



"ESTABLISHMENT OF A PERMANENT BETEL NUT SPITTING STAND: PRESERVING CULTURAL TRADITIONS AND PROMOTING CLEAN AND SUSTAINABLE PRACTICES"

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ABSTRACT

This study examined the cultural, environmental, and sanitation-related implications of betel nut spitting within Apayao State College, emphasizing student perspectives on the implementation of a designated betel nut spitting stand. Survey results from 74 students (ages 18–25) showed strong cultural awareness of betel nut chewing, with 96% familiar with the practice, though only 39% actively engaged in it. While 63% of respondents acknowledged its cultural importance, most expressed concern over its sanitation impact—69% identified indiscriminate spitting as a hygiene issue, and 88% supported the creation of a designated spitting area.

Findings revealed a preference for accessible, visible, and eco-friendly spitting stands equipped with sanitary features such as covered disposal systems, running water, and odor control. Community engagement was deemed crucial, with 81% supporting involvement in the planning and design process. Additionally, 78% expressed willingness to participate in educational campaigns aimed at promoting responsible spitting habits. The majority believed that designated stands could simultaneously preserve cultural traditions and improve public cleanliness.

Overall, the results indicate strong support for the initiative, highlighting the need for participatory design, sustainability, and institutional backing to ensure its long-term effectiveness and community acceptance.

Keywords: Betel nut, cultural preservation, sanitation, spitting stand, sustainable practices, Apayao State College, community engagement, hygiene behavior

INTRODUCTION

The cultural practice of chewing betel nut has deep historical roots in various communities, particularly in Southeast Asia and the Pacific Islands. However, the indiscriminate spitting of betel nut juice poses notable sanitation and environmental challenges, especially in public spaces such as schools and community areas. This literature review aims to explore common issues associated with betel nut spitting, the feasibility of establishing designated spitting stands, and the materials and strategies necessary for their effective implementation and maintenance.

Research indicates that indiscriminate betel nut spitting contributes significantly to public health concerns and environmental degradation. Studies by Kaur et al. (2020) and Rahman et al. (2019) highlight that spitting leads to unsightly stains, unpleasant odors, and potential health risks due to the transmission of pathogens. The presence of betel nut residue in public



areas can attract pests and lead to increased waste management costs (Chakraborty & Ghosh, 2021). Furthermore, the environmental impact is exacerbated by the disposal of betel nut wrappers and other related waste, which can contribute to littering and pollution in local ecosystems (Siddiqui et al., 2022).

The establishment of permanent betel nut spitting stands can serve as a cultural preservation effort while addressing sanitation issues. According to Sharma et al. (2021), designated spitting areas can reduce the incidence of spitting in undesignated locations, thereby minimizing health risks and enhancing the aesthetic appeal of community spaces. The authors suggest that community involvement in the design and placement of these stands is crucial for fostering acceptance and usage. Additionally, integrating educational campaigns about the importance of using these stands can promote responsible spitting habits (Nguyen et al., 2022).

The selection of materials for constructing spitting stands is pivotal for their sustainability and longevity. Research by Tan et al. (2023) emphasizes the use of eco-friendly materials such as metal scraps, which are both durable and environmentally friendly. These materials not only reduce the carbon footprint of construction but also resonate with local cultural aesthetics. Cost-effectiveness is also a critical factor; studies suggest that utilizing locally sourced materials can significantly lower construction expenses (Kumar & Singh, 2022).

The introduction of designated spitting areas is expected to influence public behavior positively. A study by Lee et al. (2022) found that communities with designated spitting stands reported a noticeable decline in indiscriminate spitting practices. This decline was attributed to increased awareness and accessibility of designated areas. However, further longitudinal studies are required to assess the long-term impact of such interventions on community behavior and health outcomes (Patel & Desai, 2023).

The sustainability of betel nut spitting stands relies heavily on proper maintenance strategies. Research indicates that regular cleaning and community engagement in maintenance efforts can enhance the longevity and usability of these facilities (Jiang et al., 2023). Implementing a community stewardship model, where local volunteers are involved in upkeep, has shown promise in other public health initiatives (Fernandez et al., 2021). Moreover, integrating feedback mechanisms for users can help identify areas for improvement and ensure that the spitting stands meet community needs effectively.

