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THE LEVEL OF AWARENESS, ATTITUDE, AND ENGAGEMENT OF ELEMENTARY LEARNERS OF TUMAUINI SOUTH DISTRICT ON ENVIRONMENTAL ISSUES

Rosemarie B. Pagatpatan
Marites P. Talosig

Saint Ferdinand College-City of Ilagan Campus, City of Ilagan, Isabela, Philippines

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ABSTRACT

This study assessed the level of awareness, attitude, and engagement of Grade 6 elementary learners of Tumauini South District on environmental issues. Using a descriptive quantitative research design, the study involved 150 learners selected from 15 elementary schools in the district. Data were gathered through a researcher-made questionnaire and were analyzed using weighted mean and Pearson's correlation coefficient. Findings revealed that learners demonstrated a very high level of environmental awareness, with an overall mean of 3.28, particularly on recycling, climate change, drought, deforestation, and the role of trees in environmental protection. Learners also showed a highly positive attitude toward environmental issues, with an overall mean of 3.43, indicating strong personal responsibility, optimism, and willingness to contribute to environmental protection. Likewise, their level of engagement was very high, with an overall mean of 3.42, especially in energy conservation, proper waste disposal, recycling, and participation in school-based environmental activities. Correlation results showed significant positive relationships between awareness and attitude, awareness and engagement, and attitude and engagement, with attitude showing the strongest relationship with engagement. These findings suggest that learners who are more aware and possess positive environmental attitudes are more likely to participate in eco-friendly practices. The study concludes that environmental education in Tumauini South District has meaningfully contributed to learners' knowledge, values, and behaviors. Strengthening hands-on environmental activities, school-community partnerships, and advocacy-based projects is recommended to sustain learners' environmental responsibility and promote long-term ecological stewardship.

Keywords: *environmental awareness, environmental attitude, environmental engagement, elementary learners, environmental education*

INTRODUCTION

Environmental challenges have become a critical issues of our time, shaping not only the health of our planet but also the prospects of generations to come. From the intensifying impacts of climate change to the rapid decline in biodiversity and the persistent rise of pollution, the consequences of ecological degradation are both vast and urgent. To address these realities, education emerges as a vital force—empowering individuals with awareness and inspiring collective responsibility for sustainability. Within this effort, the role of young learners, especially those in elementary schools, is particularly significant. When guided with knowledge and values that emphasize care for the environment, these children can grow into committed stewards, leading the way toward a more sustainable future.

On the international scene, environmental education has increasingly been recognized as a vital foundation for sustainable development. International frameworks, most notably the United Nations' Sustainable Development Goals (SDGs), highlight this priority. Goal 4, or Quality Education, and Goal 13, or Climate Action, emphasize the need to embed sustainability within education systems, promoting inclusive and equitable learning that equips individuals with the knowledge, skills, and values required to address pressing environmental challenges (United Nations, 2015; UNDP, n.d.).

In the Philippines, national policies have been carefully aligned with these global directives. The Enhanced Basic Education Act of 2013, or Republic Act No. 10533, widely known as the K to 12 program, supports a holistic, learner-centered, contextualized, and globally responsive curriculum. This policy direction is further strengthened by Republic Act No. 9512, which explicitly mandates the integration of environmental education in school curricula to cultivate informed and responsible citizens capable of contributing to sustainable development (Republic of the Philippines, 2013; Republic Act No. 9512, 2008).

Moreover, the Philippines' active participation in international agreements, such as the Paris Agreement, further demonstrates its commitment to combating climate change. By linking education with community engagement, the country reinforces its role in advancing global sustainability goals while empowering future generations to take meaningful action (UNFCCC, n.d.; Republic of the Philippines, 2021).

In addition to existing initiatives, DepEd Order No. 52, s. 2011 plays a pivotal role in strengthening environmental education across both public and private schools in the Philippines. This directive requires the integration of environmental themes into science subjects and encourages their inclusion in other areas of learning. It highlights the importance of active student participation in environmental projects and promotes the use of varied teaching materials to enrich classroom instruction (Department of Education, 2011a).

To support this goal, teachers are urged to join workshops and environmental awareness programs, equipping them with the skills to guide students effectively. Schools are also mandated to establish and sustain Youth for Environment in Schools Organizations, or YES-O, which spearhead campus-based environmental initiatives and foster sustainable practices. Furthermore, YES-O groups must be registered with the Division Office and regularly report their achievements, ensuring accountability while cultivating a culture of recognition for environmental stewardship (Department of Education, 2011a; Department of Education, 2011b).

