

# Instructional And Contextual Factors as Predictors of an Effective School-Based Learning Action Cell (LAC) Implementation: Bases for Enhanced Framework

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## ABSTRACT

This study examined instructional and contextual factors as predictors of effective School-Based Learning Action Cell (LAC) implementation and used the findings as basis for an enhanced framework. An explanatory sequential mixed-methods design was employed. The quantitative phase involved 116 teachers and master teachers from five public elementary schools in Legazpi District V, while the qualitative phase used semi-structured interviews to explain the survey results. Data were analyzed using weighted mean, standard deviation, Pearson's  $r$ , multiple regression analysis, and Braun and Clarke's thematic analysis. Results showed that School-Based LAC sessions were very highly implemented, with an overall weighted mean of 4.36. Instructional factors obtained a mean of 4.37, while contextual factors obtained a mean of 4.34. The effectiveness of LAC was

also rated very highly effective, with an overall weighted mean of 4.30. Instructional effectiveness obtained a mean of 4.35, while contextual effectiveness obtained a mean of 4.24. A very strong positive relationship was found between implementation and effectiveness,  $r = .981$ ,  $p < .001$ . Regression results further indicated that instructional and contextual factors significantly predicted effective LAC implementation. Qualitative findings identified clear goals, relevant content, collaboration, facilitation, leadership support, digital resources, data-driven practices, and instructional materials as enabling mechanisms, while time constraints, workload, limited resources, scheduling conflicts, low motivation, weak facilitation, and insufficient support served as barriers. The study concludes that effective LAC implementation depends on the quality of instructional design and the strength of contextual support.

**Keywords:** *contextual factors, enhanced framework, instructional factors, Learning Action Cell, professional development, school-based LAC*

## INTRODUCTION

Teacher professional development remains central to improving instructional quality and learner outcomes. In the Philippine basic education system, schools are expected to help teachers respond to curriculum reforms, diverse learner needs, assessment demands, and localized classroom realities. The Learning Action Cell (LAC), institutionalized through DepEd Order No. 35, s. 2016, serves as a school-based continuing professional development strategy that enables teachers to learn collaboratively, reflect on practice, and address shared instructional concerns.

The LAC is designed as a professional learning community where teachers discuss curriculum issues, analyze learner performance, share effective teaching strategies, and design interventions suited to the school context. It is not intended to be a compliance activity alone; rather, it should function as a practical mechanism

for improving teaching and learning. Its success, however, depends on the quality of implementation. Sessions must be well-planned, relevant, collaborative, adequately facilitated, and supported by school leadership.

Instructional factors influence whether LAC sessions translate into meaningful teacher learning. These include content and pedagogy, assessment practices, the integration of 21st-century skills, and the use of practical strategies that can be applied in classrooms. Contextual factors are equally important because school culture, resources, time allocation, leadership support, workload, and local learning conditions shape the degree to which teachers can participate meaningfully.

While the policy foundation for LAC is clear, implementation varies across schools. Some sessions become reflective and evidence-based, while others may become routine or compliance-driven. This study examined the instructional and contextual factors that predict effective school-based LAC implementation among teachers and master teachers in Legazpi District V. The findings were used to develop an Enhanced School-Based LAC Implementation Framework to strengthen professional development and sustain effective practices.

## **Literature Review**

### ***School-Based LAC as Continuing Professional Development***

The Learning Action Cell reflects the view that teacher learning is most effective when it is sustained, collaborative, and embedded in actual school practice. DepEd Order No. 35, s. 2016 describes the LAC as a school-based professional learning community that helps teachers address instructional issues through regular discussion, reflection, and action. This approach aligns with broader professional development literature emphasizing collaborative inquiry and teacher agency.

LAC also responds to the demands of the Enhanced Basic Education Act of 2013, which strengthened the K to 12 curriculum and its learner-centered orientation. Since the curriculum requires differentiated instruction, performance-based learning, and higher-order thinking, teachers need regular opportunities to reflect on teaching strategies and learner needs. School-based LAC provides a structure through which professional learning can be connected directly to classroom realities.

Professional development becomes meaningful when it results in improved instructional practice. In this study, LAC implementation was examined in terms of instructional factors such as content and pedagogy, assessment, and 21st-century skills, and contextual factors such as contextualization, localization, and indigenization. These components represent the policy and practice areas where LAC can support teacher growth.

