

From Policy to Place: Educational Policy Implementation and Context-Responsive School Outcomes in Quirino Province, Philippines

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ABSTRACT

This explanatory mixed-methods case study examined how national basic education policies were translated into context-responsive implementation and localized school outcomes across Quirino Province, Philippines. The analytic case included 348 educator records nested within 30 public schools distributed equally across Aglipay, Cabarroguis, Diffun, Maddela, Nagtipunan, and Saguday. Seven implementation domains were measured: policy clarity, leadership enactment, resource fit, teacher capacity, local adaptation, stakeholder coordination, and monitoring-feedback. Five outcome domains covered access continuity, instructional quality, learner support, community responsiveness, and evidence use. School-level administrative indicators were combined into a standardized outcome index. Internal consistency ranged from $\alpha = .747$ to $\alpha = .846$. Because responses were clustered by school, standardized multiple regression used school-clustered, small-sample-corrected standard errors. School-level Welch tests, Holm-adjusted comparisons, Hedges' g , and Spearman correlations with bootstrap confidence intervals supplemented the analysis. Overall implementation was high, but resource fit and monitoring-feedback were comparatively weaker. Leadership enactment ($\beta = .302, p < .001$), resource fit ($\beta = .259, p < .001$), local adaptation ($\beta = .202, p < .001$), teacher capacity ($\beta = .180, p < .001$), monitoring-feedback ($\beta = .157, p < .001$), and stakeholder coordination ($\beta = .099, p = .009$) were independently associated with localized outcomes. Policy clarity was not significant after implementation capacity was controlled ($\beta = .054, p = .268$). Remote schools reported lower implementation and resource fit than central and intermediate schools, while municipality-level patterns remained descriptive. School-level implementation was positively associated with the administrative outcome index ($p = .599, p < .001$), and localized outcome ratings showed stronger convergence ($p = .705, p < .001$). The qualitative integration indicated that policies became consequential when school leadership routinized them, teachers adapted them without losing intent, resources matched local constraints, partnerships reduced access gaps, and monitoring closed feedback loops. The LOCAL-ED framework was proposed to connect legible policy direction, operational leadership, context-responsive resources, adaptive professional capacity, local partnerships, and evidence-feedback loops with durable localized outcomes.

1. Introduction

1.1 Policy Implementation as a Local Education Problem

Educational reform did not end when a law, department order, or national plan was issued. It continued through interpretation, prioritization, resource allocation, professional learning, classroom practice, community negotiation, and monitoring at successive levels of the education system. In the Philippines, Republic Act No. 9155 established shared governance and assigned differentiated authority and accountability to the central, regional, division, district, and school levels.¹ Republic Act No. 10533 strengthened the K to 12 curriculum and expected schools to provide a learner-centered, contextualized, and developmentally appropriate basic education program.² These statutes created a policy environment in which national direction and local discretion operated simultaneously.

The Basic Education Development Plan 2030 provided a long-term sector framework for access, equity, quality, resilience, and governance.³ The MATATAG curriculum subsequently reduced curriculum congestion and refocused early-grade and foundational learning priorities.⁴ School improvement planning, Learning Action Cells, and the Philippine Professional Standards for Teachers further linked national expectations with school planning, collaborative professional development, and teacher practice.⁵⁻⁷ Inclusive education legislation and special education financing rules also increased the responsibility of local systems to make participation, support, and resource decisions responsive to diverse learner needs.⁸⁻¹⁰

This policy density created both opportunity and implementation risk. National policies could align actors around common goals, but schools differed in leadership stability, staffing, physical access, connectivity, learning materials, local government support, and capacity to use evidence. A policy could therefore appear formally implemented while producing uneven local experiences and

outcomes. The central analytic problem was not whether policies existed, but how the same policy architecture became more or less actionable in different local conditions.

1.2 Philippine Shared Governance and the Localization Gap

Shared governance had been intended to move decisions closer to learners while preserving national standards. However, recent Philippine system analyses reported that overlapping mandates, fiscal asymmetries, limited local discretion, weak coordination, and uneven implementation capacity continued to constrain meaningful decentralization.^{11,12} EDCOM II's final report and National Education and Workforce Development Plan emphasized that policy continuity, stronger implementation systems, and evidence-based local action were necessary to reverse persistent learning difficulties.¹³ The updated Special Education Fund guidelines also reinforced the importance of coordinated planning among DepEd, local school boards, and local governments.¹⁰

National learning indicators strengthened the urgency of examining implementation rather than policy text alone. PISA 2022 continued to show low average Philippine performance in mathematics, reading, and science relative to OECD benchmarks, while the World Bank's 2024 learning poverty brief estimated that a large majority of Filipino children had not achieved minimum reading proficiency by the end of primary education.^{14,15} These national indicators could not be attributed to one policy or locality, but they demonstrated that policy adoption had not automatically produced adequate learning. Local implementation research was therefore necessary to identify the mechanisms that connected reform intent with school-level results.

1.3 Quirino Province as a Bounded Case

Quirino Province provided a useful bounded case because its six municipalities combined central service areas with geographically dispersed and remote communities. The 2024 Census of Population recorded 210,841 residents across Aglipay, Cabarroguis, Diffun, Maddela, Nagtipunan, and Saguday, while the provincial profile listed 132 barangays and Cabarroguis as the capital.^{16,17} The province's settlement pattern, transport conditions, and municipal variation created plausible differences in how schools accessed personnel, professional development, learning resources, interagency support, and monitoring services.

A provincial case also allowed policy implementation to be studied across connected governance layers. Schools operated within district and division structures, relied on municipal and provincial partners for selected resources, and interpreted policies through school improvement priorities. The study therefore treated municipality, remoteness, and school level as context variables rather than as labels of performance. Its purpose was to identify mechanisms that helped schools preserve policy intent while responding to place-specific constraints.

1.4 Theoretical and Empirical Foundations

The study drew from policy enactment, street-level implementation, scaling, implementation fidelity, and continuous improvement perspectives. Spillane, Reiser, and Reimer explained that implementers made sense of policy through prior knowledge, beliefs, social interaction, and local context.¹⁸ Coburn's framework for scale argued that reform became durable through depth, spread, ownership, and sustainability rather than through numerical expansion alone.¹⁹ Street-level bureaucracy further emphasized that frontline personnel exercised discretion when rules encountered complex cases, limited resources, and competing demands.²⁰ Education policy implementation scholarship similarly showed that local actors, organizational routines, and intergovernmental relationships shaped what policies became in practice.²¹

