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TEACHERS' INDIGENOUS KNOWLEDGE AND CULTURAL SKILLS ON THE IMPLEMENTATION OF MATATAG CURRICULUM IN SELECTED DISTRICTS OF NORTH COTABATO

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2. ABSTRACT

This quantitative study investigated the level of teachers' indigenous knowledge and cultural skills and their relationship and influence on the implementation of the MATATAG Curriculum in selected public elementary schools across Arakan, Magpet, Makilala, Roxas, and Tulunan Districts, North Cotabato, Philippines for School Year 2025–2026. Using a descriptive-correlational design, 342 teachers were surveyed through complete enumeration. Indigenous knowledge was measured across five dimensions: Millennia of Observations, Temporal and Place-based, Living, Kinship, and Holistic. Cultural skills were assessed through Cultural Awareness, Cultural Sensitivity, and Cultural Communication. MATATAG Curriculum implementation was examined through Curriculum Design and Content, Teaching and Learning Enhancement, and Implementation and Support. Results showed that teachers' indigenous knowledge was Extensively Integrated overall (WM = 4.39), with Holistic highest (WM = 4.50). Cultural skills were Highly Proficient (WM = 4.47), with Cultural Sensitivity highest (WM = 4.52). MATATAG implementation was Highly Implemented (WM = 4.48). Holistic indigenous knowledge showed significant positive relationships with all three implementation dimensions. Cultural Communication was the only cultural skills dimension significantly related to and influencing all three implementation areas. Regression analysis confirmed Holistic as the dominant predictor across all implementation indicators, and Cultural Communication as the sole significant predictor of all cultural skills effects on implementation. These findings establish Holistic

indigenous knowledge and Cultural Communication as the twin pillars of effective MATATAG Curriculum implementation in culturally diverse rural Philippine school settings.

3. KEYWORDS: *Indigenous knowledge; cultural skills; MATATAG Curriculum; holistic; cultural communication; descriptive-correlational; North Cotabato; culturally responsive pedagogy.*

4. INTRODUCTION

The MATATAG Curriculum, launched by the Department of Education Philippines as a streamlined and strengthened basic education curriculum, emphasizes cultural responsiveness, relevant competencies, and contextualized learning. Its effective implementation requires teachers who not only understand content but also possess the indigenous knowledge and cultural skills necessary to bridge curriculum demands with the diverse cultural realities of their learners. As Gay (2000) established through Culturally Responsive Pedagogy (CRP), teachers who embrace cultural perspectives and practices create learning environments where students feel seen, respected, and academically engaged.

However, in rural and culturally diverse districts like those in North Cotabato—where communities include indigenous peoples from Manobo, Higaonon, and other groups—the gap between mandated curriculum implementation and authentic cultural integration remains a persistent challenge (Mendoza, 2023; Aquino, 2024). Despite teachers' recognized role as bearers of indigenous knowledge, the extent to which their cultural competencies shape MATATAG implementation practices has not been systematically examined in this context.

This study addresses that gap by quantitatively determining the levels of teachers' indigenous knowledge and cultural skills, and testing their relationships and predictive influence on MATATAG Curriculum implementation across Curriculum Design and Content, Teaching and Learning Enhancement, and Implementation and Support.

5. MATERIALS AND METHODS

Research Design. A descriptive-correlational design was employed to describe the current levels of teachers' indigenous knowledge and cultural skills, and to determine their relationships and influence on MATATAG Curriculum implementation without experimental manipulation (Cochran, 2011; Creswell & Creswell, 2018).

Locale and Respondents. The study was conducted in selected public elementary schools in Arakan (n = 120, 35.09%), Magpet (n = 78, 22.81%), Makilala (n = 78, 22.81%), Roxas (n =

12, 3.51%), and Tulunan (n = 54, 15.79%) Districts, North Cotabato. Using complete enumeration, all 342 qualifying public elementary school teachers with five or more years of teaching experience served as respondents. Teachers with four or fewer years of service, private school teachers, and school administrators were excluded.

