RESEARCH ARTICLE

JENER Journal of Empirical and Non-Empirical Research
Volume 2, Issue 8, Page 749-758 | Article No. 82
DOI: 10.4898/jener.v2i8.a82
ISSN: 7895-9216
Journal homepage: https://jenerjournal.com
Journal email: editor@jenerjournal.com

JENER Journal
JENER Journal of Empirical and Non-Empirical Research

Collaborative Role Alignment and School Effectiveness: A Multilevel Mixed-Methods Study of Instructional Supervisors, Teachers, And Administrative Assistants in Quirino, Philippines

Mark Dave T. Manucdoc[1], Paz M. Galapon[2] & Roman G. Pagaduan Jr.[3]

[1,2,3]Northeastern College

ARTICLE INFORMATION

Article history:
Published: August 2026

Keywords:
School Effectiveness
Instructional Supervision
Teacher Collaboration
Administrative Support
Role Alignment
Multilevel Analysis

ABSTRACT

School effectiveness depended on the quality of instruction and on the organizational conditions that allowed instructional work to proceed. This study examined how instructional supervision, teacher collaboration, administrative support responsiveness, and role clarity operated together in public schools in the Schools Division of Quirino, Philippines. An explanatory sequential mixed-methods design involved 399 personnel from 42 schools: 42 instructional supervisors, 294 teachers, and 63 administrative assistants. A second phase included 24 interviews, with eight participants from each role group. Survey scales underwent expert content review and pilot reliability testing. Descriptive statistics, McDonald omega, interrater agreement indices, school-level correlations, and random-intercept linear mixed-effects analyses were used. Teachers were nested within schools, continuous predictors were standardized, denominator degrees of freedom used the Satterthwaite approximation, and the three planned interaction tests were adjusted through the Holm procedure. Instructional supervision (M = 4.08, SD = 0.55), teacher collaboration (M = 4.16, SD = 0.49), and administrative support responsiveness (M = 3.98, SD = 0.60) were rated positively. Decision involvement and administrative-workload boundaries were the weakest coordination areas. In the adjusted multilevel analysis, instructional supervision (b = 0.19, 95% CI [0.09, 0.29]), teacher collaboration (b = 0.23, 95% CI [0.11, 0.35]), administrative support responsiveness (b = 0.16, 95% CI [0.06, 0.26]), and individual role clarity (b = 0.13, 95% CI [0.07, 0.19]) were independently associated with perceived school effectiveness. Teacher collaboration interacted with administrative support responsiveness (b = 0.11, Holm-adjusted p = .012): predicted effectiveness was highest when both conditions were strong. Interviews explained that useful supervision organized professional inquiry, teacher collaboration converted feedback into action, and administrative assistants protected instructional time through reliable records, schedules, routing, and follow-through. Fragmented communication, deadline clustering, and unclear ownership weakened the same system. The findings indicated that school improvement relied on complementary roles rather than isolated excellence. Clear boundaries, shared priorities, dependable handoffs, and routine cross-role review were recommended.

1. Introduction

School effectiveness was often discussed through learner achievement, attendance, completion, instructional quality, organizational health, and the capacity to improve. These outcomes were not produced by a single position. They emerged from linked decisions about goals, teaching, professional learning, records, schedules, communication, resources, and accountability. Research on school leadership repeatedly found that leaders influenced learning indirectly by shaping teachers' working conditions, instructional focus, collaboration, and organizational coherence.[10–14]

The Philippine governance framework likewise distributed responsibility across levels and roles. Republic Act No. 9155 located authority, accountability, and responsibility in field offices and schools, where programs and services were adapted to local needs.[1] The Philippine Professional Standards for School Heads described leaders as stewards of strategic direction, school operations, teaching quality, people development, and stakeholder relationships.[2] The Philippine Professional Standards for Teachers situated educators within professional communities that planned, reflected, collaborated, and improved practice.[3] School improvement planning required shared diagnosis, priority setting, implementation, monitoring, and public reporting.[4]

Administrative assistants formed an essential but less examined part of this operating system. They handled records, correspondence, schedules, procurement documents, personnel transactions, data consolidation, logistical arrangements, and service requests. When these functions were dependable, teachers and supervisors could devote more attention to instruction and improvement. When handoffs were unclear, data requests were duplicated, deadlines changed without consolidation, or administrative work returned to teachers, organizational friction consumed instructional time. DepEd's 2024 directives on removing administrative tasks from teachers and rationalizing teacher workload made this relationship explicit at the policy level.[5,6]

The Schools Division of Quirino provided a relevant setting for examining these interdependencies. DepEd listed Quirino among the divisions of Region II and located the division office in Cabarroguis.[8] The National Inventory Dashboard recorded 186 public schools when the study frame was prepared.[7] Those schools served communities across Aglipay, Cabarroguis, Diffun, Maddela, Nagtipunan, and Saguday. Differences in enrollment, travel time, connectivity, staffing, and proximity to service centers could affect how supervision, collaboration, and administrative support were delivered.

1.1 Instructional supervision as organizational support for teaching

Instructional supervision was most consequential when it concentrated on teaching and learning rather than on compliance alone. Robinson, Lloyd, and Rowe found that leadership practices closely connected to teacher learning and development had stronger relationships with student outcomes than more distant leadership activities.[10] Hallinger's synthesis described leadership for learning through values, an instructional focus, responsiveness to context, and shared influence.[12] Later reviews similarly concluded that principals affected achievement, attendance, teacher retention, and school conditions through a set of indirect organizational mechanisms.[11,13,14]

Supervision therefore included more than observation. It involved communicating priorities, using evidence, supplying actionable feedback, organizing professional learning, protecting time for instructional work, and following whether agreed responses were implemented. The relationship was reciprocal: supervisors needed credible classroom information from teachers, and teachers needed feedback that was timely, specific, feasible, and connected to available support. When supervision remained detached from teacher inquiry, it could generate documentation without improvement.

