FOSTERING PRO-ENVIRONMENTAL BEHAVIORS THROUGH LANGUAGE INSTRUCTION AND EDUCATIONAL ADMINISTRATION: INSIGHTS FROM COMMUNITY CONSERVATION PRACTICES

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ABSTRACT*: This qualitative study explored forest conservation behaviors among community residents and examined how knowledge, attitudes, social norms, and local educational initiatives influence these behaviors. A total of ten participants, including community leaders, household heads, and other residents, were purposively selected to provide diverse perspectives on environmental practices. Data were collected through semi-structured interviews conducted in Chavacano and English, focusing on participants' personal experiences with forests, perceptions of their importance, knowledge of environmental sustainability, attitudes toward conservation, and active engagement in forest protection. Thematic analysis revealed that residents actively engage in tree planting, sustainable gardening, and participation in community-led and NGO-supported conservation programs. Positive attitudes toward forest conservation were shaped by awareness of environmental benefits, social responsibility, and community norms, although economic necessities and livelihood need occasionally limited full participation. The study also highlighted the role of language-based environmental instruction and proactive educational administration in reinforcing pro-environmental behaviors. Findings suggest that community-wide education campaigns, inclusive participation in conservation programs, and livelihood-sensitive interventions are essential to sustaining forest conservation efforts. The results provide practical implications for local policymakers, educators, and community leaders seeking to promote environmental sustainability in rural areas.*

Keywords: Pro-Environmental Behavior, Language Teaching, Educational Administration, Forest Conservation, Qualitative Study, Community Engagement

1. INTRODUCTION

Forest ecosystems are essential for maintaining biodiversity, regulating climate, and supporting human livelihoods. Despite their ecological and socio-economic importance, forests face persistent threats from deforestation, unsustainable land-use practices, and climate change. Addressing these challenges requires not only knowledge but also the translation of awareness into pro-environmental behaviors at the individual and community level [1, 2, 3]. Understanding how behaviors are shaped is critical for designing educational and administrative strategies that foster sustainable practices. Environmental education strengthens knowledge, shapes attitudes, and encourages active engagement in conservation behaviors. Studies have shown that structured interventions increase participation in forest protection, tree planting, waste management, and other community-led conservation activities [2, 3, 8]. Behavioral theories, including the Knowledge–Attitude–Behavior (KAB) framework, suggest that knowledge is a precursor to attitudes, which in turn drive action [4, 5]. The Theory of Planned Behavior (TPB) further emphasizes that behaviors are influenced by attitudes, social norms, and perceived behavioral control, highlighting the importance of both individual cognition and social context in promoting conservation practices [5, 7, 8]. Language teaching offers a unique avenue for promoting pro-environmental behaviors. Beyond developing linguistic skills, classrooms provide spaces for ethical reflection, critical thinking, and value formation. Integrating environmental content into language instruction encourages learners to translate knowledge into concrete actions, enhancing both behavioral intention and actual engagement in conservation activities [1, 6, 9]. Green pedagogy aligns language instruction with sustainability goals, fostering dialogue, problem-solving, and action-oriented learning that can influence community practices. Educational administration complements pedagogical strategies by providing institutional support, leadership, and frameworks for sustaining pro-environmental behaviors. School leaders and local education offices play a vital role in ensuring that conservation initiatives extend beyond classrooms, reinforcing collective responsibility and promoting community-based actions [6, 7]. Programs such as community workshops, eco-clubs, and collaborative projects create environments where knowledge is operationalized into observable conservation behaviors. While research has explored environmental education and its impact on knowledge and attitudes, few studies have examined how community residents translate knowledge into actual conservation behaviors, particularly in contexts where language teaching and educational administration intersect. Understanding this translation is crucial for developing strategies that encourage behavioral engagement, social responsibility, and sustainable forest management.

Research Questions

1. What forest conservation behaviors do community residents engage in?
2. How do knowledge, attitudes, and social norms influence residents' engagement in these behaviors?
3. How do language-based environmental instruction and educational administration support pro-environmental behaviors in the community?

This study focuses on the behaviors of community residents, emphasizing how knowledge, education, and administrative support translate into practical, observable actions for forest conservation.