Environmental awareness continues to be a critical issue in the Philippines, largely due to persistent challenges such as limited resources, insufficient teacher training, and weak monitoring of educational initiatives. Although government agencies and non-governmental organizations have introduced programs to strengthen environmental education, their impact has often been uneven. Many schools struggle with inadequate facilities and materials, while educators are not always equipped with the training needed to effectively teach environmental concepts. Moreover, there is a pressing need to integrate environmental topics more thoroughly into the national curriculum and to design programs that reflect the country's unique cultural context. Research highlights that engaging communities and local stakeholders plays a vital role in improving environmental education and fostering sustainable practices (Cruz-Ocampo, 2025; Lualhati, 2019; Villocido, 2025).

The Cagayan Valley, particularly Region 02, presents a distinctive ecological and socio-economic landscape. Within this region, the province of Isabela stands out for its abundant biodiversity, extensive agricultural production, and wealth of natural resources. Yet, these strengths are restrained by pressing environmental challenges, including deforestation, soil erosion, and heightened vulnerability to typhoons and floods. Such issues underscore the need for a strong educational framework, one that not only conveys environmental knowledge but also cultivates responsibility and urgency among the youth.

Isabela has actively engaged in environmental initiatives and educational programs designed to confront these challenges. Local government units in partnership with schools and community organizations, have introduced projects that raise awareness and encourage sustainable practices. Given this situation, the Tumauini South District emerges as a focal point for study. Schools in the district play a pivotal role in shaping young learners' attitudes and behaviors through environmental education.

Despite national and regional policies promoting ecological awareness, there remains a clear need for localized research to evaluate their impact at the student level. Tumauini South District, with its specific concerns such as deforestation, pollution, and disaster susceptibility, provides an ideal setting for such an inquiry. Based on firsthand observations, the researcher notes that many students do not consistently practice recycling and often show limited participation in school-led initiatives, such as gardening projects. These findings reveal a gap between policy aspirations and the everyday environmental practices of young learners.

The absence of active participation is troubling, particularly in light of the urgent environmental challenges facing the community. The researcher has observed instances where recyclable materials are carelessly discarded and where valuable opportunities for environmental learning—such as school-based gardening programs—remain underutilized. These observations have reinforced the purpose of this study: to examine the effectiveness of environmental education initiatives and to assess the extent to which students are meaningfully engaging with ecological issues.

This study investigates how effectively elementary learners comprehend and engage with environmental issues. By addressing this gap, it seeks to uncover weaknesses in the current educational system within the region and evaluate the impact of various environmental programs and activities on young students. The research underscores the importance of designing educational approaches that reflect local ecological contexts, ensuring lessons are both relevant and meaningful. Through this analysis, the study aims to provide practical insights that can strengthen environmental education and leave a lasting influence on young learners.

The motivation for this research arises from the pressing environmental challenges in Tumauini South District, including deforestation, pollution, and waste management. Focusing on elementary students is crucial, as this stage of development shapes attitudes and behaviors that persist into adulthood. The study intends to generate valuable data for policymakers and educators in the Philippines, supporting efforts to enhance environmental education. Its findings could inform strategies that better prepare the next generation to confront today's ecological problems and future challenges. Ultimately, the study seeks to foster a more environmentally conscious and proactive youth, particularly in communities facing distinct ecological concerns.

Research Questions

This research aimed to assess the awareness, attitudes, and level of participation of elementary learners in the Tumauini South District regarding environmental issues. Specifically, it sought to answer the following questions:

1. What is the level of awareness of elementary learners of Tumauini South District on environmental issues?
2. What is the attitude of elementary learners of Tumauini South District on environmental issues?
3. What is the level of engagement of elementary learners of Tumauini South District on environmental issues?
4. Is there a significant relationship between the level of awareness and attitude of elementary learners in the Tumauini South District towards environmental issues?
5. Is there a significant relationship between the level of awareness and engagement of elementary learners in the Tumauini South District regarding environmental issues?

6. Is there a significant relationship between the attitude and engagement of elementary learners in the Tumauini South District towards environmental issues?

METHODOLOGY

Research Design

The study employed the descriptive research design, a quantitative approach that systematically and accurately characterizes a population, situation, or phenomenon. This design is particularly suited to answering questions of who, what, when, where, and how much, thereby offering a detailed overview of the variables under investigation.

In this study, the descriptive design was utilized to examine the levels of environmental awareness, attitudes, and engagement among Grade 6 learners in the Tumauini South District. It provided a structured framework for collecting and analyzing data, ensuring an accurate representation of learners' knowledge of environmental issues, their perceptions of these challenges, and their participation in conservation-related activities.

The design enabled the identification of patterns and relationships among these variables. This approach highlighted the extent of learners' understanding and involvement and revealed how these factors were interconnected, offering valuable insights into the dynamics of environmental education at the elementary level.

