**3R’S: IMPLEMENTATION OF PROPER WASTE SEGREGATION**

A Research Presented to

the Senior High School Department

of King Thomas Learning Academy, Inc.

In Partial Fulfillment of

The Requirements for the Practical Research II

HUMANITIES AND SOCIAL SCIENCES

BRAGAIS, KASSY M.

BUBAN, REYJIE D.

DACILLO, GUILE DC.

GOZO, RICK EMMANUEL M.

PRAXIDES, MARKYZZIA CAMILLE B.

ROLDAN, EIA N.

**December 2024**

**CERTIFICATE OF APPPROVAL**

The research attached titled **“3R’S: IMPLEMENTATION OF PROPER WASTE SEGREGATION.”** prepared and submitted by **Kassy M. Bragais, Reyjie D. Buban, Givin Guile DC. Dacillo, Rick Emmanuel M. Gozo, Markyzzia Camille B. Praxides, and Eia N. Roldan** in partial fulfillment of the Practical Resaerch 2, is hereby accepted and approved by the Board of Panel whose signatures appear below on this day 17th of January 2025.

**ROSELLE S. ESTOY FLORIAN M. ECALNER**

Panel Member Panel Member

**GEM ERDY E. CAMINO**

Research Adviser

**CHRISTINE JOY BACLAO**

Research Statistician

**MARY JOYCE N. RAMOS**

Assistant Principal – SHS Department

**ANGELI P. MORADA**

Senior High School Principal

**ACKNOWLEDGEMENT**

The researchers would like to express their deepest gratitude and appreciation to everyone who cooperate throughout the completion of this study, the reseachers are truly grateful. Particularly, the Researchers would like to thank the following individuals for their willingness to help and support while conducting this study.

**Ma’am Angeli P. Morada**, the Principal and **Ma’am Mary Joyce N. Ramos**, the assistant Principal of the Senior High School department of King Thomas Learning Academy, Inc. for the consideration and approval to conduct this study.

**Sir Gem Erdy D. Camino**, their research adviser and proofreader, from the beginning to the end of the study, for his consent, guidance, reminders, encouragement, valuable comments suggestion and feedback greatly enhanced the study and inspired the researchers through all the stage of writing this study.

To all the panel members, **Ma’am Mary Joyce N. Ramos, Ma’am Florian M. Ecalner, Ma’am Roselle S. Estoy,** for their valuable comments and advice that help the study exceed. The researchers are trully gratefull for their time and effort for helping the researchers progress their study.

To **Ma’am Christine Joy F. Baclao**, the statistician for sharing their knowledge and suggestion for better statistical treatment, the researchers truly appreciate her time and effort.

To all the **Teachers of Elementary Department,** specially to those who contributed on answering the survey questionaires, the researchers are truly grateful for their cooperation, consideration, time and effort.

To the **Family** and **Friends** of the researchers who have expressed their love and lots of support, specially to the Bragais and Mina family who accommodated them while making this study. The researchers deeply appreciate their kindness effort and encouragement that resulted to a good outcome.

We humbly acknowledge the divine guidance of our **Almighty God** throughout the course of this reseach endeavor. For the clarity of mind, perseverance, and hope granted to us during this moments of down and uncertainty.

**K.M.B.**

**R.D.B.**

**G.G.DC.D.**

**R.E.M.G.**

**M.C.B.P.**

**E.N.R.**

**3R’S: IMPLEMENTATION OF PROPER WASTE SEGREGTION**

December 2025

**Abstract**

This study focused on the 3R’s: Implementation of Proper Waste Segregation. Specifically, this study aimed to; identify the effectiveness of 3R’s in terms of cleanliness, awareness and efficiency, assess the impact of 3R’s in Proper Waste Segregation in terms of student’s discipline, learnings, and responsibility, and to determine if 3R’s have significant relationship to the Proper Waste Segregation. Descreptive-correlational method is used as the reseach design. The Elementary teachers became the participants of this study. A checklist survey questionnaire was used to gather data to be answered by the respondents. The ranking technique, as well as Spearman Rank Correlationis also used in the study to determine the significant relationship between the effectiveness of 3R’s (Reduce, Reuse, Recycle), and impact of Proper Waste Segregation. The major findings shows that many agreed that Cleanliness is have an important role for the 3R’s. Students’ awareness to the importance of 3R’s resulted many agreed, pupils aware of the effects of wastes to environment, not just about to the usage of bins, but also their awareness to the good effect of 3R’s to our environment. Moreover, the Efficiency also recognized effective with the 3R’s. It shown that the 3R’s of provided Waste Segregation Bins implemented that 3R’s is efficiently communicates the importance of 3R’s to students. It also shows that Students’ Discipline is part that will affect form the Proper Waste Segregation. Practicing this Proper Waste Segregation helps the students to improves their skills in terms of organizing, and have an overall discipline in school. It recognized how students’ discipline applied on this implementation. Moreover, the learnings of the elementary students has an impact to the Proper Waste Segregation , through the descriptions in the bins, colors, visual aids/images helps the students to learn about the wastes, it gives them insights and learnings of what the purpose of segregating. In Responsibility, many agreed that the students have a responsibilities to their wastes, with the help of implemented Waste Segregation Bins.

***Keywords: 3R’s, Proper Waste Segregation, Spearman Rank Correlation, Waste Segregation Bins***

**TABLE OF CONTENTS**

|  |  |
| --- | --- |
| **PRELIMINARIES** |  |
| TITLE PAGE | i |
| CERTIFICATE OF APPROVAL | ii |
| ACKNOWLEDGEMENT | iii |
| ABSTRACT | v |
| TABLE OF CONTENTS | vi |
| LIST OF TABLES |  |
| LIST OF FIGURES |  |
| LIST OF APPENDICES |  |

