

Discipline in Context: School, Family, Peer, and Digital Determinants of Student Disciplinary Issues in Rural Public Schools of Cabarroguis, Quirino and Cabatuan, Isabela, Philippines

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ARTICLE INFORMATION	ABSTRACT
Article history: Published: August 2026	This comparative study examined the determinants of student disciplinary issues in rural public schools in Cabarroguis, Quirino and Cabatuan, Isabela, Philippines. The analysis included 360 teachers and class advisers nested within 30 school clusters, with equal municipal representation. A six-indicator disciplinary-issue burden index covered class disruption, defiance, attendance violations, peer conflict, digital misuse, and property or rule violations. Seven explanatory domains were assessed: school connectedness, family engagement, classroom-management consistency, peer-risk climate, digital distraction, attendance instability, and resource strain. Scale reliability ranged from Cronbach alpha = 0.79 to 0.85, while the six-item disciplinary index yielded alpha = 0.93. Generalized estimating equations with an exchangeable working correlation were used to account for teachers nested within schools. The intraclass correlation for disciplinary burden was 0.29, confirming meaningful school-level clustering. Digital misuse was the only issue category that differed significantly by municipality after Holm adjustment, with a higher mean in Cabatuan. In the multivariable model, peer-risk climate (beta = 0.32), digital distraction (beta = 0.23), attendance instability (beta = 0.21), and resource strain (beta = 0.09) were associated with greater disciplinary burden. School connectedness (beta = -0.25), classroom-management consistency (beta = -0.21), and family engagement (beta = -0.11) were protective. Municipality was not independently associated with the outcome after contextual factors were included. School-aggregated teacher ratings correlated with the de-identified administrative referral rate (Spearman rho = 0.63, $p < 0.001$). The findings supported a prevention approach that emphasized consistent classroom routines, connected relationships, early attendance response, family partnership, peer-norm interventions, and context-sensitive digital conduct. The proposed RURAL-DISC framework organized these implications into a school-wide implementation sequence for rural settings.
Keywords: School Discipline Rural Education School Connectedness Classroom Management Peer Influence Digital Distraction Philippines	

1. Introduction

Philippine basic education had increasingly treated student discipline as a learner-protection, learning-quality, and school-governance concern rather than as a narrow matter of punishment. The Anti-Bullying Act required elementary and secondary schools to adopt policies that prevented and addressed bullying, while the DepEd Child Protection Policy placed school responses within a broader framework covering violence, abuse, discrimination, exploitation, bullying, and corporal punishment.^{1,2} The revised implementing rules for the Anti-Bullying Act further emphasized school-wide prevention, early intervention, clearer reporting procedures, and defined responsibilities for school personnel, parents, and learners.³ These developments had made it necessary to understand not only which disciplinary concerns occurred, but also the conditions under which they became more or less frequent. The policy environment had also widened from behavior control toward mental health, well-being, and family partnership. Republic Act No. 12080 strengthened school-based mental-health systems and required structures for screening, referral, counseling, prevention, and learner support.⁴ In 2026, the Kaagapay Program formally positioned parents and caregivers as co-educators in values formation, learning support, positive discipline, and bullying prevention.⁵ Taken together, these reforms had implied that a defensible analysis of discipline needed to consider relationships, family engagement, classroom conditions, peer norms, attendance, digital behavior, and access constraints rather than treating misconduct as an isolated learner characteristic.

The comparative setting was important because Cabarroguis and Cabatuan represented neighboring but administratively distinct municipalities in Cagayan Valley. The 2024 Census of Population recorded 34,720 residents in Cabarroguis, the capital municipality of Quirino Province.⁶ The Philippine Standard Geographic Code reported 40,223 residents in Cabatuan, Isabela, based on the same census round.⁷ Both municipalities included communities outside their municipal cores where travel time, transport regularity, connectivity, and access to specialized services could shape school operations. The present inquiry therefore treated rurality as an operational school-context characteristic rather than using population size alone to define the educational environment.

An ecological perspective provided the organizing logic for the study. Bronfenbrenner had argued that development was shaped by interacting systems that included immediate relationships, institutional settings, and wider social structures.⁸ Applied to school

discipline, this perspective suggested that observable behavior could emerge from transactions among learners, peers, families, teachers, school routines, community conditions, and digital environments. It therefore discouraged single-cause explanations and supported a comparative model that tested risk and protective domains simultaneously.

School climate research had consistently linked supportive, safe, and well-organized educational environments with better behavioral and socioemotional outcomes. Wang and Degol synthesized evidence showing that school climate involved academic, community, safety, and institutional dimensions and that these dimensions were related to problem behavior and achievement.⁹ A later meta-analysis found that school connectedness had a protective relationship across adolescent risk domains, including violence.¹⁰ These findings had made connectedness a particularly relevant construct for rural settings, where the school could function as a central social institution and where access to alternative youth services might be limited.

Classroom management represented another proximal determinant. A meta-analysis of classroom-management strategies found that structured management approaches improved academic, behavioral, emotional, and motivational outcomes.¹¹ This evidence supported the proposition that disciplinary burden could rise when behavioral expectations, routines, corrections, and follow-through varied across teachers or classrooms. Conversely, consistency could reduce ambiguity and prevent minor disruptions from escalating into referrals. Social and emotional learning also had demonstrated favorable effects on behavior and school functioning, suggesting that discipline prevention benefited when schools explicitly developed self-management, relationship, and decision-making competencies rather than relying exclusively on sanctions.¹²

Family processes were relevant but required cautious interpretation. Research on parental monitoring had often found associations with adolescent problem behavior, although causal claims had been complicated by differences between what parents did, what adolescents disclosed, and stable family characteristics.¹³ Intervention reviews nevertheless continued to identify monitoring, communication, and structured follow-up as practical components used in evidence-based programs for adolescent problem behavior.¹⁴ For schools, this suggested that family engagement was best treated as a collaborative protective process rather than as a mechanism for transferring responsibility for school problems to parents.