1.2 Teacher collaboration as the mechanism for collective improvement

Teacher collaboration provided the lateral coordination through which knowledge moved across classrooms. A systematic review of 82 studies showed that collaboration varied in depth, structure, interdependence, and outcomes; simply placing teachers in groups did not guarantee professional learning.[15] Empirical work linked purposeful collaboration with stronger instructional practice and, in some settings, higher student achievement.[16,17] Effective collaboration involved shared problems, evidence of learner understanding, joint planning, testing of responses, and collective responsibility rather than routine information exchange.

Leadership and administrative arrangements shaped whether such collaboration was possible. Teachers needed protected meeting time, accessible records, stable schedules, relevant evidence, facilitation, and authority to act. This made collaboration an organizational achievement, not merely a personal disposition. Distributed-leadership research likewise emphasized that leadership activity stretched across people and situations, although the pattern of distribution mattered more than the number of people who held influence.[18,19]

1.3 Administrative support, role clarity, and instructional time

Organizational-support theory proposed that employees responded positively when the organization valued their contribution and cared about their work conditions.[20] In schools, reviews of administrator support identified communication, trust, resources, professional respect, recognition, and assistance with problems as recurring supports for teachers.[21,22] The job demands-resources perspective further explained that resources became especially important when work demands were high: clear information, functioning processes, time, autonomy, and collegial help could sustain engagement and performance.[23]

Administrative assistants contributed a distinct resource. Their work created process reliability: the right document reached the right person, schedules were reconciled, requests were routed, records were retrievable, and follow-up did not depend on memory. This support did not replace the instructional judgment of supervisors or teachers. Instead, it reduced avoidable coordination costs. Role clarity was central because support could not be dependable when ownership, authority, required information, turnaround time, or escalation routes remained uncertain.

The policy decision to remove nonteaching administrative tasks from public school teachers recognized the opportunity cost of misallocated work.[5] The workload policy further defined teaching-related and ancillary responsibilities.[6] Yet task transfer alone could not improve effectiveness if the receiving system lacked adequate staffing, workflow design, or communication. The important question was therefore not whether each role performed well in isolation, but whether the roles fitted together around a common instructional purpose.

1.4 Conceptual framework and research gap

The study used a complementary-role framework. Instructional supervision supplied direction, evidence use, feedback, and accountability. Teacher collaboration supplied professional learning, adaptation, and collective action. Administrative support supplied workflow stability, records, scheduling, and follow-through. Role clarity connected the three by defining ownership and handoffs. School effectiveness was expected to be stronger when all components were present because weakness in one role could interrupt the contribution of the others.

Prior research had examined principal leadership, teacher collaboration, organizational support, or school climate, but fewer studies treated administrative assistants as participants in the school-improvement system. The gap was particularly relevant in Philippine public schools after the reassignment of administrative work away from teachers. An analysis that ignored clustering would also overstate precision because personnel in the same school shared leadership, routines, and conditions. The present study addressed both gaps through role-specific measurement, school-level aggregation checks, multilevel analysis, and qualitative explanation.

1.5 Objectives and hypotheses

The study determined: (1) the levels of instructional supervision quality, teacher collaborative practice, administrative support responsiveness, role clarity and coordination, and perceived school effectiveness; (2) differences in selected coordination perceptions across the three role groups; (3) school-level relationships among the major constructs; (4) the independent associations of

supervision, collaboration, administrative support, and role clarity with school effectiveness after accounting for school clustering and contextual covariates; (5) whether pairwise interactions among the three organizational conditions added explanatory value; and (6) how personnel explained effective and ineffective coordination in daily work.

It was hypothesized that each organizational condition would have a positive association with school effectiveness. Three interaction hypotheses were specified before analysis: supervision with teacher collaboration, teacher collaboration with administrative support, and supervision with administrative support. The interaction tests examined complementarity, not causality.

2. Methods

2.1 Research design

An explanatory sequential mixed-methods design was used. The quantitative phase established the distribution and relationships of the constructs. The qualitative phase then examined how participants understood the strongest statistical pattern, the role-perception gaps, and the contextual barriers behind the numbers. Integration occurred when interview participants were selected, when the interview guide was developed, and when quantitative results and qualitative explanations were compared in a joint display.[33]

2.2 Setting, population, and sample

The study was conducted in public elementary and secondary schools in the Schools Division of Quirino. The division inventory listed 186 schools.[7] The school was the primary sampling unit. The eligible frame included schools that had a school head or formally designated instructional supervisor, at least five permanent teachers, and a school-based or formally assigned administrative assistant who served the school during the data-collection period. Forty-two schools were selected through proportionate stratified random sampling by municipality and school level. The sample represented all six municipalities and included 28 elementary and 14 secondary schools.

Within each sampled school, the instructional supervisor and assigned administrative assistant were invited. Where two assistants served a larger school, both were invited. Seven teachers were selected through systematic random sampling from the official faculty list; replacement followed the same interval when an eligible teacher declined. The final survey sample comprised 42 instructional supervisors, 294 teachers, and 63 administrative assistants, or 399 participants. Of 414 eligible personnel invited, 399 returned complete instruments, for a 96.4% completion rate.

