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Influence of Pedagogical Barriers and Coping Strategies on the Job Satisfaction of Public School Teachers

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ABSTRACT

Teachers in schools serving Indigenous Peoples (IP) learners work across cultural, economic, and curricular gaps that may affect their job satisfaction. This descriptive-correlational study examined the influence of pedagogical barriers and coping strategies on the job satisfaction of 170 public school personnel, including IP and non-IP teachers, in Alabel District, DepEd Schools Division of Sarangani Province, during School Year 2025–2026. Culturally reviewed, pilot-tested scales (α = .87 to .91) measured five barrier domains, 25 coping practices, and four satisfaction indicators; data were analyzed through weighted means, chi-square, and correlation. Barriers were most severe at the family and community level (socio-economic, *M* = 3.46) and the school level (resources, *M* = 3.43), followed by curriculum constraints (*M* = 3.39), and least severe at the classroom level (style mismatch, *M* = 2.81). Coping was Very High, led by building positive classroom environments (*M* = 3.56), with differentiation (M = 3.44) and peer feedback (M = 3.42) the weakest practices. Job satisfaction was Very High, highest in interpersonal relationships (*M* = 3.54) and lowest in professional growth (*M* = 3.32). Ethnicity, training, educational attainment, and school, among other characteristics except sex, were significantly associated with all three variables. Barriers, coping, and satisfaction were significantly interrelated (*r* = .68, *p* = .001). Teachers appear to sustain their satisfaction by meeting structural barriers with active, relational coping, although pairwise effects remain to be tested. A culturally responsive professional development program grounded in community partnership is proposed.

Introduction

Teaching mathematics in an Indigenous Peoples (IP) community asks more of a teacher than knowledge of content and method. Learners may speak a language different from the medium of instruction, live with economic hardship, and bring forms of reasoning rooted in community practices that standard lessons ignore (Gula, 2024; Utami et al., 2021). Teachers, especially those who are not themselves members of the community, must bridge these gaps while working with limited materials and a demanding curriculum (Cubi & Rollo, 2025; Nazarita & Morales, 2025).

How teachers fare under these conditions has consequences beyond the individual. Teacher satisfaction affects commitment, effort, and retention, and stress that is not managed leads to burnout and attrition (Skaalvik & Skaalvik, 2017; Ferguson, 2022). In IP contexts, where schools are often remote and hard to staff, sustaining teachers' satisfaction is therefore part of securing learners' right to education. The Philippine Indigenous Peoples Education policy

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framework (DepEd Order No. 62, s. 2011) and the IPEd curriculum framework (DepEd Order No. 32, s. 2015) call for culturally responsive teaching, but they also rely on teachers who are willing and able to remain in these schools.

This study examined the influence of pedagogical barriers and coping strategies on the job satisfaction of public school teachers in Alabel District, DepEd Schools Division of Sarangani Province, a district serving IP learners, during School Year 2025–2026. It described the barriers teachers perceive, the coping strategies they use at the level of specific practices, and their job satisfaction; identified the personal and professional characteristics related to these variables; and tested whether barriers, coping, and satisfaction are significantly related. Because the design is correlational, influence is examined in terms of significant association. A professional development program was proposed on the basis of the findings.

Literature Review

Teaching Mathematics in Indigenous Contexts

Mathematics instruction that ignores learners' cultures contributes to disengagement and inequity. Contextualizing lessons in indigenous artifacts, measurement, and community problem-solving improves engagement and learning (Utami et al., 2021; Gula, 2024), and IP learners respond to mathematics they see as meaningful to their lives (Cambalon & Gono, 2025). Culturally responsive pedagogy offers a framework for this work, emphasizing cultural knowledge, relevant materials, and affirmation of learners' identities (Bostwick, 2025; Camiring-Picpican, 2025; IJMRA, 2025). Differentiated instruction is one of its practical forms (Ojer, 2025), and IP mathematics teachers' beliefs and practices strongly influence whether such teaching takes place (Tancontian, 2024). Ethically integrating indigenous content and preparing non-IP teachers to engage with indigenous knowledge systems are recognized as ongoing needs (Riley, 2024; Moreton, 2024).