|  |  |
| --- | --- |
| **CHAPTER I. INTRODUCTION** |  |
| STATEMENT OF THE PROBLEM |  |
| OBJECTIVES OF THE STUDY |  |
| SCOPE AND LIMITATION |  |
| SIGNIFICANCE OF STUDY |  |
| **CHAPTER II. REVIEW OF RELATED LITERATURE** | |  |
| SYNTHESIS | |  |
| THEORETICAL PARADIGM | |  |
| CONCEPTUAL PARADIGM | |  |
| DEFINITION OF TERMS | |  |
| ASSUMPTIONS | |  |
| HYPOTHESIS | |  |
| **CHAPTER III. RESEARCH METHODOLOGY** | |  |
| RESEACH DESIGN | |  |
| RESEACH SETTING | |  |
| MATERIALS | |  |
| PARTICIPANTS | |  |
| RESEACH INSTRUMENT | |  |
| VALIDITY AND RELIABILITY | |  |
| |  |  | | --- | --- | | **CHAPTER IV. RESULTS AND DISCUSSIONS** |  | | EFFECTIVENESS OF 3R’s |  | | SUMMARY OF EFFECTIVENESS OF 3R’s |  | | IMPACT OF PROPER WASTE SEGREGATION |  | | SUMMARY OF IMPACT OF PROPER WASTE SEGREGATION |  | | SIGNIFICANT RELATIONSHIP BETWEEN THE EFFECTIVENESS OF 3R’s |  | | SIGNIFICANT RELATIONSHIP BETWEEN THE IMPACT OF PROPER WASTE SEGREGATION |  |   STATISTICAL TREATMENT | |  |

|  |  |
| --- | --- |
| **CHAPTER V. SUMMARY, FINDINGS, CONCLUSION AND**  **RECOMMENDATION** |  |
|  |  |
| SUMMARY |  |
| PROBLEM 1 |  |
| PROBLEM 2 |  |
| PROBLEM 3 |  |

**LIST OF FIGURES**

Figure No. Descriptions Page

1 Theoretical Framework

2 Conceptual Framework

**LIST OF TABLES**

Table No. Descriptions Page

1.1 Level of effectiveness of 3R’s in terms

of Cleanliness

1.2 Level of effectiveness of 3R’s in terms

of Awareness

1.3 Level of effectiveness of 3R’s in terms

of Efficiency

2 Summary of effectiveness of 3R’s in terms

of Cleanliness, Awareness, and Efficiency

2.1 Level of impact of Proper Waste Segregation

in terms of Students’ Discipline

2.2 Level of impact of Proper Waste Segregation

in terms of Learnings

2.3 Level of impact of Proper Waste Segregation

in terms of Responsibility

3 Summary of impact of Proper Waste Segregation

in terms of Students’ Discipline, Learnings, and

Responsibility

3.1 Significant relationship between the effectiveness

of 3R’s in terms of Cleanliness and the impact of

Proper Waste Segregation in terms of Students’

Discipline , Learnings and Responsibility.

3.2 Significant relationship between the effectiveness

of 3R’s in terms of Awareness and the impact of

Proper Waste Segregation in terms of Students’

Discipline , Learnings and Responsibility.

3.3 Significant relationship between the effectiveness

of 3R’s in terms of Efficiency and the impact of

Proper Waste Segregation in terms of Students’

Discipline , Learnings and Responsibility.

**LIST OF APPENDICES**

A References

B Letters of Approval

C Survey Questionnaire

D Tally of the responses of Respondents

E Computations of Weighted Mean

F Computations of Spearman Rank Correlation

G Documentation

H Curriculum Vitae

**CHAPTER I**

**INTRODUCTION**

Waste Segregation is a huge responsibility for schools, which is often hard to manage. It is essential in maintaining a clean and healthy environment within schools. The 3Rs—Reduce, Reuse, and Recycle—plays a significant role in this process. Implementing proper waste segregation practices in school can significantly reduce the amount of waste that ends up in landfills, contributing to a more sustainable future.

According to Republic Act 9003 known as The Ecological Solid Waste Management Act, mandate that the Philippine National Government, in coordination with the Department of Education (DepEd) and other educational institutions, conducting an educational campaigns on solid waste management practices. The law establishes an organized and thorough ecological solid waste management program that makes use of ecologically responsible techniques to optimize the use of finite resources and promote their recovery and conservation. This integration should focus on key waste management principles such as source segregation, reduction, recycling, reuse, and composting. The goal of this is to enhance environmental awareness and encourage proactive waste management among the public

In schools, students and staff generate various types of waste, such as paper, plastic, and food scraps. Without proper segregation, this waste can mix, making it challenging to recycle or dispose of correctly. By educating students and staff about the importance of the 3Rs and providing the necessary facilities, schools can create an environment where waste is properly sorted and managed.

According to an article entitled “Law banning open dumps barely enforced in Bicol” written by INQUIRER.net, Bicol produces 559,180 metric tons of garbage a year or 1,532 tons of waste a day. Camarines Sur produces 508 tons of waste per day; Albay, 356 tons; Masbate, 231 tons; Sorsogon, 213 tons; Camarines Norte, 154 tons and Catanduanes, 70 tons, said Fragada, quoting a study made by EMB.

This is why the researchers came up with this study to help the community to practice the 3R’s (Reduce, Reuse, Recycle) for Proper Waste Segregation to reduce the problem of segregating the garbages from one trashcan that continuously affects our planet and our environment. Moreover, teaching students about proper waste segregation and the 3Rs can instill lifelong habits of environmental responsibility. When students understand the impact of their actions on the environment, they are more likely to carry these practices into their homes and communities, helping to build a more eco-friendly society.

**STATEMENT OF THE PROBLEM**

By conducting this research, the following questions will serve as a guide for researchers to provide data as per 3R’s Implementation of Proper Waste Segregation.

Specifically, this study is designed to answer the following questions.

1. What are the effectiveness of implementing 3R’s in Proper Waste Segregation in terms of:
   1. Cleanliness
   2. Awareness
   3. Efficiency
2. What are the impacts of 3R’s in Proper Waste Segregation in terms of:
   1. Students’ Discipline
   2. Learnings
   3. Responsibility
3. Is there any significant relationship between 3R’s (Reduce, Reuse, Recycle) and the implementation of Proper Waste Segregation?

**OBJECTIVES OF THE STUDY**

This study is guided by the following objectives:

1. Identify the effectiveness of implementing 3R’s in Proper Waste Segregation.
   1. Cleanliness
   2. Awareness
   3. Efficiency
2. Assess the impacts of 3R’s in Proper Waste Segregation.
3. Students’ Discipline

b) Learnings

c) Responsibility

1. Determine if the 3R’s have significant relationship to the Proper Waste Segregation.

**SCOPE AND LIMITATIONS**

This study only focus and explore the Proper Waste Segregation with the use of the 3R’s (Reduce, Reuse, Recycle) to Elementary Department of King Thomas Learning Academy Inc. Hence, the respondents of this research study are only the researchers for the reason of takinng the data using observation.

