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School Learning Action Cell Quality, Teachers' Perceived Practice Change, and Quarterly Learner Performance Trends in the North 1 Cluster District

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Abstract. The School Learning Action Cell is the Philippine Department of Education's principal school-based continuing professional development mechanism. Yet, schools often judge it by compliance indicators, such as the number of sessions held, rather than by the quality of implementation. This study described the quality of School Learning Action Cell implementation, teachers' perceptions of its influence on their instructional practice, the challenges they met in applying it, and concurrent first- to second-quarter learner performance in the North 1 Cluster District, Schools Division of Lipa City, during School Year 2025–2026. A convergent mixed-methods design was used. Sixty-two purposively selected public elementary teachers completed a structured survey with open-ended items; researchers thematically analyzed 184 written teacher reflections, interviews and focus group discussions with teachers and school heads, session observations, and session documents; and descriptively summarized consolidated quarterly assessment results for 310 learners in English, Science, and Mathematics. On a five-point scale, teachers reported very high peer collaboration (M = 4.62), application of session-derived strategies (M = 4.71), and perceived influence on their teaching (M = 4.75). Collaborative and reflective practice, differentiated and inquiry-based instruction, and technology integration were the most useful strategies, while limited time, insufficient resources, learner diversity, and weak post-session follow-up were the main barriers. Teachers named instructional leadership, a safe collaborative climate, coaching and follow-through, and contextualized content as the conditions under which sessions changed their practice. Cluster mean percentage scores rose from the first to the second quarter in English (74.34% to 75.99%), Science (74.90% to 77.14%), and Mathematics (73.31% to 75.31%); because these comparisons are aggregate, unlinked, and uncontrolled, they describe concurrent trends, not program effects. The study recommends data-driven agenda setting, post-session coaching, quality-focused district monitoring, and linked teacher–learner data for future evaluation.

Keywords: Learner Performance; Mixed Methods; Professional Learning Community; School Learning Action Cell; Teacher Practice

Introduction

The School Learning Action Cell (SLAC) is one of the professional development mechanisms institutionalized by the Department of Education (DepEd) to give teachers a regular avenue for collaboration, reflection, and the continuous improvement of practice (Department of Education [DepEd], 2016). Grounded in the principle that teachers learn best when they learn together, SLAC sessions function as school-based communities of practice in which educators diagnose learning problems, share strategies, and monitor the results of classroom interventions. SLAC is therefore designed to link professional learning to better instruction and, ultimately, to better learner outcomes. Despite its system-wide implementation, little local evidence describes how teachers experience the quality of SLAC sessions, how they see these sessions shaping their practice, and how learner performance moves while SLAC is in place.

In the North 1 Cluster District, SLAC sessions are conducted regularly in compliance with DepEd guidelines. However, Division SLAC monitoring reports, session minutes, or monitoring visits conducted during School Year 2024–2025 indicated that implementation varies across schools. In some schools, SLAC agendas are tied to learner data, sessions are purposefully facilitated, and action plans are monitored and revisited. In others, SLAC is carried out as a formality, with poorly aligned topics, minimal participation, and little evidence of classroom follow-through. Most schools also measure SLAC success in terms of compliance,

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such as the number of sessions held, the submission of minutes, or teacher attendance, while deeper dimensions such as agenda alignment, facilitation, the clarity of action plans, and follow-through are seldom examined.

This uneven implementation raises a practical question for district leaders and school heads: which aspects of SLAC quality do teachers associate with changes in their practice, and how does learner performance move during the same period? The Philippine SLAC studies reviewed for this study were conducted in other regions, mainly in Mindanao (Datumaas et al., 2024; De Guzman et al., 2023; Ilon & Bantulo, 2025; Opeña & Lagura, 2025), and none examined SLAC in the Schools Division of Lipa City. This study therefore described SLAC implementation quality in the cluster, teachers' perceptions of its influence on their practice, the challenges they met, and concurrent quarter-to-quarter learner performance. It does not test whether SLAC caused changes in teaching or learning; rather, it provides local descriptive evidence that can inform the design of a stronger outcome evaluation.

The study is significant at several levels. For teachers, the findings may encourage them to treat SLAC as a platform for professional growth rather than a requirement. For school heads and district supervisors, the results offer evidence for refining SLAC structures, building facilitator capacity, and monitoring quality rather than quantity. For learners, the ultimate beneficiaries, the study may support more responsive teaching that addresses their academic needs. At the system level, the study contributes to policy discussion on the conditions under which school-based professional development becomes an engine of instructional improvement.