Peer processes were especially salient during adolescence. A recent meta-analysis of experimental peer-influence studies found a meaningful overall susceptibility to peer influence and identified peer norms as an important moderator.¹⁵ This supported a school-level concern with whether peer groups rewarded disruption, aggression, rule-breaking, or prosocial conduct. Where misconduct produced status or entertainment for peers, individual correction could have limited effect unless the social reinforcement pattern was also changed.

Digital behavior had added another layer to contemporary discipline. Systematic-review evidence linked problematic smartphone use with lower academic achievement and poorer well-being, although effect sizes and definitions varied across studies.^{16,17} In school settings, digital distraction could include unauthorized device use, messaging during instruction, online conflict that entered the classroom, or repeated difficulty disengaging from devices. The revised Philippine anti-bullying framework also recognized electronic forms of bullying, making digital conduct relevant to both instructional management and child protection.³

Disciplinary difficulties also affected teachers. A meta-analysis found that student misbehavior was associated with teacher burnout, particularly emotional exhaustion.¹⁸ This relationship underscored a reciprocal concern: persistent disruption could weaken teacher well-being and instructional capacity, while inconsistent or depleted classroom management could in turn make behavioral problems harder to contain. A systems response therefore had to protect learner rights while also supporting teachers with practical routines, escalation pathways, and school-wide consistency.

Globally, school violence and bullying had remained barriers to education and well-being, with UNESCO emphasizing the importance of evidence-based prevention, reporting, response, and whole-school action.¹⁹ Restorative approaches had shown promise for improving communication and reducing conflict, although reviews also noted variability in study quality and implementation fidelity.^{20,21} These findings suggested that restorative practices were most defensible when integrated with clear expectations, safeguarding procedures, and tiered intervention rather than used as a substitute for all consequences.

Despite the breadth of international evidence, direct comparison of rural Philippine municipalities remained limited. Local studies frequently described discipline issues or reported stakeholder perceptions, but fewer analyses tested multiple ecological determinants while also accounting for school clustering. The present study addressed that gap by comparing Cabarroguis and Cabatuan and by estimating the independent contribution of protective and risk factors within a cluster-aware statistical framework. The aim was not to label one municipality as more problematic than the other, but to identify leverage points that could plausibly inform school-wide prevention in both settings.

1.1 Conceptual Framework

The conceptual framework treated disciplinary-issue burden as the observable result of interacting protective and risk conditions. Protective conditions included school connectedness, family engagement, and classroom-management consistency. Risk conditions included peer-risk climate, digital distraction, attendance instability, and resource strain. Municipality, school level, teaching experience, and an operational remoteness index were treated as contextual covariates. This specification followed the ecological logic that behavior was embedded in relationships and institutions rather than produced by geography alone.^{8,9,25}

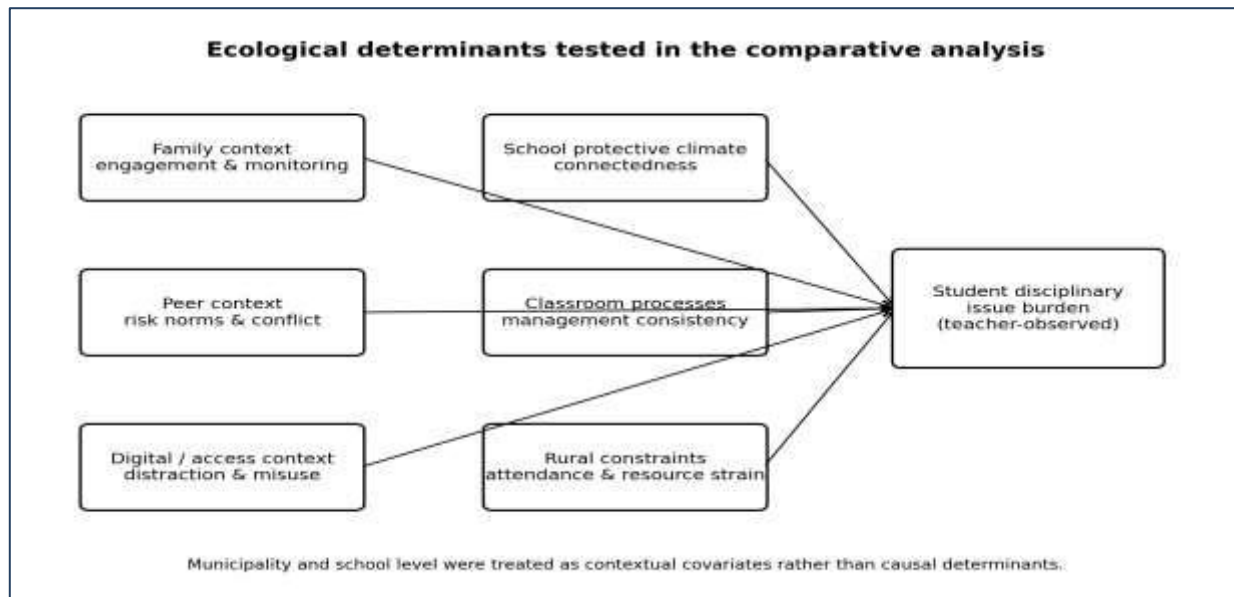


Figure 1. Ecological framework tested in the comparative analysis.