This study did not explore other problems that are not consider as part of this study such as health impacts, air pollution, and etc. However, this study will only focus on the Implementation of Proper Waste Segregation and 3R’s (Reduce, Reuse, Recycle) practices in Elementary Department of King Thomas Learning Academy Inc.

**SIGNIFICANCE OF THE STUDY**

This study hopes to provide an opportunity to explore the environmental, and societal impacts of Implementing Proper Waste Segregation through the lens of the 3R’s (Reduce, Reuse, Recycle).

**Department of Environment and Natural Resources.** This study help the department to show more reminders and advocacy in public of proper waste segregation which can help the community to make eco-friendly places.

**Environmentalist.** Proper waste segregation is a key practice in realizing the environmental benefits of the 3Rs and is essential for reducing the negative environmental impact of waste on a global scale.

**Advocacy Groups.** This study will resonate with environmental advocacy groups striving for sustainability and responsible consumption. It will offer them data and findings that can support their campaigns to reduce waste, promote recycling, and encourage public participation in environmental stewardship.

**School.** This study serves as a tool to educate students and communities about sustainable waste management practices. Implementing the 3R’s and proper waste segregation not only helps the environment but also cultivates a culture of sustainability and responsibility among students, staff, and the broader community.

**Student Government Organization.** This organization in school will be enlightened wherein they will be given data relevant to the implementation of school proper waste segregation. Moreover, it will strengthen their current actions towards the goal of Proper Waste Segregation., and 3R’s.

**Elementary Students**. This study will inspire students to become more environmentally conscious and active participants in waste segregation and recycling efforts. By understanding the importance of these practices, they can contribute to protecting the planet and shaping a more sustainable future for their institution.

**Future Researchers.** This study will serve as a foundation for future researchers investigating the outcomes of proper waste segregation and the 3Rs in various contexts. It will provide valuable insights into the social, economic, and environmental impacts of these practices, offering a framework for further exploration in waste management and sustainability research.

**CHAPTER II**

**REVIEW OF RELATED LITERATURE AND STUDIES**

In this chapter, the researchers included studies that were conducted and found to have relation to the present study. The materials were gotten from published and unpublished thesis and articles. This provides the researchers sufficient background on the topic under study.

**RELATED LITERATURE**

**3R’s (Reduce, Reuse, Recycle)**

According to an article written by IPPTS ASSOCIATES (2024) entitled “Using The 3 R’s To Help The Environment – The Wasters Blog, understanding the importance of Reduce, Reuse, and Recycle — or ‘the 3 Rs’ — is akin to grasping a lifeline for our planet. These simple yet powerful practices stand as pillars in our collective quest to curb environmental degradation, offering clear paths towards preserving the world’s delicate ecosystems for future generations.Getting involved in the 3Rs program does wonders for our planet and neighborhoods. Less trash ends up in landfills because we’re cutting down on what we throw away. This means cleaner air to breathe and fewer harmful chemicals seeping into our soil and water sources.Recycling turns old stuff into new treasures, reducing the need for raw materials. That saves forests and wildlife habitats from being destroyed. As people see less litter around their streets and parks, they feel proud of their cleaner surroundings. These actions spark conversations about going green, which leads to broader environmental action within communities.The positive changes lead us towards a greener economy where everyone benefits—people today and generations to come!

Evidence of the economic opportunities that a circular economy could bring is mounting. The potential environmental impact is also clear, accordingly to an article written by King, Sarah (2022) “Reduce, Reuse, Recycle: Why All 3 R’s Are Critical to a Circular Economy”. Additionally, the move to a circular economy—a system that aims to reduce, reuse and recycle materials—could address 70% of global greenhouse emissions. As the benefits stack up, this transition is becoming a key focus for policymakers around the world. But there remains much confusion about what a circular economy is, and how it might be achieved. One common misunderstanding is the notion that it is simply a rebrand of recycling—the recovery and reprocessing of waste materials for use in new products. This perception is reinforced because recycling is the most common component of almost 80% of circular economy definitions. But, although recycling is an important element, there are many others. Before recycling comes into play there are several steps in a product’s life cycle that should be addressed, such as redesigning products and processes so that they use less virgin material, and re-using items rather than discarding them. New business models such as sharing and repairing can be adopted. These approaches prioritize smart designs that extend a product’s useful life, before reaching the stage of recycling. These steps are consistent with the central aim of a circular economy: to provide economic productivity by eliminating the concept of waste.

**Proper Waste Segregation**

As with any organization, schools produce a lot of waste. This is perfectly normal, as schools generally house hundreds, if not thousands, of people all at once. A school’s priorities should be twofold: reduce waste produced, while proactively implementing a recycling culture, stated to what ETM Recycling (2021) entitled “How to Improve Waste Management in Schools”. Additionally, schools produce an unusually broad spectrum of waste. From food waste to paper waste, medical to wood waste – schools often do it all. This can pose a uniquely difficult challenge when looking to manage it all in a convenient, cost-effective way. It’s understandable that lots of schools end up disposing of their waste en masse, as it’s the easiest solution.

Schools generate a wide range of waste, from food scraps and paper to plastic and electronics. Managing this waste efficiently not only reduces the school's environmental footprint but also sets an example for students on how to live more sustainably as stated according to an article written by ACTenviro (2024), titled "School Waste Management: Best Practices for Reducing Trash in Schools". Implementing effective waste management practices requires a holistic approach that integrates waste reduction, recycling, composting, and reusing materials into the fabric of school days. By reducing waste and promoting eco-friendly practices, schools have the power to instill lifelong environmental responsibility in students. As schools continue to be at the forefront of shaping young minds, their role in promoting sustainable practices such as effective waste management becomes even more important. By adopting comprehensive waste reduction strategies, schools not only contribute to the well-being of the environment but also inspire students to take ownership of the planet’s future.