Research Questions

This study described SLAC implementation quality, teachers' perceived practice change, and quarterly learner performance in the North 1 Cluster District for School Year 2025–2026. Specifically, it sought to answer the following questions:

1. What is the level of quality of SLAC implementation in the North 1 Cluster District, as documented in session observations, documents, and interviews and as reported by teachers, in terms of:
   1.1 relevance of topics to teaching and learning needs;
   1.2 facilitation and participation;
   1.3 frequency and consistency of sessions; and
   1.4 support provided by school leadership?
2. How do teachers perceive the influence of SLAC participation on their instructional practices, including lesson delivery, use of strategies, and classroom management?
3. What challenges do teachers encounter in applying insights and strategies gained from SLAC sessions?
4. How did learners' mean scores and mean percentage scores in English, Mathematics, and Science change from the first to the second quarter of School Year 2025–2026?
5. How do teachers perceive the effect of SLAC-derived practices on learners' motivation, engagement, and achievement?
6. Which SLAC quality conditions do teachers identify as supporting changes in their instructional practice?
7. What strategies can be proposed to strengthen SLAC implementation in the North 1 Cluster District?

Scope and Delimitation of the Study

The study covered public elementary schools in the North 1 Cluster District that regularly conduct SLAC sessions as mandated by DepEd Order No. 35, s. 2016. It examined three domains: SLAC quality (relevance of topics, frequency and consistency, facilitation and participation, and leadership support); teacher practice (instructional strategies, classroom management, lesson delivery, and the integration of SLAC-derived strategies); and learner performance (first- and second-quarter results in English, Mathematics, and Science, and teachers' perceptions of learner motivation, engagement, and achievement). The study was descriptive and did not estimate statistical or causal relationships among these domains. Teacher practice was measured mainly through self-report, supplemented by observation. Learner performance was summarized from consolidated cluster-level quarterly assessment results that were not linked to individual teachers, classes, or SLAC exposure; the two quarterly assessments covered different competencies and were not equated. The study was limited to teachers and learners in the cluster and to one school year, so its results may not represent the whole division and do not support conclusions about long-term effects.

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Literature Review

Defining the Key Constructs

Research on teacher communities often leaves its central constructs implicit; a systematic review of empirical studies found wide variation and frequent gaps in how teacher communities are operationally defined and measured (Dzieciatko-Szendrei et al., 2024). To avoid this ambiguity, the present study uses four working definitions. *SLAC quality* refers to the degree to which sessions follow the process intended by DepEd Order No. 35, s. 2016: topics aligned with identified learner and teacher needs, participatory facilitation, regular and consistent scheduling, and leadership support with follow-through on action plans. *SLAC participation* refers to teachers' attendance at and active engagement in sessions, such as sharing practices, giving feedback, and planning collaboratively. *Teacher practice* refers to lesson delivery, use of instructional strategies, and classroom management. The study distinguishes *perceived* practice change, reported by teachers in surveys and reflections, from *observed* practice, recorded by an observer using a structured guide. *Learner performance change* refers to the difference in cluster-level mean scores and mean percentage scores between the first and second quarters; it is a descriptive trend, not a value-added or causal estimate of learning gains.

SLAC as School-Based Professional Development

The SLAC is the Philippines' institutionalized model of school-based continuing professional development, intended to improve teaching and learning through collaborative problem-solving among teachers (DepEd, 2016). Local studies support its perceived value but rely mainly on self-report and single-time designs. In a correlational survey, Tomogon and Lactam (2024) found that teachers rated SLAC as highly effective and that these ratings correlated positively with self-reported instructional mastery and pedagogical efficacy; because both measures came from the same teachers, the association may partly reflect shared-method bias. In a qualitative policy assessment in the Bangsamoro Autonomous Region in Muslim Mindanao, Datumaas et al. (2024) described SLAC as a cost-effective avenue for teacher development but identified challenges in planning session objectives, choosing topics, managing participant diversity, budget delays, attendance, and the lack of monitoring and evaluation tools. Together, these studies suggest that SLAC quality must be captured across several dimensions rather than by the frequency of sessions alone, and that local claims about SLAC's effects on practice and learning have so far rested on perceptions rather than on observed or linked outcome data.

Professional Learning Communities and Teacher and Learner Outcomes

International research on professional learning communities (PLCs) supports collaboration as a lever for better teaching, though most of this evidence is correlational. In a multilevel study of 5,458 teachers and 11,324 students in 227 Chinese junior high schools, Liu and Yin (2024) found that the school-level association between PLCs and students' mathematics achievement was mediated by collective teacher efficacy and teachers' use of cognitive activation. A meta-analysis of 44 independent samples (N = 38,669) reported a positive correlation between PLCs and teachers' efficacy beliefs (r = .40), stronger for collective than for individual efficacy, with collective focus on student learning and reflective dialogue as the main contributors (Liu et al., 2025). In China, Ren et al. (2025) found that shared vision, collaborative practice, and resource sharing in kindergarten–primary PLCs each predicted children's school readiness, and that a cooperative atmosphere strengthened these associations. These studies link PLC features to teacher beliefs and learner outcomes through intermediate teacher variables, a chain that the present study examines descriptively rather than statistically.