### ***Instructional and Contextual Factors in LAC Implementation***

Instructional factors determine the relevance and practical value of LAC sessions. When topics are aligned with curriculum standards, learner needs, assessment results, and actual teaching challenges, teachers are more likely to find LAC useful. Sessions that strengthen content and pedagogy, support assessment literacy, and promote 21st-century skills help teachers improve lesson planning, teaching strategies, classroom interaction, and learner-centered practice.

Contextual factors influence whether the professional learning process can be sustained. These include school leadership, collaboration, access to digital and instructional resources, available time, and the extent to which lessons are contextualized, localized, and indigenized. Teachers are more likely to engage when LAC sessions reflect local culture, learner experiences, community realities, and school priorities.

Effective implementation depends on the interaction between these instructional and contextual dimensions. A LAC session may have strong content, but its impact may be limited if teachers lack time, resources, leadership support, or follow-up mechanisms. Conversely, a supportive school context can strengthen participation and encourage teachers to apply the strategies learned.

### ***Theoretical Bases of Collaborative and Experiential Learning***

The study was anchored on Bandura's Social Learning Theory and Kolb's Experiential Learning Theory. Social Learning Theory emphasizes that individuals learn through observation, modeling, interaction, and shared

experiences. This theory is relevant to LAC because teachers learn from colleagues, observe practices, share strategies, and develop professional confidence through collaborative engagement.

Kolb's Experiential Learning Theory explains learning as a cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation. The LAC process reflects this cycle because teachers identify classroom problems, reflect on experience, discuss possible solutions, test strategies, and evaluate outcomes. This makes LAC a reflective and action-oriented form of professional learning.

Together, these theories explain why collaborative and reflective LAC sessions can support teacher development. The source manuscript's theoretical paradigm presents LAC effectiveness as arising from social interaction, shared practice, continuous reflection, and the application of strategies to improve teaching and learner outcomes.

## METHODS

### Research Design

The study employed an explanatory sequential mixed-methods research design. The quantitative phase was conducted first to determine the level of LAC implementation, the level of effectiveness, the relationship between the two variables, and the predictors of effective implementation. The qualitative phase followed to explain the survey results by exploring experiences, enabling mechanisms, barriers, and recommendations.

### Research Locale

The study was conducted in five public elementary schools in Legazpi District V. These schools were selected as the setting because they implemented School-Based Learning Action Cell sessions as part of continuing professional development and instructional improvement.

### Participants and Sampling Technique

The respondents were 116 teachers and master teachers from the five participating public elementary schools. The distribution was as follows: School A had 9 respondents, School B had 28, School C had 48, School D had 10, and School E had 21. The qualitative phase involved selected participants who provided deeper explanations regarding LAC implementation, enabling mechanisms, barriers, and recommendations.

Table 1. *Distribution of Respondents*

Public elementary school	Number of respondents	Sample size
A	9	9
B	28	28
C	48	48
D	10	10
E	21	21
Total	116	116

### Research Instrument

The quantitative instrument was a structured survey questionnaire composed of items on the level of implementation and effectiveness of school-based LAC sessions. The questionnaire covered instructional factors and contextual factors. The qualitative instrument was a semi-structured interview guide used to gather participants' experiences, enabling mechanisms, barriers, and recommendations for improving LAC implementation. The instruments were validated before data gathering.

### Data Gathering Procedure

After approval was obtained, the researcher coordinated with the Public Schools District Supervisors and School Heads of the five participating schools. The validated survey questionnaires were distributed to teachers and master teachers at a schedule that did not disrupt school activities. After the survey phase, interviews were conducted with selected participants to provide deeper explanations of the quantitative findings.

### Data Analysis

Weighted mean and standard deviation were used to describe the level of implementation and effectiveness of LAC sessions. Pearson's *r* was used to determine the relationship between implementation and effectiveness. Multiple regression analysis was used to identify instructional and contextual predictors of effective LAC implementation. Qualitative data were analyzed using Braun and Clarke's thematic analysis, which involved coding significant statements, generating themes, and interpreting the patterns in relation to the quantitative findings.

