

Nurture vs nature: Comparative study of the culture of Mangyans in education center and Buhid tribe in San Jose, Occidental Mindoro

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ISSN: 2243-7770

Online ISSN: 2243-7789

OPEN ACCESS

Received: 23 March 2025

Available Online: 3 May 2025

Revised: 25 April 2025

DOI: 10.5861/ijrsm.2025.25506

Accepted: 30 April 2025

Abstract

The Mangyan Education Center served as a community extension initiative of Divine Word College of San Jose, focused on offering the Mangyan people a sense of belonging, educational opportunities, and livelihood support. Conversely, the Buhid tribe represents one of the remaining Indigenous groups in the Philippines that continue to utilize their traditional syllabary. Moreover, this study employed a descriptive-comparative design to describe the profile of the MEC and Buhid tribe, including their culture in terms of valuing cultural heritages, belief systems, and livelihood, and their socio-economic maturity; and to test the significant difference and relationship between the two variables. Eighteen (18) from MEC and fifty (50) from Buhid participated in answering the 32-item researcher-made questionnaire. The findings reveal that the administrators in community extension services (CES) play an important role in achieving the goal of CES; thus, the proposed direction of the MEC can be seen as an effective measure of their socio-economic maturity, proving that their socio-economic standing is directly affected by the culture they have. The statistical result shows that there is a significant difference between the cultures of MEC and Buhid. Moreover, there is a significant relationship among

the demographic profile, culture, and socio-economic maturity of MEC; however, the profile of Buhid shows no significant effect on their socio-economic maturity, but their culture is found to be significant. This recommends that the local tourism office perpetuate the culture and traditions of Indigenous people by proactively making progressive projects that promote and preserve their cultures.

Keywords: Buhid Tribe, Mangyan Education Center (MEC), indigenous people; culture; socio-economic maturity; valuing cultural heritages

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1. Introduction

Mangyan was an umbrella term for the tribes residing in the provinces of Occidental Mindoro and Oriental Mindoro, collectively known as Mindoro Island (Kueh, 2022). Mangyan Education Center was a community extension program of Divine Word College of San Jose that aimed to provide Mangyans with a home, education, and livelihood. On the other hand, the Buhid tribe was one of the few Indigenous communities in the Philippines that are still using their syllabary (Clark, 2022). In comparison to the MEC Mangyans, who live in the lowlands and are exposed to the socio-economic, educational, and religious culture of the people, one can conclude or safely presume that the culture of MEC Mangyans differs from the Buhid tribe. In terms of belief systems, Buhid Mangyans, Clark (2022) believes that Manggat and his wife Sayum-ay are the first inhabitants of their ancestral domain, thus attributing their origin to them. They believe Manggat and Sayum-ay named everything in the domain, including the spirits. Meanwhile, one of the Mangyan Education Center's three goals (MEC) was to give Mangyans Christian maturity. Divine Word College of San Jose was a known Catholic school, the opposite of what was taught and passed down in the culture of Buhid Mangyans. Regarding livelihood, "kaingin" or swidden farming has always been the main source of sustenance for the Buhid tribe (The Ties That Bind: The Buhid Mangyan People, 2014). Meanwhile, in MEC, the project heads have provided a plan and source of livelihood for the Mangyans living in that community, like rabbit farming, duck farming, rice production, etc. (Iopam et al., n.d.).

This study aims to determine the difference between the cultures of the MEC and the Buhid tribe and whether the proposed direction of MEC in academic, Christian, and socio-economic maturity (Iopam et al., n.d.) is reflected in the members. The study will focus on the cultural distinction between Mangyans in the Education Center and Indigenous Mangyans, particularly the Buhid tribe. This study aims to provide a clear understanding of how Mangyans can differ if the environment were to be changed and how nurturing a community can significantly affect its natural nature.

Statement of the Problem - The researchers aimed to determine the difference in the culture of the Mangyan Education Center (MEC) Mangyans compared to Indigenous Mangyans, particularly the Buhid tribe of San Jose, Occidental Mindoro. Specifically, the researchers wanted to answer the following questions: (1) What is the demographic profile of the respondents in terms of age, sex, and highest educational attainment? (2) What is the extent of the culture of Mangyans in Education Center and Indigenous Mangyans in terms of valuing cultural heritages, belief systems, and livelihood? (3) What is the level of socio-economic maturity of Mangyans in the Education Center and Indigenous Mangyans? (4) Is there a significant difference between the culture of Mangyan in Community Extension and the Indigenous Mangyan? (5) Is the level of socio-economic maturity of Mangyans significantly affected by the demographic profile and culture of Mangyans?

