SOLID WASTE MANAGEMENT AWARENESS AND PRACTICES IN PALAYAN CITY, PHILIPPINES: A MODERN-DAY

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ABSTRACT

The current waste management program in the City of Palayan clearly defines the responsibilities of both the city and the barangays in promoting garbage diversion and waste reduction. Citizens should learn about the five R's of solid waste management (reduce, reuse, recycle, dispose, and segregate) to achieve this goal. One method of managing solid waste is called "segregation at source," which entails sorting trash at the point of generation. Researchers in Palayan City, Philippines set out to gauge local knowledge and habits surrounding solid waste management. Researchers counted cases, tallied percentages, and calculated means and standard deviations to quantify the extent of its impact. The city of Palayan in the Philippine province of Nueva Ecija served as the study's primary location. The residents of Palayan City's Barangays serve as the respondents. Analysis of the data was performed using standard statistical methods, such as the percentage, frequency, and weighted mean. According to the findings, the vast majority of respondents backed the idea of purchasing only essential items and agreed that recyclables should be separated before being collected. Individuals who participated in the survey also knew about R.A. Philippine Clean Water Act of 2004 (Republic Act No. 9275). The vast majority of responders were aware that littering, throwing rubbish, and depositing trash in public spaces like roadways, esteros, and so on are

all illegal. Respondents should not only be aware of the problems associated with solid waste, but should also put their knowledge to use in order to alleviate those problems.

Keywords: Solid Waste Management, Solid Waste Awareness, Solid Waste Practices

INTRODUCTION

Waste treatment is an integral part of solid waste management alongside collection, transportation, and final disposal. It focuses on the techniques typically employed to mitigate the negative impacts that man-made materials can have on human health, the environment, and aesthetics. It promotes economic growth and raises general standards of life while minimizing or eliminating any potential harm to the environment or human health.

The Philippines is a Southeast Asian archipelago comprised of thousands of individual islands. Urbanization, a rising middle class, and a big and young population have all contributed to the Philippines' robust and quick economic growth, as reported by World Bank (2020). Solid waste generation has increased in the Philippines, according to Castillo and Otoma (2013). It's all considered "solid garbage" under the Ecological Solid Waste Management Act of 2000 (Republic Act No. 9003), which covers everything from non-hazardous institutional and industrial waste to street sweepings to construction debris to agricultural waste. It is also evident that worldwide production of solid trash is growing. The World Bank (2019) estimates that annual worldwide waste generation would increase from 2.01 billion tons in 2016 to 3.40 billion tons in 2050, an increase of 70%. According to Al-Katib et al. (2010), the growing volume of trash poses a challenge for waste management.

As more people learn about the need of solid waste management, their attitudes toward trash will shift. Many have been taught that any contact with trash is bad and that they should be cautious around it at all costs. According to Sarino (2014), people used to think that it didn't matter what kind of rubbish was being thrown away, as long as it was in the same trash can. The technical, political, legal, socio-cultural, environmental, and economic considerations, as well as the availability of sufficient resources, are all factors that must be considered in solid waste management, as stated by Al-Katib et al. (2010). If any one of these components is missing, the solid waste management program will be doomed to failure. Marello and Helwege

(2014) and Nolasco, Baguia, and Padua (2019) both agreed that it is now more important than ever to educate the public about proper solid waste management. One of the four most important aspects of any solid waste management program is education, as emphasized by Villanueva (2013). But if there isn't a well-thought-out plan for getting the word out about solid waste management, the people as a whole will be less well-informed and less likely to participate in (Nolasco, Baguia, & Padua, 2019).

The current waste management program in the City of Palayan clearly defines the responsibilities of both the city and the barangays in promoting garbage diversion and waste reduction. Citizens should learn about the five R's of solid waste management (reduce, reuse, recycle, dispose, and segregate) to achieve this goal. The goal of segregation at source, a method of solid waste management, is to maximize recycling and reusing of resources while decreasing the total amount of trash that needs to be collected and disposed of (Article 2, Section 3, RA 9003). Reducing waste involves avoiding purchases of high-waste products, as defined by Ambayic et al. (2013). Besides reducing the amount of waste sent to landfills, recycling also prevents the consumption of raw materials that would have been used to make a replacement item. It recycles things that would otherwise be thrown away by transforming them into something useful, although in the process, the original items may lose their integrity.