2. METHODOLOGY

This study utilized a qualitative descriptive design to explore the forest conservation behaviors of residents in a barangay and to understand the factors influencing these behaviors, including knowledge, attitudes, social norms, and educational initiatives. A total of ten participants were purposively selected to provide diverse perspectives from different sectors of the community, including barangay officials, household heads, educators, and other residents directly or indirectly involved in forest conservation activities. The participants' ages ranged from 29 to 57 years, with educational backgrounds varying from Grade 4 to college-level studies, and all were permanent residents of the barangay. Data were collected through semi-structured interviews, which were designed to capture personal experiences with forests, perceptions of the importance of forest conservation, knowledge of environmental sustainability, attitudes toward forest protection, and participation in conservation practices. The interview guide was organized into three main sections: opening questions to elicit personal experiences and perceptions, main questions focusing on knowledge, attitudes, and practices, and probing questions to clarify specific instances of conservation, changes in behavior over time, and challenges in implementing conservation measures. Interviews were conducted primarily in participants' native Chavacano language and subsequently translated into English for analysis, ensuring the accuracy and integrity of participants' responses. Field notes were also maintained to record non-verbal cues, environmental context, and other observational data. For data analysis, thematic analysis was employed to identify patterns and themes across participants' responses. Coding was applied consistently for all participants (P1–P10), with categories corresponding to knowledge, attitudes, practices, and influencing factors such as social norms, educational initiatives, and community programs. Sub-themes were created to highlight nuances, including livelihood dependencies, cooperative behaviors, and involvement in NGO or barangay-led conservation projects. The analysis was conducted iteratively, allowing for the identification of common behaviors, barriers, and enabling conditions that support forest conservation in the community. Ethical considerations were carefully observed throughout the study. All participants provided informed consent prior to participation and were assured of their anonymity and confidentiality, with codes (P1–P10) used to protect identities. Participants were informed of their right to withdraw from the study at any time without consequences, and all data were securely stored and used solely for research purposes.

3. RESULT AND DISCUSSION

The study involved 10 participants with diverse roles in the community, including barangay officials, local residents, and caregivers. Ages ranged from 29 to 57 years old, with educational attainment spanning Grade 4 to college level. All participants were married and engaged in activities directly or indirectly linked to environmental stewardship.

Research Question 1 (RQ1): What forest conservation behaviors do community residents engage in?

Participants reported a variety of forest conservation practices, ranging from tree planting, reforestation, and sustainable gardening to educational campaigns for community awareness.

- **Leadership-driven initiatives:** Barangay officials (P1, P2, P9) actively coordinated tree planting, monitoring, and community education programs.
P1 shared:

"We support all programs that target forest conservation. As a kagawad, I participate in tree planting in different parts of our barangay and remind residents what they can do to help conserve our forest." *"Todo maga programa para na conservacion del diaton monte ta suporta gayot came as barangay official… Iyo as kagawad manada times yayo ya sigi siembra palo na diferente parte del diamon barangay."*

- **Individual and household practices:** Other residents (P3, P10) focused on planting trees and vegetables in their gardens, balancing livelihood needs and sustainability. P3 mentioned:

"I plant rubber trees and other vegetables not only for our living but also to help the forest conservation programs implemented by our barangay." *"Igual como ta habla yo ta soporta yon a barangay, alla na tierra del mio mujer, ta siembra yo palo cay tiene man ta llega programa canamon…"*

- **Community collaboration:** NGO partnerships, particularly with ZABIDA, facilitated tree planting, nursery maintenance, and disaster preparedness training (P2, P5). These collaborative initiatives enhanced engagement and provided technical resources, ensuring broader participation across residents.

Summary: Residents engage in a mix of personal, household, and community-based conservation practices, with leadership and NGO support critical for program success.

Research Question 2 (RQ2): How do knowledge, attitudes, and social norms influence residents' engagement in these behaviors?

Knowledge: Participants consistently recognized that forests prevent flooding, maintain water sources, reduce soil erosion, and support agriculture. For instance, P2 noted:

"Our barangay helps conserve our source of water to supply potable water not only here but also for residents living in the lowlands."
"El diamon barangay ta ayuda gayot conserva kun este source of water… hinde lang came aqui na barangay pati ya el maga vivientes abajo."

Attitudes: Most participants expressed **positive attitudes** toward conservation. P1 emphasized:

"90% of the residents here are positive about forest conservation. They understand the effects of deforestation during natural calamities. *"90% del maga vivientes aqui positibo con este forest conservationTa mira ya se el maga viviente si cosa el effect si ta tumba sila con el maga palo."*

However, practical constraints influenced attitudes: a small portion of residents (≈10%) relied on logging for livelihood (P2, P7), highlighting a tension between economic needs and environmental preservation.

Social Norms / Influences: Community norms, guided by barangay programs and NGO partnerships, encouraged cooperative behaviors. Leadership played a pivotal role in modeling conservation behaviors and enforcing awareness campaigns, while bilingual environmental instruction (Chavacano and English) ensured accessibility.

Summary: Residents' knowledge about environmental benefits reinforces positive attitudes, while social norms and leadership guidance facilitate active participation. Livelihood constraints remain a significant barrier for some community members.

Research Question 3 (RQ3): How do language-based environmental instruction and educational administration support pro-environmental behaviors in the community?

Language-based environmental instruction: Participants indicated that using Chavacano and accessible language in awareness campaigns and educational sessions helped them understand and implement forest conservation practices effectively. P10 remarked:

"Whatever we know for the good of the place where we live, we must implement it for the benefit of all residents as well."