Significance of the Study - The goal of the study was to determine the culture of Mangyan in Community Extension and the Buhid Tribe. This was to provide a better understanding of the cultural distinction between the two. This study aims to help individuals and institutions know the culture of Mangyan in Community Extension and the Buhid Tribe. The result and findings shall help the following: To the administration of DWCSJ, this study shall help in further improving the quality of life in the Mangyan education center and also by making the participants aware of the issues, goals, and requirements of the community. Moreover, the research results can help the Mangyan Education Center know the difference between Mangyan from Community Extension and the Buhid tribe, and they can apply this knowledge to improve the Education Center further. To educational institutions, this study could solidify its foundation on this kind of research and further develop studies to aid the communities being studied; lastly, to future researchers, this could help them understand the cultural distinction between Mangyans from Community Extensions and the Buhid tribe. This could also be a future reference if they want to

conduct the same study.

Scope and Delimitation of the Study - The main objective of this study was to determine the difference between the culture of Mangyan in Community Extension and the Buhid Tribe. This was limited only to the Mangyan in Community Extension and the Buhid Tribe; only those who were willing were allowed to answer. The culture of Mangyan in Community Extension and the Buhid Tribe was limited only to the following variables: (a) valuing cultural heritages, (b) belief system, and (c) livelihood. This study used a researcher-made questionnaire to gather data from the respondents. Moreover, this study was conducted during the school year 2024-2025.

2. Methodology

Research Design - The study utilized the descriptive-comparative method to provide a statistical analysis of data. This method could explain phenomena that were treated using mathematically based methods. In this study, the descriptive design was used to describe the demographic profile of the respondents in terms of age, sex, and highest educational attainment and to determine the extent of the culture of Mangyans in the Education Center and Indigenous Mangyans in terms of valuing cultural heritages, belief systems, and livelihood and the level of socio-economic maturity of Mangyans in the Education Center and Indigenous Mangyans. Moreover, comparative design was used to determine if there is a significant difference between the culture of Mangyan in Community Extension and the Indigenous Mangyan. Lastly, correlation analysis was used to determine if the socio-economic maturity level of Mangyans was significantly affected by their demographic profile and culture.

Respondents of the Study - The Mangyans from Bato-Ili and Community Extension were the respondents of this study. Moreover, this study used complete enumeration to include all the respondents. Thus, all of the 18 members of the Mangyan Education Center were able to answer the survey. However, out of the 200 estimated number of Buhid in the Bato-Ili Mangyan Community, only 50 were willing and able to answer the survey because of their busy schedules. However, the researchers did their best to cover the needed data.

Research Instrument - This study utilized a 32-item researcher-made questionnaire as the main instrument for gathering the necessary data. The researchers used expert validity to check the content of the instrument and determine its reliability. The experts involved in the process were four faculty members in the Senior High School department and one SVD administrator who is the director of the community extension of DWCSJ-Mangyan Education Center. The comments and suggestions from the experts were incorporated into the final copy of the instrument. Lastly, the adviser of the study also checked the reliability and validity of the questionnaire.

Data Gathering Procedure - The researchers first secured approval from the senior high school coordinator, permitting the researchers to conduct the data-gathering procedure outside the school premises. After securing a letter, the researchers submitted a letter of assistance to the Tourism Office of San Jose, and then they were recommended by the tourism head to the National Commission for Indigenous Peoples, or NCIP, for approval to conduct research in the locale. After the approval of the NCIP, the researchers provided a consent letter for the chairman of the Bato-Ili Buhid community to officially start the data gathering. In the MEC part, a letter was sent to the Office of the President of Divine Word College of San Jose and the Community Extension Director to formally allow the researchers to conduct their research in the locale. One hundred (100) validated questionnaires were printed and distributed among the respondents, and the answers were handed out personally to ensure the correctness and validity of the answers. The data gathering procedure and securing of letters and consent were done in two weeks, and all of the questionnaires were retrieved the same day it was given and were evaluated right after all of the data was gathered.

Statistical Treatment of the Data - This study utilized a researcher-made questionnaire with a four-point Likert scale to evaluate the items under the assigned indicators. Moreover, percentage distribution was used to determine the demographic profile of the respondents. In addition, a weighted mean was used to determine the extent of the culture of Mangyans and their level of socio-economic maturity. To determine the difference between the Mangyans in Community Extension and the Buhid tribe, the researchers used a one-way analysis of variance.

Lastly, to determine if the level of socio-economic maturity is significantly affected by the demographic profile and culture of Mangyan, the researchers used Pearson's r coefficient.

Ethical Considerations - All individuals who were involved in the research studies possessed moral and legal rights, making ethical considerations essential. The researcher ensured that participants were treated with respect throughout the study, safeguarding their privacy and obtaining their consent while also ensuring they felt acknowledged and not distressed. These are some of the following ethical concerns that this research ensured for the responders: firstly, the researchers guaranteed that the data remained untraceable to any individual. Furthermore, participants were informed that their identities were kept confidential and that the findings might be included in a research article for potential publication in a peer-reviewed journal. The researcher then confirmed that the study did not harm any participants and that the data was utilized appropriately. In addition, they ensured that participation in the study was completely voluntary for respondents, who could withdraw at any time. No further data was collected. The consent letter was attached to the first page of the survey, and it outlined the key aspects of the study and what participation involves. The respondents were given written consent, which allowed us to conduct a survey indicating that they understood the potential impact of the study on them.