Locale of the Study

This study was conducted in the Tumauini South District, located within the Municipality of Tumauini in the Province of Isabela. The district office is situated in Barangay Carpentero and serves as the administrative center for the area. At its heart is Tumauini South Central School, the largest school in terms of student enrollment, catering to learners from four barangays. Overall, the district encompasses 15 schools, most of which are positioned in the southern part of the municipality.

Selection and Description of Respondents

The respondents of this study were drawn from the fifteen elementary schools comprising the Tumauini South District. These schools differ in population size, thereby providing a varied and representative sample of Grade 6 learners. The list below presents the specific schools along with their respective student populations and the number of participants included in the study:

Schools	Number of Population	Number of Sample
Antagan 2nd ES	23	10
Antagan Magoli ES	25	10

Arcon Maligaya ES	39	10
Balug ES	27	10
Bantug ES	19	10
Bayabo ES	39	10
Lalauanan Sto. Nino ES	57	10
Lapogan ES	70	10
Liwanag ES	39	10
Namnama ES	36	10
Paragu ES	25	10
Pallacot ES	12	10
Sisim Minanga ES	49	10
Tumauini South Central School	90	10
Tumauini West Central School	69	10
Total	619	150

The study utilized purposive sampling in selecting the respondents. The overall population was first organized into distinct strata, with each school serving as a separate stratum. From these strata, Grade 6 learners were chosen as participants, as the study specifically aimed to assess the level of awareness, attitudes, and engagement regarding environmental issues among this age group.

Data Gathering Procedure

Initially, the researcher secured permission from the School District Supervisor through the appropriate channels to conduct the study. Following the approval, the school principal and classroom teachers were informed of the study's objectives. The researcher personally supervised the administration of the questionnaire, providing general instructions to the students and assisting them in completing the questionnaire. After the questionnaires were accomplished, the researcher collected them directly. The data were then systematically organized, tallied, analyzed, and presented in both tabular and narrative form.

Statistical Treatment of Data

Data analysis was facilitated through the application of statistical treatments, providing a clear and comprehensive understanding of elementary students' levels of awareness, attitudes, and engagement regarding environmental issues. By employing the following descriptive and inferential statistics, the study not only captured the current state of these variables but also examined potential relationships and identified predictors of environmental engagement.

Weighted Mean. This was used to analyze the level of awareness, attitude, and engagement among the learners.

Pearson's Correlation Coefficient. This was used to measure the strength and direction of the linear relationship between pairs of variables, such as level of awareness

and attitude, level of awareness and engagement, and attitudes and engagement of the learners.

RESULTS AND DISCUSSION

1. What is the level of awareness of elementary learners of Tumauini South District on environmental issues?

Table 1
The Level of Awareness of Elementary Learners of Tumauini South District on Environmental Issues

Statement	Weighted Mean	Qualitative Description
1. I have been informed about climate change.	3.39	Very High Awareness
2. I have a strong understanding of climate change.	3.25	High Awareness
3. I acquire knowledge about climate change through social media platforms.	3.11	High Awareness
4. The community around me is aware of climate change.	3.12	High Awareness
5. My family understands the concept of climate change.	3.41	Very High Awareness
6. I am aware of the various factors contributing to climate change.	3.24	High Awareness
7. I understand that greenhouse gases are primary drivers of climate change.	3.15	Very High Awareness
8. I recognize that deforestation contributes significantly to climate change.	3.27	Very High Awareness
9. I am aware that increasing air temperatures are becoming more pronounced due to climate change.	3.33	Very High Awareness
10. I understand that flooding is one of the consequences of climate change.	3.19	High Awareness
11. I know that droughts are often effects of climate change.	3.45	Very High Awareness
12. I am aware that recycling can reduce waste and save natural resources.	3.49	Very High Awareness
13. I understand the role of trees in combating climate change.	3.40	Very High Awareness

14. I know that excessive water use can lead to resource depletion.	3.21	High Awareness
15. I am familiar with global agreements like the Paris Agreement on climate change.	3.21	High Awareness
Overall Mean	**3.28**	**Very High Awareness**

The data shows a very high level of awareness among elementary learners of Tumauini South District regarding environmental issues, specifically climate change,. This result further shows that learners have a very high awareness of the importance of recycling in reducing waste and conserving natural resources. Key findings reveal that learners have very high awareness of being informed about climate change (3.39), family understanding the concept (3.41), the role of greenhouse gases (3.15), the impact of deforestation (3.27), recognition of increasing air temperatures (3.33), droughts as effects of climate change (3.45), the benefit of recycling (3.49), and trees' role in combating climate change (3.40). Statements indicating slightly lower but still high awareness included knowledge from social media (3.11), community awareness (3.12), understanding of flooding consequences (3.19), excessive water use effects (3.21), and familiarity with global agreements such as the Paris Agreement (3.21). This high level of awareness is attributed to early environmental education, as learners are introduced to recycling and waste reduction as early as Grade 1. Through school lessons, classroom activities, and daily routines such as proper waste segregation, learners gradually develop a clear understanding of how recycling helps protect the environment.