1.2 Objectives of the Study

- The study described the frequency profile of six student disciplinary-issue categories in participating rural public schools.
- The study compared overall disciplinary burden and specific issue categories between Cabarroguis, Quirino and Cabatuan, Isabela while accounting for teachers clustered within schools.
- The study examined bivariate relationships between disciplinary burden and seven ecological determinants.
- The study estimated the independent associations of school connectedness, family engagement, classroom-management consistency, peer-risk climate, digital distraction, attendance instability, resource strain, remoteness, school level, and municipality with disciplinary burden.
- The study assessed whether school-aggregated teacher ratings converged with de-identified administrative referral rates.
- The study proposed a context-responsive framework for discipline prevention in rural schools.

2. Methods

2.1 Research Design

The study used a comparative, cross-sectional, clustered school design. The principal unit of observation was the teacher or class adviser, while the school was the clustering unit. The design was appropriate because teachers working in the same school shared leadership, policy routines, student populations, referral pathways, and local access conditions; independence of individual observations could therefore not be presumed. The analysis used population-average generalized estimating equations to estimate associations while accounting for within-school correlation.²²

2.2 Locale and Operational Definition of Rural School Context

The study covered public-school settings in Cabarroguis, Quirino and Cabatuan, Isabela. Cabarroguis had a 2024 population of 34,720, while Cabatuan had 40,223.^{6,7} Rural school context was operationalized at the school level through a four-point remoteness index that summarized travel time from the municipal center, regularity of public transport, reliability of mobile or internet connectivity, and proximity to specialized learner-support services. The index was used as an analytic covariate rather than as an official government classification. This avoided equating municipal population with the actual access conditions experienced by individual schools.

2.3 Participants and Sampling Structure

The sample contained 360 teachers and class advisers from 30 public-school clusters, with 15 schools and 180 respondents represented in each municipality. Twelve respondents were included per school cluster. Elementary teachers constituted 53.3% of the sample and women constituted 66.9%. Mean teaching experience was 9.5 years. The balanced structure was used to support municipal comparison while retaining sufficient school clusters for cluster-aware estimation. The equal number of respondents per school also simplified interpretation of school-level variation.

Table 1. Profile of the sample and clustering structure.

Indicator	Value
Total teachers	360
Schools	30
Teachers: Cabarroguis	180
Teachers: Cabatuan	180

Indicator	Value
Female teachers	66.9%
Elementary teachers	53.3%
Mean teaching experience (years)	9.5
Mean remoteness index	2.72

2.4 Measures

All perceptual measures used five-point response formats. The disciplinary-issue indicators asked teachers to rate how frequently each category had been observed during the reference period, from 1 (never or almost never) to 5 (very frequent). The overall disciplinary-issue burden score was the arithmetic mean of six categories. Predictor scores were computed as means of their respective items, with higher values indicating more of the named construct. The instrument was structured to distinguish protective conditions from risk conditions and to avoid combining conceptually opposite items into a single uninterpretable score.

Table 2. Construct definitions and scoring direction.

Construct	Items	Content domain	Interpretation
Disciplinary-issue burden	6	Class disruption, defiance, attendance violations, peer conflict, digital misuse, property/rule violations	Higher = more frequent disciplinary burden
School connectedness	5	Belonging, trusted adults, perceived respect, learner voice, relational support	Higher = stronger protective climate
Family engagement	4	Two-way communication, response to concerns, attendance follow-up, shared behavior support	Higher = stronger family-school partnership
Classroom-management consistency	5	Clear expectations, routines, proportionate correction, documentation, consistent follow-through	Higher = stronger protective management
Peer-risk climate	4	Peer reinforcement of disruption, conflict escalation, rule-breaking norms, bystander encouragement	Higher = greater peer-related risk
Digital distraction	4	Unauthorized device use, messaging during instruction, online conflict spillover, difficulty disengaging	Higher = greater digital-related risk
Attendance instability	4	Repeated tardiness, intermittent absence, early leaving, re-entry difficulty	Higher = greater attendance-related risk
Resource strain	4	Limited guidance access, staff overload, referral delays, insufficient behavior-support resources	Higher = greater institutional strain

2.5 Reliability and Criterion Check

Internal consistency was assessed with Cronbach alpha, which estimated the degree to which items within each scale functioned together.²³ Alpha values at or above 0.70 were treated as acceptable for group-level research interpretation, while values above 0.80 were treated as good. Criterion convergence was examined at the school level by correlating the school mean disciplinary-burden score with the school administrative referral rate per 100 enrolled learners. Only aggregate referral counts were represented; no individual learner identifiers were included.

2.6 Statistical Analysis

Descriptive statistics included frequencies, means, standard deviations, and municipal profiles. Spearman rank correlations were used for bivariate associations because the predictor scores were derived from ordered response categories and because the analysis emphasized monotonic rather than strictly linear relationships. The intraclass correlation coefficient was estimated from a random-intercept null model to quantify the proportion of disciplinary-burden variance attributable to between-school differences. Municipal differences in the overall burden score and the six issue categories were tested with Gaussian generalized estimating equations using an exchangeable working correlation and school as the clustering variable.²² School level was included as a covariate in these comparisons. Because seven related outcomes were tested, the family-wise error rate was controlled with the Holm sequential adjustment.²⁴ The adjusted significance level was interpreted at $\alpha = 0.05$.