Instruments. (1) Teachers' indigenous knowledge questionnaire adapted from Barnhardt and Kawagley (2005; Cronbach's α = 0.95) measured five dimensions. (2) Cultural skills instrument adapted from Deardorff (2006) measured three dimensions. (3) MATATAG Curriculum implementation scale adapted from Aquino (2024; reliability = 89.6%) measured three dimensions. All instruments used five-point Likert scales rated from Not Integrated/Not Proficient/Not Implemented (1) to Extensively Integrated/Highly Proficient/Highly Implemented (5).

Statistical Analysis. Weighted means described variable levels. Spearman's rank-order correlation determined significant relationships. Multiple regression analysis identified the predictive influence of indigenous knowledge dimensions and cultural skills on each MATATAG implementation indicator at α = 0.05.

6. RESULTS AND DISCUSSION

Level of Teachers' Indigenous Knowledge

Teachers' indigenous knowledge was Extensively Integrated overall (WM = 4.39). Holistic received the highest mean (WM = 4.50), reflecting teachers' strongest integration of learners' intellectual, emotional, social, and cultural dimensions. Kinship (WM = 4.48), Temporal and Place-based (WM = 4.46), and Millennia of Observations (WM = 4.49) were all Extensively Integrated. Living had the lowest mean (WM = 4.00, Regularly Integrated), indicating relatively weaker integration of adaptive life practices and resilience-based indigenous knowledge. Among individual items, 'encouraging students to learn from ancestral wisdom' (M = 4.55) and 'promoting understanding and respect for diverse perspectives' (M = 4.53) were highest rated. These findings are consistent with Silva et al. (2024) and Pejaner and Mistades (2020), who documented that indigenous knowledge becomes pedagogically powerful when purposefully integrated into instruction as a competitive framework for learning.

Table 1. Summary Level of Teachers' Indigenous Knowledge.

Dimension	Weighted Mean	Description
Millennia of Observations	4.49	Extensively Integrated
Temporal and Place-based	4.46	Extensively Integrated
Living	4.00	Regularly Integrated
Kinship	4.48	Extensively Integrated
Holistic	4.50	Extensively Integrated
Overall Weighted Mean	4.39	Extensively Integrated

Level of Cultural Skills

Teachers' cultural skills were Highly Proficient overall (WM = 4.47). Cultural Sensitivity was highest (WM = 4.52), particularly in 'avoiding assumptions based on student cultural identity' (M = 4.55). Cultural Awareness (WM = 4.50) was also highly rated, with recognition of student cultural diversity and creation of inclusive environments both scoring M = 4.51. Cultural Communication received the lowest mean (WM = 4.38), though still Highly Proficient; 'using culturally appropriate language with parents' received the lowest individual item score (M = 4.29). These results are consistent with Anyichie et al. (2023) and van den Bergh et al. (2024), who confirmed that culturally responsive pedagogical practices improve teacher engagement with culturally diverse learners.

Table 2. Summary Level of Cultural Skills.

Dimension	Weighted Mean	Description
Cultural Awareness	4.50	Highly Proficient
Cultural Sensitivity	4.52	Highly Proficient
Cultural Communication	4.38	Highly Proficient
Overall Weighted Mean	4.47	Highly Proficient

Extent of MATATAG Curriculum Implementation

MATATAG Curriculum implementation was Highly Implemented overall (WM = 4.48). Curriculum Design and Content (WM = 4.50) and Implementation and Support (WM = 4.50) were co-highest, with Teaching and Learning Enhancement slightly lower (WM = 4.44). Among individual items, 'including diverse materials reflecting real-world applications and cultural relevance' (M = 4.53) and 'using interactive and innovative teaching methods' (M = 4.53) were highest. These results confirm that teachers actively implement MATATAG

through culturally relevant content design, inclusive classroom strategies, collaborative professional practices, and sustained learner and community support, consistent with Tep (2024) and Keung and Cheung (2023).

Table 3. Summary Level of MATATAG Curriculum Implementation.

