observations, teacher self-assessments, and school improvement priorities so that discussions address authentic instructional concerns.

Differentiated professional-learning tracks should be provided according to career stage, specialization, and developmental need. Particular attention should be given to technology-supported lesson planning, data-informed instruction, learner engagement, adaptive teaching, and resilience. Experienced teachers should have structured opportunities to update practice, mentor peers, and simultaneously receive support in emerging pedagogies and technologies.

Schools should establish outcome-based monitoring that follows SLAC learning from session output to classroom application and learner evidence. Implementation logs, peer observations, coaching records, action-plan reviews, and periodic evaluation should be used for improvement rather than compliance alone. Future researchers should use qualitative, longitudinal, and multi-district designs to examine how SLAC learning is transferred to practice and why length of service may relate negatively to perceived competence.

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