Participation in community clean-up efforts can have both short- and long-term effects. Community cleanups should serve as impetuses for lasting shifts in mindset and encourage the widespread implementation of practices (like recycling) that can have far-reaching effects on garbage disposal. In that scenario, the streets of Palayan City along the Nueva Ecija-Aurora Road route are regularly swept by a street sweeper. They were engaged by City Environmental & Natural Resources Office (CENRO), and given a daily wage of Php250.00. Furthermore, the City of Palayan developed several groups, like the Aliance of Youth on Service (AYOS) and the Junior Citizen Organization (JCO), to carry out various cleanliness campaigns.

There are many contexts in which recycling could result in energy savings. Reuse is the process of repurposing materials for another application without changing their chemical or physical qualities (Art.2, Sec. 3, R.A 9003). Reusing products reduces waste because less of them need to be manufactured from scratch, which in turn saves energy and materials (Griffiths et al., 2010). The purpose of this research was to assess and analyze the level of knowledge and

behavior of Palayan City residents in regards to solid waste management. This will improve their quality of life by allowing them to reside in a less hazardous setting.

Researchers in Palayan City, Philippines set out to gauge local knowledge and habits surrounding solid waste management.

To be more specific, this study aims to:

1. How may the respondents practice their solid waste management in terms of:

    1.1 Segregation;

    1.2 Reduce;

    1.3 Reuse;

    1.4 Recycle; and

    1.5 Disposal

2. How may the respondents assess their awareness on solid waste management in terms of

    2.1 Relevant Laws on Solid Waste;

    2.2 Prohibited Activities;

    2.3 Role and Responsibilities; and

    2.4 Sources on Solid Waste Management?

MATERIALS AND METHODS

Methods

Researchers counted cases, tallied percentages, and calculated means and standard deviations to quantify the extent of its impact. Descriptive statistics were also used to evaluate the businesses of the respondents in this study. Sheard (2018) argues that quantitative research, in contrast to qualitative research, uses measurable data. Statistical methods help to compile, examine, and present numerical information. Descriptive analysis is one kind of data analysis

ISSN 2582 8088
Volume 3 Issue 6 [November December 2022]

that can be used to better understand the data by providing context, examples, or summaries that reveal universally applicable patterns.

Research Locale

The city of Palayan in the Philippine province of Nueva Ecija was the site of this investigation. Palayan City's Barangays serve as the selection criteria for the respondents.

Respondents of the Study

This research aimed to collect data from locals of Palayan City, Nueva Ecija, between the ages of 15 and 60. A total of 9,447 people were used to select the sample size of 370. The sample size was calculated with Raosoft Calculator, with a 95% confidence level, a 5% error margin, and a 95% error margin of error.

The researchers in this study used a non-probability sampling method called "purposive sampling." One of the most common forms of non-probability sampling is the purposive sample. By using their own knowledge and experience, researchers use judgment sampling to pick a respondent for further interviews.

Research Instrument

This study's findings were gleaned from a small-scale face-to-face survey, an in-depth interview, and the use of other online flat forms like Messenger, all of which relied on a database for data storage and analysis. The primary tool for all quantitative outcome research strategies and studies is survey research.

Questions on a survey questionnaire are arranged in a logical order to help researchers gather the information they need. There were two sections to the survey forms:

Assessment of Solid Waste Management Practices is Presented in Section I. It consists of the five steps of sorting, reducing, reusing, recycling, and finally disposing. This section of the survey was designed using a modified 4-point Likert scale (Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1)). (1). The participants were asked to evaluate each statement and complete the accompanying questionnaire. Both "Solid waste management awareness and practices among senior high school students in a state college in Zamboanga City" by Molina, R. A., and "Awareness and practices on solid waste management among

college students in Mindanao State University Maigo School of Arts and Trades" by Paghasian, M. C. (2017) served as inspirations for this study.