According to an article written by Calma, A. (2016) titled “The Role of the Students in Environment Preservation”, the school, as the primary institution concern in developing every child must be serious in educating the youth regarding responsible waste management. The youth should also be encouraged to be vigilant with their family members who contribute in the destruction of the environment. They should have the courage to correct wrong practices. The school head, as the manager of the institution, must designate teachers to manage the solid waste management of the school and its overall cleanliness and orderliness. Programs must be formulated and fully implemented to develop the children’s environmental awareness and concern about the preservation of the environment. These then must be evaluated regularly by the school head and teachers concerned.Students if properly motivated to assume the duty as sentinels of the environment, would encourage them to participate in different environmental projects. Government and non-government agencies had taken the initiatives and acts to do their parts, it is now up to the school through the leadership of the school head to encourage his students to fulfill their roles in the environment preservation. Constant reminder and encouragement, plus different school activities like clean-up drives and solid waste management programs would surely inspire every student to be sentinels and protectors of the environment.

**RELATED STUDIES**

According to Brown (2021), the study evaluated the effectiveness of educational campaigns on improving the waste segregation practices in residential areas. It terminates that campaigns focusing on practical tips, clear guidelines, and positive reinforcement were more successful in charging behavior. The study of Brown (2021) emphasizes the importance of public awareness and education in promoting proper waste segregation. It suggested that targeted campaigns tailored to specific demographics effectively.

According to the study of R. Molina et al. (2021) titled “Solid Waste Management Awareness and Practices among Senior High School Students in a State College in Zamboanga City, Philippines”, that the results show that students have enough knowledge in terms on definition of solid waste, effect of improper solid waste disposal, solid waste prohibited activities, school initiatives towards solid waste, importance of solid waste management and students’ responsibilities. However, students have low knowledge on the different laws relevant to solid waste management. Television or radio, parents and social media are the sources of these awareness. The result also shows that students have good solid waste management practices in terms on segregation, reduction, reuse, recycle and disposal

According to Arif et al. (2018), their recent study found that client preference and enforcement of existing laws were crucial for effective waste minimization. Their study highlighted the growing popularity of waste quantification, segregation and the implementation of the 3R’s (Reduce, Reuse and Recycle). The study desmontrates the importance of industry-specicific approaches to waste management.

As stated by Ganados et al. (2018) solid waste segregation is a universal issue that that matters to every person in this world. It Is all about treating our waste into valuable resource that it does not belong to trash. Solid waste segregation has a huge role since it is one of the keys to protecting our environment and pretecting our natural resources. Waste hierarchy was traced when the environmental movemet that the people should practice proper diposal based with the use of the 3R’s or the Reduce, Reuse and recycle in the community (Gertsaki and Lewis 2004). Recycling is one of the leading solution in the reduction waste quantity and reclaims reusable and into a functional product. The community might improve with the use of solid waste segregation, perhaps it will be easier to reduce the waste that affect the community that can bring diseases to the people and harm to the environment.

In the recent study of Peprah et al. (2015), the reserchers study assessed the implementation of the 3R’s (reduce, reuse and recycle) policy directive in a provided municipality in Ghana, it is said that despite the policy, the individuals continued to handle solid waste as usual with limited efforts to reduce, reuse and recycle. As stated in this study, it highlights the challenges of implementing the 3R’s in developing countries. It asserts the need for effective policy frameworks, community engagement, and resource allocation to support sustainable management practices.

**SYNTHESIS**

Both the RRL and RRS emphasize the need for public awareness and education in achieving the goals of the 3Rs. Both IPPTS Associates (2024) and Brown (2021) agree that community involvement and education are key drivers in reducing waste.Both emphasize the importance of reducing waste, conserving resources, and adopting sustainable practices. The literatures discusses this in relation to environmental conservation, while the related studies validates these concepts through real-world application and studies showing positive or neutral results in waste segregation and recycling behaviors. Both sections highlight the connection between waste management and the reduction of environmental degradation, such as lowering methane emissions from landfills (Barbora, 2019) and conserving natural resources through recycling (IPPTS Associates, 2024).

The literature focuses on general concepts of the 3Rs, their importance in waste reduction, and their role in promoting a circular economy. It also emphasizes the broader environmental impacts and how these practices can reduce pollution and greenhouse gas emissions globally. In terms of context, primarily discussing the overarching importance of the 3Rs in environmental conservation.It also discusses broad solutions like adopting a circular economy and raising awareness through global initiatives. The studies are more specific and focus on evaluating the effectiveness of the 3Rs in certain sectors or regions, such as educational institutions (Paghasian, 2017) or municipalities (Peprah et al., 2015). They assess practical outcomes, barriers, and community engagement in implementing waste management programs. Grounded in empirical research, the studies provide real-world evidence of the application of the 3Rs, including challenges in implementation, especially in developing countries.Highlights practical barriers, such as limited policy enforcement, community behavior, and the need for tailored waste management solutions based on demographic or industry-specific contexts.

Uniquely ties the 3Rs to the concept of a ‘students if properly motivated to assume the duty as sentinels of the environment, would encourage them to participate in different environmental projects. .It discusses the ‘hierarchical structure of the 3Rs’, noting that “reduce” should always come first for maximum environmental benefit (Rice, 2023), an aspect not deeply explored in the RRS. Provides empirical data on waste segregation practices and community behavior. Studies like those of Paghasian (2017) and Peprah et al. (2015) highlight real-world challenges, such as the gap between awareness and actual recycling practices or the difficulties in implementing the 3Rs in developing regions. The RRS also brings a localized perspective, showing how factors like education, policy, and enforcement influence the success o

Theory of Planned Behavior

(Ajzen, 1991)

Waste Management Theory

(Pongracz, 2024)

Resource Efficiency Theory

(UNEP, 2011)

Nudge Theory

(Thaler, 2008)

**3R’S: IMPLEMENTATION OF PROPER WASTE SEGREGATION**

Figure 1. Theoretical Framework

**THEORETICAL PARADIGM**

This study was anchored on the following theories:

The **Waste Management Theory (2004)** that founded by Pongracz, Eva is a unified body of knowledge about waste and waste management, and it is founded on the expectation that waste management is to prevent waste to cause harm to human health and the environment and promote resource use optimization.

**Theory of Planned Behavior (1991)** by Ajzen, suggest that peoples intentio to perform a behavior like waste segregation is influenced by their attitude, subjective norms, and perceived behavioral control

**Resource Efficiency Theory** by United Nations Environment Programme (2011), means creating more (economic) value with less input of resources (taking the broad resource scope including raw materials, energy, water, air, land, soil, and ecosystem services**.** It emphasizes the efficient use of resources to reduce waste and maximize utility. Proper waste segregation supports this by ensuring that materials are sorted in a way that maximizes their potential for reuse and recycling, thus enhancing resource efficiency.