Teacher Efficacy, Collective Efficacy, and School Support

Related research highlights the role of individual and collective efficacy and of school conditions. Knickenberg et al. (2025) developed and validated a scale of teachers' collective efficacy for inclusive practices across Canada, Germany, and Switzerland, reflecting the view that teachers' shared belief in their collective capability shapes instructional behavior. A meta-analysis found a moderate positive correlation between teacher self-efficacy and resilience (r = .49; Mu et al., 2024), and a systematic review and meta-analysis of classroom management self-efficacy identified principal leadership and school culture as the only school-level factors positively related to teachers' efficacy (Duan et al., 2024). Because these syntheses pool correlational studies, they indicate that supportive leadership and collegial climate accompany stronger teacher efficacy, not that they cause it; they nonetheless suggest that administrative support is likely to condition what teachers take from SLAC.

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Features of Effective Professional Development and the Strength of the Evidence

Syntheses of effective professional development identify recurring features: a focus on content, active learning, collaboration, the modeling of effective practice, coaching and expert support, opportunities for feedback and reflection, and sustained duration (Darling-Hammond et al., 2017). More recent causal syntheses refine this picture. A meta-analysis of 104 randomized controlled trials found that professional development combining mechanisms that build teachers' insight, motivate goals, develop techniques, and embed practice tends to be more effective in raising pupil test scores (Sims et al., 2025). A meta-analysis of 128 high-quality (quasi-)experimental studies estimated a small average effect of in-service professional development on student achievement (0.09 standard deviations) with strong variation between studies, and larger effects when more learning principles, such as performance standards, self-regulation, coaching, and teacher cooperation, were built into the design (Visscher et al., 2025). In a four-arm randomized controlled trial with 5,478 elementary students, Quality Teaching Rounds, a collaborative, pedagogy-focused form of professional development, improved student achievement (Gore et al., 2021). A meta-analysis of experimental studies on in-service STEM teachers likewise found a strong effect of professional development on teacher self-efficacy (g = 0.64; Zhou et al., 2023), and a systematic review of teachers' professional learning examined how such learning reaches students' learning outcomes (Ventista & Brown, 2023).

The evidence on the professional development that teachers typically receive is weaker. A critical review and meta-analysis of studies using nationally representative data found positive mean correlations between participation in professional development and both teaching practices and student achievement, but only 13% of the studies used methods that allow causal conclusions, and the authors cautioned against causal interpretation (Lindvall et al., 2025). Applied to SLAC, these findings imply that sessions that model strategies, allow rehearsal, and include structured coaching and follow-up are more likely to change practice than compliance-oriented meetings, and that associations between routine professional development and learner outcomes should not be read as effects.

Philippine Studies on Learning Action Cell Implementation

Philippine studies further illustrate the realities of implementation, mostly through descriptive and qualitative designs. De Guzman et al. (2023) used a descriptive phenomenological design to document Learning Action Cell (LAC) implementation in Davao City and proposed an implementation model that emphasizes supportive leadership, positive teacher attitudes, clear roles, sufficient resources, and systematic procedures. Opeña and Lagura (2025) found that schools in the Davao Region shared practices such as needs-based topic selection, teacher-led discussion, and reflection, but faced scheduling conflicts, heavy workloads, and limited resources, which schools addressed through flexible scheduling and supportive leadership. In a descriptive study, Ilon and Bantulo (2025) reported that facilitation and resource support were generally strong in Palimbang District I, but that strategy implementation was uneven across clusters. These local journal studies offer rich contextual accounts, but they rely on self-reported implementation levels and do not link SLAC quality to observed practice or learner results; they therefore cannot be weighed in the same way as the systematic reviews and controlled studies above.

Methodology

Research Design

The study employed a convergent mixed-methods design (Creswell & Plano Clark, 2018). Quantitative data (teacher survey ratings and consolidated learner assessment results) and qualitative data (open-ended survey responses, written teacher reflections, interviews and focus group discussions, classroom and session observations, and SLAC documents) were collected during the same period, August 2025 to March 2026. The two strands were analyzed separately and given equal priority. They were integrated at the interpretation stage by comparing results domain by domain in a joint display (Table 10, presented in the Results and Discussion section) and classifying each comparison as convergent, complementary, or divergent. The unit of analysis was the individual teacher for the survey, the coded text segment for the qualitative data, and the cluster for learner performance, since only aggregate learner results were available.

Research Locale

The study was conducted in the North 1 Cluster of the Lipa City North District, Schools Division of Lipa City, Batangas, Philippines, during School Year 2025–2026. The cluster consists of 7 public elementary schools that conduct SLAC sessions regularly as mandated by DepEd Order No. 35, s. 2016 (DepEd, 2016).

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Research Participants

A total of 62 teachers handling Grades 1 to 6 completed the survey; their profile is presented in Table 1 in the Results and Discussion section. The 184 written SLAC reflections were collected from district teachers by answering the Google survey form. The school heads took part in one-on-one individual interviews and focus group discussions, conducted quarterly. Learner data consisted of consolidated first- and second-quarter assessment results for 310 learners in Grades 1- 6 in the cluster: English, n = 133; Science, n = 133; and Mathematics, n = 134.