The multivariable model used a Gaussian generalized estimating equation with standardized continuous predictors. Standardization placed the predictors on a common scale, allowing the magnitude of coefficients to be compared. The model included school connectedness, family engagement, classroom-management consistency, peer-risk climate, digital distraction, attendance instability, resource strain, remoteness, teaching experience, municipality, and school level. Variance inflation factors were examined to identify problematic multicollinearity; all predictor VIFs were below 1.20. A stratified school-cluster bootstrap with 500 resamples was then

used as a sensitivity analysis for the principal continuous predictors. Schools were resampled within municipality with replacement, preserving the two-site comparison while evaluating coefficient stability under cluster resampling.

3. Results

3.1 Reliability of the Measures

Table 3. Internal consistency of the study measures.

Scale	Items	Cronbach alpha	Interpretation
School connectedness	5	0.837	Good
Family engagement	4	0.792	Acceptable
Classroom-management consistency	5	0.833	Good
Peer-risk climate	4	0.795	Acceptable
Digital distraction	4	0.845	Good
Attendance instability	4	0.823	Good
Resource strain	4	0.827	Good
Disciplinary-issue burden	6	0.929	Good

All scales met acceptable reliability thresholds. Cronbach alpha ranged from 0.79 to 0.93. The disciplinary-issue burden index produced the highest internal consistency ($\alpha = 0.93$), indicating that the six categories shared substantial common variation while still representing distinguishable manifestations of school discipline difficulty. The predictor scales ranged from $\alpha = 0.79$ to 0.85, which supported their use in comparative and multivariable analyses.

3.2 Profile of Student Disciplinary Issues

Table 4. Descriptive profile of disciplinary-issue burden by municipality.

Indicator	Overall M	SD	Cabarroguis M	Cabatuan M
Overall disciplinary burden	3.21	0.59	3.11	3.31
Class disruption	3.17	0.68	3.09	3.26
Defiance	3.16	0.67	3.08	3.24
Attendance violations	3.20	0.69	3.08	3.32
Peer conflict	3.14	0.72	3.08	3.20
Digital misuse	3.39	0.70	3.21	3.57
Property/rule violations	3.20	0.65	3.14	3.27

The overall disciplinary-burden mean was 3.21 ($SD = 0.59$), indicating a moderate frequency of observed issues on the five-point scale. Digital misuse had the highest category mean ($M = 3.39$, $SD = 0.70$). The remaining categories clustered closely around means of 3.14 to 3.20, showing that no single conventional discipline category dominated the profile. The pattern suggested that schools faced a mixed behavior environment rather than one defined only by aggression, defiance, or attendance problems.

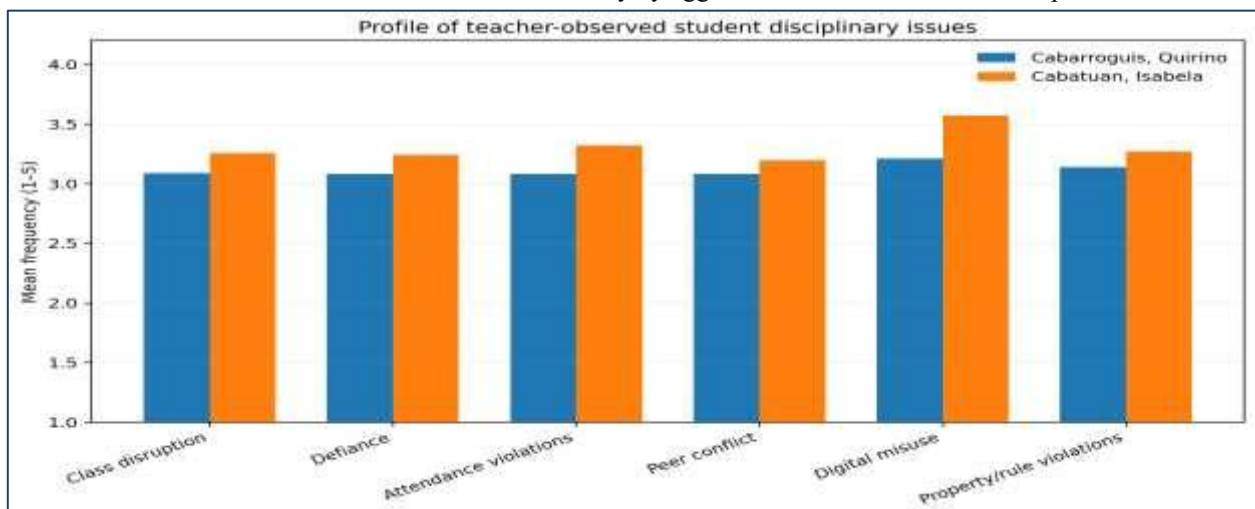


Figure 2. Teacher-observed disciplinary-issue profile by municipality.

3.3 Comparative Differences Between Cabarroguis and Cabatuan

Table 5. Cluster-adjusted municipal comparisons using generalized estimating equations.

Outcome	Difference*	95% CI	Raw p	Holm p	Adjusted sig.
Overall disciplinary burden	0.20	[-0.04, 0.43]	0.103	0.513	No
Class disruption	0.17	[-0.09, 0.43]	0.207	0.763	No
Defiance	0.16	[-0.08, 0.40]	0.191	0.763	No
Attendance violations	0.24	[-0.02, 0.50]	0.067	0.401	No
Peer conflict	0.12	[-0.14, 0.37]	0.375	0.763	No
Digital misuse	0.36	[0.12, 0.60]	0.003	0.023	Yes
Property/rule violations	0.13	[-0.08, 0.35]	0.224	0.763	No

*Positive differences indicated higher scores in Cabatuan relative to Cabarroguis. Models adjusted for school level and used school as the clustering variable.