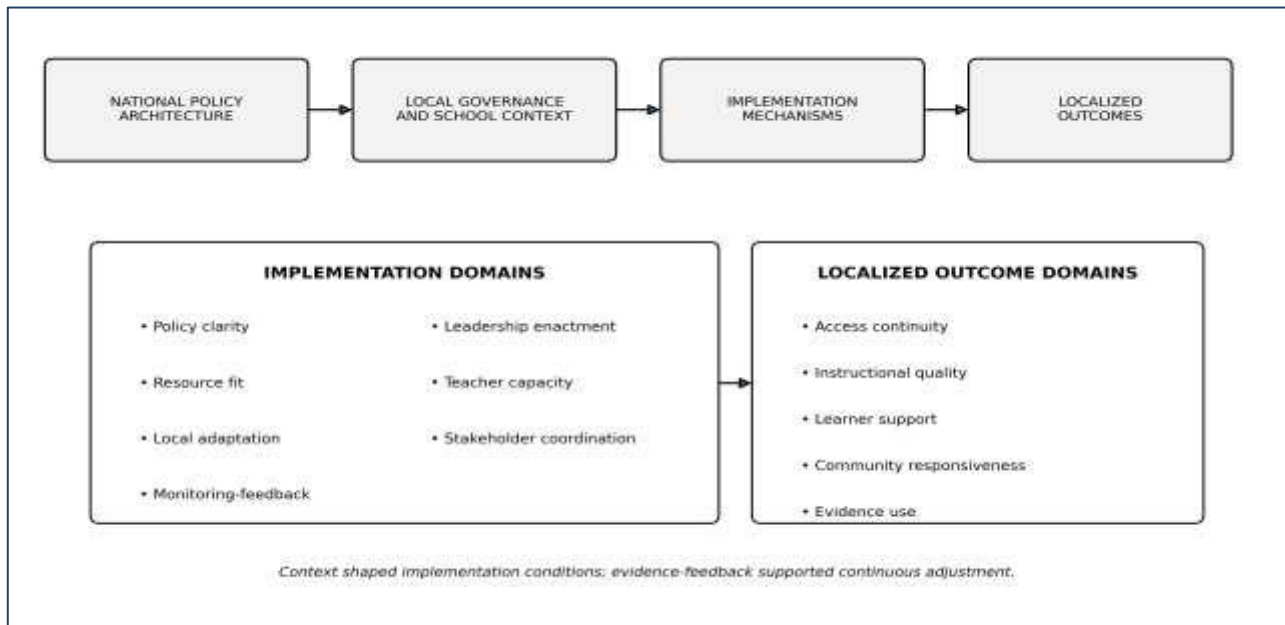
Implementation research distinguished fidelity from superficial compliance. Durlak and DuPre found that implementation quality influenced program outcomes across community settings, while Carroll and colleagues proposed that adherence was affected by intervention complexity, facilitation strategies, participant responsiveness, and context.^{22,23} Century, Rudnick, and Freeman differentiated critical components from adaptable elements, allowing local variation to be examined without treating every adaptation as policy drift.²⁴ Muthanna's review likewise showed that educational policy implementation depended on clear policy design, stakeholder participation, leadership, resources, monitoring, and contextual responsiveness.²⁵

Fullan framed educational change as a process requiring coherence, capacity, relationships, and sustained implementation rather than episodic adoption.²⁶ Bryk and colleagues argued that improvement accelerated when practitioners developed disciplined inquiry, understood system variation, and learned through iterative evidence.²⁷ Together, these perspectives supported a mechanism-based proposition: national policy direction was most likely to generate localized outcomes when leaders operationalized it, resources fit actual constraints, teachers possessed adaptive capacity, stakeholders coordinated support, and monitoring informed corrective action.

1.5 Conceptual Framework

The conceptual framework treated the national policy architecture as a source of goals, standards, responsibilities, and accountability. Local governance and school context shaped how those expectations were interpreted and supported. Seven implementation mechanisms were expected to explain variation in localized outcomes: policy clarity, leadership enactment, resource fit, teacher capacity, local adaptation, stakeholder coordination, and monitoring-feedback. Localized outcomes were represented by access continuity, instructional quality, learner support, community responsiveness, and evidence use. Remoteness, municipality, school level, role, and professional experience were treated as contextual controls rather than direct measures of school quality.

Figure 1. Conceptual framework linking national policy architecture, local implementation mechanisms, and school outcomes



The framework integrated Philippine shared governance policy with policy enactment, implementation fidelity, scaling, street-level discretion, and continuous improvement perspectives.^{1,18-27}

1.6 Research Questions and Hypotheses

The study examined how basic education policies were translated into localized school processes and outcomes across Quirino Province. It answered the following questions:

- What were the reliability and observed levels of the seven policy implementation domains and five localized outcome domains?
- How did implementation and outcomes vary descriptively across municipalities and by school remoteness?
- Which implementation domains were independently associated with localized outcomes after school clustering and relevant context variables were controlled?
- To what extent did school-level implementation and educator-rated outcomes converge with administrative outcome indicators?
- What implementation mechanisms and constraints emerged from the integrated qualitative summaries?
- What provincial implementation framework could be derived from the combined findings?

Three hypotheses guided the quantitative analysis. First, stronger implementation mechanisms were expected to be positively associated with localized outcomes. Second, remote schools were expected to report weaker resource fit and implementation than centrally located schools. Third, school-level implementation and localized outcome ratings were expected to correlate positively with the administrative outcome index. The study did not hypothesize that any municipality would outperform another because the case sample was not designed for municipal ranking.

2. Methods

2.1 Research Design

The study used an explanatory mixed-methods, embedded multiple-case design.^{28,29} The province constituted the bounded case, the 30 schools constituted embedded organizational units, and educators constituted the primary respondent units. A quantitative core described implementation, tested cluster-adjusted associations, and compared school-level patterns by remoteness. Structured key-informant summaries and policy-document mapping were then used to explain why observed patterns occurred and to identify mechanisms that were not fully represented by scale scores.

The design was selected because policy implementation operated simultaneously at individual and organizational levels. Educators interpreted and enacted policy, while school leadership, resource conditions, municipal partnerships, and monitoring routines were properties of organizational settings. The mixed-methods integration therefore occurred at three points: instrument development, interpretation of quantitative patterns, and construction of a joint display and implementation framework.

2.2 Study Locale and Case Boundaries

The analytic case included public elementary, integrated, and secondary schools in the six municipalities of Quirino Province: Aglipay, Cabarroguis, Diffun, Maddela, Nagtipunan, and Saguday. Five schools were represented per municipality. Schools were classified as central, intermediate, or remote using a structured context profile that considered distance from municipal or division services, travel reliability, access to professional learning, logistics for learning materials, and availability of partner support. These categories described implementation conditions and did not represent official DepEd classifications.

The case focused on cross-cutting basic education policies that influenced curriculum delivery, school improvement, teacher professional learning, learner inclusion, continuity of access, community participation, and monitoring. It did not evaluate a single program, estimate official provincial performance, or compare named schools. The analytic period was framed as one completed school-year implementation cycle so that respondents could assess routines rather than isolated events.

2.3 Participants and Sampling

The data contained 348 educator records nested within 30 schools. Each municipality contributed 58 respondents. The sample included 316 teachers and 32 school heads or coordinators; 271 respondents were female and 77 were male. By school level, 213 worked in elementary schools, 68 in integrated schools, and 67 in secondary schools. Professional experience was distributed across 1-5 years (58), 6-10 years (121), 11-20 years (139), and more than 20 years (30).