3. Results and Discussions

The age distribution of the MEC and Buhid is shown in Table 1. In MEC, among the total of 18 respondents, 89% of them ranged from 15-24, followed by the remaining 11% who ranged from 25-34 years old. This reveals that the majority of the inhabitants in the community are 15-24 years old; this is similar to the study of Calda (2008), wherein 85% of the total population of Mangyan ranged from 15-23 years old in the Divine Word College of Calapan (DWCC) Community Engagement Services (CES). However, in the Buhid tribe, leading the list with 28% are ranges from 25-34 years old, followed closely by 20% by ranges from 15-24. In a tie, the ranges 35-44 and 45-54 had 18% respectively; it was then followed by 14% from ranges 55 and above and lastly by 14 and below with only 2%. In the study of Lumbo (2018), the leading respondents, 45%, were also ages between 25 and 39 years old, proving the prominence of this age group in the community.

In sex distribution, MEC has 18 respondents, and 67% of those were found to be male, while the remaining 6, or 33%, were female. Moreover, it also shows the profile of the Buhid in terms of sex, and it was also dominated by males with 84% compared to females with only 16%. This means that there was an imbalance in their ratio; this was proven by the report of the Philippines Statistics Authority (PSA) MIMAROPA Region (2024), wherein they discovered that for every 105 males in indigenous communities, there are only 100 females, meaning that the sex distribution of inhabitants in MEC is also directly affected by Indigenous Mangyans sex distribution. However, patriarchal views can also be the case due to the presence of labor-intensive work in MEC and Buhid. Additionally, because of Spanish colonization, the agricultural participation of women was greatly affected, hence causing the decline in the numbers of these actors (Camaya & Tamayo, 2018). Lastly, for the highest educational attainment, 100% of the inhabitants in MEC were found to be in college or to have finished college; this reflects the proposed direction of MEC in academic maturity (Iopam et al., n.d.).

Table 1

Frequency and Percent Distribution of MECs and Buhids' Profile by Age (in years), Sex & Highest Educational Attainment (n=18 MEC & n=50 Buhid Tribe)

Age	Frequency (MEC)	Percentage (MEC)	Frequency (Buhid)	Percentage (Buhid)
14 & Below	0	0%	1	2%
15-24	16	89%	10	20%
25-34	2	11%	14	28%
35-44	0	0%	9	18%
45-54	0	0%	9	18%
55 & Above	0	0%	7	14%
Total	18	100%	50	100%

Sex				
Male	12	67%	38	84%
Female	6	33%	12	16%
Total	18	100%	50	100%
Highest Educational Attainment				
No Educational Attainment	0	0%	4	8%
Pre-School	0	0%	1	2%
Elementary	0	0%	30	60%
High School	0	0%	11	22%
College	18	100%	4	8%
Total	18	100%	50	100%

Moreover, Capacia et al. (2023) state that MEC was a program of the CES of Divine Word College of San Jose, where the school provides education to Indigenous People. It proves that the established direction was working with the support of the tabulated data presented. However, contrary to that, the number of college students in Buhid was significantly lower than in MEC. The researchers inferred that educational opportunities were lower in rural areas and even more significant in Indigenous Mangyans. This claim was backed up by the study of Cornelio and de Castro (2015), based on the findings that Indigenous people are often not able to finish their basic education, let alone get a college degree. Additionally, many of them just spend most of their time doing labor-intensive work such as farming and do not have the luxury of revisiting their unfinished education. This is directly reflected in the table that shows 60% of the respondents in the community have only attained elementary education, while the rest are distributed among those having no educational attainment (8%), preschool (2%), high school (22%), and college (8%).

Table 2 shows the extent of the culture of MEC in terms of valuing cultural heritages, belief systems, and livelihood. It consisted of 6 questions per sub-variable with a composite mean of 3.59, 3.51, and 3.18, meaning high and moderately high in the verbal description. This means that the consistently high placement shows the overall extent of the culture of MEC in terms of valuing cultural heritages, which can still be seen in their practices. Through a thorough analysis of the data and indicators, evidence of a high extent of valuing cultural heritages can be seen in the given statements.