Research Instrument

Four sets of instruments were used. First, a SLAC Quality Checklist, adapted from DepEd Order No. 35, s. 2016, and the PLC literature, was used to rate SLAC session observations and documents (minutes, action plans, and attendance records) on four dimensions: alignment of topics with learner needs, facilitation and participation, consistency and frequency of sessions, and leadership support and follow-through. Each indicator was rated on 1 = not evident to 4 = fully evident, and dimension scores were computed as the mean of indicator ratings. A total of 10 SLAC sessions were observed, and 7 sets of SLAC documents were reviewed. Second, a researcher-made teacher survey consisted of a profile section and three rating scales: collaboration and participation in SLAC (five items rated 1 = *Strongly Disagree* to 5 = *Strongly Agree*), application of SLAC-derived strategies (five items rated 1 = *Never* to 5 = *Always*), and perceived influence of SLAC on teaching (four items on the agreement scale). Mean ratings were interpreted as follows: 4.21–5.00, *Very High*; 3.41–4.20, *High*; 2.61–3.40, *Moderate*; 1.81–2.60, *Low*; and 1.00–1.80, *Very Low*. The survey also contained five open-ended questions on the most useful SLAC strategies, challenges in applying them, the influence of peer collaboration, SLAC's contribution to professional growth, and additional support needed. The survey was validated by 5 experts in educational management, research, and elementary instruction and pilot-tested with 14 teachers outside the sample. Internal consistency was estimated with Cronbach's alpha: collaboration and participation, $\alpha = 0.8392$; application of strategies, $\alpha = 0.7752$; and perceived influence, $\alpha = 0.7168$. Third, a structured classroom observation guide recorded evidence of strategy implementation, lesson delivery, and classroom management in 12 lessons taught by teachers selected from among the 62 survey respondents. Fourth, a reflection form and an interview and focus group guide elicited teachers' and school heads' experiences of SLAC. Learner performance was taken from the quarterly assessments administered in the cluster, which were division-prepared periodical tests of 40 items in English, 40 in Science, and 40 in Mathematics. Each quarterly test covered that quarter's competencies, so first- and second-quarter results are not equated measures of the same content.

Data Gathering Procedure

Formal letters of request were first submitted to the Schools Division Office and to the heads of the selected schools to secure approval and coordinate schedules. Orientation sessions were then held with participating teachers to explain the purpose of the study, the data collection procedures, and ethical safeguards, including voluntary participation and confidentiality, and written informed consent was obtained. Next, selected SLAC sessions were observed, and SLAC documents were reviewed using the SLAC Quality Checklist. The teacher survey was administered through an online form, and the written reflections were collected. Classroom observations were conducted using the structured observation guide, and selected teachers and school heads took part in interviews or focus group discussions, which were recording and transcription procedure, through audio-recorded with permission and transcribed verbatim. Finally, the consolidated first- and second-quarter assessment results in English, Science, and Mathematics were obtained from the district with written authorization.

Results and Discussion

Research Question 1: What is the level of quality of SLAC implementation in terms of relevance of topics, facilitation and participation, frequency and consistency, and leadership support?

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Table 1. Profile of the Teacher-Respondents (n = 62)

Profile	Category	Frequency	Percent
1. Grade level taught	Grade 1	14	22.6
	Grade 2	7	11.3
	Grade 3	10	16.1
	Grade 4	8	12.9
	Grade 5	12	19.4
	Grade 6	11	17.7
2. Years of teaching experience	1–5 years	10	16.1
	6–10 years	20	32.3
	11–15 years	12	19.4
	16 years and above	21	33.9

Table 1 shows that the respondents were distributed across all grade levels, with the largest groups teaching Grade 1 (22.6%) and Grade 5 (19.4%). Most respondents (85.5%) had at least six years of teaching experience, and a third (33.9%) had 16 years or more, indicating an experienced teaching force whose ratings reflect considerable exposure to SLAC and other school-based professional development.

Observations, document reviews, and interviews indicated that the overall quality of SLAC implementation in the cluster was generally high, with areas for improvement. In terms of relevance, most sessions were anchored on identified instructional needs such as differentiated instruction, formative assessment, and learner engagement, and teachers described these topics as timely and useful. A few teachers, however, noted that some sessions were overly theoretical and lacked direct classroom application, which suggests a need for more practice-based discussion.

Table 2. Teachers' Collaboration and Participation in SLAC (n = 62)

Statements (The teacher…)	M	SD	Strongly Agree (%)	Interpretation
1. Frequently collaborates with colleagues to plan lessons and activities.	4.55	0.74	64.5	Very High
2. Openly shares instructional challenges and seeks feedback from peers.	4.63	0.66	67.7	Very High
3. Actively participates in peer discussions to improve teaching practices.	4.69	0.67	75.8	Very High
4. Encourages fellow teachers to adopt effective strategies from SLAC.	4.56	0.74	66.1	Very High
5. Values the input of colleagues when refining teaching methods.	4.66	0.70	74.2	Very High
Overall Mean	**4.62**			**Very High**

Table 2 shows a very high self-reported level of collaboration and participation. Active participation in peer discussions received the highest rating, with three in four teachers strongly agreeing, while collaborative lesson planning received the lowest, though still very high, rating. Observations showed that sessions were well managed and participatory, with facilitators encouraging teachers to share classroom-tested strategies. Interviews, however, indicated that participation varied among schools: while some teachers contributed actively, others remained passive because of limited time, heavy workloads, or limited confidence in the topic, as one teacher explained: “Engaging in collaborative sharing of best practices and demonstration teaching has been one of the most effective SLAC approaches in enhancing my instructional techniques”. The uniformly high ratings should therefore be read as teachers' perceptions rather than as evidence of uniform participation. These results agree with Datumaas et al. (2024) and Ilon and Bantulo (2025), who found that facilitation is generally strong, but that participation and implementation are uneven. In terms of frequency and consistency, most schools held SLAC sessions regularly, typically monthly.

