AWARENESS AND PRACTICES ON SOLID WASTE MANAGEMENT AMONG GRADE 6 PUPILS

Gemma T. Biol[1], Ma.Desiree M. Laurito[1], Ceazane Lou R. Quimpan[1], & **Nil Christopher V. Anania[2]**

[1] Department of Teacher Education, UM Panabo College, Panabo City, Philippines

[2] Faculty, Department of Teachers Education, UM Panabo College, Panabo City, Philippines

Email address: ananianilchristopher@gmail.com

ABSTRACT

This study aimed to establish the relationship between awareness and practices on solid waste management among Grade 6 pupils. The indicators of the practices on solid waste management were segregation, reduce, reuse, recycling, and disposal. The researchers used quantitative, random sampling, and descriptive correlation design, and the statistical tools were Mean and Pearson-r. The mean result of awareness is 4.61 with a P-value of 0.000, and the mean result of the practices is 4.68, which is less than 0.05 of significance. Moreover, there is a significant relationship between Awareness and Practices on solid waste management among Grade 6 pupils. This shows that students' awareness of solid waste management affects the students' practices. It implies that awareness is essential in molding students' solid waste management practices.

Keywords: *Awareness, Practices, Solid Waste, Segregation, Reduce, Reuse, Recycle and Disposal*

INTRODUCTION

Waste can cause various issues that harm people's health, well-being, and the environment in schools, colleges, and universities. People worldwide know the effects of incorrect garbage disposal procedures, but applying these practices with a lousy attitude leads to chaos. Solid waste management is a significant problem in the country due to discrepancies in solid waste collection, segregation, and manufacturing (Wynne et al., 2018). The Philippines is regarded as one of the biggest producers of plastic garbage in the oceans. The failure to strictly enforce solid waste management standards has resulted in unmanaged trash, particularly plastics that gradually damage the aquatic bodies (Diola et al., 2020). Individuals frequently disregard solid waste management practices. Poor solid waste management may pose health risks to residents, as well as environmental issues which includes contaminated water and soil pollutants, poor air quality, and flash floods, as well as other socioeconomic issues (Senate Economic Planning Office, 2017).

Moreover, our environment has been facing a waste crisis because of attributes, so solid waste management practices should be fortified (Choi, 2016). Properly managing waste is essential for ensuring a healthy living environment. Strict attachment to proper waste management practices in society will protect residents from harmful and dangerous environmental conditions while also improving people's living standards (Adogu et al., 2015).

People's attitudes toward garbage will shift because of increased solid waste management awareness. People grew up believing that garbage is garbage and that it should not be touched or approached. They previously thought that all types of garbage should be disposed in a single container (Sarino, 2014). According to Baula, as stated by Punongbayan (n.d), awareness followed by involvement is the key for

students to be included in the waste management program of the institutions where successful and sustainable implementation of good waste management practices may be accomplished. Colleges and universities are essential for influencing social behavior that is good for the environment and society (Rahmada et al., 2019). Solid waste management awareness aims to educate people about managing waste to have a clean environment. Hence, awareness is one of the essential components for students to engage in proper waste management programs at higher education institutions on which an efficient and sustainable objective can be acquired.

Furthermore, this study provides relevant data to raise students' awareness of solid waste management and practices. Researchers discovered that it is urgent to determine how much students know about solid waste management. Thus, students' awareness and practices are useful in determining what interference should be implemented and becoming aware of solid waste management practices. This study aims to assess the students from Grade 6 to educate them about solid waste management, to stimulate their awareness and practices when solid waste management occurs. Educating and providing information through television, radio, and social media are the sources of this awareness. According to UNESCO, environmental education can raise awareness of the environment and its associated challenges. It fosters the specific skills and expertise required to deal with ecological challenges and the attitudes, motivations, and commitments needed to make decisions and take responsible actions.

Researchers are eager to conduct this study because there is no specific study about awareness and practices on solid waste management among Grade 6 pupils. Researchers can assist in evaluating Grade 6 students' existing waste management processes. Researchers can find areas for improvement and build interventions to promote positive behavior change by knowing their waste patterns and attitudes. Pupils can be encouraged to embrace environmentally friendly

actions involving trash reduction, recycling, and proper waste segregation through focused education and awareness initiatives.

Based on the Environmental Protection Agency (n.d.), environmental education is a continuous process by which people and communities become aware of their surroundings and develop the attributes, abilities, and passions to act to address current and future problems. This aim at making students fully aware of the damages of solid waste to the environment and educate them to be more environmentally conscious. Education, an essential and accessible way to address rubbish, contributes to increased awareness of environmental issues and finding suitable approaches for long-term growth (Przydatek, 2019).

Awareness, defined as the perception or awareness of an occurrence is acknowledged as the first stage, serving an essential role in likely behavioral change and successful teaching, particularly concerning environmental concerns (Twumasi, 2017).

Solid Waste Management Practices refer to the actions taken to generate, store, collect, transport, treat, recycle, incinerate, use a flame torch, recover resources, or dispose of solid waste (Marello et al., 2014). Solid waste management practices are essential to lessen the problem of solid waste management that has caused harm to people's health and the environment. Pollution levels have begun to increase quickly. The use of plastics and other non-biodegradable substances has only exacerbated the problem.