Table 1. Distribution of schools and participants by municipality

Municipality	Schools	Supervisors	Teachers	Administrative assistants	Total participants
Aglipay	6	6	42	9	57
Cabarroguis	7	7	49	11	67
Diffun	9	9	63	14	86
Maddela	8	8	56	12	76
Nagtipunan	7	7	49	10	66
Saguday	5	5	35	7	47
Total	42	42	294	63	399

2.3 Measures

The questionnaire used a five-point response scale from 1 (strongly disagree) to 5 (strongly agree). Instructional Supervision Quality contained 10 items on instructional focus, evidence use, feedback, professional learning, follow-through, and support. Teacher Collaborative Practice contained nine items on joint planning, analysis of learner evidence, shared problem solving, peer feedback, and collective responsibility. Administrative Support Responsiveness contained eight items on accuracy, accessibility, routing, turnaround time, schedule coordination, record retrieval, and closure of requests. Role Clarity and Coordination contained eight items on ownership, boundaries, handoffs, decision participation, communication, and escalation. Perceived School Effectiveness used eight items adapted from the School Effectiveness Index, which assessed faculty perceptions of school operation and performance.[24]

Role-specific forms retained common coordination items but used wording appropriate to each position. Supervisors rated strategic alignment and feedback processes. Teachers rated supervision, collaboration, administrative support, coordination, and effectiveness. Administrative assistants rated workflow clarity, information quality, request management, and inclusion in operational decisions. Demographic and school variables included tenure, school level, enrollment category, municipality, and accessibility. Accessibility was classified through documented travel time from the division service center, road reliability, and reported communication continuity; it was an analytic stratum rather than an official DepEd designation.

2.4 Instrument development and quality evidence

Items were developed from the Philippine standards and workload policies, leadership-for-learning research, teacher-collaboration literature, organizational-support theory, and the School Effectiveness Index.[2,3,5,6,10,15,20,24] Seven experts in educational leadership, supervision, public-school administration, measurement, and human-resource management reviewed relevance, clarity, and role appropriateness. Item-level content-validity indices ranged from .86 to 1.00, and the scale-level average was .95. Aiken V values ranged from .83 to .97. These values supported content representation while preserving the distinction among role domains.[26,27]

A pilot involved 54 personnel from six schools outside the final sample. Cognitive debriefing led to the replacement of broad terms such as support with observable behaviors such as routing, feedback, document retrieval, and schedule protection. McDonald omega ranged from .86 to .93 in the pilot and from .88 to .93 in the main sample. Omega was selected because it did not require equal item loadings.[28]

Table 2. Scale composition, descriptive statistics, and measurement evidence

Scale	Items	Respondent group	M	SD	Omega	ICC(1)	ICC(2)	Median rWG(J)
Instructional supervision quality	10	Teachers	4.08	0.55	.92	.19	.62	.83
Teacher collaborative practice	9	Teachers	4.16	0.49	.90	.17	.59	.81
Administrative support responsiveness	8	Teachers	3.98	0.60	.91	.23	.68	.84
Role clarity and coordination	8	All roles	3.88	0.62	.88	.21	.65	.80
Perceived school effectiveness	8	Teachers	4.12	0.53	.93	.22	.67	.85

2.5 Data-collection procedures

Authorization was secured through the appropriate education offices and participating school heads. Invitations described voluntariness, confidentiality, expected time, and the separation of participation from performance appraisal. Paper and protected electronic options were provided. Completed forms were checked only for missing pages and duplicate identifiers before encoding. Role lists and survey files were stored separately. School codes replaced school names in the analytic file.

After preliminary quantitative analysis, eight schools were selected for maximum variation in effectiveness, accessibility, school level, and the collaboration-by-administrative-support pattern. One supervisor, one teacher, and one administrative assistant from each school participated in a semi-structured interview, producing 24 interviews. Sessions lasted 38 to 61 minutes and addressed daily handoffs, supervision, collaboration, request routing, workload boundaries, deadline management, conflict resolution, and examples of coordination that protected or disrupted instructional work.\

2.6 Statistical analysis

Data screening examined range errors, duplicate records, item nonresponse, univariate distributions, and influential cases. Complete scale scores were computed when at least 80% of items were answered; within-person item means filled the remaining items for 11 respondents, representing 0.11% of all item responses. No respondent lacked an outcome score. Means and standard deviations summarized continuous constructs. Frequencies summarized role and school characteristics. Scale reliability was estimated through McDonald omega.[28]

Because teachers shared school conditions, the primary inferential analysis used random-intercept linear mixed-effects regression with 294 teachers nested in 42 schools. The null analysis quantified between-school variance. Teacher-level role clarity and tenure entered at Level 1. School mean supervision, collaboration, and administrative support entered at Level 2 after aggregation evidence was inspected through ICC(1), ICC(2), and rWG(J). Continuous predictors were standardized and grand-mean centered. School level, enrollment category, accessibility, and municipality indicators were considered as contextual covariates. Municipality indicators were retained in sensitivity analysis but omitted from the primary parsimonious specification because they did not materially change focal estimates and consumed school-level degrees of freedom.

Restricted maximum likelihood estimated the primary specification. Denominator degrees of freedom used the Satterthwaite approximation, and 2,000 school-cluster bootstrap replications checked interval stability. Three interaction terms were added separately to the main-effects specification: supervision by collaboration, collaboration by administrative support, and supervision by administrative support. Holm adjustment controlled familywise error across these planned tests.[29] Variance-inflation factors, residual plots, normal quantile plots, influence diagnostics, and alternative school-mean specifications were examined. Marginal R2 described variance explained by fixed effects; conditional R2 included fixed and school random effects.[30]

School-level Pearson correlations were reported descriptively for the 42 school means. They were not treated as independent confirmation of the multilevel coefficients. Role-group differences in common coordination items were examined through a mixed-effects analysis with school random intercepts and Holm-adjusted pairwise contrasts. Effect estimates, 95% confidence intervals, and exact p values were emphasized. The nominal two-sided significance level was .05.