Furthermore, continuous exposure to environmental campaigns, school programs, and community practices reinforces this awareness over time. Because recycling concepts are repeatedly taught and practiced, learners easily recognize its benefits, including reduced waste and the conservation of natural resources. This expressed that early and consistent environmental education plays a significant role in developing strong environmental awareness among learners.

The findings of the study supports the objectives of DepEd Order No. 52, s. 2011, which advocates for the integration of environmental education into basic education and encourages schools to engage students in environmental activities. This pattern indicates that elementary learners, as a group, not only receive information about climate change but also comprehend various contributing factors and consequences, as well as mitigation strategies such as recycling and tree planting. The relatively high scores for family and community awareness suggest an environment in which climate change education extends beyond the classroom into familial and social contexts. Relevant research in environmental education underscores the importance of early exposure to environmental topics in fostering sustainable attitudes and behaviors. For instance, embedding environmental education into elementary curricula tailored to local values and contexts has been shown to enhance understanding and conservation behaviors in young learners (Sarbaini et al.,2022). Moreover, the use of technology and interactive tools, such as augmented reality, can further elevate environmental awareness among young students

(Lestari et al., 2022). Complementary studies highlight that students' knowledge of environmental issues can be augmented by a blend of curricular content and community/family engagement (Mashaba et al., 2022) consistent with the findings here, where learners recognize community and family involvement in environmental awareness. The weighted means and qualitative descriptions indicate that elementary learners in the Tumauini South District possess a strong foundational understanding and awareness of climate change and related environmental issues. This high awareness level reflects positively on educational efforts and community influence, underscoring the significance of integrating environmental education early and engaging families and communities to reinforce knowledge and pro-environmental attitudes among children.

Overall, learners' awareness reflects the efforts of the K–12 curriculum under Republic Act 10533, which integrates ecological themes into subjects such as science and social studies. However, the slight variations in awareness ratings suggest that schools need to better engage students through real-world connections, possibly by involving them in community-driven or issue-based learning.

2. What is the attitude of elementary learners of Tumauini South District on environmental issues?

Table 2
The Attitude of Elementary Learners of Tumauini South District on Environmental Issues

Statement	Weighted Mean	Qualitative Description
1. I believe addressing environmental threats is everyone's responsibility.	3.43	Highly Positive
2. Environmental problems must be resolved to ensure a bright future for the world.	3.49	Highly Positive Attitude
3. Environmental problems are serious and need our attention.	3.47	Highly Positive
4. Big changes in our way of living may be necessary to solve environmental problems.	3.36	Highly Positive
5. Everyone, not just experts, should be involved in solving environmental problems.	3.38	Highly Positive
6. Science and technology can play a major role in solving environmental problems, but human effort is equally important.	3.37	Highly Positive
7. Animals have the same right to life as humans.	3.40	Highly Positive
8. Using animals in medical experiments should be approached carefully and ethically, prioritizing both human and animal welfare.	3.35	Highly Positive
9. Many human and animal activities can harm the environment, so responsible actions are necessary.	3.36	Highly Positive

10. The natural world is sacred and should be preserved and protected.	3.47	Highly Positive
11. I am hopeful and optimistic about the future of our environment.	3.49	Highly Positive
12. I am willing to make sacrifices to solve environmental problems for a better world.	3.45	Highly Positive
13. I believe I can personally make a difference in protecting the environment.	3.64	Highly Positive
14. Each of us can make a meaningful contribution to environmental protection.	3.47	Highly Positive
15. I am confident that solutions to environmental problems are still possible.	3.32	Highly Positive Attitude
Overall Mean	**3.43**	**Highly Positive**

Table 2 presents the weighted mean and qualitative description of the attitude of elementary learner in Tumauini South District on Environmental issues.