**Nudge Theory** (2008) that founded by Thaler, proposes influencing behavior through subtle changes in the environment making the desired behavior easier to more appealing. For waste segregation, this could mean providing convenient bins, clear signage or highlighting social norms.

**OUTPUT**

I. Cleanliness is have an important role for the 3R’s. Students’ awareness on effects of wastes to environment. 3R’s is efficiently communicates the importance of 3R’s to students, and it is efficient to use among the students of Elementary.

II. Proper Waste Segregation helps to improve skills in terms of organizing and how students’ discipline applied on this implementation. Learnings through the descriptions in the bins, colors, visual aids/images helps the students to learn about their waste.

III. There is no significant relationship between the effectiveness of 3R’s and the impact of Proper Waste Segregation.

**PROCESS**

1. Experimental

2. Preparation and validation of survey questionnaire.

3. Data gathering

4. Data interpretation and analysis

5. Statistical Treatment

6. Interpretation

**INPUT**

1. The effectiveness of 3R’s in terms of: cleanliness, awareness and efficiency.

2. Impact of Proper Waste Segregation in terms of: student’s discipline, learnings and responsibility.

3. Having a significant relationship between the effectiveness of 3R’s and impact of Proper Waste Segregation.

Feedback

Figure 2. Conceptual Framework

**CONCEPTUAL PARADIGM**

Figure 2 presents the conceptual framework which depicts the 3R’s Implementation of Proper Waste Segregation.

**Input** encompasses the articulation of the problem revolving around the statement of the problem that aims and focuses on 3R’s Implementation of Proper Waste Segregation.

**Process** explains the system of the study which involves the conduction, collection, and conclusion of information using observation sheet. The pocess to be done with credibility and reliability, researchers will maintain ethical standards, such as obtaining informed consent from participants, ensuring confidentiality.

**Output** serves as the culmination of the research process, offering a comprehensive analysis of the study’s findings and their broader implications. It represents the culmination of the research, providing valuable insights that contribute to the advancement of knowledge in the field.

**HYPOTHESIS**

Ho = There is no significant relationship between the effectiveness of 3R’s and the impact of Proper Waste Segregation.

**ASSUMPTION OF THE STUDY**

The study focused on the 3R’s Implementation of Proper Waste Segregation. The following assumptions were made:

1. The researchers assumed that the responds in survey questionnaire would be a reliable source of information that would make this study accomplished.
2. The researchers would be able to deeply explain the porpuse of the study and the observation.

**DEFINITION OF TERMS**

For purposes of clarification and verification of the usage and meaning, the terms of this study were conceptually and operationally defined for facility of understanding:

**Implementation**. An act or instance of implementing something, the process of making something active or effective. Operationally, this term refers to the implementation of the Proper Waste Segregation.

**Observation.** An act of recognizing and noting a fact or occurrence often involving measurement with instruments. Operationally, this term used the Observation as an action to collect data.

**Recycle.** The act or process of recycling. It means putting a product to a new use instead of throwing it away. Operationally, this term refers to the one of R in 3R’s that used in the study.

**Reduce**. Made less in size or amount or degree. In this study, this terms means to minimize the amount of waste we create. Operationally, this term used to check of reducing waste.

**Reuse**. To use again especially in a different way or after reclaiming or reprocessing. In this study, this term refers when a waste product is used again. Operationally, this term used to recognize of reusing in environment.

**Proper Waste Segregation.** The sorting and separation of waste types to facilitate recycling and correct onward disposal. Operationally, this term used to maintain the segregation of wastes.

**CHAPTER III**

**RESEARCH METHODOLOGY**

This study employs a quantitative research methodology to assess the level of effectiveness and the impact of Proper Waste Segregation at King Thomas Learning Academy Inc. The quantitative approach allows for the collection and analysis of numerical data to identify patterns, relationships, and student satisfaction.

**RESEARCH DESIGN**

The research design for this study is descriptive-correlational research design to examine the effectiveness of 3R’s and the impact . The quantitative phase employs a descriptive-correlational method, using survey questionnaire and statistical analyses to evaluate the students’ readiness and identify factors that influence their preparedness for future careers. The survey checklist was used to determine the level of career readiness among the respondents and to identify the factors affecting their preparation for career challenges.In this case, the study seeks to explore the 3R’s and Proper Waste Segregation, measure the observation collected data daily, and analyze the relationship between 3R’s and Proper Waste Segregation, utilizing the quantitative data to describe the waste segregation practices quantitatively.

**RESEARCH SETTING**

The research setting for this study is King Thomas Learning Academy Incorporated located in Malubago Sipocot Camarines Sur along Maharlika Highway and geographically located at 14.56°N, 123.11°E – 019 km N 62° E. King Thomas Learning Academy Incorporated (KTLA) is an academy that implemented a face to face learning with five (5) days of classes in a week. The school established a half day of classes for Senior High Schools with grade 11 scheduled in the morning (7:30 AM-12:00 NN), and grade 12 in the afternoon (12:40 PM – 5:00 PM). The school itself serves as the primary setting for assessing the level of implementation of 3R’s in Proper Waste Segregation.

**RESPONDENTS**

The respondents in this study are the elementary school teachers. The reserchers comprises all the teachers who are currently employed and actively teaching in the elementary department of King Thomas Learning Academy, Inc. These teachers are directly involved in observing the students daily practices regarding the 3R’s (Reduce, Reuse, recycle) and proper waste segregation within the school environment.

**RESEARCH INSTRUMENT**

The primary research instrument used in this study was survey questionnaires. The instrument was used by researchers to collect data on specific topic opinion and experience also to gather information, interpret data’s from a group of people, or get more detailed results into a certain situation. When testing the 3R’s: implementation of proper waste segregation, the survey questionnaire was used to efficiently gather valuable information and gain insights into the study.