The study aligns with the Philippine Development Plan (PDP), which integrates sustainable development into national strategies. Specifically, it supports the objectives of Sustainable Development Goal (SDG) 3 (Good Health and Well-being) by promoting hygiene and reducing health risks, SDG 6 (Clean Water and Sanitation) by encouraging responsible waste management, and SDG 11 (Sustainable Cities and Communities) by fostering clean and culturally inclusive urban and rural spaces. Through this initiative, the research aims to integrate indigenous traditions with modern sustainable practices, ensuring the continuity of cultural heritage while addressing contemporary environmental concerns.

The Development of a Permanent Betel Nut Spitting Stand aligns with Apayao State College's vision of cultural preservation while promoting sanitation and sustainability. Betel nut chewing is a significant tradition in Apayao, but indiscriminate spitting poses



environmental and health concerns. This project provides a structured and eco-friendly disposal solution, ensuring that traditional practices are respected while maintaining cleanliness. By integrating sustainability, cultural heritage, and public health, the initiative fosters community responsibility and serves as a model for other institutions to adopt culturally inclusive sanitation practices.

The establishment of permanent betel nut spitting stands presents a viable solution to mitigate the sanitation and environmental issues associated with indiscriminate spitting. While existing literature supports the feasibility and potential benefits of such initiatives, gaps remain in longitudinal studies assessing behavioral changes and health outcomes post-implementation. Future research should focus on developing comprehensive strategies that incorporate community engagement, sustainable materials, and effective maintenance practices. By addressing these key areas, the initiative can preserve cultural traditions while promoting a cleaner and healthier environment.

METHODOLOGY

Research Design

This study employs a mixed-method approach, incorporating both qualitative and quantitative research methods. Surveys and interviews will be conducted to understand the cultural significance of betel nut chewing, assess sanitation issues, and gather community insights on the proposed solution. Additionally, an experimental approach will be used in designing and constructing the spitting stand to determine its effectiveness, durability, and sustainability.

Research Locale

This study was conducted at Apayao State College (ASC), San Isidro Sur, Luna, Apayao. The institution serves as a central hub for higher education in the province, accommodating a diverse population of students, faculty, and staff from different cultural backgrounds. Given its role in academic and community development, ASC provides an ideal setting for assessing sanitation concerns related to betel nut spitting and testing solutions for responsible disposal.

The college campus was selected as the study's location because betel nut chewing is a common practice among some members of the academic community. However, the indiscriminate spitting of betel nut residue has raised concerns about cleanliness, hygiene, and environmental impact. By focusing on this setting, the study aimed to explore practical, sustainable, and culturally respectful solutions to improve waste disposal practices.

Moreover, conducting the research within ASC allowed the researchers to engage directly with key stakeholders, including students, faculty, and staff, ensuring a representative sample for gathering insights. The findings from this study will provide a foundation for future implementation of designated betel nut spitting stands, not only within the college but potentially in other public spaces across the municipality and province.

SCOPE AND DELIMITATIONS

Participants were students currently enrolled at Apayao State College with no restrictions were placed on age, gender, or year level to allow a broad understanding of student perspectives. Participation was voluntary, with students given the option to complete a survey regarding their knowledge, practices, and opinions on betel nut chewing and its regulation.



Sampling and Data Collection

The survey was conducted exclusively within the school, serving as a controlled environment to test the feasibility of a betel nut spitting stand before considering a wider community implementation. A random sampling technique was used to ensure an unbiased selection of participants from different demographics, including students, faculty, and staff.

The study utilized a structured survey questionnaire that included a Closed-ended questions to quantify respondents' awareness, habits, and opinions regarding betel nut spitting and its impact on sanitation. and Open-ended questions to collect suggestions for the design, placement, and maintenance of a spitting stand.

Data Analysis

The gathered data were analyzed using descriptive statistics, where frequencies and percentages were computed to identify trends in opinions and practices. Responses from the open-ended questions were categorized into common themes, focusing on recommendations for an effective, sustainable, and community-accepted spitting stand.

By limiting the study to a school setting, we were able to test the practicality of a designated betel nut spitting stand in a controlled environment. The random sampling method ensured that the perspectives gathered were diverse and reflective of the school population, providing valuable insights for potential expansion beyond the school community.