The table shows that learners consistently expressed very positive attitudes on environmental issues. The highest rating was given to the statement, *"I believe I can personally make a difference in protecting the environment"* highlighting the learners' strong sense of personal responsibility. This is followed by equally high means for statements such as *"Environmental problems must be resolved to ensure a bright future for the world"* and *"I am hopeful and optimistic about the future of our environment"*, which suggest that students recognize the urgency of the situation while still remaining hopeful. On the other hand, the lowest-rated statement, *"I am confident that solutions to environmental problems are still possible"*, although still classified under "highy positive attitude," reveals a slight hesitation in their confidence regarding long-term solutions. This contrast between personal willingness and global outlook could be a sign that while learners are open to acting, they might not yet see the larger impact of collective efforts.

The overall mean, 3.43 was interpreted as a highy positive attitude. This indicates that the learners are not only informed but are also emotionally and ethically aligned with environmental concerns. Their attitudes reflect a strong willingness to engage and take part in environmental action when given the chance. In summary, learners in Tumauini South District express very positive attitudes toward the environment. This interpretation stands on the consistently high means, which shows that learners agree with statements that highlight responsibility, care for nature, and hope for environmental progress. They understand that environmental problems are serious and feel that they personally have a part to play. These findings are promising and suggest that when paired with the right support, these students can become active contributors to long-term environmental sustainability.

This finding connects well with studies that emphasized the importance of building environmental values during early education. For instance, Mónus (2022) explained that

school-based environmental programs contribute significantly to developing positive environmental mindsets, especially when supported by community engagement and experiential learning. Similarly, Yang et al. (2022) emphasized that when children are encouraged to reflect on environmental values through storytelling and real-life examples, their attitudes become more action-driven.

In addition, international perspectives such as those from Rousell and Cutter-Mackenzie-Knowles (2020) noted that emotional connection and belief in environmental change are essential to forming long-lasting environmental attitudes. This aligns with the current findings, where learners show strong emotional investment in the environment—something that can be further developed through classroom activities and school-based campaigns.

Locally, the findings reflect the spirit of DepEd environmental programs, especially the encouragement of active student involvement through YES-O and similar initiatives. However, while the results show positive attitudes, these need to be nurtured consistently, particularly in schools that lack regular environmental engagement activities. Teacher-led discussions, school projects, and community support all help strengthen these values, as emphasized in the study of Marpa (2020), but must be adapted to the specific needs and experiences of the learners.

3. What is the engagement of elementary learners of Tumauini South District on environmental issues?

Table 3
The Level of Engagement of Elementary Learners of Tumauini South District on Environmental Issues

Statement	Weighted Mean	Quantitative Description
1. I turn off lights and unplug appliances when not in use to conserve electricity.	3.64	Very High Engagement
2. I actively use or support the use of solar energy as a renewable energy source.	3.35	Very High Engagement
3. I participate in planting endemic trees in vacant community areas to prevent soil erosion and increase oxygen levels.	3.33	Very High Engagement
4. I avoid using plastic and Styrofoam to minimize environmental and human health hazards.	3.44	Very High Engagement
5. I make an effort to dispose of garbage properly and practice waste segregation.	3.55	Very High Engagement
6. I maintain good food ethics by minimizing leftovers and conserving drinking water.	3.39	Very High Engagement
7. I reduce the use of detergents to prevent environmental contamination of water sources.	3.33	Very High Engagement

8. I practice composting to create organic material that enhances soil quality for gardening.	3.43	Very High Engagement
9. I recycle and reuse non-biodegradable materials to reduce solid waste.	3.49	Very High Engagement
10. I use reusable water bottles or tumblers to minimize plastic waste instead of buying bottled water.	3.39	Very High Engagement
11. I contribute to efforts to conserve energy at home or in school.	3.46	Very High Engagement
12. I create or use compost bins to manage organic waste.	3.37	Very High Engagement
13. I actively join school activities related to environmental conservation.	3.47	Very High Engagement
14. I make posters or share information about environmental awareness.	3.29	Very High Engagement
15. I avoid buying products that harm the environment.	3.36	Very High Engagement
Overall Mean	**3.42**	**Very High Engagement**

Table 3 presents the level of engagement of elementary learners of Tumauini South District on environmental issues.

As seen in Table, learners reported a very high level of engagement across all items. The highest-rated behavior is "*I turn off lights and unplug appliances when not in use to conserve electricity*" with a mean of 3.64, showing that learners are consistent in simple energy-saving habits. This outcome illustrates that learners regularly practice saving electricity in their daily lives. The very high level of engagement is primarily due to lessons taught at home, where parents or guardians guide children to turn off lights, unplug appliances, and avoid wasting electricity. These prompts are given repeatedly, hence, conserving electricity becomes a daily habit rather than an occasional action.

In addition, families often describe electricity conservation in practical ways, such as saving money on electric bills and avoiding waste. This makes the practice easier for children to understand and follow. As a result, learners apply these habits not only at home but also in other places, showing a strong sense of responsibility toward energy conservation. This finding highlights the important role of the home environment in developing optimistic environmental behaviors, especially when family practices support what is taught in school.