2.7 Qualitative and mixed-methods analysis

Interview transcripts and field notes were analyzed through the Framework Method.[31] Analysts familiarized themselves with the material, developed an initial matrix from the research questions, coded the transcripts, revised the framework, charted summaries by role and school, and compared convergent and divergent cases. Two analysts independently coded six transcripts, representing 25% of the set. Cohen kappa was .84 across the codebook, after which disagreements were resolved and the remaining transcripts were coded with documented review.[32]

Integration used a joint display. Quantitative results identified patterns requiring explanation; qualitative findings specified the routines, barriers, and contextual mechanisms that made those patterns plausible. Agreement strengthened interpretation, partial agreement refined it, and disagreement was retained rather than forced into a single conclusion.[33]

3. Results

3.1 Participant and school profile

The 399 participants represented all six municipalities. Among the 294 teachers, 66.7% worked in elementary schools and 33.3% worked in secondary schools. Median teacher tenure was 11 years (interquartile range, 6-18). Among the 42 supervisors, 28 were school heads or officers-in-charge and 14 were head teachers or master teachers with formal supervisory assignments. The 63

administrative assistants included school-based personnel and assistants formally assigned across linked schools. Nineteen schools were classified as less accessible, and 23 were classified as more accessible.

Missing item responses were sparse and distributed across roles. No school contributed fewer than six teacher responses. Cluster sizes for the teacher analysis ranged from six to eight, with a median of seven. The null effectiveness analysis yielded an ICC of .22, indicating that 22% of variance in teacher effectiveness ratings lay between schools. This level of dependence justified the multilevel approach.

3.2 Role perceptions and coordination gaps

All three role groups rated shared goals and inter-role trust positively. Decision involvement and clarity of administrative-workload boundaries received the lowest ratings. Supervisors consistently reported stronger coordination than teachers and administrative assistants. The largest descriptive difference concerned involvement in decisions that affected workflow: supervisors reported M = 4.22, teachers M = 3.75, and administrative assistants M = 3.51. In the mixed-effects contrasts, supervisors exceeded teachers by 0.46 points (95% CI [0.29, 0.63], Holm-adjusted $p < .001$) and administrative assistants by 0.68 points (95% CI [0.47, 0.89], Holm-adjusted $p < .001$). Teachers exceeded administrative assistants by 0.22 points (95% CI [0.06, 0.38], Holm-adjusted $p = .016$).

Table 3. Common coordination perceptions by role group

Coordination indicator	Supervisors M (SD)	Teachers M (SD)	Administrative assistants M (SD)
Shared goals	4.31 (0.43)	4.12 (0.50)	4.05 (0.54)
Role clarity	4.18 (0.47)	3.88 (0.61)	3.72 (0.66)
Communication timeliness	4.09 (0.51)	3.84 (0.65)	3.76 (0.68)
Decision involvement	4.22 (0.46)	3.75 (0.70)	3.51 (0.72)
Inter-role trust	4.24 (0.45)	4.02 (0.56)	3.96 (0.59)
Administrative-workload boundaries	4.06 (0.55)	3.69 (0.72)	3.58 (0.76)

The gap did not indicate that supervisors acted in bad faith. Interview selection showed that leaders often believed consultation had occurred when they had announced a decision, requested reactions under a short deadline, or consulted only a small coordinating group. Teachers and assistants described participation more narrowly as receiving relevant information before commitments were finalized and having a realistic opportunity to identify consequences for classes, records, schedules, and workload.

3.3 Levels and school-level relationships

Teachers rated collaboration highest (M = 4.16, SD = 0.49), followed by school effectiveness (M = 4.12, SD = 0.53), instructional supervision (M = 4.08, SD = 0.55), and administrative support responsiveness (M = 3.98, SD = 0.60). The scale distributions covered most of the response range and did not show severe ceiling concentration. School means showed positive relationships among all three organizational conditions and effectiveness.

Table 4. Correlations among school-level mean scores (n = 42 schools)

Variable	1	2	3	4	5
1. Instructional supervision quality	-				
2. Teacher collaborative practice	.52***	-			
3. Administrative support responsiveness	.41**	.48**	-		
4. Role clarity and coordination	.55***	.57***	.61***	-	
5. Perceived school effectiveness	.64***	.67***	.58***	.69***	-

The strongest bivariate relationship was between role clarity and effectiveness (r = .69). Supervision and collaboration were moderately related (r = .52), suggesting that leaders who maintained an instructional focus often also created conditions for teacher teamwork. Administrative support was related to role clarity (r = .61), which was consistent with the proposition that reliable administrative service depended on understood ownership and handoffs.

3.4 Multilevel predictors of school effectiveness

In the adjusted random-intercept analysis, instructional supervision, teacher collaboration, administrative support responsiveness, and individual role clarity each retained a positive association with perceived school effectiveness. Teacher collaboration had the largest focal coefficient: a one-standard-deviation increase in the school collaboration mean was associated with a 0.23-point increase in effectiveness, holding the other variables constant. Less accessible schools averaged 0.11 points lower after adjustment. Tenure, school level, and enrollment category were not independently associated with the outcome.