Barriers Across Ecological Levels

The socio-ecological model situates learning within nested levels of influence, including the individual, family, school, community, and policy (Jornet, 2025; Johannes, 2025). The barriers in this study span these levels. In the classroom, teaching styles often fail to match learners' preferred modes (Cardino Jr., 2020; Sari & Pujiastuti, 2020; Febrina & Hali, 2020), and anxiety and negative attitudes reduce participation (De-la-Peña, 2021; Mazana et al., 2019). At the school level, shortages of materials, technology, and infrastructure constrain teaching (Mangwende, 2019; Belete et al., 2022; Martín-Cudero, 2024). At the policy level, overloaded and rigid curricula limit time for mastery (Karikari et al., 2020; Basister, 2025; Organisation for Economic Co-operation and Development, 2025). At the family and community level, poverty and limited parental support shape learners' readiness (Ng et al., 2021; Uddin, 2024).

Coping in Culturally Complex Classrooms

Non-IP teachers in IP schools cope by immersing themselves in the culture, learning local languages, and adopting inclusive classroom management (Cubi et al., 2024). Teachers more generally rely on adaptive problem-solving (Kantathanawat et al., 2025; Didham, 2020), collaborative professional learning that builds cross-cultural competence (Papp & Cottrell,

2021; Golledge, 2025; Acacia Education, 2024), positive and culturally affirming classroom climates (Smith & Hoy, 2022; American Journal of Humanities and Social Sciences Research, 2025; RSI International, 2025), varied and bilingual instruction (Shi et al., 2025; Cubi & Rollo, 2025), and resilience supported by community connection and culturally grounded practice (Jongen et al., 2019; Sun, 2025; Fabrigas & Paglinawan, 2025). Stress and Coping Theory explains these strategies as efforts to manage demands that tax personal resources (Lazarus & Folkman, 1984).

Job Satisfaction

Teachers' satisfaction depends on their working conditions, growth, relationships, and recognition. Stress and low self-efficacy erode engagement and increase the motivation to leave (Skaalvik & Skaalvik, 2017), job stressors contribute to burnout (Kokkinos, 2007), and diversified teaching and supportive relationships reduce burnout risk (Shi et al., 2025; Smith & Hoy, 2022). The Excellence in Teacher Education Act of 2022 (RA 11713) underscores the state's commitment to teachers' continuous professional growth, a key source of satisfaction.

Methodology

Design and setting. A descriptive-correlational design was employed in public schools serving IP learners in Alabel District, Sarangani Province. These schools are located in culturally diverse but economically marginalized areas, where learners face language barriers and limited access to learning resources.

Respondents. A total of 170 respondents were selected through stratified random sampling: 15 school heads, 50 non-IP mathematics teachers, 10 IP teachers, and 95 other public school teachers. Including IP and non-IP teachers allowed both insider and outsider perspectives on IP classrooms.

Instruments. The questionnaire comprised a profile sheet and three Likert-type scales. Barriers in mathematics teaching were measured across five domains with items adapted from Ako et al. (2025), Cardino Jr. (2020), and Nazarita and Morales (2025). Coping strategies were measured across five dimensions with items based on Stress and Coping Theory (Lazarus & Folkman, 1984; Chan et al., 2021; Amoroso, 2025). Job satisfaction was measured across four indicators: work environment, professional growth and development, interpersonal relationships, and recognition and motivation. Means were interpreted as Very High (3.26–4.00), High (2.51–3.25), Fair (1.76–2.50), or Low (1.00–1.75). The instruments were reviewed for cultural appropriateness and pilot tested with 30 teachers in Malapatan District ($\alpha = .89$, .91, and .87, respectively).

Procedure and analysis. With permission from the Schools Division Superintendent, the researchers met school heads and teachers, obtained consent, and administered the questionnaires on dates that avoided disruption to classes and community activities. Travel to remote schools was planned in advance. Data were analyzed with frequencies, percentages, weighted means, chi-square, and correlation ($\alpha = .05$). Shapiro–Wilk tests showed normality for coping and satisfaction but not for barriers ($W = .921$, $p = .031$).

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Ethics. Ethics approval was secured. Community leaders were consulted to ensure the study respected IP norms, participation was voluntary and confidential, and data were protected in accordance with the Data Privacy Act of 2012.

Results and Discussion

Respondents

The respondents were mostly 30 to 49 years old (74.12%), female (61.18%), and married (64.71%). Cebuano was the most common ethnicity (54.12%), followed by respondents classified as non-IP (29.41%), other ethnicities (9.41%), and Tagalog (7.06%). All had graduate units or degrees, and 25.88% had doctoral units or a doctorate. Most had 6 to 15 years of experience (67.06%), taught at the elementary level (55.29%), and had attended seven or more trainings (64.70%). Respondents came from ten named schools and other schools across the district (34.12%).