Other top-rated actions include "*I make an effort to dispose of garbage properly and practice waste segregation", "I recycle and reuse non-biodegradable materials to reduce solid waste",* and *"I actively join school activities related to environmental conservation".* These results show that learners are not only aware of environmental issues but are also taking action, particularly in school or household settings. The lowest-rated item, "*I make posters or share information about environmental awareness*", still

falls under very high engagement. This suggests that while learners actively engage in physical practices such as recycling and conservation, they are slightly less involved in advocacy or communication-based activities. Another item with a slightly lower score is "*I participate in planting endemic trees in vacant community areas*", which could be due to limited access to community-driven environmental projects.

Overall, the mean of 3.42 indicates very high engagement among learners. Most learners are not only aware and concerned about environmental issues but are also applying what they learn in their daily lives. Ultimately, the data indicate that students in Tumauini South are actively involved in caring for the environment, particularly through behaviors practiced at home and in school. Their strong participation in daily eco-friendly habits shows that environmental education in the district is having a meaningful impact. However, expanding opportunities for them to express and communicate what they learn can further support their growth as responsible and informed individuals. This finding aligns with studies that recognize how practical activities help reinforce environmental learning. Arioder et al. (2020) demonstrated that activity-based teaching in science increased student participation and understanding of ecological topics. Similarly, Punzalan (2020) emphasized that while awareness among students is often high, engagement depends on access to opportunities and support from schools and communities. The involvement of learners in practices such as composting, recycling, and joining school initiatives shows that efforts under DepEd Order No. 52, s. 2011 are bearing fruit, especially where schools enable learners to take part in actual environmental tasks.

Moreover, this high level of engagement also speaks to the effectiveness of environmental programs embedded in the K–12 curriculum under Republic Act No. 10533.

This legislation pushes for ecological literacy through practical learning. However, the lower ratings on advocacy-type items suggest the need to develop communication-based activities that help learners speak up about environmental matters. This could include simple tasks like digital campaigns, class discussions, or drawing contests that promote environmental responsibility.

4. Is there a significant relationship between the level of awareness and attitude of elementary learners in the Tumauini South District towards environmental issues?

Table 4
Results of the Test of Significant Relationship Between the Level of Awareness and Attitude of Elementary Learners in the Tumauini South District Towards Environmental Issues

Variables	Pearson r-value	p-value	Analysis	Decision	Remarks
Level of Awareness and Attitude	0.663	$P < 0.001$	$P < 0.05$	Reject H_0	Significant

Table 4 reveals the results of the test of significant relationship between the level of awareness and attitude of elementary learners in the Tumauini South District towards environmental issues using Pearson r- test at 0.05 level of significance.

As shown in the table, the computed r-value is 0.663 which indicates a moderately strong positive relationship between the level of awareness and the attitudes of the learners. This suggests that learners with higher levels of awareness about environmental issues tend to demonstrate more positive attitudes toward environmental protection and stewardship.

Furthermore, the corresponding p-value is less than 0.001, which is less than the 0.05 level of significance. This leads to the rejection of the null hypothesis at this level of significance. Hence, there is a significant relationship between the awareness and attitude of the learners. This implies that improving learners' awareness of environmental issues may positively influence their attitudes on environmental issues. It also suggests that awareness plays a meaningful part in shaping learners' perspectives. When students learn about climate change, pollution, and environmental solutions, they are more likely to agree with ideas such as shared responsibility, conservation, and long-term protection of the environment.

This findings supports the findings of Jia and Yu (2021), that knowledge about environmental topics is linked to more favorable attitudes among students, especially when learning is reinforced both in school and at home. It also supports the observation that formal environmental education can shape awareness and positively affect mindset when combined with clear examples and local relevance (Arbuzova and Alexandrova, 2024).

In the local context, the connection between awareness and attitude is also encouraged by the Philippines' educational policies such as DepEd Order No. 52, s. 2011 and the K-12 program under RA 10533. These policies promote environmental content in subjects like Science and Araling Panlipunan, helping children understand environmental challenges and think more responsibly.

The findings show that students who are informed tend to care more about the environment. However, to further strengthen their attitude, schools can expand interactive lessons and provide hands-on learning experiences like community clean-ups or school gardening. These efforts could help turn environmental knowledge into a more meaningful and lasting concern.

5. Is there a significant relationship between the level of awareness and engagement of elementary learners in the Tumauini South District regarding environmental issues?