A stratified cluster approach structured the case. School units were distributed equally across municipalities and remoteness categories, with 10 central, 10 intermediate, and 10 remote schools. Within participating school units, educators who had served for at least one completed grading period and had direct responsibility for instruction, learner support, school coordination, or policy implementation were eligible. The resulting design retained 30 independent school clusters, which supported cluster-adjusted inference while preserving context variation.

Table 1. Respondent profile (N = 348)

Characteristic	n	%
Sex: Female	271	77.9
Sex: Male	77	22.1
Role: Teacher	316	90.8
Role: School head/coordinator	32	9.2
School level: Elementary	213	61.2
School level: Integrated	68	19.5
School level: Secondary	67	19.3
Experience: 1-5 years	58	16.7
Experience: 6-10 years	121	34.8
Experience: 11-20 years	139	39.9
Experience: More than 20 years	30	8.6
Remoteness: Central	114	32.8
Remoteness: Intermediate	118	33.9
Remoteness: Remote	116	33.3

Percentages might not total 100 because of rounding. School-remoteness categories described the case specification and were not official administrative classifications.

2.4 Measurement Framework

The Policy Implementation and Localized Outcomes Questionnaire contained 43 rated items and a respondent profile. Responses used a five-point implementation scale: 1 = not evident, 2 = evident to a limited extent, 3 = evident to a moderate extent, 4 = evident to a great extent, and 5 = evident to a very great extent. Composite scores were calculated as the mean of completed items. The following interpretive ranges were used for descriptive reporting: 1.00-1.80, not evident; 1.81-2.60, limited extent; 2.61-3.40, moderate extent; 3.41-4.20, great extent; and 4.21-5.00, very great extent.

The implementation component included seven four-item domains. Policy clarity measured understanding of policy purpose, roles, priorities, and expected evidence. Leadership enactment assessed translation of policy into routines, work assignments, support, and follow-through. Resource fit measured the adequacy and usability of personnel, materials, time, infrastructure, and financing. Teacher capacity assessed confidence and competence to implement curricular, inclusive, assessment, and learner-support requirements. Local adaptation measured the ability to adjust delivery while preserving core policy intent. Stakeholder coordination covered collaboration among schools, families, local governments, and service partners. Monitoring-feedback assessed data review, technical assistance, response to implementation problems, and use of lessons for improvement.

The localized outcome component contained five three-item domains. Access continuity assessed attendance support, re-engagement, and continuity during disruption. Instructional quality covered coherence, learner responsiveness, and use of appropriate assessment. Learner support assessed early identification, targeted intervention, and referral. Community responsiveness measured family engagement, local relevance, and partner contribution. Evidence use assessed the use of school information for planning, resource targeting, and improvement. The implementation composite averaged the seven implementation domains, while the localized outcome score averaged the five outcome domains.

2.5 School-Level Administrative Outcome Index

A school-level administrative outcome index provided a second evidence stream. Five indicators were specified: attendance continuity percentage, completion percentage, reading gain in percentage points, intervention coverage percentage, and withdrawal percentage. Each indicator was standardized across the 30 schools. Withdrawal was reverse-scored so that higher values consistently represented better outcomes. The index was calculated as the unweighted mean of the five standardized indicators. Equal weighting

was used because the index was intended to test convergence across distinct school functions rather than to claim that one indicator had greater policy value.

The administrative index was analyzed only at the school level. It was not merged with individual learner records, used for ranking, or interpreted as an official accountability score. Its role was methodological triangulation: schools that reported stronger implementation and localized outcomes were expected to show correspondingly stronger patterns across continuity, completion, reading improvement, intervention reach, and withdrawal control.

2.6 Qualitative Component

The explanatory component included 24 structured key-informant summaries distributed across school leadership, classroom teachers, district or division support roles, and local or community partners. The summaries covered policy communication, leadership routines, resource mobilization, teacher learning, adaptation, coordination, monitoring, and perceived outcome pathways. No verbatim quotations were used. Pattern summaries were coded at the mechanism level to avoid attributing statements to identifiable persons or schools.

Thematic analysis followed a deductive-inductive sequence informed by Braun and Clarke.³⁰ Initial codes reflected the seven implementation domains. Pattern coding then identified recurrent explanations, tensions, enabling conditions, and negative cases. The qualitative strand was not treated as a prevalence estimate. It was used to explain quantitative regularities and to determine whether the proposed mechanisms were coherent across different roles and contexts.

2.7 Instrument Quality and Data Procedures

The instrument blueprint was reviewed for content alignment with Philippine governance, curriculum, professional learning, inclusion, school planning, and local financing policies.¹⁻¹⁰ Theoretical alignment was checked against policy enactment, implementation fidelity, scaling, and continuous improvement literature.¹⁸⁻²⁷ Items were revised to avoid double-barreled statements and to distinguish policy understanding from implementation action and observed outcomes. Internal consistency was evaluated using Cronbach's alpha.³¹

The field protocol specified institutional authorization, informed consent, voluntary participation, anonymous coding, and aggregate reporting. Questionnaires could be completed in paper or secure electronic form. School profiles and administrative indicators were consolidated using nonidentifying school codes. Quality-control procedures included range checks, review of missingness, logical consistency checks, duplicate screening, and verification that each respondent belonged to one school cluster. The protocol prohibited the use of results for individual appraisal or school ranking.

2.8 Statistical Treatment

Data analysis proceeded at respondent and school levels. Frequencies and percentages described the sample. Means, standard deviations, and 95% confidence intervals summarized implementation and outcome domains. Cronbach's alpha assessed internal consistency. The unconditional intraclass correlation coefficient, estimated through a one-way random-effects decomposition, quantified the proportion of localized outcome variance attributable to between-school differences. The coefficient was .450, indicating substantial school-level clustering and confirming that ordinary independent-observation standard errors would have been inappropriate.³²

The primary explanatory analysis used ordinary least squares regression with continuous variables standardized before estimation and standard errors clustered by school. A finite-sample correction was applied because the number of independent clusters was 30.^{32,33} The seven implementation domains entered simultaneously. Role, years of experience, remoteness, school level, and municipality fixed effects were included as controls. Standardized coefficients, cluster-adjusted standard errors, 95% confidence intervals, and two-sided p values were reported. Variance inflation factors assessed multicollinearity.

School-level comparisons by remoteness used Welch's heteroscedastic analysis of variance because group variances and the number of respondents per school were not presumed equal.³⁴ Follow-up pairwise Welch tests used Holm's sequential adjustment to control familywise error, and Hedges' g described standardized mean differences.^{35,36} School-level associations between implementation domains, localized outcome ratings, and the administrative index used Spearman's rho. Percentile confidence intervals were obtained from 3,000 school-level bootstrap resamples.³⁷ Statistical significance was evaluated at $\alpha = .05$, but interpretation prioritized confidence intervals, effect sizes, consistency across evidence streams, and the bounded nature of the case.