Table 5. Random-intercept linear mixed-effects analysis of perceived school effectiveness

Fixed effect	b	SE	95% CI	t	p
Intercept	4.11	0.05	[4.01, 4.21]	82.20	<.001
Instructional supervision quality (z)	0.19	0.05	[0.09, 0.29]	3.80	<.001
Teacher collaborative practice (z)	0.23	0.06	[0.11, 0.35]	3.83	<.001
Administrative support responsiveness (z)	0.16	0.05	[0.06, 0.26]	3.20	.002
Individual role clarity (z)	0.13	0.03	[0.07, 0.19]	4.33	<.001
Teacher tenure, years	0.002	0.003	[-0.004, 0.008]	0.67	.504

Fixed effect	b	SE	95% CI	t	p
Secondary school	-0.06	0.07	[-0.20, 0.08]	-0.86	.393
Large enrollment	0.03	0.07	[-0.11, 0.17]	0.43	.668
Less accessible school	-0.11	0.05	[-0.21, -0.01]	-2.20	.034

The fixed effects explained 44% of outcome variance, while fixed and school random effects together explained 55%.[30] The maximum variance-inflation factor was 1.78. Residual and quantile plots did not show consequential heteroscedasticity or departure from normality. Removing one school at a time produced supervision coefficients from .17 to .21, collaboration coefficients from .20 to .26, and administrative-support coefficients from .14 to .18. Cluster-bootstrap intervals remained close to the reported intervals.

3.5 Complementarity among supervision, collaboration, and administrative support

Of the three planned interactions, teacher collaboration with administrative support responsiveness remained significant after Holm adjustment. The supervision-by-collaboration coefficient was positive but did not meet the adjusted threshold. The supervision-by-administrative-support coefficient was small and imprecise. These findings did not imply that supervision was unimportant; its independent main effect remained positive. They indicated that the clearest departure from additivity occurred when teachers collaborated in a setting where administrative processes were also responsive.

Table 6. Planned interaction tests added separately to the main-effects analysis

Interaction	b	SE	95% CI	Raw p	Holm-adjusted p	Decision
Supervision x teacher collaboration	0.08	0.037	[0.01, 0.15]	.034	.068	Not retained
Teacher collaboration x administrative support	0.11	0.036	[0.04, 0.18]	.004	.012	Retained
Supervision x administrative support	0.04	0.034	[-0.03, 0.11]	.242	.242	Not retained

Table 7. Adjusted effectiveness predictions from the retained interaction

Teacher collaboration	Administrative support	Predicted effectiveness	95% CI
Low (-1 SD)	Low (-1 SD)	3.75	[3.61, 3.89]
High (+1 SD)	Low (-1 SD)	3.99	[3.86, 4.12]
Low (-1 SD)	High (+1 SD)	3.85	[3.72, 3.98]
High (+1 SD)	High (+1 SD)	4.53	[4.38, 4.68]

The adjusted predictions clarified the interaction. When administrative support was low, moving from low to high teacher collaboration corresponded to a 0.24-point difference. When administrative support was high, the same collaboration contrast corresponded to a 0.68-point difference. Conversely, strong administrative support produced its largest benefit where teacher collaboration was also strong. The pattern supported complementarity: protected time, accessible records, coordinated schedules, and reliable follow-up increased the likelihood that collaborative decisions became implemented practice.

3.6 Qualitative findings

Five themes explained how the role system functioned. The themes did not represent frequencies in the division. They summarized patterned accounts across the 24 interviews and identified mechanisms that could explain the quantitative relationships.

Table 8. Qualitative themes and cross-role explanations

Theme	Supervisors emphasized	Teachers emphasized	Administrative assistants emphasized
Role clarity converted goodwill into action	A named owner and deadline prevented diffusion of responsibility.	Clear handoffs reduced repeated requests and uncertainty.	Complete requests and authority limits allowed faster closure.
Supervision worked through professional inquiry	Feedback required follow-through and evidence.	Useful supervision connected observation with collaborative planning.	Administrative preparation made meetings and monitoring workable.
Administrative reliability protected instructional time	Accurate records supported decisions.	Stable schedules and quick document access reduced interruptions.	Triage, tracking, and consolidation prevented avoidable duplication.
Fragmented communication recreated workload	Multiple directives sometimes arrived from different levels.	Late changes displaced lesson preparation and meetings.	Uncoordinated deadlines produced urgent rework and incomplete files.
Accessibility changed the cost of coordination	Remote support required flexible timing and channels.	Travel and weak connectivity reduced synchronous collaboration.	Document transfer and follow-up took longer in less accessible sites.

3.7 Mixed-methods integration

The qualitative phase converged with the positive main effects and clarified the collaboration-by-administrative-support interaction. Participants described collaboration as a decision process and administrative support as the system that made those decisions executable. The role-perception gap refined the interpretation: leaders' confidence in coordination could coexist with limited early involvement of personnel who would manage the operational consequences.

Table 9. Joint display of quantitative and qualitative results

Quantitative result	Qualitative explanation	Integrated inference
Supervision predicted effectiveness (b = .19).	Feedback mattered when it identified a response, resource, owner, and follow-up point.	Instructional focus required an implementation pathway.
Collaboration had the largest main coefficient (b = .23).	Teachers converted learner evidence and supervisory feedback into shared action.	Collective work was a central improvement mechanism.
Administrative support predicted effectiveness (b = .16).	Records, routing, schedules, and closure reduced interruptions and information loss.	Operational reliability constituted an instructional resource.
Collaboration x support remained significant (b = .11).	Collaborative plans were more likely to proceed when time, documents, logistics, and follow-through were dependable.	The roles were complementary rather than substitutable.
Decision involvement showed the largest role gap.	Announcement was sometimes treated as consultation, while implementers wanted earlier input.	Coordination quality required timely participation, not communication after commitment.
Less accessible schools remained lower by .11 points.	Travel, connectivity, and shared staffing increased the time needed for handoffs.	Common standards required flexible delivery and added support.

4. Discussion

4.1 School effectiveness depended on an operating system, not isolated roles

The central finding was that supervision, teacher collaboration, administrative responsiveness, and role clarity made independent contributions to perceived effectiveness. This was consistent with leadership research that located principal influence in the organizational conditions surrounding teaching.[10–14] It also extended that literature by showing that administrative assistants were not peripheral to the instructional mission. Their contribution lay in making information, schedules, records, and service processes reliable enough for instructional priorities to proceed.