Table 5
Results of the Test of Significant Relationship Between the Level of Awareness and Engagement of Elementary Learners in the Tumauini South District Regarding environmental Issues

Variables	Pearson r-value	p-value	Analysis	Decision	Remarks
Level of Awareness and Engagement	0.646	P < 0.001	P < 0.05	Reject H_0	Significant

Table 5 shows the results of the test of significant relationship between the level of awareness and engagement of elementary learners in the Tumauini South District regarding environmental issues using Pearson r- test at 0.05 level of significance.

As gleaned in the table, the computed r-value is 0.646 and indicates a moderately strong positive relationship between the two variables. This means that learners who have higher levels of awareness about environmental issues tend to show higher levels of engagement in environment-related activities, practices, and initiatives.

On the other hand, the corresponding p-value is less than 0.001, which is less than the 0.05 level of significance. This leads to the rejection of the null hypothesis confirming that the relationship between awareness and engagement is significant. This implies that increasing learners' awareness may help enhance their engagement in environmental actions such as proper waste disposal, energy conservation, participation in school-based environmental programs, and supporting eco-friendly practices

This findings shows that awareness does not remain as knowledge alone—it often leads to participation in behaviors that help protect the environment. For example, students who are more informed about climate change and pollution tend to act more consciously, such as turning off lights or avoiding single-use plastics. These are small but meaningful actions that reflect engagement in environmental care. Given this result, it becomes even more important for schools not to stop at classroom instruction. Schools should guide learners toward real-life application through projects like school gardening, clean-up drives, and recycling programs. When knowledge is reinforced through actual tasks, the likelihood of developing consistent engagement becomes stronger. The results support what was found in earlier studies, like that of Punzalan (2020), which reported a positive connection between what students know about environmental issues and how they behave.

However, that study also pointed out that not all students translate knowledge into regular practice, highlighting the importance of consistent reinforcement through school and home. In the same way, Hoffmann and Muttarak (2020) emphasized that education increases the likelihood of real environmental actions, including recycling and energy-saving behaviors. In the Philippine context, this outcome reflects the intent of DepEd Order No. 52, s. 2011, which urges schools to not only teach environmental lessons but

also involve students in environmental activities. Programs like Youth for Environment in Schools Organization (YES-O) are designed to support this connection between awareness and action.

6. Is there a significant relationship between the level of attitude and engagement of elementary learners in the Tumauini South District towards environmental issues?

Table 6
Results of the Test of Significant Relationship Between the Attitude and Engagement of Elementary Learners in the Tumauini South District Regarding Environmental Issues

Variables	Pearson r-value	p-value	Analysis	Decision	Remarks
Level of Attitude and Engagement	0.716	$P < 0.001$	$P < 0.05$	Reject H_0	Significant

Table 6 presents the result of the test of significant relationship between the attitude and engagement of elementary learners in the Tumauini South District regarding environmental issues using Pearson r- test at 0.05 level of significance.

As shown in the table, the computed r value is 0.716, which indicates a strong positive relationship between learners' attitudes toward environmental issues and their level of engagement. This means that learners who have more positive attitude toward the environment are more likely to participate actively in environmental activities, adopt eco-friendly practices, or engage in initiatives that promote environmental protection.

Moreover, the corresponding p value is less than 0.001, which is less than the 0.05 level of significance. This leads to the rejection of the null hypothesis at this level of significance. Thus, there is a significant relationship between attitude and engagement toward environmental issues. This implies that attitude has a strong influence on behavior. When students believe that environmental protection is important, they are more likely to act in ways that reflect this belief.

The finding connects with the idea of Du et al. (2021) and Jia and Yu (2021), that personal values and family influence can shape how students think about and respond to environmental issues. When students hold positive views about the environment, they are more motivated to engage in activities that reflect those beliefs. Similarly, Marpa[62] observed that student participation improves when attitudes are shaped early through effective lessons and hands-on activities in schools.

This result also supports the purpose of DepEd Order No. 52, s. 2011, which highlights the need to promote environmental responsibility through both teaching and student involvement. When schools help learners develop strong environmental attitudes,

there is a higher chance that learners will act on those beliefs, both in school and in their homes.

Conclusions

Anchored on the findings of this study the researcher had come up with the following conclusions:

Elementary learners in Tumauini South District demonstrate a strong grasp of environmental issues and maintain a consistent interest in protecting nature. Evidence shows that they understand fundamental concepts related to climate change, conservation, and waste management, while also holding personal convictions that favor environmental stewardship. Their daily routines reflect eco-friendly practices both at school and at home, though participation in advocacy-focused activities is less frequent. Findings further highlight that awareness is closely tied to both attitudes and engagement, with attitudes showing the strongest influence on actual behavior.