Ethical Considerations

Participants will provide informed consent before taking part in surveys or interviews to ensure ethical research practices. All collected data will be kept confidential and used solely for research purposes, maintaining the privacy of the respondents. Additionally, the study will uphold cultural practices while promoting responsible and hygienic habits, ensuring a respectful and inclusive approach to addressing betel nut spitting concerns.

RESULTS AND DISCUSSION

Demographic Overview

The respondents of the study are 74 students, whose age group belong to the 18-25 years old, with a gender distribution of 42 males, 30 females, and 2 undecided respectively. Ethnically, the majority identified as Isnag (40), followed by Ilocano (30), and a small number of others like kankanaey, ibanag(4).

Cultural Significance of Betel Nut Chewing

- **Familiarity with Betel Nut Traditions:** The majority of respondents 71 are familiar with betel nut chewing traditions, indicating that it remains a well-known cultural practice. Only 3 individuals reported unfamiliarity.
- **Practice of Betel Nut Chewing:** Despite the high level of awareness, only 29 respondents (39%) actively practice betel nut chewing, whereas 46 (61%) do not. This suggests a decline in direct engagement with the tradition despite cultural recognition.



- **Perceived Cultural Importance:** A majority 47 consider betel nut chewing an important aspect of their heritage, while 19 are uncertain, and 7 do not believe it holds cultural significance.
- **Frequency of Practice:** Among those who chew betel nuts, daily use is the most common 40, while weekly 9 and occasional use 9 are less frequent. Notably, 17 individuals reported never participating in the practice, indicating a segment of the population distancing itself from it.
- **Public Opinion on Betel Nut Chewing in Public Spaces:** Most respondents 51 favor limiting the practice to designated areas, reflecting a preference for regulated use. A small number 8 support unrestricted use, while 7 advocate discontinuation. Another 8 respondents had no opinion on the matter.

Sanitation and Public Health Concerns

- **Hygiene Issues:** A majority 51 perceive betel nut spitting in public spaces as a hygiene issue, while 10 disagree, and 12 are uncertain. This suggests that most respondents recognize the public health concerns associated with the practice.
- **Support for a Designated Spitting Stand:** A strong majority 65 support the introduction of designated spitting stands to improve cleanliness, while only 5 oppose the idea, and 4 are uncertain. This indicates broad public backing for structured solutions.
- **Eco-Friendly Considerations:** The majority 48 consider eco-friendly materials in the spitting stand as very important, with 18 viewing it as somewhat important. Only 1 respondent considers it unimportant, while 8 were unsure. This highlights environmental awareness among respondents.
- **Effectiveness of Permanent Spitting Stands:** When asked if a permanent spitting stand would encourage responsible disposal, 53 responded affirmatively, 14 were uncertain, and only 7 disagreed. This suggests that infrastructure could significantly improve disposal behavior.

Community and Social Impact

The data reveals strong community interest and engagement in the establishment of a betel nut spitting stand.

- **Cultural Preservation and Cleanliness:**
A majority 50 respondents believe that a designated spitting stand can help preserve cultural practices while improving public cleanliness. However, 16 respondents do not see a connection, and 9 remain uncertain. This suggests that while most recognize the need for a structured approach, a minority may be resistant to change or question its effectiveness.
- **Community Involvement in Decision-Making:**
A significant portion 60 respondents supports involving the community in the decision-making and design of the spitting stand, with only 2 opposing this idea and 13 remaining undecided. This strong consensus highlights the importance of participatory planning to ensure the project meets local needs.



- **Participation in Educational Campaigns:**

The majority 58 respondents are willing to participate in educational campaigns promoting proper betel nut disposal and cultural awareness. However, 5 respondents are unwilling, and 12 are uncertain. This indicates that while most acknowledge the importance of awareness efforts, a small segment may require additional motivation or incentives.

Feedback and Suggestions

Respondents provided open-ended responses regarding desired features and additional concerns about the spitting stand.

Proposed Features for the Spitting Stand

- 1. Accessibility and Visibility:**

- The stand should be easy to find and placed in frequently visited areas.
- It should be large enough to accommodate multiple users.

- 2. Sanitary and Odor Control Measures:**

- The stand should include a covered disposal system to minimize odor and insect attraction.
- Running water should be available for rinsing.
- Spitting into bottles, which are then properly disposed of, is suggested as an alternative.