Evaluation of Solid Waste Management Awareness is in Section II. There are four sections to this document: solid waste laws, prohibited activities, roles and responsibilities, and finally, solid waste management awareness sources. The instrument's authors chose to use a modified 4-point Likert scale for this section (with Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1) as the extremes) (1). Participants were asked to rate the statements and complete the accompanying questionnaire. It was based on the studies of Paghasian, M. C. (2017) and Molina, R. A., & Catan, I. (2021), respectively titled "Solid waste management awareness and practices among senior high school students in a state college in Zamboanga City," and was adapted from these studies.

Interviews with other consumers were conducted to ensure the research instrument's reliability and validity, and suggested changes and edits were incorporated into the final version.

Data Gathering Procedure

Researchers started collecting data and material from previous studies, papers, and the internet after the issue was approved. The data was used to inform the development of the questionnaire, which was then reviewed by the researcher's superiors. The instrument's reliability coefficient was found to be.860 after extensive testing, indicating high levels of internal consistency. This study's validity was validated by a review by subject matter experts who gave the final research instrument a weighted mean score of 4.80 (with a verbal interpretation of "very good").

After the surveys were sent out, we collected the completed ones and totaled the results.

Data Analysis Techniques

There was encoding, tallying, and analysis of the data gathered there. The collected data was examined using statistical methods like the percentage, frequency, and weighted mean. The results were measured against the following criteria.

Table 1. Scales for Interpretation

Scale	Mean Range	Interpretation	Description

4	3.26-4	Strongly Agree	Highly in favor
3	2.51-3.25	Agree	In favor
2	1.76 – 2.5	Disagree	Not in favor
1	1 – 1.75	Strongly Disagree	Highly not in favor

Table 1 shows the scales used by the researcher in interpreting the data. Under this, the researcher assessed the frequency of use of the Awareness and Practices of solid waste management of the respondents using the 4 -point Likert scale.

RESULTS

Practices on Solid Waste Management

- **Segregation**

Table 2. Segregation

	Segregation	**Weighted Mean**	**Rank**	**Verbal Description**
1.	I segregate biodegradable (paper, banana peels, cardboard, and vegetables) and non-biodegradable (plastic toys, glass, steel, rubber)	1.77	4	STRONGLY DISAGREE
2.	I separate recyclable wastes (paper, cardboard, plastic bottles) from non-recyclable (food wastes, leaves, twigs)	2.33	2	DISAGREE
3.	I separate non-harmful wastes from toxic and hazardous wastes	1.97	3	DISAGREE

	such as pentel pens, laboratory chemicals, ink, cell batteries and others.			
4.	I mix all the garbage in one garbage container.	1.61	5	DISAGREE
5.	I segregate recyclable items for collection	3.12	1	STRONGLY AGREE

The researchers found out that one of the practices on solid waste management pertaining to segregation is "I segregate recyclable items for collection" with a weighted mean of 3.12 with a verbal description of **Strongly Agree**. On the other hand, "Innovative Technology" got the lowest weighted mean of 1.61 with a verbal description of **Disagree**.

- ***Reduce***

Table 3. Reduce

	Reduce	**Weighted Mean**	**Rank**	**Verbal Description**
1.	I practice my solid waste management by using an eco bag and the like materials.	1.56	4	STRONGLY DISAGREE
2.	I practice my solid waste management by using reusable items rather than single use items	3.41	2	STRONGLY AGREE
3.	Saying no to plastic if only have few items bought	1.12	5	STRONGLY DISAGREE
4.	Buying important/necessary items only	3.66	1	STRONGLY AGREE
5.	Converting food waste into animal feed	2.04	3	STRONGLY AGREE

The researchers found out that one of the practices on solid waste management pertaining to reduce is "Buying important/necessary items only" with a weighted mean of 3.66 with a verbal description of **Strongly Agree**. On the other hand, "Saying no to plastic if only have few items bought" got the lowest weighted mean of 1.12 with a verbal description of **Strongly Disagree**.