The overall burden score was 0.20 points higher in Cabatuan at the descriptive level, but the cluster-adjusted difference was not statistically significant after multiplicity correction (Holm $p = 0.513$). Digital misuse was the only category that retained a significant municipal difference. Its adjusted Cabatuan-minus-Cabarroguis difference was 0.36 points (95% CI 0.12 to 0.60; Holm $p = 0.023$). Attendance violations approached a raw difference but did not survive Holm adjustment. These results indicated that the two municipalities shared broadly similar discipline profiles except for digital conduct.

3.4 Bivariate Associations With Disciplinary Burden

Table 6. Spearman correlations between ecological determinants and disciplinary burden.

Predictor	Spearman rho	p	Direction
School connectedness	-0.263	<0.001	Protective
Family engagement	-0.184	<0.001	Protective
Classroom-management consistency	-0.165	0.002	Protective
Peer-risk climate	0.402	<0.001	Risk
Digital distraction	0.218	<0.001	Risk
Attendance instability	0.257	<0.001	Risk
Resource strain	0.141	0.007	Risk

All seven ecological determinants were significantly associated with disciplinary burden in the expected direction. Peer-risk climate had the strongest bivariate association ($\rho = 0.402$), followed by school connectedness ($\rho = -0.263$), attendance instability ($\rho = 0.257$), digital distraction ($\rho = 0.218$), family engagement ($\rho = -0.184$), classroom-management consistency ($\rho = -0.165$), and resource strain ($\rho = 0.141$). The correlations were small to moderate, which supported multivariable analysis because no single domain explained the outcome by itself.

3.5 School-Level Clustering and Criterion Convergence

The intraclass correlation coefficient for disciplinary burden was 0.294. Approximately 29% of the observed variance therefore occurred between schools rather than solely between teachers within the same school. This level of clustering was substantively important and supported the use of school-aware inference. Ignoring clustering would have risked overstating the precision of municipal and predictor effects.

At the school level, the aggregated teacher disciplinary-burden score correlated positively with the administrative referral rate per 100 learners (Spearman $\rho = 0.627$, $p < 0.001$). This moderate-to-strong convergence indicated that the teacher-based index tracked a distinct school-level administrative indicator rather than functioning only as an attitudinal measure. The relationship did not imply that all observed classroom incidents resulted in formal referrals; instead, it showed that schools with higher teacher-observed burden also tended to record higher referral rates.

3.6 Multivariable Determinants of Disciplinary Burden

Table 7. Standardized population-average GEE model predicting disciplinary burden.

Predictor	beta	SE	95% CI	p
School connectedness	-0.252	0.041	[-0.333, -0.171]	<0.001
Family engagement	-0.106	0.035	[-0.176, -0.037]	0.003

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Predictor	beta	SE	95% CI	p
Classroom-management consistency	-0.207	0.034	[-0.273, -0.141]	<0.001
Peer-risk climate	0.322	0.034	[0.256, 0.388]	<0.001
Digital distraction	0.229	0.031	[0.169, 0.289]	<0.001
Attendance instability	0.211	0.034	[0.145, 0.276]	<0.001
Resource strain	0.088	0.033	[0.022, 0.153]	0.009
Remoteness index	0.226	0.095	[0.040, 0.413]	0.017
Teaching experience	0.008	0.039	[-0.068, 0.084]	0.831
Cabatuan vs Cabarroguis	-0.166	0.155	[-0.469, 0.138]	0.284
Secondary vs elementary	-0.187	0.143	[-0.467, 0.094]	0.192

The multivariable model identified a coherent ecological pattern. Peer-risk climate had the largest positive coefficient ($\beta = 0.322$, $p < 0.001$). A one-standard-deviation increase in peer-risk climate corresponded to an estimated 0.32-standard-deviation increase in disciplinary burden after the other variables were held constant. Digital distraction ($\beta = 0.229$, $p < 0.001$) and attendance instability ($\beta = 0.211$, $p < 0.001$) were the next strongest risk factors. Resource strain remained statistically significant but smaller ($\beta = 0.088$, $p = 0.009$). The strongest protective factor was school connectedness ($\beta = -0.252$, $p < 0.001$), followed by classroom-management consistency ($\beta = -0.207$, $p < 0.001$). Family engagement also retained an independent protective association ($\beta = -0.106$, $p = 0.003$). Teaching experience and school level were not significant after the ecological conditions were entered. Municipality was also not independently significant ($\beta = -0.166$, $p = 0.284$), indicating that the observed discipline pattern was better explained by school and relational conditions than by municipal location itself.

The remoteness index produced a positive GEE coefficient ($\beta = 0.226$, $p = 0.017$), but this effect was less stable in the school-cluster bootstrap. Its 95% bootstrap interval extended slightly below zero. The interpretation therefore remained cautious: remoteness appeared relevant in the population-average model, but evidence for an independent effect was weaker than for peer, digital, attendance, connectedness, management, or family domains.