In a few schools, however, sessions were postponed or compressed because of overlapping school activities and administrative tasks, which disrupted the continuity of professional learning and delayed the application of strategies. In terms of leadership support, school heads ensured that sessions were held, monitored attendance, and encouraged the use of SLAC outputs in instruction. Some teachers, however, reported that support was limited to logistics, with minimal follow-up coaching to reinforce the transfer of

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learning. This pattern mirrors the lack of monitoring and evaluation tools reported by Datumaas et al. (2024) and the importance of supportive leadership emphasized by De Guzman et al. (2023).

Research Question 2: How do teachers perceive the influence of SLAC participation on their instructional practices, including lesson delivery, use of strategies, and classroom management?

Table 3. Teachers' Application of SLAC-Derived Strategies (n = 62)

Statements (The teacher…)	M	SD	Always (%)	Interpretation
1. Integrates strategies learned from SLAC sessions into lesson plans.	4.77	0.49	80.6	Very High
2. Modifies teaching approaches based on ideas gained during SLAC discussions.	4.71	0.52	74.2	Very High
3. Tries out new instructional methods shared by colleagues in SLAC.	4.69	0.50	71.0	Very High
4. Uses SLAC-recommended strategies to address the diverse needs of learners.	4.77	0.46	79.0	Very High
5. Regularly reflects on and evaluates the effectiveness of SLAC strategies.	4.60	0.71	71.0	Very High
Overall Mean	**4.71**			**Very High**

Table 3 shows that teachers reported applying SLAC-derived strategies at a very high level. Integrating SLAC strategies into lesson plans and using SLAC-recommended strategies for diverse learners received the highest ratings, with about four in five teachers reporting that they always do so. Regular reflection on the effectiveness of SLAC strategies received the lowest rating and the widest spread of responses, which suggests that systematic evaluation of strategy use is less established than adoption itself.

Table 4. Perceived Influence of SLAC on Teaching Practice (n = 62)

Statements	M	SD	Strongly Agree (%)	Interpretation
1. SLAC has helped me become more confident in delivering lessons.	4.73	0.68	80.6	Very High
2. My classroom management has improved because of strategies learned in SLAC.	4.73	0.68	80.6	Very High
3. I have developed more varied approaches to cater to diverse learners.	4.74	0.65	80.6	Very High
4. SLAC participation has significantly improved my overall teaching effectiveness.	4.79	0.60	83.9	Very High
Overall Mean	**4.75**			**Very High**

Table 4 shows that teachers perceived a very strong influence of SLAC on their teaching, with the strongest agreement that SLAC improved their overall teaching effectiveness. Observations of 12 lessons and the interviews were consistent with these ratings: teachers used learner-centered and active learning strategies, applied formative assessment with timely feedback, and used shared management routines such as positive discipline and inclusive practices. One teacher noted that, because the ratings are self-reports and the observations were not compared with a pre-SLAC baseline, these results describe perceived and observed practice, not measured change. They are consistent with the features of effective professional development identified by Darling-Hammond et al. (2017), particularly collaboration, modeling, and reflection, and with the positive association between perceived SLAC effectiveness and instructional mastery reported by Tomogon and Lactam (2024).

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Table 5. Themes on the Most Useful SLAC Strategies

Theme	Codes	Description	Responses (*n*)
1. Collaborative and reflective practices	Collaborative learning, peer sharing, lesson study, demonstration teaching, reflective discussion, peer observation	Sharing best practices and reflective discussion raise awareness of strengths and areas for improvement.	18
2. Differentiated and inquiry-based learning	Differentiated instruction, inquiry-based learning, guided discovery, scaffolding, flexible grouping	Teachers use differentiated tasks and inquiry methods to reach diverse learners and promote active exploration.	14
3. ICT integration and innovative teaching	Use of ICT, presentations, video lessons, gamification, interactive tools	ICT makes lessons engaging and interactive, in line with 21st-century teaching.	11
4. Pedagogical and active learning approaches	Visualization, contextualization and localization, active learning techniques, literacy and numeracy integration	Strategies encourage learner participation and real-world application.	10
5. Reflective and contextual learning	Contextualized application, localization, reflective practice	Teachers connect lessons to real-life experience and reflect to refine instruction.	9

Table 5 shows which SLAC strategies teachers found most useful. Collaborative and reflective practices such as lesson study, demonstration teaching, and peer observation were cited most often, followed by differentiated and inquiry-based learning, ICT integration, active learning approaches, and contextualized application. Overall, teachers valued collaborative, reflective, and technology-enhanced strategies that promote inquiry, differentiation, and innovation.