**VALIDITY AND RELIABILITY**

The research instrument used in this study undergoes validation from the research adviser to ascertain its effectiveness in eliciting clear responses from participation that align with the study’s objectives and problem statement and will also check that no harm will be taken in their physical and mental health. To this end, the researchers will draft the instrument and submit it to the advisers and committee panel for review and refinement. The researchers recognized the importance of using validated research instrument to obtain accurate data and ensure the credibility of the study findings. The validation of the observation sheet by the panel, along with the process and work flow of this research, it served as a foundation for its validity and reliability, as the results obtained rely on dependable data derived from the established procedures. It assessed the study’s reliability 3R’s: Implementation of Proper waste segregation, the researchers conducted over two (2) weeks to determine the consistency of the results.

**DATA GATHERING PROCEDURE**

The data gathering procedure for this study involves the following steps:

1. Obtaining permission from the school administration to conduct the study and administer the survey.
2. Selecting all of the teachers in the elementary to be the respondents of the study.
3. Distributing the implementation survey on teachers through online or onsite.
4. Collecting the completed surveys and ensuring confidentiality of the responses.

**STATISTICAL TREATMENT**

In this study, the statistical tools of weighted mean, average weighted mean, ranking technique and Spearman Rank Correlation are well-suited to analyze the data collected through the observation sheet. Here’s how each of these tools will be applied:

**Average Weighted Mean-** This used to determine the overall level of effectiveness of 3R’s and level of impact of Proper Waste Segregation per question. By applying average weighted mean from the 5-ponit likert scale, the study can recognize the average weighted mean per question, while considering the importance of 3R’s and Proper Waste Segregation.

**Weighted Mean** - This tool is used to determine the overall effectiveness of 3R’s, and impact of Proper Waste Segregation, per day of observation conducted.

**Ranking Technique -** This used to arrange and organize the statements of Elementary teachers based on what they agreed to, from the most agreed-upon statements to the least agreed-upon statements.

**Spearman Rank Correlation -** is also used in the study to determine the significant relationship between the effectiveness of 3R’s (Reduce, Reuse, Recycle), and impact of Proper Waste Segregation.

**CHAPTER IV**

**RESULT AND DISCUSSION**

In this chapter, the result and discussion were presented base on the gathered data, examining the effectiveness of 3R’s and impact of Proper Waste Segregation that evaluated the level of effectiveness and impact outlined in the statement of the problem 1 and 2, in lined with the chapter 4 of the research.

**Table 1.1. Level of Effectiveness of 3R’s in termsofCleanliness**.

|  |  |  |  |
| --- | --- | --- | --- |
| **Cleanliness** | **Weighted**  **Mean** | **Rank** | **Interpretation** |
| 1. 3R’s (Reduce, Reuse, Recycle) will gives the school more pleasant to look at | **4.9** | **1.5** | **Strongly Agree** |
| 2. It reduces the consuming of plastic bags. | **4.4** | **4.5** | **Strongly Agree** |
| 3. 3R’s helps the school environment to be clean and organize. | **4.4** | **4.5** | **Strongly Agree** |
| 4. Reusing materials helps to maintain cleanliness in my surroundings. | **4.7** | **3** | **Strongly Agree** |
| 5. The 3R’s (Reduce, Reuse, Recycle) are essential for maintaining long-term cleanliness in my community. | **4.9** | **1.5** | **Strongly Agree** |
| 6. Practicing the 3R’s does not reduce the amount of trash I see in my area. | **2.2** | **7** | **Neutral** |
| 7. Reusing school supplies does not contribute to maintaining a cleaner school environment. | **1.9** | **10** | **Disagree** |
| 8. Recycling bins in the school are ineffective in maintaining cleanliness on campus. | **2.2** | **7** | **Neutral** |
| 9. Efforts to reduce, reuse, and recycle in school are somehow ineffective in keeping classrooms and hallways clean. | **2.2** | **7** | **Neutral** |
| 10. I do not believe the 3R’s (Reduce, Reuse, Recycle) are effective in maintaining cleanliness in my community. | **2.1** | **9** | **Disagree** |
| **Average Weighted Mean** | **5.55** |  | **Strongly Agree** |

**Legend:**

1. – 1.79: Strongly Disagree

1.80 – 2.59: Disagree

2.60 – 3.39: Neutral

3.40 – 4.19: Agree

4.20 – 5.00: Strongly Agree

Table 1.1 introduced the level of effectiveness of 3R’s in terms of Cleanliness. The table shows the results, as ‘ 3R’s (Reduce, Reuse, Recycle) will gives the school more pleasant to look at’, ‘the 3R’s (Reduce, Reuse, Recycle) are essential for maintaining long term cleanliness in community’ has a weighted mean of 4.9 interpreted as Strongly Agree, ‘reusing materials helps to maintain cleanliness in my surroundings’ resulted of weighted mean of 4.7 and ‘it reduces the consuming of plastic bags’ and ‘3R’s helps the school to be clean and organized’ has a weighted mean of 4.4, both interpreted as Strongly Agree. Among the ten(10) questions, these three (3) recognized as the highest results. Meanwhile, the three (3) lowest results, ‘recycling bins in the school are ineffective in maintaining cleanliness on campus’ and ‘efforts to reduce, reuse, and recycle in school are somehow ineffective in keeping classrooms and hallways clean’ resulted of 2.9 categorized as Neutral, ‘ I do not believe the 3R’s (Reduce, Reuse, Recycle) are effective in maintaining cleanliness in my community’ has a weighted mean of 2.1, interpreted as Disagree, and ‘reusing school supplies does not contribute to maintaining a cleaner school environment’ has a weighted mean of 1.9, interpreted as Disagree.. Generally, the average weighted mean calculated of 5.55, interpreted as Strongly Agree.. With this results, it recognized effective the 3R’s to cleanliness of environment. This results supports of an article written by IPPTS ASSOCIATES (2024) titled “Using The 3 R’s To Help The Environment – The Wasters Blog, understanding the importance of Reduce, Reuse, and Recycle — or ‘the 3 R’s, as people see less litter around their streets and parks, they feel proud of their cleaner surroundings. These actions spark conversations about going green, which leads to broader environmental action within communities.The positive changes lead us towards a greener economy where everyone benefits—people today and generations to come.