Barriers Across Levels

Table 1

Pedagogical Barriers in Mathematics Teaching: Domain Means and Extreme Indicators

Domain	Mean	Level	Highest Indicator	Lowest Indicator
Mismatch between teaching and learning styles	2.81	High	Students struggle when traditional methods are used (2.91)	Rarely adjusts teaching methods to individual needs (2.65)
Lack of appropriate teaching resources	3.43	Very High	Often improvises due to limited resources (3.51)	Students lack access to supplementary materials (3.36)
Negative attitudes and low motivation	3.28	Very High	Negative attitudes affect classroom participation (3.34)	Motivation levels are low during math lessons (3.21)
Curriculum-related constraints	3.39	Very High	The curriculum is overloaded with content (3.45)	Curriculum demands limit innovative teaching (3.33)
Socio-economic barriers	3.46	Very High	Students' financial difficulties affect learning (3.52)	Socio-economic issues reduce attendance (3.39)

Note. 3.26–4.00 = Very High; 2.51–3.25 = High; 1.76–2.50 = Fair; 1.00–1.75 = Low.

Read through the socio-ecological model, the barriers become more severe as they move away from the classroom (Table 1). The family and community level (socio-economic barriers, M = 3.46) and the school level (lack of resources, M = 3.43) were rated most severe, followed by the policy level (curriculum constraints, M = 3.39) and learners' dispositions (negative attitudes, M = 3.28). The classroom-level mismatch between teaching and learning styles was rated lowest (M = 2.81). Teachers thus locate their greatest difficulties in conditions they cannot control directly: poverty, scarcity, and curriculum design (Jornet, 2025; Uddin, 2024; Akon-Yamga et al., 2024; Karikari et al., 2020). These conditions are typical of IP communities in geographically isolated areas (Nazarita & Morales, 2025).

The lower rating for style mismatch should not be read as an absence of cultural mismatch. The items asked about learning styles in general rather than about language or cultural distance, which IP teachers and their learners identify as central difficulties (Cubi & Rollo, 2025). Learners' struggles with traditional methods (2.91) suggest that conventional instruction still fits poorly with how many IP learners learn, which is consistent with calls for lessons grounded

in indigenous practices (Gula, 2024; Utami et al., 2021). Learners' low confidence (3.30) and the effect of negative attitudes on participation (3.34) are consistent with research on mathematics anxiety and cultural stigma (De-la-Peña, 2021; Brown, 2020) and may also reflect the effects of the pandemic years on learners' well-being, as documented among Filipino students (Panela, 2025c).

Coping Strategies in Practice

Table 2

Coping Strategies of the Respondents per Indicator

Dimension and Indicator	Mean	Level
Adaptive problem-solving techniques	**3.55**	**Very High**
Adjusts teaching strategies when problems arise	3.62	Very High
Remains flexible in addressing challenges	3.58	Very High
Uses creative solutions to overcome barriers	3.55	Very High
Adapts lesson plans to fit situations	3.53	Very High
Analyzes problems before acting	3.49	Very High
Professional development and peer collaboration	**3.49**	**Very High**
Values professional development opportunities	3.56	Very High
Collaborates with peers for solutions	3.51	Very High
Peer collaboration enhances teaching	3.48	Very High
Attends training to improve teaching	3.47	Very High
Seeks feedback from colleagues	3.42	Very High
Building positive classroom environments	**3.56**	**Very High**
Encourages respect among students	3.61	Very High
Creates a supportive atmosphere	3.59	Very High
Promotes student engagement	3.57	Very High
Fosters inclusivity in class	3.54	Very High
Maintains discipline positively	3.49	Very High
Employing varied instructional approaches	**3.48**	**Very High**
Uses multiple teaching methods	3.52	Very High
Varies activities to sustain interest	3.50	Very High
Experiments with new strategies	3.48	Very High
Integrates technology in lessons	3.46	Very High
Differentiates instruction for learners	3.44	Very High
Maintaining a positive attitude and resilience	**3.55**	**Very High**
Stays motivated despite challenges	3.59	Very High
Perseveres through difficulties	3.57	Very High
Remains optimistic in teaching	3.55	Very High
Bounces back from setbacks	3.53	Very High
Maintains patience with students	3.50	Very High

Note. 3.26–4.00 = Very High; 2.51–3.25 = High; 1.76–2.50 = Fair; 1.00–1.75 = Low.