The result did not mean that all work should be shared. Effective coordination required differentiated authority. Supervisors retained responsibility for direction, standards, feedback, and accountability. Teachers retained professional responsibility for instruction and learner evidence. Administrative assistants retained responsibility for the accuracy, routing, documentation, and completion of administrative processes. The synergy came from clear interfaces among roles, not from blurring them.

This distinction mattered for the implementation of DepEd's workload policies. Removing administrative tasks from teachers protected instructional time only when administrative processes had sufficient capacity, coherent channels, and explicit ownership.[5,6] Transfer without workflow redesign could move congestion from one person to another or prompt tasks to return informally to teachers. The policy objective was therefore best monitored through time, service quality, duplicate work, and instructional continuity rather than through a checklist of reassigned tasks.

4.2 Supervision gained influence through teacher learning and follow-through

Instructional supervision remained positively associated with effectiveness after collaboration and administrative support were included. The finding agreed with evidence that leadership for teacher learning, instructional focus, and organizational redesign affected school outcomes.[10,12,13] Interviews showed that feedback became credible when it was specific, connected to a feasible response, and revisited. Observation without follow-through was experienced as episodic compliance; observation connected to collaborative inquiry was experienced as support.

The positive but nonretained supervision-by-collaboration interaction required careful interpretation. Its raw p value was below .05, but the familywise adjustment did not support a firm interaction conclusion. The main effects nevertheless showed that both conditions mattered. A larger longitudinal study with more schools could test whether supervision changed the quality of teacher collaboration over time rather than only interacting with its current level.

4.3 Collaboration and administrative support showed the clearest complementarity

Teacher collaboration had the largest main coefficient and interacted with administrative support. This pattern fitted collaboration research: teams improved when work was structured, interdependent, evidence based, and connected to action.[15–17] Administrative responsiveness supplied several of those enabling conditions. It stabilized schedules, made data retrievable, reduced repeated requests, documented decisions, and closed loops. Collaboration could still occur with weak support, but its decisions were less likely to survive daily operational demands.

The predicted means illustrated why an interaction mattered substantively. High collaboration combined with high administrative support produced a predicted effectiveness score of 4.53, compared with 3.75 when both were low. The difference should not be read as a causal treatment effect because the study was cross-sectional. It was evidence that the joint condition deserved policy attention and prospective evaluation.

Organizational-support and job-demands-resources theories offered a useful explanation.[20,23] Teachers faced instructional, reporting, communication, and accountability demands. Responsive administrative service acted as a resource that reduced friction and signaled that instructional work was valued. The finding also clarified why an administrative assistant's performance could not be judged only by document volume. Timeliness, accuracy, accessibility, routing quality, and the effect on instructional continuity were more meaningful service indicators.

4.4 Role-perception gaps revealed a governance risk

Supervisors rated decision involvement more strongly than teachers or administrative assistants. Such gaps could persist because

each group observed a different part of the process. Leaders saw consultation meetings and issued directions; teachers experienced schedule consequences and classroom interruptions; assistants encountered incomplete requests, competing deadlines, and downstream record requirements. None of those perspectives alone described the whole system.

The practical response was not continuous consensus seeking. It was structured early consultation for decisions with cross-role consequences. A short pre-implementation check could identify the instructional purpose, responsible owner, required records, timing, affected schedules, communication channel, and closure evidence. This routine would have reduced the difference between informing people and involving the people needed for implementation.

4.5 Accessibility required differentiated coordination support

Less accessible schools retained a modest negative association with effectiveness after measured organizational conditions were included. Interviews suggested higher transaction costs: documents took longer to transfer, synchronous meetings were harder to sustain, shared personnel covered greater distances, and urgent schedule changes carried larger consequences. Equal procedures could therefore impose unequal burdens.

A division-wide framework was still appropriate, but delivery needed adaptation. Remote schools required consolidated calendars, longer lead times, offline-capable forms, fewer duplicative submissions, scheduled mobile or onsite support, and escalation channels that did not depend on continuous connectivity. The same standards could be preserved while the process reflected local constraints, consistent with the local-adaptation principle in Republic Act No. 9155.[1]

4.6 Methodological strengths and limitations

The design included all three role groups, represented the six municipalities, and accounted for teachers nested within schools. Reliability, content validity, aggregation evidence, adjusted interaction testing, bootstrap sensitivity analysis, and mixed-methods integration strengthened the analysis. The model remained parsimonious relative to 42 schools, and the interaction family was specified before testing. The result tables reported coefficients and intervals rather than relying only on significance labels.

Several limitations remained. The cross-sectional design did not establish temporal or causal order. Perceived school effectiveness was not equivalent to value-added learner achievement, and shared method could inflate some teacher-reported relationships. The effectiveness scale captured organizational operation and performance as perceived by faculty; future work should add attendance, completion, learning growth, service turnaround, and observation evidence.[24] The eligible frame required access to an assigned administrative assistant, so results did not represent schools without that role. This limitation was important because absence of administrative support could itself create inequity.

The 42 school clusters supported a parsimonious random-intercept analysis, but precision for school-level interactions remained limited. Small-cluster research cautioned against complex specifications and overconfident standard errors.[34] The study therefore tested interactions separately, used adjusted significance decisions, and checked cluster-bootstrap intervals. Role-group sample sizes were unequal by organizational reality. Interviews explained mechanisms but did not estimate their prevalence. Self-report, social desirability, and supervisor-participant power differences could also affect responses.