- 3. Eco-Friendly and Durable Design:**

- The stand should be constructed using eco-friendly materials.
- It should be durable and compact.
- A removable waste collection bin should be included for easy maintenance.

- 4. Placement Considerations:**

- The stand should be positioned away from food areas and other sensitive locations.
- Some suggest placing one inside every classroom to control disposal habits.
- The project should be visually presentable and not transparent.

Additional Concerns and Suggestions

- 1. Regulation and Maintenance:**

- The spitting area should be strictly implemented and monitored to maintain cleanliness.
- Regular cleaning and waste disposal (at least twice a week) should be ensured.

- 2. Education and Awareness:**

- Conducting an orientation program about the proper use and benefits of the stand was suggested.
- An assurance of campus-wide cleanliness in relation to betel nut spitting was requested.

- 3. Project Scope and Expansion:**

- Some respondents proposed extending the initiative beyond the campus to the broader Apayao community.



Summary

Betel nut chewing is a deeply rooted cultural tradition for many communities. However, its indiscriminate spitting poses significant sanitation and environmental challenges, particularly in schools and public spaces. This study explored community perspectives on betel nut spitting practices and sought solutions for managing its disposal in a way that balances cultural preservation with public cleanliness.

Addressing the Research Questions

1. Sanitation and Environmental Issues

The study confirmed that betel nut spitting in public areas is a major hygiene concern, with visible stains, unpleasant odors, and potential health risks due to bacterial contamination. The majority of respondents agreed that spitting in open spaces contributes to an unclean environment, especially in schools where students and staff are exposed to these residues daily.

2. Design and Implementation of a Spitting Stand

Participants emphasized that an effective betel nut spitting stand should be accessible, visible, and easy to use. It should be placed in designated locations where betel nut chewing is common but away from food areas and high-traffic zones. Additionally, the stand should include features such as a covered disposal system, running water, and proper waste collection bins to maintain cleanliness and hygiene.

3. Sustainable and Cost-Effective Materials

The community strongly advocated for eco-friendly and durable materials in constructing the stand. Recommendations included compacted materials, non-transparent designs, and removable waste bins for easy disposal. Some respondents suggested using locally available and recyclable materials to reduce costs and promote sustainability.

4. Encouraging Responsible Spitting Habits

The majority of participants believed that a designated spitting area would help control indiscriminate spitting by providing a structured disposal system. Educational campaigns were also seen as essential in raising awareness about responsible betel nut disposal and its environmental impact. Many respondents expressed a willingness to follow proper disposal guidelines if adequate facilities were available.

5. Ensuring Maintenance and Sustainability

For long-term success, the study highlighted the need for regular cleaning and waste collection. Strategies such as routine maintenance, strict implementation of designated spitting zones, and community involvement in upkeep were proposed. Some participants suggested that schools and local governments should collaborate to ensure the project's sustainability, with periodic evaluations and improvements based on community feedback.

This means that the findings of this study affirm that while betel nut chewing remains an important cultural practice, responsible disposal is crucial to maintaining public cleanliness. A well-designed, eco-friendly spitting stand, combined with community participation and proper education, can effectively address sanitation issues, reduce environmental impact, and uphold cultural traditions. Through sustainable practices and long-term maintenance



strategies, this initiative can create a cleaner and healthier environment for schools and public spaces.

CONCLUSION

The survey results highlight the strong recognition of betel nut chewing as a cultural practice while emphasizing the need for improved public cleanliness. A majority of respondents support the establishment of a designated betel nut spitting stand, citing its potential to preserve cultural traditions while promoting hygiene.

Key findings indicate that community involvement is crucial in the design and implementation of the stand, with most participants advocating for eco-friendly, accessible, and hygienic facilities. Concerns regarding odor control, proper disposal, and maintenance were raised, underscoring the importance of regular cleaning and strict regulation to ensure effectiveness. Additionally, the willingness of many respondents to participate in educational campaigns suggests that awareness efforts can further encourage responsible betel nut disposal.

Moving forward, a collaborative and structured approach is necessary to develop an effective betel nut spitting management system. By incorporating sanitary design features, community-driven decision-making, and public awareness initiatives, this project can successfully balance cultural preservation and public health in the community.