3. Results

3.1 Reliability and Overall Domain Levels

Table 2. Reliability and descriptive statistics of implementation and outcome domains

Domain	Items	α	M	SD	Interpretation
Policy Clarity	4	0.811	3.75	0.35	Great extent
Leadership Enactment	4	0.771	3.82	0.31	Great extent
Resource Fit	4	0.821	3.33	0.39	Moderate extent
Teacher Capacity	4	0.753	3.77	0.32	Great extent
Local Adaptation	4	0.747	3.78	0.31	Great extent
Stakeholder Coordination	4	0.793	3.77	0.33	Great extent

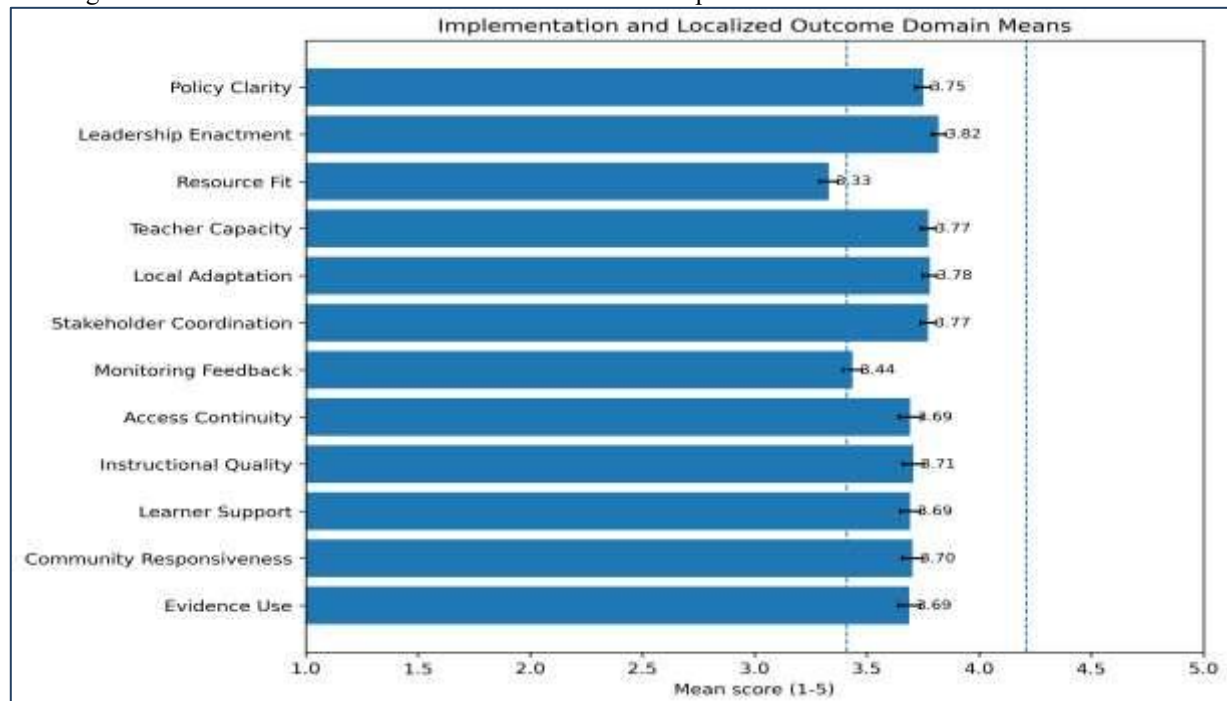
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Domain	Items	α	M	SD	Interpretation
Monitoring Feedback	4	0.837	3.44	0.41	Great extent
Access Continuity	3	0.843	3.69	0.48	Great extent
Instructional Quality	3	0.836	3.71	0.44	Great extent
Learner Support	3	0.827	3.69	0.43	Great extent
Community Responsiveness	3	0.842	3.70	0.45	Great extent
Evidence Use	3	0.846	3.69	0.46	Great extent

Scale: 1.00-1.80 = not evident; 1.81-2.60 = limited extent; 2.61-3.40 = moderate extent; 3.41-4.20 = great extent; 4.21-5.00 = very great extent. All domain scores demonstrated acceptable to good internal consistency. Alpha coefficients ranged from .747 for local adaptation to .846 for evidence use. The implementation domains were generally rated to a great extent. Leadership enactment produced the highest mean ($M = 3.82$, $SD = 0.31$), followed by local adaptation ($M = 3.78$, $SD = 0.31$), teacher capacity ($M = 3.77$, $SD = 0.32$), stakeholder coordination ($M = 3.77$, $SD = 0.33$), and policy clarity ($M = 3.75$, $SD = 0.35$). Resource fit was the lowest implementation domain and fell within the moderate range ($M = 3.33$, $SD = 0.39$). Monitoring-feedback was marginally within the great-extent range ($M = 3.44$, $SD = 0.41$).

The five localized outcome domains were consistently rated to a great extent. Instructional quality had the highest mean ($M = 3.71$, $SD = 0.44$), closely followed by community responsiveness ($M = 3.70$, $SD = 0.45$), access continuity ($M = 3.69$, $SD = 0.48$), learner support ($M = 3.69$, $SD = 0.43$), and evidence use ($M = 3.69$, $SD = 0.46$). The narrow range suggested that respondents viewed policy implementation as producing a balanced but not uniformly advanced set of local outcomes.

Figure 2. Mean scores and 95% confidence intervals for implementation and localized outcome domains



Dashed reference lines marked the lower boundaries for great extent (3.41) and very great extent (4.21). Confidence intervals reflected respondent-level descriptive precision and did not replace cluster-adjusted inference.

3.2 Municipality-Level Descriptive Patterns

Table 3. School-level descriptive patterns by municipality

Municipality	Schools	Respondents	Implementation M	Localized outcomes M	Administrative index M
Aglipay	5	58	3.66	3.64	-0.21
Cabarroguis	5	58	3.75	3.81	0.23
Diffun	5	58	3.73	3.89	0.36
Maddela	5	58	3.62	3.59	-0.03
Nagtipunan	5	58	3.60	3.68	-0.06
Saguday	5	58	3.65	3.56	-0.28

The administrative outcome index was standardized across 30 schools; zero represented the case-wide school mean. Municipal values were descriptive because only five school units were represented per municipality.

Implementation means ranged from 3.60 in Nagtipunan to 3.75 in Cabarroguis. Localized outcome means ranged from 3.56 in Saguday to 3.89 in Diffun. The administrative index was positive in Diffun (0.36) and Cabarroguis (0.23), near the case-wide mean in Maddela (-0.03) and Nagtipunan (-0.06), and lower in Aglipay (-0.21) and Saguday (-0.28). These patterns were not interpreted as municipality rankings. Each municipal mean represented five selected school units, and differences could reflect the distribution of remoteness, school level, staffing, and other unmeasured conditions.

The descriptive patterns nevertheless supported the need for place-sensitive analysis. High implementation did not align perfectly with the administrative index in every municipality, which indicated that implementation ratings and observable outcomes captured related but nonidentical dimensions. This mismatch was expected because outcomes could lag behind implementation, depend on prior conditions, and respond to learner-level influences outside the measured policy domains.