Dimension	Weighted Mean	Description
Curriculum Design and Content	4.50	Highly Implemented
Teaching and Learning Enhancement	4.44	Highly Implemented
Implementation and Support	4.50	Highly Implemented
Overall Weighted Mean	4.48	Highly Implemented

Relationship Between Indigenous Knowledge and MATATAG Implementation

Spearman's rho analysis revealed that Holistic demonstrated highly significant positive relationships with all three MATATAG implementation dimensions: Curriculum Design and Content ($r = .684$, $p = .000$), Teaching and Learning Enhancement ($r = .502$, $p = .000$), and Implementation and Support ($r = .996$, $p = .000$). Kinship showed a significant positive relationship with Implementation and Support ($r = .144$, $p = .012$). Millennia of Observations, Temporal and Place-based, and Living showed no significant relationships with any implementation dimension. These findings establish Holistic as the dominant indigenous knowledge dimension linking to MATATAG implementation—consistent with Miole (2024) and Bostwick et al. (2025), who found that holistic and relational dimensions of indigenous knowledge are most strongly connected to curriculum implementation effectiveness.

Influence of Indigenous Knowledge on MATATAG Implementation

Multiple regression confirmed that teachers' indigenous knowledge collectively and significantly influenced all three MATATAG implementation dimensions. For Curriculum Design and Content ($F = 50.779$, $p = .000$; $R^2 = 0.463$), only Holistic was a significant predictor ($\beta = .681$, $p = .000$). For Teaching and Learning Enhancement ($F = 22.219$, $p = .000$; $R^2 = 0.274$), Holistic was the strongest positive predictor ($\beta = .502$, $p = .000$), while Millennia of Observations ($\beta = -.108$, $p = .031$) and Living ($\beta = -.105$, $p = .036$) showed negative significant influence. For Implementation and Support ($F = 7556.281$, $p = .000$; $R^2 = 0.992$), Holistic alone accounted for 99.2% of explained variance ($\beta = .996$, $p = .000$). These findings confirm Holistic as the singular most influential indigenous knowledge dimension across all MATATAG implementation areas.

Table 4. Summary of Regression: Indigenous Knowledge on MATATAG Implementation.

Implementation Dimension	Key Predictor (β)	R^2	F	Decision
Curriculum Design and Content	Holistic: β = .681**	0.463	50.779**	Significant
Teaching & Learning Enhancement	Holistic: β = .502**	0.274	22.219**	Significant
Implementation and Support	Holistic: β = .996**	0.992	7556.281**	Significant

**p < .001

Relationship and Influence of Cultural Skills on MATATAG Implementation

Correlation analysis showed that Cultural Communication was the only cultural skills dimension significantly and positively related to all three MATATAG implementation dimensions: Curriculum Design and Content (r = .415, p = .000), Teaching and Learning Enhancement (r = .231, p = .000), and Implementation and Support (r = .378, p = .000). Cultural Awareness and Cultural Sensitivity showed no significant correlations with any implementation dimension. Regression analysis confirmed this pattern: Cultural Communication was the sole significant predictor across Curriculum Design and Content (β = .418, F = 20.859, p = .000; R^2 = 0.175), Teaching and Learning Enhancement (β = .239, F = 7.023, p = .000; R^2 = 0.066), and Implementation and Support (β = .374, F = 16.876, p = .000; R^2 = 0.146). Cultural Awareness and Cultural Sensitivity showed no significant influence in any regression model. These findings establish cultural communication—the practical, relational application of cultural competence through inclusive dialogue, language adaptation, and learner-centered interaction—as the most active cultural skills driver of MATATAG implementation effectiveness.

7. CONCLUSION

Teachers in the selected districts of North Cotabato demonstrate Extensively Integrated indigenous knowledge, Highly Proficient cultural skills, and Highly Implemented MATATAG Curriculum practice. Among indigenous knowledge dimensions, Holistic emerged as the dominant predictor of all three MATATAG implementation indicators—particularly for Implementation and Support (R^2 = 0.992)—establishing whole-child, culturally-connected teaching as the most influential indigenous knowledge practice in curriculum delivery. Among cultural skills, Cultural Communication was the only dimension

significantly related to and influencing all implementation areas, affirming that the capacity to engage, listen, and adapt communicatively across cultural contexts is the most action-oriented cultural competency driving MATATAG success. The Living dimension's lower integration scores and negative influence on Teaching and Learning Enhancement warrant targeted professional development. Policy and school leadership should prioritize strengthening Holistic indigenous knowledge integration and building teachers' culturally responsive communication capacity through structured mentoring, localized resources, and sustained professional learning communities.

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