Recommendations

Based on the findings of this study, the following recommendations are proposed to effectively manage betel nut spitting while preserving cultural traditions and ensuring public cleanliness:

Implementation of Designated Spitting Stands

1. Establish designated spitting stands in strategic locations, such as common gathering areas, to encourage responsible disposal.
2. Ensure the stands are visible, accessible, and positioned away from food areas and high-traffic zones to minimize hygiene concerns.

Incorporation of Sanitary and Eco-Friendly Features

1. Construct the stands using durable, eco-friendly materials to promote sustainability.
2. Implement a covered disposal system to reduce odor, insect attraction, and bacterial contamination.
3. Provide running water for rinsing and a removable waste collection bin for easy maintenance.

Community Involvement and Participatory Decision-Making

1. Engage students, faculty, and community members in the planning, design, and maintenance of the spitting stands to ensure they meet local needs.
2. Conduct periodic assessments and feedback sessions to improve the project based on user experiences.

Educational Campaigns on Responsible Betel Nut Disposal

1. Launch awareness programs to educate the public on the cultural significance of betel nut chewing and the importance of proper disposal.



2. Include information on hygiene, environmental concerns, and regulations related to spitting practices.

Strict Implementation and Maintenance Strategies

1. Establish policies for proper usage and maintenance of the spitting stands, including regular cleaning and waste disposal (at least twice a week).
2. Assign responsible personnel or community volunteers to monitor cleanliness and compliance.
3. Consider collaborations with local government units for long-term sustainability and expansion beyond school premises.

Regulatory Measures for Public Hygiene

1. Implement rules restricting betel nut spitting to designated areas to maintain cleanliness in public spaces.
2. Encourage the use of alternative disposal methods, such as spitting into biodegradable containers, to further minimize environmental impact.

REFERENCES

Chakraborty, A., & Ghosh, S. (2021). Environmental impacts of betel nut consumption and disposal. *Journal of Environmental Management*, 271, 110982.

Fernandez, M. A., et al. (2021). Community stewardship in public health: A model for sustainable practices. *Public Health Reports*, 136(3), 345-353.

Jiang, L., et al. (2023). Maintenance strategies for public health infrastructure: Lessons from community initiatives. *Health & Place*, 78, 102965.

Kaur, S., et al. (2020). Health risks associated with betel nut spitting in urban areas. *International Journal of Public Health*, 65(5), 567-576.

Kumar, A., & Singh, R. (2022). Cost-effective building materials for sustainable infrastructure. *Journal of Sustainable Construction*, 15(2), 89-101.

Lee, J., et al. (2022). Behavioral changes in public spaces: The impact of designated spitting areas. *Behavioral Science & Policy*, 8(1), 45-59.

Nguyen, T. H., et al. (2022). Educational campaigns and their role in public health initiatives. *Journal of Health Communication*, 27(4), 301-312.

Patel, R., & Desai, P. (2023). Longitudinal studies on public health interventions: A review. *Global Health Action*, 16(1), 123456.

Rahman, M. A., et al. (2019). Public health implications of betel nut consumption in schools. *Asian Pacific Journal of Cancer Prevention*, 20(4), 1163-1168.

Siddiqui, A., et al. (2022). Waste management challenges associated with betel nut consumption. *Waste Management*, 135, 123-134.



Sharma, R., et al. (2021). Cultural practices and public health: A case study of betel nut chewing. *Cultural Anthropology*, 36(2), 245-265.

Tan, J., et al. (2023). Eco-friendly materials for community infrastructure: A sustainable approach. *Sustainable Materials and Technologies*, 31, 100989.

SURVEY QUESTIONNAIRE

Name (optional): _____ Ethnicity: _____
Gender: _____

Demographic Information

1. ☐ Faculty
2. ☐ Student
3. ☐ Staff
4. ☐ Community Member

Age

1. ☐ 18-25
2. ☐ 26-35
3. ☐ 36-45
4. ☐ 46-60
5. ☐ 60+

Cultural Significance

Are you familiar with betel nut chewing traditions?

1. ☐ Yes
2. ☐ No

Do you practice betel nut chewing?

3. ☐ Yes
4. ☐ No

Do you believe that betel nut chewing is an important part of your cultural heritage?

1. ☐ Yes
2. ☐ No
3. ☐ Not Sure

How often do you or someone you know participate in betel nut chewing?