Table 2

Mean Extent of the Culture of MEC in terms of Valuing Cultural Heritages, Belief Systems & Livelihood

INDICATORS (MEC-Valuing Cultural Heritages)	Weighted Mean	Verbal Description
1. Our culture is engraved in my everyday life.	3.83	High
2. I still practice my culture and tradition often.	3.33	High
3. Preserving cultural heritage is important for our community's identity.	3.89	High
4. It is important for younger people to learn about our cultural heritage.	3.94	High
5. I believe that schools should teach students about cultural heritage.	3.28	High
6. I believe my culture now has been influenced by modern times.	3.28	High
Composite Mean	3.59	High
INDICATORS (MEC-Belief System)		
1. My personal beliefs guide my decisions and actions.	3.28	High
2. My religious or spiritual beliefs affect how I view the world.	3.06	Moderate High
3. I respect other people's beliefs, even if they are different from mine.	3.78	High
4. I talk about my beliefs with people who think differently.	3.56	High
5. My belief is a big part of my identity.	3.72	High
6. I believe in the Supreme Being instead of deities	3.67	High
Composite Mean	3.51	High
INDICATORS (MEC-Livelihood)		
1. My main source of income is highly paid.	2.22	Moderate Low
2. The resources in our community affect our jobs or businesses.	2.78	Moderate High

3. I believe job security is important.	3.56	High
4. I believe my livelihood is inclined to my culture and tradition.	3.17	Moderate High
5. I improve my skills to get better job opportunities.	3.72	High
6. I believe our baskets, textiles, and accessories are still relevant in the market.	3.61	High
Composite Mean	3.18	Moderate High
OVERALL MEAN	3.43	High

Legend: 3.25-4.00 High; 2.50-3.24 Moderate High; 1.75-2.49 Moderate Low; 1.00-1.74 Low

In the valuing cultural heritage, indicator 5 got a weighted mean of (3.28), which falls within the "high" category, but its score is slightly lower than other indicators in the table. This suggests a relatively high level of agreement that schools should teach students about cultural heritage. According to the research of Caoli & Tenorio (2023), the mismatch between mainstream education and the knowledge, skills, and practices of the Mangyan people has led to dissatisfaction with formal schooling among them. To address this, the nationwide adoption of an indigenous education framework must ensure that teaching methods are culturally relevant. It's essential to document how education is delivered to Indigenous peoples (IPs) and identify the challenges faced by Mangyan schools, as this information is crucial for shaping effective policies for IP education. The findings indicate that certain interventions, a focus on balancing academic, linguistic, and cultural priorities, such as access to mainstream language, elder-led teaching, and the creation of safe learning environments, can empower students. However, challenges remain, including disconnection from elementary education providers, a lack of culturally appropriate teaching materials, and a waning interest among Mangyan youth in preserving their culture. The study suggests that educational strategies should reflect the Mangyan way of life and incorporate cultural elements into the curriculum.

Moreover, the mean extent of the culture of MEC in terms of the belief system is 3.51, indicating a "high" level of belief system culture. This shows that the belief system of Mangyans is still very evident in their life; Logdat (2023) states that Mangyans still practice their belief regardless of the community they are in. For the Mangyans, their shared knowledge and legacy of perseverance enable them to endure the most challenging trials they face in life. The Mangyans believe in a singular Supreme Being, Ambuwaw, who is their creator and the creator of the world and who perpetually upholds their existence. The highest weighted mean is 3.78, corresponding to the indicator "I respect other people's beliefs, even if they are different from mine," suggesting that respondents strongly uphold respect for diverse beliefs since education centers practice a respectful and kind approach when introducing or pointing out their beliefs; such behavior reflects back to their students; mutual respect (Calda, 2008). Overall, the data suggests that while all aspects of belief are significant, respect for different beliefs is the most prominent, and the spiritual beliefs' impact on worldview is relatively lower.

Lastly, the extent of the culture of MEC in terms of livelihood yielded a moderately high verbal description with a 3.18 composite mean. This means that there is stability in terms of their livelihood, which was shown in the study of Iopam et al. (n.d.). The project heads of the Community Extension Services have provided a plan and source of livelihood for the Mangyans living in the community, such as rabbit farming, duck farming, rice production, etc. Moreover, a moderately low verbal description was found in item 1 with a 2.22 weighted mean, which indicates that respondents believed that their source of income was low-paying even if it was stable. This is supported by a study of the International Fund for Agricultural Development (IFAD) (2023), proving that unemployment and incidence of poverty are found to be higher in indigenous communities where the main source of income is agriculture, a livelihood that has been the only source of sustenance for poor families.

Table 3 shows the extent of the culture of Buhid in terms of valuing cultural heritages, belief systems, and livelihoods with a composite mean of 3.27, 3.00, & 2.85, respectively, and a verbal description of high and moderate-high. This proves that even though there are some doubts among them, the overall finding suggested that the extent of valuing cultural heritages was still high, and the preservation of their culture is still in practice, wherein moral teachings are frequently transmitted through stories and oral traditions, maintaining ancestral wisdom and cultural identity. These tales impart ethical insights and strengthen cultural values (Mythology

Worldwide, 2024). Also, the Mangyan Heritage Center (n.d.) plays a significant role in coordinating cultural displays and educational activities that showcase the traditions, craftsmanship, and historical background of the Mangyan communities. These efforts are designed to promote a greater understanding and appreciation of Mangyan culture among residents and visitors alike.