4.7 Implications for division and school practice

The findings supported a role-alignment approach to school improvement. The division could define a small set of cross-role service standards: one authoritative calendar, clear request channels, named owners, complete-information requirements, realistic turnaround times, escalation rules, and closure records. Schools could connect these standards with School Improvement Plan priorities rather than treating them as separate administrative reforms.[4]

Professional development could involve the three roles together for selected sessions. Supervisors needed skills in feedback, evidence use, and implementation design. Teachers needed collaborative inquiry and disciplined use of learner evidence. Administrative assistants needed workflow analysis, records quality, service communication, and process monitoring. Joint practice around a real school priority would have exposed handoff problems that role-specific seminars could miss.

Table 10. Proposed role-alignment framework for school effectiveness

Coordination domain	Instructional supervisors	Teachers	Administrative assistants	Review evidence
Shared priorities	Set a limited number of learning and service priorities.	Translate priorities into grade- or subject-level action.	Align schedules, records, and requests with the same priorities.	Quarterly priority map and completed actions
Instructional cycle	Observe, coach, and connect feedback with professional learning.	Plan, examine learner evidence, and test agreed responses.	Protect schedules, prepare records, and track action items.	Observation-feedback-action records
Workflow ownership	Approve boundaries and escalation routes.	Submit complete requests through agreed channels.	Triage, document, route, and close requests.	Turnaround time and unresolved-request log
Communication	Consolidate directions and explain purpose.	Confirm understanding and raise implementation concerns.	Maintain one authoritative calendar and document trail.	Duplicate requests and deadline changes
Monitoring	Review outcomes and remove organizational barriers.	Interpret instructional evidence and adjust practice.	Produce timely, quality-checked administrative information.	Learning, attendance, service, and workload indicators

5. Conclusion

School effectiveness in the Schools Division of Quirino was associated with a coordinated system of instructional supervision, teacher collaboration, administrative support, and role clarity. Each condition contributed independently, but the strongest evidence of complementarity appeared between teacher collaboration and administrative support responsiveness. Teachers' collective work generated improvement decisions; dependable administrative processes helped those decisions become scheduled, documented, resourced, and completed.

Supervisors remained essential because they established direction, connected feedback with professional learning, and held the improvement process together. Teachers remained central because they interpreted learner evidence and enacted instructional change. Administrative assistants protected the same mission by reducing information loss, duplicated work, deadline conflict, and unnecessary interruption. Effectiveness weakened when any role became isolated or when communication occurred only after commitments had been made.

The study therefore reframed synergy as role alignment rather than general cooperation. Clear boundaries, shared priorities, early consultation, dependable handoffs, and routine review made complementary expertise usable. These practices offered a practical route for implementing Philippine governance and workload policies while keeping teaching and learning at the center of school operations.

6. Recommendations

Adopt a division role-alignment protocol. The protocol was recommended to define decision rights, request channels, required information, turnaround times, escalation points, and closure evidence for recurring school processes.

Protect collaborative instructional time. School calendars were recommended to reserve regular evidence-based teacher collaboration and to prevent avoidable administrative interruptions during those periods.

Use administrative service indicators. Accuracy, turnaround time, accessibility, duplicate-request rate, unresolved requests, and instructional time protected were recommended alongside volume counts.

Conduct quarterly cross-role workflow reviews. Supervisors, teacher representatives, and administrative assistants were advised to examine one high-friction process, identify bottlenecks, and test a documented improvement.

Provide differentiated support to less accessible schools. Consolidated schedules, longer lead times, offline forms, remote-support windows, and periodic onsite assistance were recommended.

Evaluate outcomes prospectively. A follow-up study was recommended to combine repeated surveys with administrative service data, classroom evidence, attendance, completion, and learning-growth indicators.

References

[1] Republic of the Philippines. Republic Act No. 9155: Governance of Basic Education Act of 2001. Lawphil; 2001. https://lawphil.net/statutes/repacts/ra2001/ra_9155_2001.html

[2] Department of Education, Philippines. DO 024, s. 2020: National Adoption and Implementation of the Philippine Professional Standards for School Heads. Department of Education; 2020. https://www.deped.gov.ph/2020/09/07/september-7-2020-do-024-s-2020-national-adoption-and-implementation-of-the-philippine-professional-standards-for-school-heads/

[3] Department of Education, Philippines. DO 42, s. 2017: National Adoption and Implementation of the Philippine Professional Standards for Teachers. Department of Education; 2017. https://www.deped.gov.ph/2017/08/11/do-42-s-2017-national-adoption-and-implementation-of-the-philippine-professional-standards-for-teachers/

[4] Department of Education, Philippines. DO 44, s. 2015: Guidelines on the Enhanced School Improvement Planning Process and the School Report Card. Department of Education; 2015. https://www.deped.gov.ph/2015/09/29/do-44-s-2015-guidelines-on-the-enhanced-school-improvement-planning-process-and-the-school-report-card-src/

[5] Department of Education, Philippines. DO 002, s. 2024: Immediate Removal of Administrative Tasks of Public School Teachers. Department of Education; 2024. https://www.deped.gov.ph/2024/01/26/january-26-2024-do-002-s-2024-immediate-removal-of-administrative-tasks-of-public-school-teachers/

[6] Department of Education, Philippines. DO 005, s. 2024: Rationalization of Teachers Workload in Public Schools and Payment of Teaching Overload. Department of Education; 2024. https://www.deped.gov.ph/2024/04/29/april-29-2024-do-005-s-2024-rationalization-of-teachers-workload-in-public-schools-and-payment-of-teaching-overload/

[7] Department of Education, Philippines. Quirino, Region II - Schools: National Inventory Dashboard. Department of Education; 2026. https://nid.deped.gov.ph/public-dashboard/region/Region%20II/division/Quirino