Coping was Very High across all 25 practices (Table 2), from 3.42 for seeking feedback from colleagues to 3.62 for adjusting strategies when problems arise. By dimension, building positive classroom environments ranked first (M = 3.56), followed by adaptive problem-solving and resilience (M = 3.55 each), professional development and peer collaboration (M = 3.49), and varied instructional approaches (M = 3.48).

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The strongest practices center on the classroom community: encouraging respect (3.61), creating a supportive atmosphere (3.59), and promoting engagement (3.57). In culturally complex classrooms, a respectful and inclusive climate is itself a culturally responsive act, because it signals to learners that their identities are welcome (Smith & Hoy, 2022; American Journal of Humanities and Social Sciences Research, 2025). Resilience indicators were similarly strong, reflecting the commitment and perseverance reported among teachers in remote and IP schools in Mindanao (Fabrigas & Paglinawan, 2025; Amoroso, 2025). The weaker practices are pedagogical and collaborative: differentiating instruction (3.44), integrating technology (3.46), and seeking colleagues' feedback (3.42). These practices are most directly linked to culturally responsive differentiation (Ojer, 2025; Bostwick, 2025) and to the professional learning communities that help non-IP teachers develop cross-cultural competence (Papp & Cottrell, 2021; Golledge, 2025). Teachers in Samar Island schools who conducted action research during the pandemic similarly needed collegial and institutional support to sustain their professional learning (Panela, 2025e).

Job Satisfaction

Table 3

Job Satisfaction: Indicator Means and Extreme Items

Indicator	Mean	Level	Highest Item	Lowest Item
Work environment	3.40	Very High	Feels safe in the work environment (3.44)	Facilities support effective instruction (3.36)
Professional growth and development	3.32	Very High	Receives support for professional growth (3.36)	Has opportunities for career advancement (3.28)
Interpersonal relationships	3.54	Very High	Good relationships with colleagues (3.58)	Feels supported by administration (3.46)
Recognition and motivation	3.40	Very High	Feels motivated to perform well (3.44)	Rewarded for achievements (3.36)

Note. 3.26–4.00 = Very High; 2.51–3.25 = High; 1.76–2.50 = Fair; 1.00–1.75 = Low.

Job satisfaction was Very High on every indicator (Table 3). Interpersonal relationships were highest (M = 3.54), work environment and recognition and motivation were equal (M = 3.40), and professional growth and development was lowest (M = 3.32). Within indicators, teachers were most satisfied with relationships with colleagues (3.58), safety at work (3.44), and their motivation to perform well (3.44), and least satisfied with career advancement (3.28), facilities (3.36), and rewards for achievement (3.36).

Satisfaction among these teachers is therefore relational. Colleagues provide the respect, collaboration, and companionship that make difficult postings tolerable, which is consistent with research showing that social connectedness supports resilience in resource-constrained schools (Versfeld, 2025; Wabingga, 2025). Material and institutional sources of satisfaction, including facilities, rewards, and advancement, are weaker, in line with the resource barriers teachers reported. Where facilities and career prospects lag, satisfaction depends heavily on collegial bonds, and those bonds can weaken when staff transfer or workloads increase (Skaalvik & Skaalvik, 2017).

Characteristics Related to Coping and Satisfaction

Table 4

Chi-Square Tests of Profile Variables Against Coping Strategies and Job Satisfaction

Profile Variable	Coping χ^2 (p)	Job Satisfaction χ^2 (p)
Age	12.47 (.02)*	11.62 (.02)*
Sex	3.86 (.14)	3.74 (.15)
Civil status	10.92 (.03)*	9.85 (.04)*
Ethnicity	11.38 (.02)*	12.43 (.02)*
Highest educational attainment	14.26 (.01)*	14.67 (.01)*
School	13.74 (.01)*	13.58 (.01)*
Years in teaching	12.89 (.02)*	12.94 (.02)*
Grade level handled	9.64 (.04)*	8.76 (.05)†
Relevant seminars and trainings	16.53 (.01)*	16.82 (.01)*

Note. *p < .05. †p = .05, treated as significant in the source analysis.