"Ciguro ancina ya lang, el cosa quita sabe para bien del donde quita ta queda, nececita quita implementa para el bien del todo maga jente man tambien este."

Educational administration / leadership support: Barangay officials (P1, P2, P9) coordinated tree planting, trainings, and disaster preparedness programs, providing resources such as seedlings, tools, and technical guidance. NGO partnerships, especially with ZABIDA, reinforced these efforts through capacity building and evaluation, resulting in high community engagement and successful program implementation. P2 highlighted:

"ZABIDA is a big help because of the trainings they conducted, which improved our barangay's rating and provided essential resources."

"Grande gayot ayuda de este canamon especialmente el ZABIDA maam… mucho came cosa ya aprende… everything went well, like the lacking documents were provided to the barangay."

Summary: Pro-environmental behaviors are strengthened by bilingual instruction and active leadership, which provide knowledge, facilitate participation, and ensure consistent support and resources for conservation activities.

Overall Findings

1. Community residents engage in personal, household, and collective forest conservation behaviors, including tree planting, gardening, and disaster risk mitigation.
2. Knowledge, positive attitudes, and social norms strongly influence participation, though some residents face livelihood-related constraints.
3. Language-sensitive instruction and proactive leadership are essential for fostering pro-environmental behaviors, ensuring participation across diverse community members.

4. CONCLUSION AND RECOMMENDATION

This study explored forest conservation behaviors among residents of one of the barangays of the Zamboanga Peninsula, Philippines, examining how knowledge, attitudes, social norms, and educational administration influence engagement in pro-environmental practices. Findings from ten participants (P1–P10) revealed that the community values forests for their environmental, social, and economic benefits, including water source protection, flood mitigation, fresh air, and sustainable food production. Positive attitudes and active participation in tree planting, reforestation, and household gardening were reinforced through barangay-led programs, NGO partnerships, and language-sensitive educational campaigns. Challenges persist, particularly among residents reliant on forest resources for livelihood and those exhibiting non-cooperation, yet the overall community response indicates strong commitment to conservation.

Key Recommendations:

1. Strengthen environmental education using both Chavacano and English.
2. Maintain and expand barangay–NGO partnerships for technical support and resources.
3. Introduce sustainable livelihood alternatives to reduce reliance on logging.
4. Enhance monitoring and conflict-resolution strategies to address non-compliance.
5. Promote household-level conservation practices like tree planting and organic gardening.

Practical Implications:

- Policies and ordinances can be designed to support sustainable forest management.
- Educational campaigns improve residents' knowledge and foster a culture of stewardship.
- Collaborative community engagement enhances program effectiveness and resilience to disasters.
- Conservation efforts integrated with livelihood activities provide tangible benefits to households while safeguarding the environment.

The study underscores that sustainable forest conservation in rural communities requires a holistic approach combining knowledge, attitudes, social cooperation, and supportive leadership structures to achieve long-term environmental and social benefits.

5. REFERENCES

[1] Ma J, Chang C. Environmental education through language: environmental attitudes in primary school Chinese language textbooks. Humanit Soc Sci Commun. 2025;12:1737. doi:10.1057/s41599-025-06006-0.

[2] Estrada-Araoz EG, Gallegos Ramos NA, Valverde YP, et al. Examining the relationship between environmental education and pro-environmental behavior in basic education students. Soc Sci. 2023;12(5):307. doi:10.3390/socsci12050307.

[3] Collado S, Rosa CD, Corraliza JA. The effect of a nature-based environmental education program on children's environmental attitudes and behaviors: A randomized experiment with primary schools. Sustainability. 2020;12(17):6817. doi:10.3390/su12176817.

[4] Stern PC. Toward a coherent theory of environmentally significant behavior. J Soc Issues. 2000;56(3):407–424. doi:10.1111/0022-4537.00175.

[5] Ajzen I. The theory of planned behavior. Organ Behav Hum Decis Process. 1991;50(2):179–211. doi:10.1016/0749-5978(91)90020-T.

[6] Dhanyamol CT, Sethunarayanan N. A systematic review on integrating environmental sustainability in English Language Teaching: strategies for Sustainable Development Goals. Front Educ. 2025;10:1636623. doi:10.3389/feduc.2025.1636623.

[7] Pretty J, Ward H. Social capital and the environment. World Dev. 2001;29(2):209–227. doi:10.1016/S0305-750X(00)00098-X.

[8] Wu X, Jia W, Wu T. Mechanism by which environmental education influences pro-environmental behavior in Wuyishan National Park, China. Sustainability. 2025;17(1):43. doi:10.3390/su17010043.

[9] Sahril S, Anas I, Pilu R. The call for environmentally-based language teaching and green pedagogy: Climate actions in language education. Elsya: Journal of English Language Studies. 2022;4(1):77–85. doi:10.31849/elsya.v4i1.9526.