- **Reuse**

Table 4. Reuse

	Reuse	Weighted Mean	Rank	Verbal Description
1.	I reuse my old materials than buying a new one.	3.09	3	AGREE
2.	I reuse grocery bags / plastic bags	3.59	1	STRONGLY AGREE
3.	I reuse washable food containers	3.12	2	AGREE
4.	Intact and unused toys and closed are given to the less fortunate	2.33	5	AGREE
5.	Compostable waste is converted to fertilizers	2.58	4	AGREE

The researchers found out that the majority of the respondents one of the practices on solid waste management pertaining to Reuse "I reuse grocery bags/ plastic bags" got the highest weighted mean of **3.59** with a verbal description of **Strongly Agree** . On the other hand, the researchers also find out that "Intact and unused toys and closed are given to the less fortunate" got the lowest weighted mean of **2.33** with a verbal description of **Agree.**

- **Recycle**

Table 5. Recycle

	Recycle	Weighted Mean	Rank	Verbal Description

1.	I convert or redesign waste materials into a new product.	1.54	3	STRONGLY DISAGREE
2.	I make decors out of plastic wrappers and other colorful waste materials.	1.16	4	STRONGLY DISAGREE
3.	I ignore the importance of recycling	3.50	1	STRONGLY AGREE
4.	I initiate generating-income out of waste materials	2.67	2	AGREE

According to the findings, the researchers found out that one of the practices on solid waste management pertaining to recycle "I ignore the importance of recycling" got the highest weighted mean of **3.50** with verbal description of **Strongly Agree** on the other hand "I make decors out of plastic wrappers and other colorful waste materials" got the lowest weighted mean of **1.16** with verbal description of **Strongly Disagree.**

- **Disposal**

From the findings, the researchers found out that one of the practices on solid waste management pertaining to disposal "I throw and left my garbage anywhere" got the highest weighted mean of **3.50** with verbal description of Strongly **Agree**. From the other hand "I throw waste in proper trash bins" got the lowest weighted mean of **1.60** with verbal description of **Strongly Disagree**.

Table 6. Disposal

	Disposal	**Weighted Mean**	**Rank**	**Verbal Description**
1	I throw and left my garbage anywhere	3.50	2	STRONGLY AGREE
2	I burn waste materials.	2.38	3	DISAGREE

3	I dispose biodegradable wastes into a compost pit	3.21	1	STRONGLY AGREE
4	I throw waste in proper trash bins	1.60	4	STRONGLY DISAGREE

AWARENESS ON SOLID WASTE MANAGEMENT

Relevant Laws on Solid Waste Management

Table 7. Relevant Laws on Solid Waste Management

	Relevant Laws on Solid Waste Management	**Weighted Mean**	**Rank**	**Verbal Description**
1	I am aware of presidential decree No. 825 or also known as citizens in the Philippines must clean their own surroundings	1.30	4	STRONGLY DISAGREE
2	I am aware of R.A. 9003 or also known as ecological solid waste management act	2.59	3	AGREE
3	I am aware of R.A. 8749 or also known as Philippine Clean Air Act	3.50	2	STRONGLY AGREE
4	I am aware of R.A. 9275 or also known as Philippine Clean Water Act of 2004	3.87	1	STRONGLY AGREE

One of the Awareness on Solid Waste Management questions pertaining to relevant laws on solid waste management, "I am aware of R.A. 9275 or also known as the Philippine Clean Water Act of 2004," received the highest weighted mean of **3.87** with a verbal description of "**Strongly agree,"** whereas "I am aware of presidential decree No. 825 or also known as citizens in the Philippines must clean their own surroundings," received the lowest weighted mean of **3.87** with a verbal description of "**Strongly Agree".**

	Prohibited Activities	Weighted Mean	Rank	Verbal Description
1	I am aware of prohibited activities Littering throwing or dumping of waste in public places such as a roads, esteros, etc.	3.73	1	Strongly Agree
2	I am aware of open burning of leaves and plastics are prohibited	3.70	2	Strongly Agree
3	I am aware of open dumping of waste on canals are prohibited	3.67	3	Strongly Agree
4	I am aware of mixing solid waste in any waste are prohibited	3.18	4	Agree

Prohibited Activities

Table 8. Prohibited Activities

According to the information in the table above, one of the solid waste management awareness regarding prohibited activities is "I am aware of prohibited activities," according to the researchers. Littering, throwing, or dumping waste in public places such as roads, estuaries, and other public places" received the highest weighted mean of **3.73**, with a verbal description of "**Strongly Agree**" being the most common response. "I am aware that mixing solid waste with any other waste is prohibited," on the other hand, received the lowest weighted mean of **3.18**, with a verbal description of **"Agree**," resulting in the lowest weighted mean.