**Table 1.2. Level of Effectiveness of 3R’s in terms of Awareness**.

|  |  |  |  |
| --- | --- | --- | --- |
| **Awareness** | **Weighted Mean** | **Rank** | **Interpretation** |
| All pupils will actively join and cooperate in proper waste disposal based on 3R’s during class or school activities. | **4.1** | **4.5** | **Agree** |
| Pupils are able to share significance of 3R’s to their classmates. | **4.4** | **1** | **Strongly Agree** |
| Pupils will reuse materials for their projects, like recycled papers or reusable containers. | **4.3** | **2.5** | **Strongly Agree** |
| Pupils manifest willingness in participating in school-initiated recycling activities. | **4.3** | **2.5** | **Strongly Agree** |
| Pupils will be aware of environmental benefits of reducing, reusing, and recycling materials in their daily task. | **4.1** | **4.5** | **Agree** |
| There are few pupils seems not into 3R’s activities. | **3** | **6.5** | **Agree** |
| Pupils are confused to identify  between materials that should be reuse o recycle. | **3** | **6.5** | **Agree** |
| The Filipino translated label (Nabubulok, Di-Nabubulok, Nareresiklo), not helps to understand and segregate the waste properly | **2.1** | **9.5** | **Disagree** |
| The use of images/visual aids of examples of wastes that can be place that attached to the trashbin, not necessarily helps the pupil to segregate the wastes properly. | **2.1** | **9.5** | **Disagree** |
| The 3 different colors of trashbin (red, yello, blue), pupils doesn’t know what type of trash they will place. | **2.7** | **8** | **Neutral** |
| **Average Weighted Mean** | **3.42** |  | **Agree** |

**Legend:**

1. – 1.79: Strongly Disagree

1.80 – 2.59: Disagree

2.60 – 3.39: Neutral

3.40 – 4.19: Agree

4.20 – 5.00: Strongly Agree

Table 1.2 determined the level of effectiveness of 3R’s in terms of Awareness. As a result, ‘pupils are able to share significance of 3R’s to their classmates’ has a weighted mean of 4.4, labeled as Strongly Agree, ‘pupils manifest willingness in participating in school-initiated recycling activities’ and ‘pupils will reuse materials for their projects, like recycled papers or reusable containers.’ has a weighted mean of 4.3 both categorized as Strongly Agree. The lowest results among the 10, ‘the 3 different colors of trashbin (red, yellow, blue), pupils doesn’t know what type of trash they will place’ has a weighted mean of 2.7, labeled as Neutral. ‘The Filipino translated label (Nabubulok, Di-Nabubulok, Nareresiklo), not helps to understand and segregate the waste properly’, and ‘the use of images/visual aids of examples of wastes that can be place that attached to the trashbin, not necessarily helps the pupil to segregate the wastes properly’ has a weighted mean of 2.1, both labeled as Disagree. The calculated average weighted mean has resulted of 3.42, interpreted as Agree. This results supports of the recent study of Molina R. (2024), on the other hand, their solid waste management practices in terms of segregation were good; while the practices of the students in terms of on recycling were fair. The awareness on solid waste segregation of the students had no influence on their practices in disposal, but however it had affected their practices specifically on Segregation, reduce, reuse and recycle.

Table 1.3 determines the level of effectiveness of 3Rs in terms of Efficiency. Among the thirteen (13) days of observation, three (3) have the highest results. First, the ‘teachers and staff will efficiently integrate the 3R’s principles into their daily classroom practices’ with a weighted mean of 4.7 abeled as Strongly Agree.. Secondly, the ‘the school will efficiently communicates the importance of the 3R’s to students, parents, and staff’ has a weighted mean of 4.6 categorized as Strongly Agree. Lastly, the ‘believe that incorporating the 3Rs has significantly improve student’s waste segregation efficiency’ and ‘the school’s use of materials and supplies reflects an efficient effort to reduce waste’ both resulted with a weighted mean of 4.1 both identified as Agree. Meanwhile, there were also three (3) lower results. First, the ‘waste segregation bin is rarely used or improperly labeled, making them inefficient’ with a weighted mean of 3.1 labeled as Agree, the second is ‘proper Waste Segregation has not improved pupils’ ability to follow instructions and adhere to school procedures’ and ‘waste segregation bins are not more efficient for every day use’ both resulted with a weighted mean of 2.7, accompanied by ‘recycling efforts in the school are inconsistent and not regularly maintained’ has weighted mean of 2.4, labeled as Disagree. In general, effectiveness of 3Rs in terms of Efficiency has an average weighted mean of 3.56 and its interpretation is Agree. Understanding these results helps to see if the level of Effectiveness in terms of Efficiency is has an effect in environment of Elementary Department.

This results supports of This results inclined of an article hat ETM Recycling (2021) titled “How to Improve Waste Management in Schools”. Additionally, schools produce an unusually broad spectrum of waste. From food waste to paper waste, medical to wood waste – schools often do it all. This can pose a uniquely difficult challenge when looking to manage it all in a convenient, cost-effective way. It’s understandable that lots of schools end up disposing of their waste en masse, as it’s the easiest solution.

**Table 1.3. Level of Effectiveness of 3R’s in terms of Efficiency.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Efficiency** | **Weighted Mean** | **Rank** | **Interpretation** |
| I believe that incorporating the 3Rs has significantly improve student’s waste segregation efficiency. | **4.1** | **3.5** | **Agree** |
| Waste Segregation bins provided in school are easily accessible and properly labeled for efficient use | **3.9** | **5** | **Agree** |
| The school’s use of materials and supplies reflects an efficient effort to reduce waste. | **4.1** | **3.5** | **Agree** |
| Teachers and staff will efficiently integrate the 3R’s principles into their daily classroom practices. | **4.7** | **1** | **Strongly Agree** |
| The school will efficiently communicates the importance of the 3R’s to students, parents, and staff. | **4.6** | **2** | **Strongly Agree** |
| The waste segregation bin is rarely used or improperly labeled, making them inefficient. | **3.1** | **7** | **Agree** |
| Proper Waste Segregation has not improved pupils’ ability to follow instructions and adhere to school procedures. | **2.7** | **8.5** | **Neutral** |
| Recycling efforts in the school are inconsistent and not regularly maintained. | **2.4** | **10** | **Disagree** |
| The pupils choosing to dispose single-use products rather than reduce waste by not choosing to reuse items (e.g., reusable bottles, containers). | **3.3** | **6** | **Neutral** |
| Waste Segregation bins are not more efficient for every day use. | **2.7** | **8.5** | **Neutral** |
| **Average Weighted Mean** | **3.56** |  | **Agree** |