### Ethical Consideration

The study observed voluntary participation, confidentiality, and respect for respondents' time and professional responsibilities. Permission was secured from appropriate school authorities before data collection. Responses were treated confidentially, and the results were presented in aggregate form. The final submission should include the confirmed institutional ethics-review or approval reference number when available.

## RESULTS AND DISCUSSION

### Level of Implementation of School-Based LAC Sessions

The level of implementation of School-Based LAC sessions was rated Very Highly Implemented. Instructional factors obtained a weighted mean of 4.37 with a standard deviation of 0.60, while contextual factors obtained a weighted mean of 4.34 with a standard deviation of 0.62. The overall weighted mean was 4.36 with an average standard deviation of 0.61. These findings indicate that the participating schools strongly implemented LAC sessions in both instructional and contextual dimensions.

Table 2. *Summary of the Level of Implementation of School-Based LAC Sessions*

Indicators	WM	VI	SD	Rank
Instructional	4.37	VHI	0.60	1
Contextual	4.34	VHI	0.62	2
Average weighted mean	4.36	VHI	0.61	

The high instructional implementation suggests that LAC sessions were used to support content and pedagogy, assessment, and 21st-century skill integration. The high contextual implementation indicates that LAC also supported contextualization, localization, and indigenization. This shows that the LAC functioned not only as a professional development activity but also as a venue for aligning instruction with local learner needs.

### Level of Effectiveness of School-Based LAC

The effectiveness of School-Based LAC was rated Very Highly Effective. Instructional effectiveness obtained a weighted mean of 4.35 with a standard deviation of 0.62, while contextual effectiveness obtained a weighted mean of 4.24 with a standard deviation of 0.66. The overall weighted mean was 4.30 with an average standard deviation of 0.64. These results show that teachers perceived LAC as effective in improving instructional practices, collaboration, lesson planning, assessment, and contextualized teaching.

Table 3. *Summary of the Level of Effectiveness of School-Based LAC*

Indicators	WM	VI	SD	Rank
Instructional	4.35	VHE	0.62	1
Contextual	4.24	VHE	0.66	2
Average weighted mean	4.30	VHE	0.64	

Although the results were very high, the slightly lower contextual effectiveness suggests the need to deepen the use of culturally responsive, localized, and indigenized teaching practices. Likewise, the source conclusions noted that assessment-related practices still require further strengthening.

### Relationship Between Implementation and Effectiveness

Pearson correlation results revealed very strong positive relationships between the level of implementation and the effectiveness of School-Based LAC. Instructional factors obtained  $r = .842, p < .001$ ; contextual factors obtained  $r = .977, p < .001$ ; and the overall relationship obtained  $r = .981, p < .001$ . These findings indicate that stronger and more consistent implementation was associated with higher perceived effectiveness.

Table 4. *Relationship Between Implementation and Effectiveness of School-Based LAC*

Indicators	N	Pearson's r	p-value	Strength/direction	Decision
Instructional	116	0.842	< .001	Very strong positive	Significant
Contextual	116	0.977	< .001	Very strong positive	Significant
Overall	116	0.981	< .001	Very strong positive	Significant

This result supports the view that LAC effectiveness depends on implementation quality. When sessions are relevant, properly facilitated, collaborative, monitored, and supported by leadership, they are more likely to improve teaching practices and professional learning.

### Predictors of Effective LAC Implementation

Regression analysis showed that instructional and contextual factors significantly predicted effective LAC implementation. Instructional factors had  $B = -0.073, \text{Beta} = -0.060, t = -3.215, p = .002$ , while contextual factors had  $B = 0.198, \text{Beta} = 0.190, t = 3.755, p < .001$ . The significant results indicate that both instructional and contextual areas contribute to explaining LAC effectiveness.

Table 5. *Regression Analysis of Predictors of Effective LAC Implementation*

Predictor variables	B	Beta	t-value	p-value	Decision
Instructional	-0.073	-0.060	-3.215	0.002	Significant
Contextual	0.198	0.190	3.755	< .001	Significant

### Qualitative Themes on Enablers, Barriers, and Recommendations

The qualitative findings explained the quantitative results by identifying factors that supported or hindered LAC implementation. Enabling mechanisms included clear goals, relevant content, collaboration, active participation, skilled facilitation, leadership support, digital resources, data-driven practices, and instructional materials. Barriers included low motivation, burnout, time constraints, heavy workload, scheduling conflicts, limited resources, weak facilitation, insufficient leadership support, and difficulty applying strategies in classrooms.