Role and Responsibilities

Table 9. Role and Responsibilities

	Role and Responsibilities	Weighted Mean	Rank	Verbal Description
1	I am aware of my role and responsibility to reduce the waste generated	3.33	2	Strongly Agree
2	I am aware of CLAYGO or clean as you go	2.39	4	Disagree
3	I am aware of my role and responsibility to segregate waste when disposing based on the trashcan	3.82	1	Strongly Agree
4	I am aware of my role and responsibility to recycle waste into a new product	2.81	3	Disagree

One of the awareness on solid waste management pertaining to role and responsibilities "I am aware of my role and responsibility to segregate waste when disposing based on the trashcan" got the highest weighted mean of **3.82** with verbal description of "**Strongly Agree"** on the other hand, "I am aware of CLAYGO or clean as you go" got the lowest weighted mean of **2.39** with verbal description of **Disagree**.

Sources of Solid Waste Management Awareness

Table 10. Sources of Solid Waste Management Awareness

	Sources of Solid Waste Management Awareness	Weighted Mean	Rank	Verbal Description

	Became aware towards Solid Waste Management because of____			
1	Televisions	3.05	3	AGREE
2	Newspaper and magazines	3.20	2	AGREE
3	Social Media/ Internet	3.84	1	STRONGLY AGREE
4	Books	2.20	5	AGREE
5	Parents	2.60	4	AGREE

According to the findings, one of the awareness of solid waste management pertaining to sources "Became Aware Towards Solid Waste Management because of Social Media/ Internet got the highest weighted mean of **3.84** with verbal description of **Strongly Agree** on the other hand, "Became Aware Towards Solid Waste Management because of Books" got the lowest weighted mean of **2.20** with verbal description of **Agree.**

DISCUSSION

Practices on Solid Waste Management

- **Segregation**

According to the findings, the vast majority of respondents separate recyclable goods for collection, indicating that the vast majority of respondents adhere to this practice in their daily lives. The process of separating recyclable materials for collection is beneficial to those who participate because it allows them to reduce their waste by repurposing recyclable goods for the benefit of themselves and others. Repurposing recyclable items or goods can result in the creation of a new item or the generation of income. Most respondents stated that they separated recyclable items and materials in order to assist the local government in easy garbage itemization and to generate waste that could be used as a resourceful item for the community. Aside from that, respondents also stated that the segregation of recyclable materials can be sold to junkshops, generating money for their respective barangays, which can then be used to create a fund for the people in their respective barangays.

According to an article entitled "Why Is Recycling Important? "10 Advantages of Recycling (2022)" claims that recycling waste is substantially less expensive than conventional waste collection and disposal. Saving money is a direct result of increasing our recycling efforts. It is also possible that deposit returns can boost the financial incentives for recycling. Aside from bringing people together, recycling helps them to raise money for charities such as educational institutions and hospitals. Cities and communities are happier and cleaner as a result of recycling programs.

- **Reduce**

The findings which include a verbal explanation of strongly agree, show that the vast majority of respondents only buy things that are either absolutely necessary or extremely important to them. People's insistence on purchasing items they don't need but insist on buying anyway, resulting in more garbage, can help to reduce the possibility of waste caused by items, resulting in more garbage. According to the majority of respondents, they purchase necessary items, placing greater emphasis on purchasing their necessities rather than their wants in order to cut expenses as well as their trash. Also mentioned was the fact that purchasing necessary items might be beneficial to the environment because they generate relatively little rubbish when purchased.