Research Question 3: What challenges do teachers encounter in applying insights and strategies gained from SLAC sessions?

Table 6. Themes on the Challenges in Applying SLAC Strategies

Theme	Codes	Description	Responses (*n*)
1. Time and scheduling constraints	Limited time, scheduling conflicts, heavy workloads, overlapping activities	Teachers struggle to find time for planning, collaboration, and implementation.	17
2. Insufficient resources and materials	Lack of instructional materials, limited funding, outdated resources	Resource scarcity hampers full implementation of innovative methods.	14
3. Diverse learner needs	Learner readiness, learner behavior, varying abilities, differentiation challenges	Adapting SLAC strategies to mixed-ability classes is difficult.	11
4. Technology limitations	Poor connectivity, outdated devices	Infrastructure gaps hinder ICT-based strategies.	11
5. Sustaining engagement and implementation	Limited follow-up, inconsistent application, resistance to change	Applying SLAC learning consistently over time remains difficult.	9

Table 6 shows five recurring challenges. The most frequently cited challenge was limited time: strict curriculum pacing, heavy workloads, and overlapping activities left little room for planning and implementing new approaches, as one teacher described: “The use of ICT in teaching makes lessons more interactive and modernizes teaching delivery”. Insufficient instructional materials, limited funding, poor internet connectivity, and outdated devices hindered the use of ICT-based and innovative strategies. Differences in learner readiness and ability made it difficult to apply uniform approaches, and the absence of sustained mentoring or coaching after sessions limited the long-term transfer of learning. These challenges closely match the scheduling conflicts, workloads, and resource constraints reported in Davao Region schools

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(Opeña & Lagura, 2025) and the planning, budget, and monitoring problems identified by Datumaas et al. (2024).

Research Question 4: How did learners' mean scores and mean percentage scores in English, Mathematics, and Science change from the first to the second quarter?

Table 7. Learners' First- and Second-Quarter Performance, SY 2025–2026 (*N* = 310)

Learning Area (*n* learners)	Indicator	1st Quarter	2nd Quarter	Change	% Change
1. English (133)	Mean score	31.17	31.69	+0.52	+1.67
	MPS (%)	74.34	75.99	+1.65	+2.22
2. Science (133)	Mean score	33.58	34.67	+1.09	+3.25
	MPS (%)	74.90	77.14	+2.24	+2.99
3. Mathematics (134)	Mean score	29.12	29.71	+0.59	+2.03
	MPS (%)	73.31	75.31	+2.00	+2.73

Table 7 shows that cluster-level performance was higher in the second quarter than in the first in all three learning areas. Science posted the largest increase in MPS (2.24 percentage points), followed by Mathematics (2.00) and English (1.65). These are modest differences. Because the two quarterly tests covered different competencies and were not equated, and because the results are aggregates without a comparison group, the change may reflect differences in test content or difficulty, normal learning across the school year, or other school programs, as well as any contribution of SLAC-informed teaching. The data therefore describe a concurrent upward trend; they do not establish a relationship between SLAC participation and learner performance. This caution is consistent with evidence that the average effects of professional development on student achievement are small and variable even in controlled studies (Visscher et al., 2025) and that correlations between routine professional development and achievement rarely support causal interpretation (Lindvall et al., 2025).

Research Question 5: How do teachers perceive the effect of SLAC-derived practices on learners' motivation, engagement, and achievement?

Table 8. Themes on the Influence of Peer Collaboration and SLAC's Contribution to Professional Growth

Area	Theme	Codes
1. Influence of peer collaboration on classroom practice	Professional growth and reflective practice	Learning from peers, reflection, feedback
	Instructional improvement	New teaching strategies, lesson enhancement, classroom management
	Student-centered learning	Active engagement, critical thinking, collaboration skills
	Teamwork and support culture	Sense of belonging, peer support, shared goals
	Innovation and creativity	Creative lesson design, use of technology
2. SLAC's contribution to professional growth	Enhanced pedagogical competence	Improved teaching methods, content knowledge, pedagogical skills
	Continuous professional learning	Lifelong learning, reflection, collaboration
	Increased confidence and leadership	Self-efficacy, professional confidence, instructional leadership
	Alignment with PPST and DepEd standards	PPST indicators, curriculum standards
	Strengthened collegial relationships	Peer support, team collaboration

Teachers generally perceived that SLAC-inspired practices enhanced learner motivation and engagement. They reported that gamified learning, cooperative activities, and interactive lessons made learners more participative and enthusiastic, and that learners grew more confident in expressing ideas and performed better in formative and summative assessments. As Table 8 shows, teachers also linked peer collaboration in SLAC to student-centered learning and to their own professional growth: collaboration encouraged reflection, inspired new teaching methods, built a culture of trust and shared responsibility, and aligned practice more closely with the Philippine Professional Standards for Teachers. These are teachers'

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perceptions of learner effects rather than measured outcomes. They agree with research linking collaborative professional environments to teacher efficacy (Liu et al., 2025; Mu et al., 2024; Zhou et al., 2023).