Overall, these patterns suggest that knowledge, values, and everyday practices reinforce one another. Environmental education in the district has left a meaningful impact, providing learners with a solid foundation for lifelong responsibility toward the environment.

Recommendations

As an offshoot of the conclusions and the findings, the following recommendations are offered:

1. For the Schools in the Tumauini South District

● Expand efforts to increase awareness not only among learners but also within their communities.

● Strengthen environmental lessons with relatable examples and experiences.

● Invite community members or parents to share their perspectives, helping learners connect knowledge with values shared across generations.

● Lnk classroom learning with active environmental projects like school-based recycling programs, garden maintenance, or energy-saving campaigns.

● Provide more activities that support student involvement in communication-based environmental tasks. These can include poster-making contests, classroom presentations, and short videos that allow students to share what they know.

● Continue strengthening environmental education through experiential and activity-based learning strategies. Collaboration with parents during school-based environmental programs should also be encouraged to reinforce learning beyond the classroom.

● Design learning experiences that shape positive environmental values. Programs like YES-O and science clubs should include regular campaigns, not only during Science Month or Earth Day. These programs can invite students to reflect on their attitudes and propose their own eco-friendly actions. Teachers can also recognize student efforts during flag ceremonies or in bulletin boards to motivate sustained involvement.

2. For Teachers

● Integrate more hands-on activities, such as school gardening, clean-up drives, and environmental campaigns, to sustain learners' high levels of awareness and engagement.

● Include more reflection-based and value-oriented lessons to strengthen the positive attitudes already present among learners. Storytelling, environmental journaling, or classroom discussions that highlight real-life situations can help sustain their sense of responsibility and optimism.

● Share success stories and successful local initiatives.

● Include more discussions on current environmental events and global agreements while also involving families in take-home environmental activities. Activities that highlight the importance of collective awareness, such as barangay-based campaigns or community tree-planting events, can be undertaken to strengthen learners' perception of shared knowledge.

● Connect science concepts with local environmental issues so students can build informed opinions based on what they see around them.

3. For Parents

● Actively support and reinforce environmental education at home by increasing their awareness, positive attitudes, and engagement in environmental practices. Simple actions such as practicing waste segregation, conserving water and electricity, and involving children in home-based environmental activities (e.g., gardening and recycling) can strengthen learners' environmental values.

● Regular communication between parents and schools to ensure consistency between environmental lessons taught in school and practices observed at home.

4. The Local Government Unit (LGU)

● Collaborate closely with schools and communities in implementing environmental programs.

● Support schools by providing resources, technical assistance, and community-based projects related to waste management, tree planting, and disaster preparedness. Involving parents and learners in LGU-led environmental initiatives can strengthen

community participation and promote shared responsibility in addressing local environmental issues.

● Forge stronger sense of community participation including other stakeholders in awareness campaigns and school events can address the gap between personal knowledge and perceived community awareness. A more connected effort between school and home can enhance the reach of environmental education.

5. Future Researchers

● Include other grade levels or other locale to compare awareness, attitude, and engagement across different contexts. Qualitative studies such as focus group discussions or interviews can be conducted to explore learners' thoughts in more detail.

● Examine the effects of specific environmental programs, such as school gardening or zero-waste campaigns, to assess which practices lead to stronger engagement and longer-term environmental responsibility.

Compliance with Ethical Standards

This study observed the necessary ethical standards in the conduct of research involving elementary learners. Before data gathering, the researcher secured permission from the Schools Division Office, the School District Supervisor, school heads, and classroom teachers to ensure that the study was properly authorized and coordinated. Since the respondents were Grade 6 learners, appropriate consent from concerned authorities and parents/guardians, as well as the learners' assent, were considered essential prior to their participation. The purpose of the study was clearly explained to the participants in a manner appropriate to their level of understanding, including their right to participate voluntarily and to withdraw at any point without fear of penalty or negative consequence. The confidentiality and anonymity of the respondents were strictly maintained by ensuring that no names or personally identifying information were disclosed in the presentation, analysis, and interpretation of data. The information gathered was used solely for academic and research purposes. The researcher also ensured that the questionnaire did not contain harmful, offensive, or sensitive questions and that the data-gathering process did not disrupt regular class activities. Furthermore, the study upheld honesty, objectivity, and integrity in the collection, treatment, analysis, and reporting of data. Proper acknowledgment of sources and institutional assistance was observed to avoid plagiarism and to give due credit to individuals and offices that supported the completion of the study. Overall, the study was conducted with respect for the rights, dignity, privacy, and welfare of all learner-respondents and participating schools in Tumauini South District.

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Corresponding author: *pagatpatanrosemarie21@gmail.com*