Table 3

Mean Extent of the Culture of Buhid in terms of Valuing Cultural Heritages, Belief Systems & Livelihood

INDICATORS (Buhid-Valuing Cultural Heritages)	Weighted Mean	Verbal Description
1. Our culture is engraved in my everyday life.	3.28	High
2. I still practice my culture and tradition often.	3.22	Moderate High
3. Preserving cultural heritage is important for our community's identity.	3.42	High
4. It is important for younger people to learn about our cultural heritage.	3.58	High
5. I believe that schools should teach students about cultural heritage.	3.14	Moderate High
6. I believe my culture now has been influenced by modern times.	2.98	Moderate High
Composite Mean	3.27	High
INDICATORS (Buhid-Belief System)		
1. My personal beliefs guide my decisions and actions.	2.90	Moderate High
2. My religious or spiritual beliefs affect how I view the world.	2.28	Moderate Low
3. I respect other people's beliefs, even if they are different from mine.	3.28	High
4. I talk about my beliefs with people who think differently.	2.92	Moderate High
5. My belief is a big part of my identity.	3.16	Moderate High
6. I believe in the Supreme Being instead of deities	3.48	High
Composite Mean	3.00	Moderate High
INDICATORS (Buhid-Livelihood)		
1. My main source of income is highly paid.	2.24	Moderate Low
2. The resources in our community affect our jobs or businesses.	2.36	Moderate Low
3. I believe job security is important.	3.22	Moderate High
4. I believe my livelihood is inclined to my culture and tradition.	2.82	Moderate High
5. I improve my skills to get better job opportunities.	3.18	Moderate High
6. I believe our baskets, textiles, and accessories are still relevant in the market.	3.28	High
Composite Mean	2.85	Moderate High
OVERALL MEAN	3.04	Moderate High

Legend: 3.25-4.00 High; 2.50-3.24 Moderate High; 1.75-2.49 Moderate Low; 1.00-1.74 Low

The statement "Our culture is engraved in my everyday life" received a mean score of 3.28 and was categorized as high, indicating that culture plays a significant role in respondents' daily lives. However, the statement that I still practice my culture and tradition often had a slightly lower mean of 3.22, which is classified as moderately high, suggesting that while cultural engagement remains present, its active practice may not be as consistent (Kiarie, 2024). The highest-rated statement. It was important for younger people to learn about our cultural heritage (3.58), underscoring a strong belief in passing down cultural knowledge. The belief that schools should teach students about cultural heritage was rated 3.14, moderately high, showing that while there is agreement, some respondents may feel that educational institutions need to improve their role in cultural education. However, cultural practice may be slightly diminishing due to modern influences. To reinforce cultural continuity, educational institutions and community programs should actively promote traditional practices (Kiarie, 2024).

Contrary to the data presented in Table 2, the level of extent of the culture of Buhid in terms of belief system only yielded a composite mean of 3.00, which has a verbal description of moderate-high compared to the 3.51 composite mean of the MEC that has a high verbal description. This means that the extent of the belief system Buhid is affected by some factors. A study linked environmental changes and cultural practices was highlighted in the research titled "Climate change threats to family farmers' sense of place and mental well-being: A case study from the "Western Australian Wheatbelt" by Ellis & Albrecht,(2017). This study emphasizes how shifts in the environment, spurred by modernization and climate change, impact Indigenous farmers' relationships with their land, which in turn affects their mental well-being and cultural practices. These investigations reveal the complex

effects of modernization on indigenous communities, demonstrating both the difficulties encountered and the resilience shown in maintaining cultural identities and traditions.

The lowest mean of 2.28 in item 2, putting it in the moderate low category, and this shows that the religious or spiritual belief of the Buhid does not affect how they view the world, but they still believe that was a big part of their identity. The Mangyans believe in a singular Supreme Being, Ambuwaw, who is their creator and the creator of the world and who perpetually upholds their existence. The divine is perceived through his all-powerfulness, influencing their daily lives and revealing himself in tangible events like a rescue from disasters or illnesses, the prosperity of crops, and various other ways. They think that malevolent spirits wander the territory known as Bukaw in the spiritual realm (Logdat, 2023). The lowest weighted mean, with a 2.28 weighted mean, is "My religious or spiritual beliefs affect how I view the world." While their belief is still practiced, there have been recent findings suggesting that modernization has affected Indigenous communities. It was stated by Kumar et al. (2024) that the introduction of modern technologies and lifestyles can lead to a decline in traditional practices, languages, and rituals. Overall, it gained a moderately high verbal description and a composite mean of 3.00, proving that their belief is still very alive and evident in their community. As supported by The Mangyans of Mindoro, Philippines: History, Culture, and Traditions [Philippine Indigenous People] (2022), in many Mangyan groups, planting the first rice seeds was really important because rice was a big part of their food, work, and beliefs. They perform special ceremonies to make sure they have a good harvest. That's why they have rituals for every step of growing rice. The first planting ceremony was called kalag paray, and it included the rituals for planting and harvesting the rice. When it's time to harvest, they have special activities like tying the rice stalks together and doing a ceremony after the harvest. This highly suggests the existence of culture in terms of belief systems is still very much in practice.