[8] Department of Education, Philippines. Regional and Division Offices Directory: Region II - Quirino. Department of Education. https://www.deped.gov.ph/contact-us/regional-division-offices-directory/

[9] Department of Education, Philippines. Basic Education Development Plan 2030. Department of Education; 2022. https://www.deped.gov.ph/wp-content/uploads/2022/05/DO_s2022_024.pdf

[10] Robinson VMJ, Lloyd CA, Rowe KJ. The impact of leadership on student outcomes: an analysis of the differential effects of leadership types. Educational Administration Quarterly. 2008;44(5):635-674. https://doi.org/10.1177/0013161X08321509

[11] Grissom JA, Egalite AJ, Lindsay CA. How Principals Affect Students and Schools: A Systematic Synthesis of Two Decades of Research. The Wallace Foundation; 2021. https://wallacefoundation.org/report/how-principals-affect-students-and-schools-systematic-synthesis-two-decades-research

[12] Hallinger P. Leadership for learning: lessons from 40 years of empirical research. Journal of Educational Administration. 2011;49(2):125-142. https://doi.org/10.1108/09578231111116699

[13] Leithwood K, Harris A, Hopkins D. Seven strong claims about successful school leadership revisited. School Leadership & Management. 2020;40(1):5-22. https://doi.org/10.1080/13632434.2019.1596077

[14] Mincu M. Why is school leadership key to transforming education? Structural and cultural assumptions for quality education in diverse contexts. Prospects. 2022;52:231-242. https://doi.org/10.1007/s11125-022-09625-6
[15] Vangrieken K, Dochy F, Raes E, Kyndt E. Teacher collaboration: a systematic review. Educational Research Review. 2015;15:17-40. https://doi.org/10.1016/j.edurev.2015.04.002
[16] Goddard YL, Goddard RD, Tschannen-Moran M. A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. Teachers College Record. 2007;109(4):877-896. https://doi.org/10.1177/016146810710900401
[17] Mora-Ruano JG, Heine JH, Gebhardt M. Does teacher collaboration improve student achievement? Analysis of the German PISA 2012 sample. Frontiers in Education. 2019;4:85. https://doi.org/10.3389/feduc.2019.00085
[18] Harris A. Distributed leadership: taking a retrospective and contemporary view of the evidence base. School Leadership & Management. 2022;42(5):438-456. https://doi.org/10.1080/13632434.2022.2109620
[19] Mifsud D. A systematic review of school distributed leadership: exploring research purposes, concepts and approaches in the field between 2010 and 2022. Journal of Educational Research. 2024;117(2):154-167. https://doi.org/10.1080/00220620.2022.2158181
[20] Rhoades L, Eisenberger R. Perceived organizational support: a review of the literature. Journal of Applied Psychology. 2002;87(4):698-714. https://doi.org/10.1037/0021-9010.87.4.698
[21] Kurt T, Duyar I. The influence of perceived organizational support on teachers job satisfaction: the mediating roles of climate for initiative and climate for psychological safety. Participatory Educational Research. 2023;10(2):156-173. https://doi.org/10.17275/per.23.34.10.2
[22] Martinez JA, McAbee S. School administrator support of teachers: a systematic review (2000-2019). Education Leadership Review. 2020;21(1):230-254. https://eric.ed.gov/?id=EJ1279817
[23] Bakker AB, Demerouti E. The job demands-resources model: state of the art. Journal of Managerial Psychology. 2007;22(3):309-328. https://doi.org/10.1108/02683940710733115
[24] Hoy WK. School Effectiveness Index. Wayne K. Hoy Research and Scholarship; 2009. https://www.waynekhoy.com/school-effectiveness/
[25] LeBreton JM, Senter JL. Answers to 20 questions about interrater reliability and interrater agreement. Organizational Research Methods. 2008;11(4):815-852. https://doi.org/10.1177/1094428106296642
[26] Aiken LR. Three coefficients for analyzing the reliability and validity of ratings. Educational and Psychological Measurement. 1985;45(1):131-142. https://doi.org/10.1177/0013164485451012
[27] Polit DF, Beck CT, Owen SV. Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. Research in Nursing & Health. 2007;30(4):459-467. https://doi.org/10.1002/nur.20199
[28] Hayes AF, Coutts JJ. Use omega rather than Cronbach alpha for estimating reliability. Communication Methods and Measures. 2020;14(1):1-24. https://doi.org/10.1080/19312458.2020.1718629
[29] Holm S. A simple sequentially rejective multiple test procedure. Scandinavian Journal of Statistics. 1979;6(2):65-70. https://www.jstor.org/stable/4615733
[30] Nakagawa S, Schielzeth H. A general and simple method for obtaining R2 from generalized linear mixed-effects models. Methods in Ecology and Evolution. 2013;4(2):133-142. https://doi.org/10.1111/j.2041-210x.2012.00261.x
[31] Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the Framework Method for the analysis of qualitative data in multi-disciplinary health research. BMC Medical Research Methodology. 2013;13:117. https://doi.org/10.1186/1471-2288-13-117
[32] McHugh ML. Interrater reliability: the kappa statistic. Biochemia Medica. 2012;22(3):276-282. https://doi.org/10.11613/BM.2012.031
[33] Fetters MD, Curry LA, Creswell JW. Achieving integration in mixed methods designs: principles and practices. Health Services Research. 2013;48(6 Pt 2):2134-2156. https://doi.org/10.1111/1475-6773.12117
[34] McNeish DM, Stapleton LM. The effect of small sample size on two-level model estimates: a review and illustration. Educational Psychology Review. 2016;28:295-314. https://doi.org/10.1007/s10648-014-9287-x