3.3 Differences by School Remoteness

Table 4. Descriptive means by school-remoteness category

Remoteness	Schools	Respondents	Implementation	Resource fit	Localized outcomes	Administrative index
Central	10	114	3.75	3.55	3.83	0.02
Intermediate	10	118	3.70	3.39	3.73	0.20
Remote	10	116	3.56	3.04	3.53	-0.22

Central schools reported the highest implementation mean ($M = 3.75$), resource fit ($M = 3.55$), and localized outcome rating ($M = 3.83$). Intermediate schools produced similar implementation ($M = 3.70$) and the highest average administrative index ($M = 0.20$). Remote schools reported lower implementation ($M = 3.56$), resource fit ($M = 3.04$), localized outcomes ($M = 3.53$), and administrative performance ($M = -0.22$). The clearest descriptive separation occurred for resource fit.

Table 5. Welch tests of school-level differences by remoteness

Variable	Welch F	df1	df2	p
Implementation composite	5.22	2	17.99	0.016
Resource fit	31.94	2	14.67	<.001
Localized outcomes	3.25	2	17.98	0.062
Administrative outcome index	1.46	2	17.74	0.259

The school, not the respondent, was the unit of analysis (10 schools per remoteness category).

School-level Welch tests indicated differences in overall implementation, $F(2, 17.99) = 5.22$, $p = .016$, and resource fit, $F(2, 14.67) = 31.94$, $p < .001$. The localized outcome comparison approached but did not reach the .05 threshold, $F(2, 17.98) = 3.25$, $p = .062$. The administrative outcome index did not differ significantly across remoteness groups, $F(2, 17.74) = 1.46$, $p = .259$.

Table 6. Holm-adjusted significant pairwise comparisons by remoteness

Variable	Comparison	Mean difference	Hedges g	Adjusted p
Implementation composite	Central vs Remote	0.19	1.33	0.018
Implementation composite	Intermediate vs Remote	0.15	1.05	0.050
Resource fit	Central vs Remote	0.51	3.32	<.001
Resource fit	Intermediate vs Remote	0.35	1.45	0.013

Positive mean differences favored the first group. Hedges' g used the pooled small-sample correction.

After Holm adjustment, central schools reported higher overall implementation than remote schools (mean difference = 0.19, $g = 1.33$, adjusted $p = .018$), and intermediate schools also exceeded remote schools (mean difference = 0.15, $g = 1.05$, adjusted $p = .050$). Resource fit showed very large differences: central schools exceeded remote schools by 0.51 points ($g = 3.32$, adjusted $p < .001$), and intermediate schools exceeded remote schools by 0.35 points ($g = 1.45$, adjusted $p = .013$). Central and intermediate schools did not differ significantly. The evidence therefore located the implementation gap primarily between remote schools and the two more accessible categories rather than between central and intermediate settings.

3.4 Cluster-Robust Explanatory Model

Table 7. Standardized cluster-robust regression of localized outcomes

Predictor	β	Clustered SE	95% CI	p
Policy Clarity	0.054	0.048	[-0.041, 0.149]	0.268

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Predictor	β	Clustered SE	95% CI	p
Leadership Enactment	0.302	0.042	[0.219, 0.385]	<.001
Resource Fit	0.259	0.053	[0.155, 0.364]	<.001
Teacher Capacity	0.180	0.040	[0.101, 0.259]	<.001
Local Adaptation	0.202	0.039	[0.127, 0.278]	<.001
Stakeholder Coordination	0.099	0.038	[0.024, 0.173]	0.009
Monitoring Feedback	0.157	0.038	[0.083, 0.231]	<.001

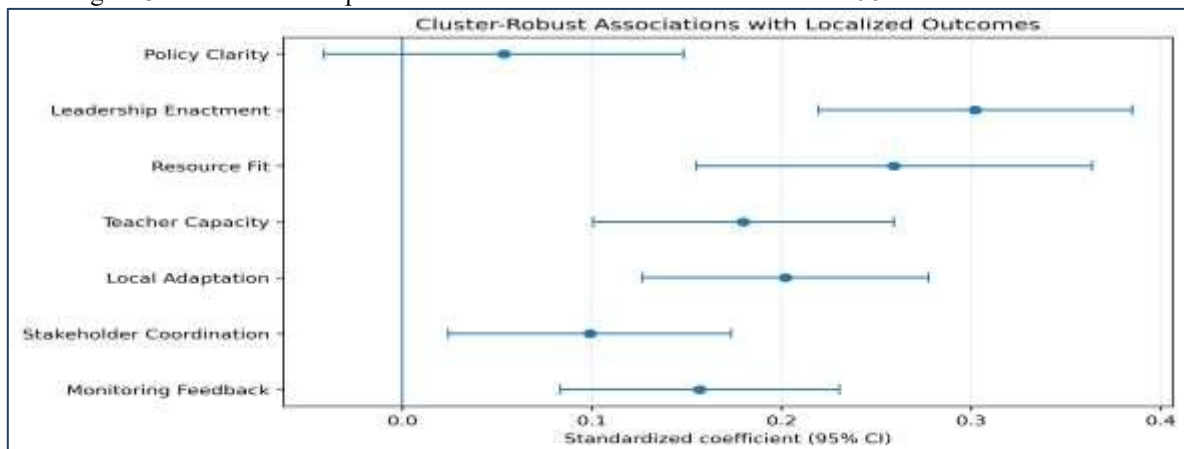
N = 348 educators in 30 schools. The model controlled for role, years of experience, remoteness, school level, and municipality fixed effects. $R^2 = .665$; adjusted $R^2 = .647$. Joint Wald statistic = 355.54, $p < .001$.

The full model explained 66.5% of variation in standardized localized outcome scores, with an adjusted R^2 of .647. The predictors were jointly significant. Leadership enactment showed the largest independent association ($\beta = .302$, 95% CI [.219, .385], $p < .001$). Resource fit followed ($\beta = .259$, 95% CI [.155, .364], $p < .001$), then local adaptation ($\beta = .202$, 95% CI [.127, .278], $p < .001$), teacher capacity ($\beta = .180$, 95% CI [.101, .259], $p < .001$), monitoring-feedback ($\beta = .157$, 95% CI [.083, .231], $p < .001$), and stakeholder coordination ($\beta = .099$, 95% CI [.024, .173], $p = .009$).

Policy clarity was not independently significant after the other implementation domains and context controls entered the model ($\beta = .054$, 95% CI [-.041, .149], $p = .268$). This result did not indicate that clarity was unnecessary. Policy clarity correlated positively with the school administrative index and supported shared understanding. However, once leadership action, resources, teacher capacity, adaptation, coordination, and feedback were considered, clarity alone did not distinguish stronger localized outcomes. The pattern supported an implementation-capability interpretation rather than an information-deficit interpretation.