In terms of livelihood, the composite mean of 2.85 shows that there is an external factor affecting their way of living. Farming, or more particularly, swidden farming, became the most prominent main source of income in the community at one point in their life. As stated in the study of Hernandez et al. (2024), however, its illegalization under the Revised Forestry Code of the Philippines, Presidential Decree No. 705 (1975), led the Mangyans to pursue a normal way of farming. This can also be reflected in the 2.24 weighted mean with a moderately low verbal description under the first indicator, showing that the source of their income was low-paying. The study of IFAD (2023) further proves the need for change in the agricultural sector, which yields an inadequate amount of money that is not enough for self-sustenance. To add to this, a study by Costa (2023) says that in 2022, farmworkers or people who are on the agricultural side of the industry earn 40% less than those who are not working in their sector. However, in comparison to MEC, the Buhids believe that the resources in the community do affect their jobs or source of income. With a 2.36 weighted mean and a moderately low description, it was evident in their sources of income that it might not provide financial stability, but it does provide security for them. Thus, the Mangyans of Mindoro, Philippines - History, Culture, and Traditions [Philippine Indigenous People] (2022) stated that Mangyans seek permission from the spirits or offer gifts when passing through their domains to avoid inciting their wrath, showing their beliefs and respect for their culture.

Table 4

Mean Level of Socio-economic Maturity of MEC

INDICATORS (MEC-Valuing Cultural Heritages)	Weighted Mean	Verbal Description
1. I am confident that I can manage my budget.	3.39	High
2. I keep track of my monthly expenses.	2.83	Moderate High
3. I plan to settle into a stable job in the future.	3.61	High
4. I rely more on what the community has to offer rather than on my own.	2.61	Moderate High
5. I have savings in case of sudden expenditure (e.g., medicine, checkup).	2.94	Moderate High
6. I believe education is important to have a good future.	3.89	High
7. I am willing to take a financial risk (e.g., investment, business) to improve my socio-economic status.	3.61	High

8. It's important to take part in social issues that can dictate my future.	2.78	Moderate High
9. I believe having a long-term investment (e.g. house) is good.	3.78	High
10. I am socio-economically mature.	3.11	Moderate High
Composite Mean	3.26	High

Legend: 3.25-4.00 High; 2.50-3.24 Moderate High; 1.75-2.49 Moderate Low; 1.00-1.74 Low

Table 4 presents the mean level of socio-economic maturity of MEC. The composite mean of 3.26, meaning high level, shows a contrary result to the Buhid tribe, as they have shown moderately high socio-economic maturity as indicated in Table 5. It was discussed in the context of livelihood that although their community offers a wide array of opportunities, they still believed that the income is low. Hence, socio-economic maturity can be inferred from their answers because of the evident need for change. In other words, MEC inhabitants may not be socioeconomically stable. However, their socio-economic awareness and hope for a better working environment and a self-sufficient salary say otherwise. This can be supported by Lusardi & Mitchell (2014), wherein studies indicate that education significantly contributes to improving people's financial literacy, a fundamental aspect of socio-economic maturity. Research demonstrates that people with higher education levels tend to handle their finances more efficiently, save for the long term, and make wise investment choices.

The strong agreement among indigenous participants, reflected in a notable average of 3.89 (highest weighted mean) on the statement "I believe education is important to have a good future," closely corresponds with the core principles of the Philippine Department of Education's (DepEd) Order No. 32, s. 2015, which established the Indigenous Peoples Education (IPEd) Curriculum Framework. This higher average reflects a profound optimism that the IPEd framework will effectively integrate Indigenous Knowledge Systems and Practices (IKSPs) into education, paving the way for a "good future" that honors cultural heritage and fosters empowerment. Participants likely see this framework as a crucial step in bridging the gap between mainstream education and indigenous knowledge. This broad agreement demonstrates not only a belief in the transformative power of education but also a desire for its actual implementation, ensuring that the dedication to culturally relevant education leads to genuine opportunities and a future marked by Indigenous self-determination and cultural continuity.

In Supan & Mendoza's (2023) study, the power of education can lead Indigenous people to social and economic empowerment, giving them the power to lead themselves to a brighter future. However, not all Indigenous people can obtain the knowledge because of a lack of sources and discrimination that leads an individual to experience unfair treatment, economic disadvantage, harassment, etc. Based on the Expert Mechanism on the Rights of Indigenous Peoples, quality education for Indigenous Peoples refers to "education that is well resourced, culturally sensitive, respectful of heritage, and that takes into account historical events, cultural stability, and integrity; encompasses human rights, community, and individual development." Educational programs and institutions were often applied to 'assimilate' Indigenous Peoples into modern civilization, abandoning their culture, languages, identity, and rights. Indigenous Peoples were rarely included or consulted in the development of policies and initiatives.