Coping and satisfaction were related to all profile variables except sex (Table 4), and barriers showed the same pattern (with grade level at $p = .05$). The strongest associations were with seminars and trainings (coping $\chi^2 = 16.53$; satisfaction $\chi^2 = 16.82$), educational attainment (14.26; 14.67), and school (13.74; 13.58). Ethnicity was significant for coping ($\chi^2 = 11.38$, $p = .02$), satisfaction ($\chi^2 = 12.43$, $p = .02$), and barriers ($\chi^2 = 11.65$, $p = .02$).

The ethnicity association is particularly relevant to IP schools. IP and non-IP teachers occupy different positions in relation to learners' culture and language, and the experiences of non-IP teachers include cultural dissonance and the emotional labor of bridging differences (Cubi et al., 2024; Cubi & Rollo, 2025; Nazarita & Morales, 2025). The training and school associations indicate that professional learning and school context shape how teachers manage these demands (Golledge, 2025; Omoeva, 2021). Sex was unrelated to all three variables. Confirming that the scales function equivalently for women and men, through methods such as the Rasch-based gender analysis applied to a teacher empowerment scale, would make such conclusions more secure (Panela, 2025a).

Influence of Barriers and Coping on Job Satisfaction

The test of relationship among barriers, coping strategies, and job satisfaction yielded a significant, moderately strong, positive coefficient ($r = .68$, $p = .001$), and the null hypothesis was rejected. The three variables are interrelated: settings with more barriers were also settings of more intensive coping, and satisfaction moved in the same direction. In culturally complex schools, this pattern suggests that teachers convert difficulty into effort: they respond to scarce resources, poor learners, and crowded curricula with adaptive practice and supportive classrooms, and this effort helps preserve their satisfaction (Lazarus & Folkman, 1984; Chan et al., 2021; Smith & Hoy, 2022).

Limitations

Several limitations bear on the interpretation of influence. The correlational design cannot establish cause. A single coefficient was reported for three variables, so the separate relationships of barriers and of coping with satisfaction, and any mediating role of coping, remain unknown; barriers were also non-normal, which calls for a rank-based coefficient. The

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sample combined school heads and teachers of various subjects, although the barrier items concerned mathematics teaching, and the ethnicity categories did not clearly distinguish the IP teachers described in the sampling plan. The chi-square tests do not indicate which subgroups differ or in what direction, and two of them were significant only at the .05 boundary. Future studies should analyze IP and non-IP teachers separately, report pairwise and multivariate results, and include qualitative accounts of cultural adaptation.

Toward Culturally Responsive Professional Development

The proposed professional development program responds to these results through eight components, from culturally responsive pedagogy and resource management to resilience and career progression. For IP schools, its value will depend on how fully it draws on the community, for example by involving elders and knowledge holders in lesson design (Moreton, 2024; Sun, 2025), using local contexts in mathematics tasks (Utami et al., 2021), and building teachers' cultural competence through professional learning conversations (Golledge, 2025). Its design should begin with an assessment of teachers' existing competencies, as in recent mapping of basic education teachers' skills on Samar Island (Panela, 2025d). Wellness components can include new forms of support for teachers working far from home; university teachers have reported using an AI companion device to manage workplace stress (Panela, 2026).

Conclusion

In public schools serving IP learners in Alabel District, teachers perceive Very High barriers that arise mostly from poverty, scarce resources, and curriculum demands, with classroom-level style mismatch less severe. They cope at a Very High level, especially through respectful, supportive classrooms and resilience, but use differentiation, technology, and peer feedback somewhat less. Their satisfaction is Very High and rests mainly on collegial relationships, with career advancement, facilities, and rewards weaker. All profile variables except sex, including ethnicity, are related to barriers, coping, and satisfaction. Barriers, coping, and satisfaction are significantly interrelated, consistent with teachers sustaining satisfaction through active coping.

The district should implement a culturally responsive professional development program that strengthens differentiation and peer collaboration, involves IP communities in curriculum and lesson design, expands access to materials, and improves career and recognition systems. School heads should protect the collegial relationships that underpin satisfaction and provide wellness support for teachers in remote postings. Teachers should also be prepared to support learners whose well-being was affected by the pandemic (Panela, 2025b). Future research should examine IP and non-IP teachers separately and test the pathways from barriers through coping to satisfaction.

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