Table 6. *Qualitative Themes on LAC Implementation*

Area	Generated themes	Synthesis
Facilitating factors	Clear goals and relevant content; collaboration and active participation; skilled facilitation	Successful LAC sessions were supported by needs-based planning, active teacher engagement, and meaningful facilitation.
Resources and leadership	Access to digital and instructional resources; data-driven support; administrative and leadership guidance	LAC implementation improved when school leaders provided direction, materials, monitoring, and resource support.
Barriers	Motivation and engagement issues; time constraints; workload; weak facilitation; resource limitations	Competing duties, limited support, and insufficient resources reduced participation and meaningful discussion.
Effects of challenges	Limited application of learned strategies; reduced session effectiveness; increased stress	Challenges affected the transfer of LAC learning into classroom practice.

Recommendations	Interactive and relevant sessions; protected time; resource provision; mentoring; monitoring and evaluation	Participants recommended stronger planning, scheduling, facilitation, follow-up, and sustained professional support.
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### Enhanced School-Based LAC Implementation Framework

Based on the integrated findings, the study proposed an Enhanced School-Based LAC Implementation Framework. The framework emphasizes data-driven planning, relevant instructional content, effective facilitation, leadership support, resource provision, collaborative learning, monitoring and evaluation, and sustainability mechanisms. It also addresses common barriers by recommending protected time, workload-sensitive scheduling, stronger facilitator preparation, and continuous feedback.

Table 7. *Proposed Enhanced School-Based LAC Implementation Framework*

Framework component	Key actions	Expected contribution
Planning and needs assessment	Use learner data, teacher needs, and school priorities to identify LAC topics.	Relevant and evidence-based LAC sessions
Instructional strengthening	Focus on content and pedagogy, assessment practices, 21st-century skills, and contextualized instruction.	Improved teaching strategies and learner-centered practices
Facilitation and collaboration	Train facilitators, promote peer sharing, and use interactive activities.	Stronger engagement and professional learning
Leadership and resource support	Provide time, materials, digital tools, and administrative guidance.	Sustained and supported implementation
Monitoring and reflection	Document sessions, evaluate outcomes, conduct follow-up, and revise practices.	Continuous improvement and stronger classroom application
Sustainability	Institutionalize regular review, mentoring, and adaptive planning.	Responsive and long-term LAC implementation

## CONCLUSION

School-Based LAC sessions in the participating schools were very highly implemented and very highly effective in both instructional and contextual dimensions. Instructional factors supported content and pedagogy, assessment, and the integration of 21st-century skills, while contextual factors promoted contextualization, localization, and indigenization. A very strong positive relationship existed between implementation and effectiveness, indicating that LAC becomes more effective when it is planned, facilitated, monitored, and supported meaningfully. Regression findings confirmed that instructional and contextual factors significantly predicted LAC effectiveness. Qualitative findings further showed that successful LAC implementation depends on clear goals, relevant content, active collaboration, skilled facilitation, leadership support, adequate resources, digital tools, data-driven practices, and structured professional development. However, time constraints, workload, low motivation, burnout, scheduling conflicts, limited resources, weak facilitation, and insufficient support can reduce teacher engagement and limit the practical impact of LAC. The Enhanced School-Based LAC Implementation Framework provides a structured basis for sustaining effective practices and addressing implementation barriers.

## Recommendation

Schools should sustain regular, well-planned, needs-based, and evidence-informed LAC sessions. School heads and LAC coordinators should strengthen instructional areas such as content and pedagogy, assessment, and 21st-century skills while continuing to integrate contextualization, localization, and indigenization. Greater emphasis should be placed on assessment-related practices, including test construction, rubric development, formative and summative assessment, learner-performance analysis, and feedback use. School leaders should protect time for LAC, reduce scheduling conflicts, manage teacher workload, provide digital and instructional resources, and support facilitators through training and mentoring. The proposed Enhanced School-Based LAC Implementation Framework may be adopted, monitored, and periodically revised based on teachers' needs, learner

performance, and school priorities. Future researchers may test the framework in other districts, compare implementation across school contexts, and examine its effect on learner outcomes and teacher professional growth over time.

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