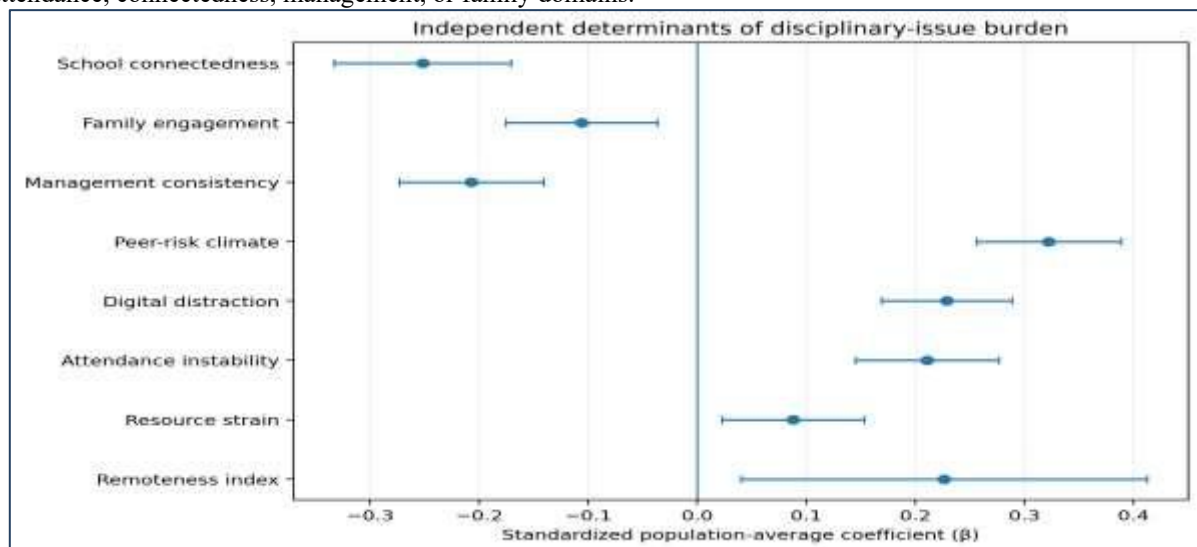


Figure 3. Standardized GEE coefficients for the principal ecological determinants.

3.7 Cluster-Bootstrap Sensitivity Analysis

Table 8. School-cluster bootstrap sensitivity analysis (500 stratified resamples).

Predictor	Resamples	Median beta	Bootstrap 95% interval
School connectedness	500	-0.245	[-0.330, -0.158]
Family engagement	500	-0.109	[-0.179, -0.026]
Classroom-management consistency	500	-0.212	[-0.285, -0.152]
Peer-risk climate	500	0.323	[0.253, 0.394]
Digital distraction	500	0.226	[0.155, 0.291]
Attendance instability	500	0.201	[0.136, 0.267]

Predictor	Resamples	Median beta	Bootstrap 95% interval
Resource strain	500	0.092	[0.022, 0.155]
Remoteness index	500	0.221	[-0.006, 0.439]

The cluster bootstrap reproduced the sign of every principal coefficient. The intervals for school connectedness, family engagement, classroom-management consistency, peer-risk climate, digital distraction, attendance instability, and resource strain excluded zero. The remoteness interval included zero by a small margin. The sensitivity analysis therefore reinforced the conclusion that the relational, classroom, peer, attendance, and digital domains were more stable determinants than geographic remoteness considered by itself.

4. Discussion

The comparative findings supported an ecological interpretation of student discipline. The two municipalities did not differ significantly in overall disciplinary burden after school clustering and multiple comparisons were considered, and municipality was not significant in the fully adjusted model. This was important because a simple comparison of raw means could have encouraged a location-based narrative. Instead, the stronger explanation concerned the social and organizational conditions within schools: peer norms, connectedness, management consistency, attendance stability, digital behavior, family engagement, and resource capacity.

4.1 Peer-Risk Climate as the Strongest Risk Factor

Peer-risk climate emerged as the strongest independent predictor. This result was consistent with developmental evidence showing that adolescents were responsive to peer norms and that observed peer behavior could shape individual choices.¹⁵ In discipline contexts, disruptive acts can be reinforced by laughter, attention, status, group loyalty, or retaliation. A school that responded only to the individual actor could therefore miss the social payoff that sustained the behavior. Prevention required attention to peer leadership, bystander norms, class culture, and the visibility of prosocial behavior.

The result did not mean that peers caused all misconduct. Rather, peer-risk climate operated as one part of a broader system. Its coefficient remained significant after family engagement, school connectedness, classroom management, digital distraction, attendance instability, and resource strain were entered. This pattern suggested that peer processes had unique explanatory value and should be represented in school-wide prevention plans rather than treated as incidental background.

4.2 School Connectedness and Classroom-Management Consistency as Protective Conditions

School connectedness showed the strongest protective association. This finding aligned with school-climate literature that had linked supportive relationships and belonging to lower problem behavior and with meta-analytic evidence that connectedness reduced multiple adolescent risk outcomes, including violence.^{9,10} In practical terms, connectedness represented more than friendliness. It included whether learners believed that adults knew them, would respond fairly, could be approached before a problem escalated, and recognized their participation in the school community.

Classroom-management consistency was also strongly protective. The result supported evidence that management systems worked best when expectations, routines, correction, and reinforcement were clear and predictable.¹¹ Inconsistency can turn minor rule violations into negotiation contests, create perceptions of unfairness, and allow students to test which classrooms or teachers have weaker follow-through. A coherent school response therefore required shared behavioral expectations while still allowing teachers to use professional judgment and developmentally appropriate responses.