METHOD

The researchers used random sampling in the selection of respondents that gave the best information about the problem investigated. Random sampling is a method of statistical analysis used in research and surveys to pick a particular group of persons or things from a broader population to ensure each participant has an equal

probability of being included in the sample. The purpose of random sampling is to generate a representative sample that correctly represents the characteristics of the entire population, enabling researchers to draw more confident inferences and conclusions (Smith, 2015). The participants of this study were forty (40) students from grade six (6) pupils in Nanyo Central Elementary School who answered in a learning environment about solid waste management. Conducting research involving young children entails careful consideration of legal and moral concerns to ensure their safety and protect their rights. Researchers ask permission to conduct study from the school principal and obtain informed consent from the parents or legal guardians and assent from the minors themselves. Assent means that the minors were be informed about the study in a language they can understand and be given the opportunity to express their willingness to participate.

*Materials/Instruments.*The research instrument used by the researchers to collect data are through questionnaires and the students rated each item with the corresponding scale based on their knowledge about awareness and practices on solid waste management. The following scales are used to measure students' awareness of solid waste management and practices among Grade six (6) pupils currently enrolled in Nanyo Central Elementary School.

The survey questionnaires were validated to make sure their content validity. The researchers adapted a questionnaire from the study of Paghasian, (2017) entitled “Awareness and Implementation of Solid Waste Management (SWM) Practices. These questions included information about the respondent's awareness and practices on solid waste management that was gathered, calculated by the statistician and interpreted by the researchers. This research was validated by two-panel

validators. Both independent and dependent variables were tested and consequently passed in pilot testing with reliability of 0.89 and 0.92, respectively. This implies that the item variables are consistent and excellent. A Likert scale is a type of scale used in this survey research. It measures the awareness and practices on solid waste management. The questionnaires are answerable by rating 1-5, which are interpreted as (1) never, (2) seldom, (3) sometimes, (4) often, (5) always. The research participants will rate themselves from 1-5 based on their attitudes and experiences.

The scale used to determine the levels of awareness of the students are as follows: (1) the scale of 4.20-5.00 is considered very high, which means that they are always mindful. (2) 3.40-4.19 is considered high, which means that they are often mindful. (3) 2.60-3.39 is considered moderate, which means that they are sometimes mindful. (4) 1.80-2.59 is considered low, which means that they seldom mindful. (5) 1.00-1.79 is considered very low, which means that they never mindful. Meanwhile, the scales used to determine the level of practices on solid waste management of the students are as follows: (1) the scale of 4.20-5.00 is considered very high, which means that they always practice solid waste management. (2) the scale of 3.40-4.19 is considered high, which means that they often practice solid waste management. (3) 2.60-3.39 is considered moderate, which means that sometimes they practice solid waste management. (4) 1.80-2.59 is considered low, which means that they seldom practice solid waste management. (5) 1.00-1.79 is considered very low, which means that they never practice solid waste management.

Design and Procedure. This study used the descriptive-correlation approach. Descriptive correlation research is a quantitative

method that aims to describe and examine the relationship between variables. It involves measuring and analyzing variables of interest to determine the strength and direction of the relationship without manipulating any variables. This research approach focuses on finding similarities and relationship in the data (Jones& Smith, 2019).

In conducting the survey, it took one week to distribute the survey questionnaire to all participants. In collecting the data, the following steps were used. First, the questionnaire was submitted to the validator for further remarks and suggestions. Second, the researchers asked for permission from the Class advisers and Principal's office to conduct the study .A request letter and assent/consent form was sent to the Nanyo Central Elementary School. Next the researchers personally distributed the questionnaire to the selecting participating students in their classroom. Lastly, after the distribution of questionnaires, the data were collected, tallied, and tabulated. In order to analyze the data, the researchers used the following statistical tool: Mean, it was used to determine the level of awareness and practices on solid waste management. Pearson-r was used to determine the significant relationship between awareness and solid waste management practices in research question number three.

RESULTS AND DISCUSSION

Awareness on Solid Waste Managent among Grade 6 Pupils

Shown in Table 1 is the awareness of solid waste management of grade 6 pupils. It presented with a mean result of 4.61, and the interpretation was very high; thus, the student's Awareness of SWM was resilient and was informed about its significance. It also means that the pupils have sufficient knowledge about solid waste management.

According to UNESCO, environmental literacy may raise awareness about the environment and its associated concerns.

Raising the extent of awareness in school will enhance the level of behavior and practice regarding the issue of solid waste management. This shows that awareness and practices work together to help us to achieve our goals and become better versions of ourselves. The relationship between understanding and practices is significant because awareness informs our practices, and our practices reinforce our awareness. This relationship impacts our daily lives by helping us make informed decisions, understand ourselves and the world around us, and achieve personal growth and development (Nawawi et al., 2022).