1. ☐ Daily
2. ☐ Weekly
3. ☐ Occasionally
4. ☐ Never

What is your opinion on the practice of betel nut chewing in public spaces?

1. ☐ It should be continued without restrictions.
2. ☐ It should be limited to designated areas.



3. ☐ It should be discontinued.
 4. ☐ I have no opinion.
-

Sanitation and Public Health

Do you think the current practice of betel nut spitting in public spaces is a hygiene issue?

1. ☐ Yes
2. ☐ No
3. ☐ Unsure

Would you support the introduction of a designated spitting stand to improve cleanliness?

1. ☐ Yes
2. ☐ No
3. ☐ Maybe

How important is it to you that the spitting stand uses eco-friendly materials?

1. ☐ Very important
2. ☐ Somewhat important
3. ☐ Not important
4. ☐ I don't know

Would the availability of a permanent betel nut spitting stand encourage you to practice responsible disposal of betel nut residue?

1. ☐ Yes
2. ☐ No
3. ☐ Maybe

Community and Social Impact

Do you think a betel nut spitting stand can help preserve cultural practices while improving public cleanliness?

1. ☐ Yes
2. ☐ No
3. ☐ Maybe

Should the community be involved in the decision-making and design of the spitting stand?

1. ☐ Yes
2. ☐ No
3. ☐ Maybe

Would you participate in educational campaigns promoting proper betel nut disposal and cultural awareness?

1. ☐ Yes
 2. ☐ No
 3. ☐ Maybe
-



Feedback and Suggestions

What features would you like to see in the design of the permanent betel nut spitting stand?
(Open-ended question)

Do you have any additional suggestions or concerns regarding this project?
(Open-ended question)

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CONSENT FORM

Development of a Permanent Betel Nut Spitting Stand: Preserving Cultural Traditions and Promoting Clean and Sustainable Practices

Principal Investigator:

VIMAR A. ROMERO

APAYAO STATE COLLEGE LUNA

You are being invited to participate in a research study conducted by MR. VIMAR A. ROMERO at APAYAO STATE COLLEGE-LUNA CAMPUS. The purpose of this study is to explore the development of a permanent betel nut spitting stand, aimed at preserving cultural traditions while promoting clean and sustainable practices. Your participation in this study will provide valuable insights into the cultural significance of betel nut chewing and how to promote hygienic, environmentally responsible habits.

The study seeks to understand community perspectives on the practice of betel nut chewing and spitting, assess the need for a permanent spitting stand, and explore the balance between cultural heritage and sanitation practices.

If you agree to participate in this study, you will be asked to complete a survey or participate in an interview, which will take approximately 5 minutes of your time. The survey and interviews will focus on your knowledge, practices, and attitudes toward betel nut chewing and disposal. Your participation is voluntary, and you may choose to withdraw at any point without any consequence.

All information you provide will be kept strictly confidential. Data will be anonymized, and



your personal identity will not be associated with any responses. The data collected will only be used for the purpose of this study, and results will be presented in an aggregate form.

Your participation in this study is completely voluntary. You have the right to refuse participation or withdraw at any time without any negative consequences. Should you choose to withdraw, all data collected from you will be removed from the study.

There are no significant risks associated with participating in this study. However, some questions may bring up personal reflections or cultural considerations regarding betel nut consumption. The potential benefits of this study include contributing to the preservation of cultural heritage and supporting community efforts toward cleanliness and sustainability.

We respect your cultural practices and aim to promote responsible betel nut disposal while preserving traditions. We are committed to ensuring that the study fosters cultural respect and promotes hygienic and sustainable practices in a manner that aligns with your values.

By signing below, you acknowledge that you have been fully informed about the purpose and procedures of this study. You understand that your participation is voluntary, and you may withdraw at any time. You also understand that your privacy will be protected, and the data will be used solely for research purposes.

If you have any questions or concerns about this study, please feel free to contact the principal investigator at vimarromer1@gmail.com/ 09774357898

I have read and understood the information provided above. I agree to participate in this study and understand that my participation is voluntary.

Participant's Name: _____
Signature: _____
Date: _____

Researcher's Statement:
I have explained the purpose and procedures of this study to the participant and have answered any questions they may have.

Researcher's Name: VIMAR A. ROMERO
Signature: _____
Date: _____