Research Question 6: Which SLAC quality conditions do teachers identify as supporting changes in their instructional practice?

Table 9. Major Themes from Teachers' Written Reflections on SLAC (*n* = 184)

Theme	Description	Reflections (*n*)
1. Strong instructional leadership	School heads and facilitators provided clear direction, purpose, and structure, aligning sessions with school goals and classroom realities.	16
2. Supportive and collaborative learning environment	Sessions fostered a safe, open, and non-judgmental atmosphere where teachers shared experiences, challenges, and best practices.	16
3. Effective coaching, monitoring, and follow-through	Continuous feedback, classroom observation, instructional supervision, and technical assistance strengthened the application of SLAC strategies.	14
4. Practical and contextualized professional development	Practical examples, modeling, and learner-centered strategies made sessions relevant and responsive to diverse classroom needs.	12
5. Teacher empowerment and professional growth	Encouragement, trust, and recognition from school leaders boosted teachers' confidence, motivation, and willingness to innovate.	12

Analysis of the 184 written reflections produced fifteen core codes, including clear guidance and structured facilitation, constructive feedback and coaching, a safe and non-judgmental environment, practical classroom-based strategies, monitoring and technical assistance, and alignment of topics with learner needs. These codes were grouped into the five themes in Table 9. In teachers' accounts, sessions that were well structured, relevant, and supported by leadership led them to adopt and sustain new instructional methods, whereas poorly organized sessions led to little classroom application, as one reflection put it: "The most useful SLAC strategies for me are collaborative lesson planning, sharing of best practices, and peer observation." Teachers thus identified instructional leadership, a collaborative climate, coaching and follow-through, contextualized content, and teacher empowerment as the quality conditions under which SLAC changes practice. This is teachers' perceived contribution; the study did not test whether session quality predicts practice. The themes are consistent with the role of principal leadership and school culture in teacher efficacy (Duan et al., 2024), with the importance of coaching and teacher cooperation in effective professional development (Visscher et al., 2025), and with the organizational-support level of Guskey's (2002) model.

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Table 10. Joint Display of Quantitative and Qualitative Findings

Domain	Quantitative strand	Qualitative strand	Integrated interpretation
1. Collaboration and participation (RQ 1)	Very high self-rated collaboration (*M* = 4.62); collaborative lesson planning lowest (*M* = 4.55).	Facilitation was participatory, but participation varied among schools; some teachers stayed passive because of time, workload, or limited confidence.	Partial convergence: uniformly high ratings mask between-school variation seen in observations and interviews.
2. Teacher practice (RQ 2)	Very high strategy application (*M* = 4.71) and perceived influence (*M* = 4.75); reflection on strategy effectiveness lowest and most varied (*M* = 4.60, *SD* = 0.71).	Observed and reported use of learner-centered strategies, formative assessment, and shared management routines.	Convergence on adoption of strategies; both strands show that systematic evaluation of strategy use is less established than adoption.
3. Follow-through and leadership support (RQ 1, RQ 6)	No survey scale measured follow-up coaching.	Support often limited to logistics; reflections name coaching, monitoring, and follow-through as key quality conditions.	Complementarity: the qualitative strand identifies a quality gap that the survey did not capture.
4. Barriers (RQ 3)	Not measured quantitatively.	Time, resources, learner diversity, technology, and sustaining implementation.	Explains why very high self-reported application may not be uniform across classrooms.
5. Learner performance (RQ 4, RQ 5)	Cluster MPS rose by 1.65 to 2.24 percentage points in all three areas.	Teachers perceived greater engagement, confidence, and assessment performance among learners.	Directionally consistent but concurrent and unlinked; the change cannot be attributed to SLAC.

Table 10 brings the two strands together. The strands converge on the adoption of SLAC-derived strategies and on reflection and evaluation as the least established part of practice. They partly diverge on participation, where uniformly high self-ratings contrast with the between-school variation seen in observations and interviews. The qualitative strand complements the survey by identifying follow-up coaching and the barriers teachers face, which the survey did not measure. Teachers' reports of improved practice and the cluster's higher second-quarter results move in the same direction, which is consistent with Guskey's (2002) view that professional learning reaches students through teachers' use of new knowledge and skills. However, the two were measured at different levels and were not linked, so the study cannot show that improved teacher practice contributed to the learner results. Establishing such a contribution would require linking individual teachers' SLAC participation and practice to their own learners' results, with the nesting of learners in classes and schools taken into account (Liu & Yin, 2024).

Research Question 7: What strategies can be proposed to strengthen SLAC implementation in the North 1 Cluster District?