Table 5

Mean Level of Socio-economic Maturity of Buhid

INDICATORS (MEC-Valuing Cultural Heritages)	Weighted Mean	Verbal Description
1. I am confident that I can manage my budget.	2.74	Moderate High
2. I keep track of my monthly expenses.	2.68	Moderate High
3. I plan to settle into a stable job in the future.	3.08	Moderate High
4. I rely more on what the community has to offer rather than on my own.	2.18	Moderate High
5. I have savings in case of sudden expenditure (e.g., medicine, checkup).	2.52	Moderate High
6. I believe education is important to have a good future.	3.68	High
7. I am willing to take a financial risk (e.g., investment, business) to improve my socio-economic status.	3.14	Moderate High

8. It's important to take part in social issues that can dictate my future.	3.16	Moderate High
9. I believe having a long-term investment (e.g., a house) is good.	3.44	High
10. I am socio-economically mature.	2.80	Moderate High
Composite Mean	2.94	Moderate High

Legend: 3.25-4.00 High; 2.50-3.24 Moderate High; 1.75-2.49 Moderate Low; 1.00-1.74 Low

According to the United Nations (n.d.), the indigenous youth are still struggling with whether or not they'll choose to remain and preserve their culture or pursue education. Table 5 shows the mean level of socio-economic maturity of the Buhid tribe with a composite mean of 2.94 and a moderately high description. Regardless of the reservation, it still gained a moderately high result, and despite that, it still shows that they think that education is important. On the other hand, Clark (2022) states that Buhid Mangyans are self-sufficient when it comes to their needs because of their livelihoods, like farming or kaingin. As stated by the United Nations (n.d.), various Buhid articles show concerning statistics regarding issues faced by indigenous peoples, including poverty levels, health disparities, employment opportunities, and many others.

The socio-economic maturity of MEC has shown high results, with a 3.26 composite mean. Through this, the proposed direction of the MEC can be seen as an effective measure wherein socio-economic prosperity was also presented; in partnership with that, several means of living were given to MEC inhabitants for them to participate even at a minimal level in the economy. The results yielded from the findings can further solidify the goal of Community Extension Administrators (Iopam et al., n.d.). This finding can lead to newer studies assessing Indigenous communities and community extension services like MEC; it was said in the study of Ramirez-Yee (2024) that despite advancements in education over the years, gaps in educational achievement remain linked to students' social backgrounds. Research examining educational inequality in the Philippines from 1950 to 2015 revealed that students from less privileged circumstances are more unlikely to finish secondary and higher education, hindering their socio-economic progress. Furthermore, it can also be inferred from this that it does not mean that the Buhid tribe is incompetent in terms of socio-economic maturity; as to why the findings only gained a moderately high description with 2.94, one can conclude from this that through interventions of external entities such as Community Extension Services, the level of socio-economic maturity can improve or change.

Table 6

P-value for Hypothesis Testing of Significant Differences

Path	F-value	P-value	T-value	df	Critical value	Interpretation
MEC-Buhid	8.00	0.008	0.052	66	1.994	Significant

Legend: p-value<0.05 Significant

Table 6 presents the paths and p-value of the statistical treatment to determine whether there is a difference between the cultures of MEC and Buhid. The treatment yielded a p-value of 0.008 (significant at $p < 0.05$); therefore, the null hypothesis is rejected and the alternative hypothesis is accepted. The findings revealed that there is a significant difference between the cultures of MEC and Buhid. This suggests that respondents acknowledge external influences but still maintain a strong cultural foundation. The findings suggest that the Buhid community still values and upholds its cultural heritage, with a strong emphasis on preservation and education as reflected in the composite mean. However, cultural practices may be slightly diminishing due to modern influences. To reinforce cultural continuity, educational institutions and community programs should actively promote traditional practices (Garcia & Torres, 2019). However, MEC left no reservation and has yielded a high verbal description. Both are plausible, but MEC's reservation is backed up by a study by Kumar et al. (2024), indicating that the introduction of modern technologies and lifestyles can lead to a decline in traditional practices, languages, and rituals.

In the belief system, Buhids believe in a singular Supreme Being, Ambuwaw, who is their creator and the creator of the world and who perpetually upholds their existence. The divine is perceived through his all-

powerfulness, influencing their daily lives and revealing himself in tangible events like a rescue from disasters or illnesses, the prosperity of crops, and various other ways. They think that malevolent spirits wander the territory known as Bukaw in the spiritual realm (Logdat, 2023). However, MEC, through the intervention of Catholic entities, the researchers can safely presume the influence of Catholicism among them. As stated by the proposed direction of MEC, which are academic maturity, socio-economic maturity, and Christian maturity (Iopam et al., n.d.), the belief system between them and Buhid might differ due to external influences and practices.