According to Kazuo Inamori (2022), we should not buy more goods and materials than we need simply because it appears to be more cost-effective to do so. Purchasing extra results in money being squandered. According to Fahzy Abdul-Rahman (2021), buy only what you need because not creating waste is a better way to reduce waste. Furthermore, Fahzy Abdul-Rahman (2021) stated that reducing the amount you buy is the most important of all waste management options. The key is to only buy what we need and in the appropriate quantity.

- **Reuse**

According to the findings, the vast majority of respondents reuse their grocery bags, as evidenced by the verbal description of Strongly agree in the previous table. When it comes to grocery shopping, reusing grocery bags / plastic bags is one of the most effective ways to save money while also decreasing possible waste and increasing convenience. According to the majority of respondents, they reuse their grocery bags because they do not want to generate for

grocery bags over and over again, which costs them more trash. In addition, they stated that if they purchase more on groceries they produce more trash, which is not healthy for the environment and their family as well. They also stated that they prefer eco friendly bags than plastics or grocery bags but it cossets them money to have it.

Plastic film, which includes many types of bags and wrap, is ubiquitous, as stated in the article "Recycling Plastic Bags and Wrap (2022)". However, plastic bags and wrap are frequently overused, discarded, sent to landfills, or found floating in our streets, natural areas, and surface waters because of their ease of use and accessibility. Reducing the use of disposable plastics is the first and most effective step anyone can take to lessen their impact on the environment. Bags that aren't recycled end up as litter because they don't biodegrade, as stated in an article titled "Sustainable Shopping- Which bag is the best (2022)". Plastic bags that end up in the trash not only take up space in landfills but also pose a threat to wildlife and the food chain.

- **Recycle**

It was also found out that the vast majority of respondents either do not understand or are unconcerned about the significance of recycling in their lives. The importance of recycling to us as individuals may result in a reduction or reduction in the amount and number of waste generated by individuals on a daily basis. People who do not understand or disregard the importance of recycling may not be able to devote enough time to researching and analyzing what recycling entails. It is also possible that people do not recognize or disregard the importance of recycling due to a lack of space in their homes. The majority of respondents said they do not recycle because of the smell and the large amount of space required. They also claim to only buy recycled materials in order to support those who recycle and the environment in general.

An article titled "Five Reasons Why People Don't Recycle and Five Reasons Why We Should (2018)" cites a lack of dedicated recycling space as one of the top reasons why people don't recycle at home. Unfortunately, keeping recyclables around for a week can be an eyesore or a waste of space for some people. On top of that, recycling causes clutter as people haul their recyclables around their homes. It's a fact that many residential areas are situated far from recycling pick-up points, requiring residents to travel some distance from their homes to the nearest recycling center. Some people are discouraged by the hassle, so they don't participate

in the community-wide recycling effort. Yet, we all recognize that the effort required to collect recyclables and travel to the nearest drop-off location is negligible compared to the benefits gained from a cleaner environment.

- **Disposal**

The highest weighted mean with verbal description of Strongly Agree indicates that the majority of respondents throw their garbage anywhere. Throwing your garbage anywhere indicates a lack of waste management self-discipline. Furthermore, the vast majority of respondents are unsure how to properly dispose of their waste. People, according to the respondents, simply dispose of their waste because it is what they are accustomed to doing. They also stated that whenever they are in an area where there are no trash cans, they simply throw their waste aside.

According to Desa, Kadir, and Yusoof (2010), the Malaysian community's lack of awareness and information about solid waste management (SWM) concerns, as well as a lack of understanding about the consequences of faulty SWM, has resulted in a significant deterioration of the situation. People must be aware of the challenges in their area, disciplined in their approach, and informed about the challenges in their area in order to formulate a solution or alternative to their problem and prevent the situation from escalating.

AWARENESS ON SOLID WASTE MANAGEMENT

Relevant Laws on Solid Waste Management

According to the results, the highest weighted mean with verbal description of Strongly Agree indicates that the vast majority of respondents are aware of the Philippine Clean Water Act of 2004, also known as R.A 9275. Being Aware of this kind of act is important to be able to protect our source of water anywhere in the Philippines. Knowing this kind of law or any kind of law may be obtained to schools, books and internet. According to the respondents they know this law because of their teacher from Elementary to High School teaching them the effect to us people if they don’t have clean water and the essence of the clean water act.