The combination of connectedness and consistency was particularly important. Warm relationships without boundaries could leave teachers unable to respond to persistent disruption, while rigid rules without relationships could weaken trust and help-seeking. The data supported a balanced approach in which students experienced both relational safety and behavioral predictability. This balance was compatible with child-protection policy, which required dignity and safety while still allowing lawful, proportionate school discipline.^{1,2,3}

4.3 Attendance Instability as an Early Warning Indicator

Attendance instability remained one of the strongest risk factors. Repeated absence, tardiness, early leaving, and difficult re-entry could weaken instructional continuity and peer belonging, and they could also signal problems outside school. From a discipline perspective, unstable attendance could operate both as a precursor and a consequence of conflict, disengagement, bullying, family difficulty, transportation problems, or mental-health concerns. The appropriate response was therefore diagnostic rather than automatically punitive.

The policy environment strengthened this interpretation. The Basic Education Mental Health and Well-Being Promotion Act required school-based support, referral systems, and attention to learners at risk.⁴ The Kaagapay Program further positioned families as partners in learning support and bullying prevention.⁵ Early attendance follow-up could therefore serve as a practical point where teachers, advisers, families, and support personnel coordinated before an emerging pattern became a chronic behavior or dropout concern.

4.4 Digital Distraction and the Municipal Difference in Digital Misuse

Digital distraction was a robust predictor and digital misuse was the only issue category that significantly differed between municipalities after Holm adjustment. The result was consistent with broader evidence linking problematic smartphone use with poorer academic functioning and well-being, although those literatures had also cautioned against treating all device use as pathological.^{16,17} The school implication was not a blanket prohibition of technology. Instead, schools needed explicit rules for when devices supported learning, when they should be put away, how online conflict was reported, and how teachers responded consistently to repeated unauthorized use.

The revised anti-bullying rules also expanded the relevance of digital conduct by addressing electronic forms of bullying and precursors to harmful peer behavior.³ The significant difference in digital misuse therefore warranted local follow-up, but it should

not be interpreted as evidence that students in one municipality were inherently less disciplined. Differences in connectivity, device access, school routines, grade composition, or enforcement could all produce the observed pattern. A field study would need direct school-level technology-use indicators before causal interpretation.

4.5 Family Engagement as a Modest but Independent Protective Factor

Family engagement had a smaller coefficient than school connectedness or classroom management, but it remained independently protective. This was consistent with research showing that parental monitoring and family knowledge were often related to adolescent problem behavior, while also recognizing that causal pathways were complex.¹³ Reviews of interventions continued to treat parental monitoring, communication, and collaborative follow-up as actionable components.¹⁴ The result supported practical family-school partnership rather than surveillance-oriented or blame-oriented approaches.

In rural communities, communication barriers could include transport, work schedules, mobile signal, and the distance between home and school. Family engagement strategies therefore needed multiple channels: scheduled conferences, text or call follow-up where appropriate, home visitation under existing school procedures, parent education on digital behavior, and clear escalation pathways for repeated attendance or safety concerns. The Kaagapay framework provided a current policy basis for this collaborative orientation.⁵

4.6 Resource Strain and the Role of Rural Access

Resource strain produced a smaller but significant positive association with disciplinary burden. Where guidance access, staffing, referral capacity, and behavior-support resources were limited, teachers could carry a larger share of intervention work themselves. This was relevant because persistent student misbehavior had been associated with teacher burnout.¹⁸ A school that depended on individual teacher endurance rather than coordinated systems could therefore face both learner and staff consequences.

Remoteness was less stable than resource strain after cluster bootstrapping. This distinction was meaningful. Geographic distance did not automatically create discipline problems; rather, the mechanisms linked to distance—transport barriers, referral delays, staffing difficulty, weak connectivity, or limited access to specialized support—were more actionable. Policy should therefore focus on service accessibility and operational capacity rather than on rurality as a deficit label.

4.7 Implications for Discipline Policy and Practice

The findings supported a tiered and preventive interpretation of discipline. At Tier 1, schools needed common expectations, classroom routines, connected adult relationships, digital conduct rules, SEL opportunities, and attendance monitoring. At Tier 2, repeated concerns required structured problem analysis, family contact, targeted mentoring, and behavior or attendance plans. At Tier 3, serious or persistent cases required formal referral, safeguarding procedures, mental-health support, and interagency coordination where appropriate. These layers were consistent with the shift in Philippine policy toward prevention, child protection, mental health, and family partnership.^{1,2,3,4,5}

Restorative practices could contribute to this system when they were implemented with training, clear boundaries, voluntary and safe participation, and attention to harm repair. Reviews had reported potential benefits for communication and conflict reduction but also highlighted uneven evidence and implementation quality.^{20,21} Restorative conversations should therefore complement, not erase, proportionate consequences and safety procedures. The standard for any intervention remained whether it reduced recurrence, protected affected learners, supported accountability, and preserved access to learning.

4.8 Proposed RURAL-DISC Framework

Based on the pattern of determinants, the study proposed the RURAL-DISC framework: Recognize patterns; Unify expectations; Reinforce relationships; Activate families; Limit digital disruption; Disrupt peer-risk norms; Intervene early; Support rural access; and Check equity and outcomes. The framework translated the statistical results into an implementation sequence rather than a list of isolated activities. Its central premise was that school discipline improved when prevention, relationships, classroom practice, family partnership, digital conduct, peer norms, referral capacity, and monitoring operated as one system.