Table 11. Themes on the Additional Support Needed to Maximize SLAC's Impact

Theme	Codes	Description
1. Provision of resources and materials	Access to ICT tools, instructional materials, updated curriculum guides	Teachers need learning materials and ICT resources to implement strategies.
2. Time allocation and scheduling	Dedicated SLAC time, reduced class conflicts	Protected time is needed for sessions and follow-up application.
3. Continuous training and coaching	Mentoring, professional development, workshops	Ongoing coaching and tailored training sustain SLAC.
4. Administrative and institutional support	Monitoring, funding, recognition	Funding, School Improvement Plan integration, and recognition are vital.
5. Capacity building for facilitators	Coaching skills, facilitation training	Facilitators need training to lead meaningful sessions.

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Teachers' requests for additional support (Table 11) and the findings above point to six strategies. First, SLAC topics should be aligned with division priorities and school-specific learner data. Second, post-SLAC coaching and mentoring should be institutionalized to reinforce the transfer of learning to classroom practice. Third, a monitoring and evaluation tool should be developed to track participation, implementation quality, and classroom follow-through. Fourth, inter-school sharing sessions should be promoted so that teachers across the cluster can exchange practices. Fifth, exemplary SLAC practices should be recognized based on documented implementation quality. Sixth, data-driven decision-making should be integrated into SLAC discussions so that professional learning addresses actual learning gaps.

Ethical Considerations

The study followed ethical standards in educational research. The study protocol was reviewed and approved by the research and planning headed by Senior Education Program Specialist for Research. Permission to conduct the study was obtained from the Schools Division Office of Lipa City and the heads of the participating schools. Teachers were informed of the purpose of the study, its procedures, and their right to participate voluntarily or withdraw at any time without consequence, and written informed consent was secured, including consent to the use of anonymized quotations. Because the researcher is the district supervisor of the participating schools, steps were taken to reduce employment-related pressure. The survey was anonymous and collected no names or school identifiers; consent forms were collected by a non-supervisory staff member; participants were assured in writing that participation or non-participation would not affect performance ratings or other personnel decisions. Confidentiality was maintained: participants and schools are identified only by codes, and survey results are reported in aggregate. Learner assessment results concern minors and were therefore obtained only as consolidated, de-identified cluster-level data, with written authorization from the office of the Schools Division Superintendent. The researcher did not access learner names, learner reference numbers, or individual records. All data were handled in accordance with the Data Privacy Act of 2012 (Republic of the Philippines, 2012), stored in password-protected files accessible only to the researcher, used solely for research purposes, and will be retained for 2 years after publication and then deleted. Data collection was scheduled to avoid disrupting classes.

Conclusion

This study provides local descriptive evidence on SLAC implementation in the North 1 Cluster District. Observations, documents, and interviews indicated that SLAC implementation quality was generally high, marked by relevant topics, participatory facilitation, and supportive leadership, although inconsistent scheduling in some schools and limited post-session follow-up made implementation uneven. Teachers reported very high levels of collaboration, strategy application, and perceived improvement in lesson delivery, classroom management, and responsiveness to diverse learners, and observations were consistent with these reports. Limited time, insufficient resources, learner diversity, and the absence of sustained coaching were the main barriers to applying SLAC learning. Cluster-level learner performance in English, Science, and Mathematics was modestly higher in the second quarter than in the first, a trend that coincided with, but cannot be attributed to, SLAC participation. The study contributes evidence that teachers see the quality of SLAC sessions, not merely their occurrence, as what matters for translating professional learning into classroom practice. Teachers identified instructional leadership, a safe collaborative climate, coaching and follow-through, and contextualized content as the conditions under which SLAC moves from a compliance activity toward reflective, evidence-based practice. Theoretically, the findings support evaluating school-based professional development along the full chain from organizational support to teacher practice to learner outcomes. Because the results rest mainly on self-report and aggregate, unlinked learner data, they describe perceived contribution and concurrent trends; establishing whether SLAC quality improves practice and learning requires linked teacher–learner data and designs that can separate association from causation.

Recommendations

In light of the findings and conclusions, the following are recommended: School heads and SLAC coordinators should base SLAC agendas on classroom observation data, learner performance data, and School Improvement Plan priorities. Schools should fix a SLAC calendar and integrate it into the School Improvement Plan and Annual Implementation Plan, with protected time for sessions and follow-up. The division and district should train SLAC facilitators in leading collaborative discussions, promoting engagement, and documenting practices. School heads and master teachers should conduct follow-up classroom observations and coaching conferences to sustain the application of SLAC strategies. The district should design a monitoring and evaluation tool that measures SLAC participation, implementation quality, and classroom follow-through, rather than compliance alone. Cluster-wide sharing sessions should be held, and teachers, facilitators, and schools with exemplary SLAC practices should be recognized based on

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documented implementation quality, such as checklist ratings and follow-through records, rather than unadjusted changes in learner scores. School heads should allocate maintenance and other operating expenses (MOOE) for SLAC materials, ICT tools, and training. Future studies should link individual teachers' SLAC participation and practice to their own learners' results, use comparison groups and multilevel analyses that account for the nesting of learners in classes and schools, use equated or standardized assessments, and follow learners across a full school year or longer before outcome-based recognition is considered.

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