Ezaki et al. (2021) found that competent teachers who made learning interesting were instrumental in facilitating integration of the Solid Waste Management, Clean Air Act, and Water Act. As a further point of clarification, Ezaki et al. (2021) stated that the effectiveness of teaching is reflected in the learner's favorable development of desirable personality, in which case the teacher has a significant influence.

Prohibited Activities

The majority of respondents were aware of the laws prohibiting specific forms of solid waste management, such as littering, throwing, or dumping trash along highways, estuaries, and other public areas. Littering in public spaces is a sign of a community's lack of discipline and can have far-reaching consequences for the appearance of the municipality as a whole. The vast majority of respondents claim that having received this notification from the local government has increased their awareness of the scope and severity of the sanctions they face for engaging in illegal actions.

This is in accordance with Presidential Decree No. 825 (1975) of the Philippines, which establishes penalties for littering and other forms of untidiness. Garbage, filth, and other forms of trash must be deposited in designated bins for removal by waste haulers. Anyone caught discarding trash in a public area (such as a road, canal, or park) would face a fine of between P100 and P2,000 and a possible jail sentence of between five days and one year.

Role and Responsibilities

The highest weighted mean with a verbal description of Strongly Agree indicates that the vast majority of respondents were aware of the fundamental segregation while disposing of their trash accordingly to trashcan. Being mindful of how you dispose of your waste can assist you in avoiding waste problems such as odor and waste blockage in canals and other water drainage systems. The respondents claim to be familiar with the fundamentals of garbage disposal due to their school, neighborhood, and family.

Irresponsible waste disposal is a crime, as stated in the 2016 article "Why Dispose of Waste Properly and Recycle?" If you do not properly dispose of your trash, you will be penalized. There are environmental benefits to disposing of trash in an eco-friendly manner. Without it, pollution and waste might threaten the land and its resources. Many diseases and health

problems can be brought on by contamination. In waste management, trash is moved to landfills, incineration plants, or other environmentally and humanely safe disposal sites. Reducing exposure to pests and other biological dangers, as well as lowering the overall risk to public health, is another benefit of removing trash from public locations.

Sources of Solid Waste Management Awareness

It can be inferred from the highest weighted mean with a verbal description of strongly agree that the majority of respondents were aware due of Social Media and the Internet. These days, anyone with an internet connection and a social media account may access a wealth of information, some of which may be reliable. Most respondents claimed that they currently get their news from online sources like social media and the internet. Respondents also noted that the information and expertise they received through the aforementioned channel can be both authentic and fabricated.

In a 2014 article, Marshall Stephen David argued that the Internet is the most effective tool for sharing information with a huge group of people all over the world at once. Collaborative software's low barrier to entry and near-instantaneous information, knowledge, and skill sharing have greatly simplified teamwork. With the use of devices like cellular routers, data cards, handheld game consoles, and mobile phones, users may connect to the web from just about anywhere. Kubey (2000) defines the Internet as "new media technology," and he claims that it has the potential to improve people's lives but also to hurt them. Several academic disciplines, including communication, sociology, psychology, and public health, are beginning to devote more resources to studying this phenomenon. It's also rising in prominence as a field of study in political science, education, and computer science, among others.

These suggestions were derived from the presented evidence and conclusions.

In addition to knowledge, the responders will need to demonstrate an understanding of solid waste management. They should be aware of, and more significantly, implement, best practices for managing solid waste to mitigate the problems caused by such materials.

Those who do not adhere to the law and the rules and regulations relating the proper trash management should be punished by the city administration.

The study should be expanded beyond Palayan City to include additional locations, factors, and dimensions, according to the researchers. More experimental methods should be used in such a study.

ACKNOWLEDGEMENTS

The researchers would like to acknowledge their family, friends, and their colleagues who provided support and assistance in the conduct of this study.

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