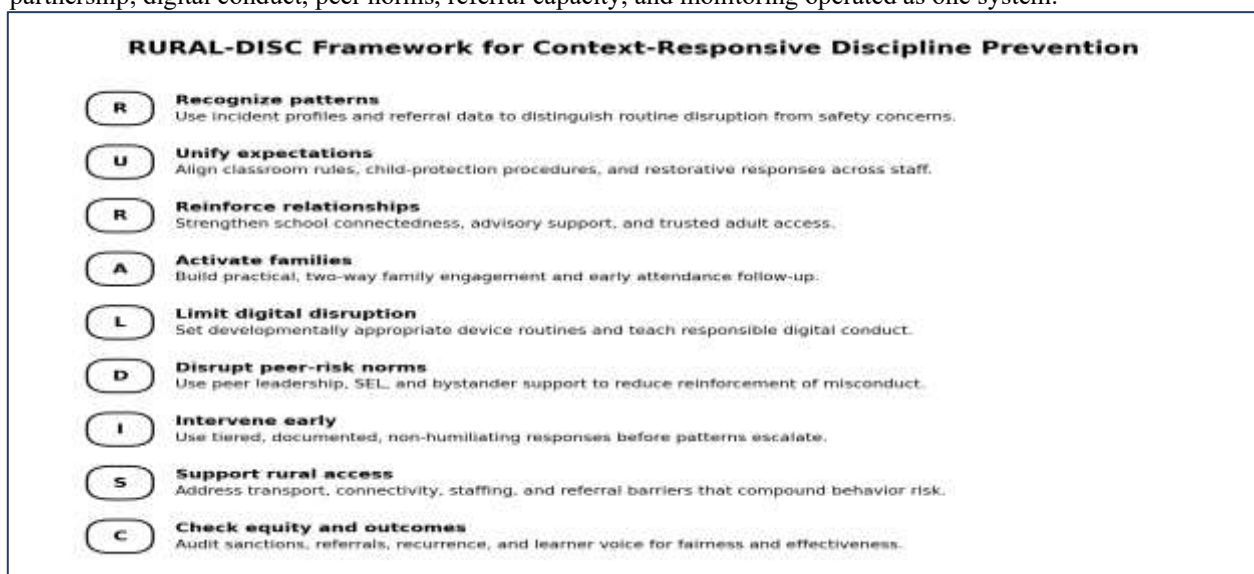


Figure 4. Proposed RURAL-DISC framework for context-responsive discipline prevention.

Table 9. Operational components of the RURAL-DISC framework.

Component	Primary action	Illustrative school mechanism
R - Recognize patterns	Review issue frequencies, referral rates, time/location patterns, recurrence, and learner-safety signals.	Monthly discipline dashboard; CPC/guidance review
U - Unify expectations	Align classroom rules, behavior language, documentation, and escalation steps.	School-wide expectation matrix; staff calibration
R - Reinforce relationships	Increase trusted-adult access, advisory support, belonging, and learner voice.	Advisory check-ins; mentoring; class climate routines
A - Activate families	Use early, two-way communication for attendance, digital concerns, and recurring behavior.	Parent conferences; Kaagapay-aligned support
L - Limit digital disruption	Define instructional device routines and procedures for online conflict spillover.	Device protocol; digital citizenship lessons
D - Disrupt peer-risk norms	Reduce social reinforcement for misconduct and strengthen prosocial peer leadership.	Peer leaders; bystander support; SEL
I - Intervene early	Use tiered, documented, non-humiliating interventions before patterns escalate.	Behavior support plan; counseling/referral
S - Support rural access	Address transport, connectivity, staffing, and referral barriers.	Remote follow-up; referral partnerships; service mapping
C - Check equity and outcomes	Monitor recurrence, sanctions, access to support, and unintended disparities.	Quarterly audit; stakeholder feedback

5. Conclusion

The comparative analysis indicated that student disciplinary issues in rural schools were better understood through school, family, peer, digital, attendance, and resource conditions than through municipality alone. Cabaroguis and Cabatuan had broadly similar overall discipline profiles after clustering and multiple testing were addressed. The exception was digital misuse, which was higher in Cabatuan in the adjusted category comparison and warranted local investigation of device routines, access, and enforcement practices.

Peer-risk climate was the strongest risk factor, while school connectedness and classroom-management consistency were the strongest protective factors. Attendance instability and digital distraction also showed substantial independent associations. Family engagement remained protective, and resource strain had a smaller but meaningful relationship with burden. The school-level clustering itself was substantial, indicating that the organizational environment mattered and that discipline could not be reduced to individual students or teachers.

For policy and practice, the central implication was preventive coherence. Schools needed shared expectations, connected relationships, early attendance follow-up, practical family partnership, explicit digital routines, peer-norm strategies, tiered interventions, and reliable referral pathways. The proposed RURAL-DISC framework organized these elements into a context-responsive system that could be adapted by rural schools while remaining aligned with Philippine child-protection, anti-bullying, mental-health, and family-engagement policies.^{1,2,3,4,5}

6. Recommendations

- Schools should establish a small set of common behavior expectations and calibrate classroom correction and referral procedures across grade levels.
- Discipline monitoring should distinguish routine disruption from bullying, safety threats, attendance problems, digital misconduct, and mental-health concerns so that interventions match the problem.
- School connectedness should be treated as a measurable prevention target through advisory systems, mentoring, learner voice, and access to trusted adults.
- Family engagement should begin early in recurring behavior or attendance patterns and should use practical communication channels suited to rural access conditions.
- Digital conduct policies should specify when devices are permitted, how repeated unauthorized use is handled, and how online conflict or cyberbullying is escalated under child-protection procedures.
- Peer-risk norms should be addressed through peer leadership, social-emotional learning, bystander support, and class culture interventions rather than through individual sanctions alone.
- Schools should audit referral and sanction patterns for recurrence, equity, and access to supportive intervention, not only for counts of violations.
- A future empirical study should collect verified field data, use the same cluster-aware design, and add learner and parent perspectives, longitudinal follow-up, and direct measures of school-service accessibility.

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