Variance inflation factors ranged from 1.20 to 1.36 for the implementation predictors, indicating low multicollinearity. The coefficients therefore represented distinguishable contributions despite conceptual relationships among the domains. The high intraclass correlation also showed that school context remained consequential: approximately 45.0% of unconditional variance in localized outcomes occurred between schools, which justified the school-clustered analysis and cautioned against interpreting respondent counts as independent information.

Figure 3. Standardized implementation coefficients with school-clustered 95% confidence intervals



Coefficients were estimated simultaneously with role, experience, remoteness, school level, and municipality controls. Intervals crossing zero indicated no independent association at $\alpha = .05$.

3.5 Convergence with School-Level Administrative Outcomes

Table 8. School-level Spearman correlations with the administrative outcome index

School-level domain	ρ	Bootstrap 95% CI	p
Policy Clarity	0.452	[0.070, 0.737]	0.012
Leadership Enactment	0.449	[0.126, 0.695]	0.013
Resource Fit	0.439	[0.082, 0.725]	0.015
Teacher Capacity	0.318	[-0.057, 0.614]	0.087
Local Adaptation	0.430	[0.138, 0.658]	0.018
Stakeholder Coordination	0.380	[0.051, 0.658]	0.039
Monitoring Feedback	0.509	[0.165, 0.761]	0.004
Implementation Mean	0.599	[0.315, 0.788]	<.001

School-level domain	ρ	Bootstrap 95% CI	p
Localized Outcome Mean	0.705	[0.464, 0.844]	<.001

N = 30 schools. Confidence intervals were obtained from 3,000 school-level percentile bootstrap resamples.

The implementation composite correlated moderately and positively with the administrative outcome index ($\rho = .599$, 95% bootstrap CI [.315, .788], $p < .001$). The localized outcome mean demonstrated a stronger association ($\rho = .705$, 95% CI [.464, .844], $p < .001$). These results indicated that the educator-rated constructs converged with school-level indicators while remaining conceptually distinct. Among individual implementation domains, monitoring-feedback had the strongest school-level association with the administrative index ($\rho = .509$, $p = .004$), followed by policy clarity ($\rho = .452$, $p = .012$), leadership enactment ($\rho = .449$, $p = .013$), resource fit ($\rho = .439$, $p = .015$), local adaptation ($\rho = .430$, $p = .018$), and stakeholder coordination ($\rho = .380$, $p = .039$). Teacher capacity had a positive but nonsignificant school-level association ($\rho = .318$, $p = .087$). The pattern suggested that administrative results reflected organizational routines and system alignment more consistently than individual confidence alone.

3.6 Qualitative Explanatory Themes

Six themes explained the quantitative findings. The themes represented recurrent patterns across the 24 structured summaries and included negative or contrasting cases. Because the qualitative strand was designed for explanation, theme counts were not treated as prevalence estimates.

3.6.1 Theme 1: Leadership Converted Policy into Work Routines

Policies became actionable when school leaders translated broad requirements into calendars, work assignments, review routines, coaching, and resource decisions. Stronger cases showed consistent alignment among the school improvement plan, annual implementation plan, Learning Action Cell agenda, learner-support processes, and monitoring schedule. Weaker cases relied on memorandum circulation and episodic compliance. This distinction explained why leadership enactment produced the largest regression coefficient even after policy clarity was controlled.

3.6.2 Theme 2: Local Adaptation Preserved Purpose While Changing Delivery

Schools adjusted implementation to transport conditions, learner attendance patterns, language use, household availability, and access to services. Productive adaptation changed delivery format, sequencing, communication channels, and partner roles while retaining the intended learner outcome. Less productive adaptation reduced the requirement itself or delayed action without a compensating mechanism. Respondents described effective localization as disciplined problem solving rather than unrestricted discretion.

3.6.3 Theme 3: Resource Congruence Was the Principal Rural Bottleneck

Resource constraints were not limited to the amount of funding. Timing, usability, staffing match, maintenance, transport, and the administrative effort required to access resources determined whether support reached classrooms. Remote schools experienced higher transaction costs for training attendance, material delivery, specialist referral, and partner coordination. This theme was consistent with the very large remoteness differences in resource fit and the strong independent coefficient of the resource domain.

3.6.4 Theme 4: Professional Learning Connected Policy with Classroom Practice

Teachers required opportunities to interpret policy through actual lessons, learner cases, assessment evidence, and peer feedback. Learning Action Cells were useful when they addressed current classroom problems and produced a shared tool, intervention routine, or reviewed learner work. Sessions that merely repeated policy content improved awareness but did not necessarily change implementation. This mechanism explained why teacher capacity remained significant while policy clarity did not.

3.6.5 Theme 5: Monitoring Became Valuable When Feedback Returned to Implementers

Data submission alone did not constitute useful monitoring. Stronger schools reviewed attendance, intervention reach, assessment results, referrals, and implementation obstacles, then received timely technical assistance or adjusted plans. In weaker cases, reports moved upward but did not return as guidance, resource decisions, or corrected routines. This theme aligned with the positive association of monitoring-feedback with both perceived and administrative outcomes.

3.6.6 Theme 6: Local Partnerships Reduced Gaps That Schools Could Not Solve Alone

Families, barangays, municipal offices, health and social services, civil-society groups, and private partners contributed transport support, learner tracing, referrals, connectivity, feeding, minor facilities, and local communication. Partnerships were most effective when roles were specified, information-sharing safeguards were observed, and activities were tied to school priorities. One-time donations had visibility but weaker continuity. Partnership quality therefore mattered more than the number of participating organizations.

3.7 Mixed-Methods Integration

Table 9. Joint display of quantitative findings, qualitative explanations, and action implications

Quantitative pattern	Qualitative explanation	Integrated implication
Leadership enactment had the largest coefficient.	Leaders translated policy into calendars, assignments, coaching, and review routines.	Implementation should be managed as recurring organizational work, not memorandum compliance.

Quantitative pattern	Qualitative explanation	Integrated implication
Resource fit was weaker overall and sharply lower in remote schools.	Usability, timing, transport, staffing, and maintenance shaped whether resources reached classrooms.	Equity formulas should account for transaction costs and access difficulty, not enrolment alone.
Local adaptation and teacher capacity remained independently significant.	Teachers changed delivery while preserving core intent when professional learning used real learner problems.	Localization should define non-negotiable outcomes and adaptable delivery components.
Monitoring-feedback predicted outcomes and administrative indicators.	Reporting produced value when evidence returned as technical assistance and corrective action.	Monitoring systems should specify feedback deadlines, response owners, and closure evidence.
Stakeholder coordination contributed beyond school factors.	Partners filled transport, referral, tracing, health, and resource gaps when roles were explicit.	Local school boards and school-community teams should align investments with diagnosed implementation barriers.
Policy clarity was not independently significant.	Awareness without resources, routines, and professional capacity produced limited change.	Communication should be paired with implementation support and verification of enacted practice.