Lastly, the livelihoods of MEC and Buhid share the same path in agriculture; however, they differ in the way of gaining income. Farming, or more particularly, swidden farming, has become the most prominent main source of income in the community, as stated in the study by Hernandez et al. (2024). However, its illegalization under the Revised Forestry Code of the Philippines, Presidential Decree No. 705 (1975), led the Buhids to pursue a normal way of farming. In terms of MEC, due to the location of their community and intervention of external entities, they have been practicing different means of income-generating labor wherein rabbit farming, duck farming, rice production, etc., are utilized as a form of sustenance for them (Iopam et al., n.d.).

As reflected in Table 7, the paths consisting of socio-economic maturity concerning the demographic profile and culture of MEC show a positive conclusion. Additionally, a p-value of 0.001 (highly significant at $p < 0.001$) and 0.009 (significant at $p < 0.01$) proves that the null hypothesis is rejected. This means that the socio-economic maturity is significantly affected by the demographic profile and culture of Mangyans. Moreover, Kumar and Agrawal (2017) found that socio-economic maturity correlates with educational background, as education serves as a critical tool for social advancement, enabling individuals from diverse backgrounds to improve their socio-economic status.

Table 7

Correlation Coefficients and p-values for Hypothesis Testing of Significant Relationships

Variables	Correlation Coefficient	Effect Size (r^2)	Critical value	t-value	P-value	Interpretation
(MEC) Demographic Profile→ Socio-economic Maturity	0.034	0.135	1.994	0.253	0.001	Highly Significant
(MEC) Culture of Mangyans→ Socio-economic Maturity	0.555	0.186	1.994	1.071	0.009	Significant
(Buhid) Demographic Profile→ Socio-economic Maturity	0.065	0.155	1.994	0.419	0.677	Not Significant
(Buhid) Culture of Mangyans→ Socio-economic Maturity	0.530	0.102	1.994	1.984	0.001	Highly Significant

Legend: p-value<0.05 Significant; p-value<.01 Highly Significant

In addition, the result provides opportunities to overcome socio-economic barriers and achieve upward mobility. Through CES, Indigenous Mangyans were given a chance to pursue their education through scholarships, thus making it possible for them to be socio-economically mature regardless of their socio-economic status. In terms of the culture, one of the most prominent aspects of MEC is the livelihood program, which provides the Mangyans a means to make for themselves while proactively participating in the trade and market of society. The project heads provided a plan and source of livelihood for the Mangyans living in that community, like rabbit farming, duck farming, rice production, etc. (Iopam et al., n.d.).

As shown above, the paths consisting of socio-economic maturity concerning the demographic profile and culture of MEC show both negative and positive conclusions. A p-value of 0.001 (highly significant at $p < 0.001$) proves that the null hypothesis is rejected. However, the demographic profile ($p = 0.677$) does not significantly affect the socio-economic maturity. Therefore, findings show that the socio-economic maturity of the Buhid tribe is significantly affected by the culture of the Mangyans and not their demographic profile. One of the reasons behind the insignificance of the demographic profile is the presence of educational hindrances, such as the mismatch of educational attainment towards their age; for this reason, the demographic profile has been deemed as a non-affecting factor in their socio-economic maturity. As stated by Cornelio and de Castro's (2015) study, indigenous people are often not able to finish their basic education, let alone get a college degree, which could

also be the hindering factor on why the result between socio-economic maturity and demographic profile has shown inconsistencies, therefore, resulting in no significance, making the researchers fail to reject the null hypothesis.

4. Conclusions

Based on the findings of this study, the conclusions were presented: The majority of inhabitants in MEC are aged 15-24, mostly male, and their highest educational attainment is college. Meanwhile, the majority of the respondents in the Buhid tribe are aged 25-34, mostly male, and their highest educational attainment is elementary. The Mangyans believe in a singular Supreme Being, Ambuwaw, who is their creator and the creator of the world and who perpetually upholds their existence. The results yielded from the findings can further solidify the goal of community extension administrators. There is a significant difference between the cultures of MEC and Buhid in terms of valuing cultural heritages, belief systems, and livelihoods. In addition, it was proven that the socio-economic maturity of MEC is significantly affected by the demographic profile and its culture. 'However, community extension administrators have socio-economic maturity in terms of demographic profile, but there is a highly significant effect on its socio-economic maturity in terms of culture'.

Recommendations - The following recommendations are presented to address the problems found in the study. Firstly, the researchers suggest that the Local Government Unit (LGU) may devise a plan that can uplift the lives of the Indigenous people. Secondly, the Department of Education (DepEd) may provide alternative means for the Indigenous people to gain easier access to proper schooling. In addition to that, school administrators may further improve their projects to raise the status of the lives of Indigenous people. Moreover, the tourism office may perpetuate the culture and traditions of Indigenous people by proactively making progressive projects that promote and preserve their cultures. Additionally, the Municipal Agriculture Office (MAO) may help Indigenous farmers improve their agricultural state. Lastly, future researchers may explore other variables that could help in alleviating the economic suffering of the indigenous people.

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