Table 1: Awareness on Solid Waste Managent among Grade 6 Pupils

Variables	SD	Mean Result	Description
Awareness	0.63	4.61	Very High

Practices on Solid Waste Management among Grade 6 Pupils

Shown in Table 2, Grade 6 pupils presented very high knowledge about practices on solid waste management. Similarly, Molina & Catan, (2021) it was determined that Senior High School students had very high knowledge of solid waste management and followed the proper practices. Effective disposal practices are also vital for school initiatives and endeavors (lfegbesan et al., 2017). The tasks performed should be intellectual, emotional, and physical, Parts of the brain that control movement. Pupils must have knowledge and attitudes toward waste management and demonstrate such understanding and viewpoint through their actions (Muljaningsih & Galuh, 2018).

The mean result for segregation was 4.65, meaning it was very high that Nanyo Elementary School among grade 6 pupils followed SWM principles in terms of segregation. The pupils successfully

separated the non-biodegradable items from the biodegradable ones, recyclable and nonrecyclable. Pupils had solid waste management knowledge in terms of segregation. The description of renewable from non-biodegradable is regarded as very high. Hence, the majority of Grade 6 pupils possess expertise in solid waste management in terms of segregation.

In terms of reduction, the mean result was 4.64, which is considered very high. Students bring their water containers and a reusable lunchbox to school. Each time the pupils exhibited caution and accountability in the trash they generated. The pupils are vigilant and must take responsibility for any materials they generate. Pupils pack their lunch in a reusable lunch box and provide water in recyclable bottles rather than buying water in plastic bottles that are only used at school.

The findings indicated that the mean result for reuse was high, at 4.70. Pupils effectively reuse blank and scratch papers, groceries bags, and washable food containers. The table's highest weighted average value of 4.75 was found on item 1. It means the pupils reuse the old materials instead of buying a new one. The pupils discovered maintaining unoccupied papers, utilizing them as scratch paper, and repurposing the remaining paper to make a notepad.

The mean result for recycling is 4.75, a very high. Despite knowing about recycling, the students transformed much of the waste into new resources. It indicated that the most significant average weighted mean of 4.80 resulted as "very high" anchored on item 2," I make decors out of plastic wrappers and other colorful waste materials". Recycling minimizes the requirement for raw materials to be extracted and manufactured. Pupils work to protect the environment by reusing items such as cardboard, plastics, paper, and minerals. Students are educated on the importance of recycling and actively participate in recycling efforts.

The mean result for disposal was 4.68, which extremely high. Proper garbage disposal contributes to a healthy and clean atmosphere on the school campus. As indicated in the table, I dump waste things and leave them in the garbage received the highest average weighted value of 4.78. I put hazardous/toxic/special rubbish in garbage cans, such as laboratory leftovers (chemicals) or electronic waste. "Very high" is the interpretation. Proper trash disposal adds to student safety. It aids with the prevention of injuries or collisions resulting from hazardous waste materials, pointed objects, or fragmented material. Pupils can avoid any possible harm by putting waste in authorized containers and adhering to school safety policies.

Table 2: Practices on Solid Waste Management among Grade 6 Pupils

Variables	SD	Mean Result	Descriptive Equivalet
PRACTICES			
Segregation	0.66	4.65	Very High
Reduce	0.58	4.64	Very High
Reuse	0.58	4.70	Very High
Recycle	0.48	4.75	Very High
Disposal	0.61	4.68	Very High

Correlation between Awareness and Practices on Solid Waste Management

The correlation between awareness and practices on Solid Waste Management is shown in Table 3. The overall mean of awareness is 4.61, with the description of very high, and the total mean of practices is 4.68, with the description of very high. The r-value of awareness and practices is 675, and the p-value is 0.000. The null hypothesis is rejected; since the p-value is less than 0.05, there is a

significant relationship between awareness and practices on solid waste management. Indicated that at this point, pupils are ready to support and conquer various issues on solid waste management (Lad et. al., 2020).

Table 3: Correlation between Awareness and Practices on Solid Waste Management

Variables	S.D	Mean	Description	r-value	p-value
Awareness	0.63	4.61	Very High	675.	0.000
Practices	0.59	4.68	Very High		

CONCLUSION

From the outcome analysis of the research, here are the conclusions regarding the Awareness and practices on Solid Waste Management among Grade 6 pupils. The result of awareness garnered 4.61, which has the descriptive equivalent of very high, meaning the pupils are fully aware of solid waste management. On the other hand, the dependent variable, which is the practices, gained an average weighted mean of 4.68 with the descriptive equivalent of very high, which means that the pupils properly practice solid waste management. As we conducted our final survey at Nanyo Central Elementary School, grade 6 pupils have more persistence in awareness and practices on SWM to improve their sustainable lifestyle and concluded that there is a significant relationship between awareness and practices on solid waste management. Effective solid waste management requires a combination of individual responsibility and collective action. When individuals are aware of the potential harm caused by improper waste

disposal, they are more likely to take steps to reduce waste generation and properly dispose of waste.

In addition to individual action, effective solid waste management requires collective action from schools, local governments, and communities. Governments can be crucial in implementing policies and regulations to ensure proper waste disposal and management. Overall, increasing awareness and promoting sustainable waste management practices are essential steps toward reducing the negative impact of solid waste on the environment and human health.

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