The integrated evidence supported a sequential pathway. Legible policy direction established a common purpose; operational leadership converted purpose into routines; context-responsive resources and adaptive professional capacity enabled delivery; local partnerships extended school capability; and evidence-feedback loops sustained correction. Localized outcomes emerged when these mechanisms operated together. No single domain was sufficient, and weak resource fit could constrain otherwise clear and well-led implementation.

4. Discussion

4.1 Principal Findings

The study examined policy implementation as a local capability problem rather than a binary condition of compliance. Implementation and localized outcomes were generally rated positively, but two domains revealed unfinished system work: resource fit and monitoring-feedback. The central finding was that leadership enactment, resources, adaptation, teacher capacity, feedback, and coordination explained localized outcomes more strongly than policy clarity alone. The result supported implementation theories that distinguished policy communication from organizational enactment.^{18,21,25}

Leadership enactment produced the largest independent association. This finding was consistent with systems research that placed school leadership between policy intent and instructional conditions.^{26,27} Leaders shaped whether policies entered schedules, planning documents, professional learning, learner-support routines, and accountability conversations. Their influence did not depend only on personal authority; it operated through organizational coherence. Schools with shared routines were less dependent on one individual and more capable of sustaining implementation during personnel or contextual changes.

Resource fit produced the second-largest coefficient and the clearest remoteness gap. The result extended a common resource-adequacy argument. Schools did not require only more inputs; they required inputs that arrived at the right time, matched learner and teacher needs, could be maintained, and did not impose excessive access costs. The finding aligned with Philippine analyses of fiscal and governance asymmetry and with implementation research showing that context and facilitation affected adherence.^{11,22,23}

4.2 Why Policy Clarity Was Necessary but Insufficient

Policy clarity had a positive bivariate relationship with school administrative outcomes but did not remain significant in the multivariable model. This pattern could be understood as mediation through implementation capacity: clear policies mattered because they enabled leaders, teachers, and partners to coordinate, but clarity did not produce outcomes unless these actors possessed resources and routines to act. Repeated orientation without operational support could therefore generate high awareness scores alongside persistent delivery gaps.

The finding had practical importance for division and district technical assistance. Communication strategies should move beyond dissemination and comprehension checks. They should determine whether schools could translate the policy into task sequences, identify non-negotiable requirements, select appropriate adaptations, access resources, and review evidence. Implementation readiness should be treated as a measurable condition rather than inferred from attendance at an orientation.

4.3 Localization Without Policy Dilution

Local adaptation remained significant after controls, which supported the proposition that implementation quality did not require identical delivery across all schools. Century and colleagues distinguished critical components from adaptable forms, while Coburn emphasized ownership and sustainability in the scaling of reform.^{19,24} In the Quirino case, productive adaptation preserved the policy's learner-centered outcome while modifying delivery schedules, communication, partner roles, and resource combinations.

This finding challenged two implementation errors. The first was rigid uniformity, which could ignore distance, staffing, culture, language, family schedules, and access to services. The second was unrestricted localization, which could weaken standards or redefine the policy according to available convenience. A stronger approach specified the intended outcome, essential safeguards, minimum evidence, and permissible areas of adaptation. Technical assistance could then judge whether a local strategy was functionally equivalent rather than visually identical.

4.4 Teacher Capacity and Professional Learning

Teacher capacity independently predicted localized outcomes, but it did not correlate significantly with the administrative index at the school level. This apparent difference was informative. Individual confidence and competence supported classroom enactment, yet school-level administrative results depended on collective routines, leadership, resources, and coordination. Professional development therefore needed to move from isolated participation toward school-wide capability.

DepEd's Learning Action Cell policy framed school-based professional learning as a collaborative strategy for improving teaching and learning.⁶ The qualitative evidence suggested that LACs were strongest when they used current learner evidence, examined implementation problems, tested an intervention, and reviewed results. Policy-centered lectures might be necessary at the beginning of a reform, but practice-centered collaborative inquiry was more likely to influence sustained implementation.

4.5 Monitoring, Feedback, and Organizational Learning

Monitoring-feedback showed a significant respondent-level coefficient and the strongest individual-domain school correlation with the administrative index. This convergence supported continuous improvement theory.²⁷ Monitoring became an implementation mechanism when evidence informed decisions, not merely when reports were complete. A closed feedback loop required timely data, an assigned reviewer, an interpretation, a response decision, technical assistance where needed, and documentation that the problem had been addressed.

The finding also indicated that monitoring burden should be evaluated according to decision value. Reports that did not trigger support or adjustment could consume scarce school time without improving outcomes. A provincial monitoring architecture should therefore reduce duplicate indicators, identify a limited set of implementation signals, and distinguish compliance evidence from improvement evidence. Schools needed feedback that was specific enough to guide the next action.

4.6 Shared Governance and Local Partnerships

Stakeholder coordination made a smaller but statistically distinct contribution. This result was consistent with the intent of shared governance and local school board participation.^{1,9-12} Schools could not independently resolve transport barriers, health and social-service referrals, household engagement, minor facilities, or all resource gaps. Effective coordination extended the operating capacity of the school.

However, the qualitative findings showed that partnership quantity was an inadequate indicator. Durable partnerships had defined roles, aligned budgets or services with school priorities, protected learner information, and reviewed results. Provincial and municipal support could be strengthened through joint problem diagnosis and an implementation compact that identified the barrier, intended learner outcome, contributing offices, resource commitments, timeline, and evidence of completion.

4.7 Equity Implications for Remote Schools

Remote schools reported lower implementation and substantially lower resource fit. The differences were large enough to have practical significance. Equal policy requirements did not imply equal implementation costs. Travel time, delivery logistics, training access, specialist availability, connectivity, and partner reach increased the effort required to produce the same service. Uniform allocation rules could therefore reproduce inequity even when all schools received formally comparable support.

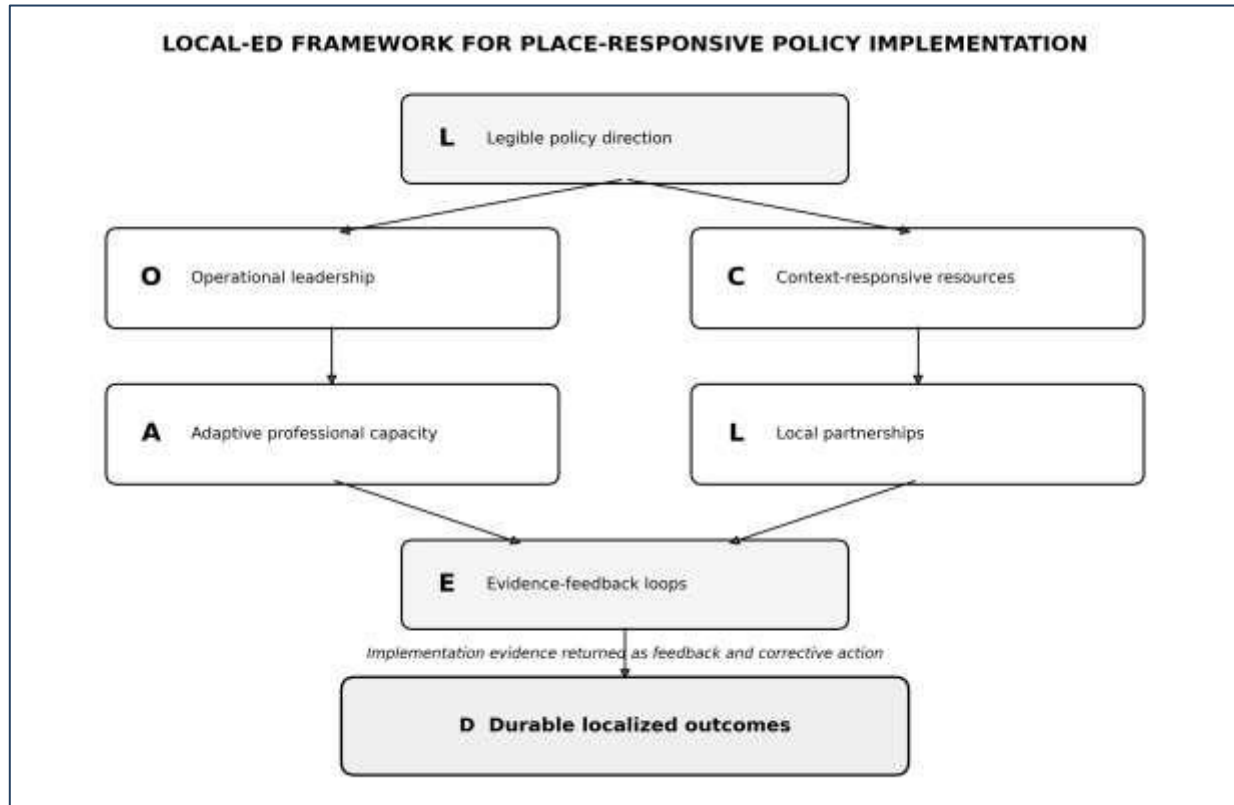
An equity-oriented response would use context weights and minimum service guarantees. Resource planning could incorporate remoteness, transport reliability, learner vulnerability, staffing gaps, infrastructure condition, and distance from referral services. Mobile technical assistance, clustered professional learning, shared specialist services, offline-capable tools, scheduled delivery windows, and flexible local procurement could reduce the implementation penalty associated with distance. These strategies required validation with actual operational data before adoption.

4.8 The LOCAL-ED Framework

The integrated findings produced the LOCAL-ED framework for context-responsive educational policy implementation. The framework contained six mutually reinforcing implementation conditions and one outcome commitment:

- L - Legible policy direction: actors understood the intended learner outcome, required safeguards, assigned responsibilities, core components, and evidence of implementation.
- O - Operational leadership: school and division leaders converted policy into routines, schedules, ownership, coaching, resource decisions, and follow-through.
- C - Context-responsive resources: personnel, time, financing, materials, infrastructure, logistics, and specialist support matched actual implementation barriers.
- A - Adaptive professional capacity: teachers and support personnel used collaborative inquiry to preserve policy intent while adjusting delivery to learners and place.
- L - Local partnerships: schools, families, barangays, municipalities, provincial offices, and service partners coordinated around defined gaps and shared outcomes.
- E - Evidence-feedback loops: monitoring information returned to implementers through timely interpretation, technical assistance, corrective action, and closure.
- D - Durable localized outcomes: access, instructional quality, learner support, community responsiveness, and evidence use improved and remained resilient over time.

Figure 4. LOCAL-ED framework for place-responsive educational policy implementation



The framework emphasized alignment rather than a linear one-time sequence. Weakness in one condition could constrain the others, while evidence-feedback loops supported continuous recalibration.

4.9 Practical Application of LOCAL-ED

At the division level, LOCAL-ED could guide an implementation readiness review before a major policy rollout. Schools could rate the clarity of expected outcomes, leadership ownership, resource fit, professional capacity, partnership requirements, and monitoring design. High-risk schools would receive differentiated technical assistance rather than identical orientation. The readiness review would be repeated after implementation to determine whether initial constraints had been resolved.

At the school level, the framework could be embedded in the School Improvement Plan and Annual Implementation Plan. Each priority could identify the policy objective, baseline evidence, core requirement, local adaptation, responsible person, resource source, partner contribution, monitoring signal, feedback schedule, and intended outcome. This structure would make the relationship between policy, activity, and learner result more explicit.

At the municipal and provincial levels, LOCAL-ED could strengthen Special Education Fund and partnership decisions. Investment proposals could be prioritized according to documented implementation barriers and expected outcome pathways. The framework did not replace statutory processes or official planning tools; it organized evidence so that existing governance structures could make more coherent decisions.

5. Conclusions and Recommendations

5.1 Conclusions

Educational policy implementation in the Quirino case was strongest when national direction became organized local capability. Policy clarity created a shared starting point, but localized outcomes depended more directly on leadership enactment, resource fit, teacher capacity, disciplined adaptation, stakeholder coordination, and monitoring-feedback. The study therefore rejected a dissemination-only view of implementation.

Remote-school disadvantage was concentrated in resource fit and overall implementation. This pattern indicated that uniform expectations required differentiated support. Local adaptation did not weaken policy when core outcomes and safeguards remained explicit; instead, it helped schools respond to geographic and organizational realities. School-level ratings also converged with administrative indicators, which supported the value of combining implementation evidence with outcome evidence.

The LOCAL-ED framework summarized the central implication: policy achieved durable localized outcomes when direction was legible, leadership was operational, resources matched context, professional capacity was adaptive, partnerships were purposeful, and evidence produced feedback.

5.2 Recommendations

- Conduct implementation-readiness reviews. Before major policy rollouts, the division should assess each school's leadership ownership, resource fit, staff capability, adaptation needs, partner dependencies, and monitoring arrangements. Results should determine the intensity and form of technical assistance.

- Use equity-weighted support for remote schools. Resource allocation and service delivery should account for travel, logistics, connectivity, staffing, specialist access, and learner vulnerability. Minimum service guarantees should accompany context-based weights.
- Redesign professional learning around implementation problems. Learning Action Cells should analyze current learner evidence, test policy-aligned strategies, review implementation quality, and produce shared tools or routines rather than rely mainly on policy recitation.
- Define core components and adaptable elements. Every major policy should be translated into non-negotiable outcomes, safeguards, minimum evidence, and areas where schools may adjust delivery. Technical assistance should assess functional equivalence.
- Close monitoring-feedback loops. A limited set of indicators should be linked to named reviewers, feedback timelines, response decisions, technical assistance, and closure evidence. Reports without decision value should be consolidated or removed.
- Align local education financing with diagnosed barriers. School improvement priorities and Special Education Fund proposals should explicitly connect the identified implementation barrier, proposed resource, responsible partner, expected learner outcome, and monitoring measure.
- Institutionalize cross-sector implementation compacts. Schools, LGUs, barangays, families, health and social services, and other partners should formalize roles for learner tracing, referrals, transport, nutrition, facilities, and continuity support while protecting learner information.

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