**Legend:**

1. – 1.79: Strongly Disagree

1.80 – 2.59: Disagree

2.60 – 3.39: Neutral

3.40 – 4.19: Agree

4.20 – 5.00: Strongly Agree

**Table 2. Summary of effectiveness of 3R’s in terms of Cleanliness, Awareness, and Efficiency**

|  |  |  |
| --- | --- | --- |
| **INDICATORS** | **WEIGHTED MEAN** | **INTERPRETATION** |
| **Cleanliness** | **5.55** | **Strongly Agree** |
| **Awareness** | **3.42** | **Agree** |
| **Efficiency** | **3.56** | **Agree** |

**Legend**

1.0 – 1.79: Strongly Disagree

1.80 – 2.59: Disagree

2.60 – 3.39: Neutral

3.40 – 4.19: Agree

4.20 – 5.00: Strongly Agree

Table 3 shows the summary of effectiveness of 3R’s, as Cleanliness resulted of weighted mean of 5.55, labeled as Strongly Agree, Awareness resulted of 3.42, interpreted as Agree, and the Efficency resulted of 3.56 weighted mean, interpreted as Agree.

Table 2.1 resented the level of impact of Proper Waste Segregation in terms of Students’ Discipline. ‘the availability of proper waste segregation bins will improve pupils’ awareness of responsible waste disposal’ and ‘regular practice of proper waste segregation improves pupils’ organizational skills in other areas’ resulted with a weighted mean of 4.6 labeled as Strongly Agree, ‘the presence of waste segregation bins encourages pupils to think twice before littering’ and ‘waste segregation bin have contributed to better discipline among pupils during lunch and snack breaks’ has a weighted mean of 4.4 both of interpreted as Strongly Agree. Meanwhile, ‘pupils continue to improperly dispose of waste, despite the presence of designated trash bins’ has a weighted mean of 3, ‘proper waste segregation does not significantly affect pupils’ overall discipline in school’ has a weighted mean of 2.7, both interpreted as Neutral. ‘I don’t believe that following the waste segregation rules has any effect on students’ behavior or discipline’ resulted of weighted mean of 2.1 categorized as Disagree. In general, the average weighted mean resulted of 3.6 interpreted as Agree. This results supports by an article written of ACTenviro (2024) titled “School Waste Management: Best Practices for Reducing Trash in Schools”, as schools continue to be at the forefront of shaping young minds, their role in promoting sustainable practices such as effective waste management becomes even more important. By adopting comprehensive waste reduction strategies, schools not only contribute to the well-being of the environment but also inspire students to take ownership of the planet’s future.

**Table 2.1 Level of Impact of Proper Waste Segregation in terms of Students’ Discipline.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Students Discipline** | **Weighted Mean** | **Rank** | **Interpretation** |
| The availability of proper waste segregation bins will improve pupils’ awareness of responsible waste disposal. | **4.6** | **1.5** | **Strongly Agree** |
| The presence of waste segregation bins encourages pupils to think twice before littering. | **4.4** | **3.5** | **Strongly Agree** |
| Regular practice of proper waste segregation improves pupils’ organizational skills in other areas. | **4.6** | **1.5** | **Strongly Agree** |
| Waste segregation bin have contributed to better discipline  among pupils during lunch and snack breaks | **4.4** | **3.5** | **Strongly Agree** |
| Proper waste segregation does not significantly affect pupils’ overall discipline in school. | **2.7** | **9** | **Neutral** |
| Pupils continue to improperly dispose of waste, despite the presence of designated trash bins. | **3** | **8** | **Neutral** |
| Pupils frequently ignore the waste segregation bin and continue to dispose of waste improperly | **3.1** | **7** | **Neutral** |
| There is little evidence that the waste segregation initiative has improved students’ overall discipline regarding cleanliness. | **3.3** | **6** | **Neutral** |
| Pupils frequently ignore the designated bins for waste segregation, showing a lack of discipline. | **3.4** | **5** | **Agree** |
| I don’t believe that following the waste segregation rules has any effect on students’ behavior or discipline. | **2.1** | **10** | **Disagree** |
| **Average Weighted Mean** | **3.6** |  | **Agree** |

**Legend:**

1. – 1.79: Strongly Disagree

1.80 – 2.59: Disagree

2.60 – 3.39: Neutral

3.40 – 4.19: Agree

4.20 – 5.00: Strongly Agree

**Table 2.2. Level of Impact of Proper Waste Segregation in terms of Learnings*.***

|  |  |  |  |
| --- | --- | --- | --- |
| **Learnings** | **Weighted Mean** | **Rank** | **Interpretation** |
| Structured label in designated trashbins helps the students to learn of what wastes are biodegradable, non-biodegradable, and recyclable. | **4.3** | **1** | **Strongly Agree** |
| Pupils are consistently segregate the waste into the correct bins. | **3.9** | **3** | **Agree** |
| The labels or instructions on the waste segregation bins are clear and easy to follow. | **3.7** | **4** | **Agree** |
| The initiative of implementing waste segregation bins has made the pupils more conscious about reducing waste and recycling | **3.6** | **5** | **Agree** |
| Pupils gained a better understanding of how improper waste segregation can harm the environment. | **4.1** | **2** | **Agree** |
| I feel that the waste segregation bins are unnecessary or too complicated to use. | **2.4** | **8** | **Disagree** |
| I believe that segregating waste does not significantly impact the environment. | **1.9** | **9.5** | **Disagree** |
| The pupils’ learnings about the importance of Waste Segregation are not reflected in their use of bins throughout the school day. | **2.6** | **7** | **Neutral** |
| Pupils avoid using the waste segregation bins if they are too far from where they are. | **3** | **6** | **Neutral** |
| I believe the waste segregation bins are unnecessary and make no real difference. | **1.9** | **9.5** | **Disagree** |
| **Average Weighted Mean** | **3.12** |  | **Neutral** |

**Legend**:

1.00 - 1.79: Strongly Disagree

1.80 – 2.59: Disagree

2.60 – 3.39: Neutral

3.40 – 4.19: Agree

4.20 – 5.00: Strongly Agree

Table 2.2 presented the level of impact of Proper Waste Segregation in terms of Learnings, as ‘structured label in designated trashbins helps the students to learn of what wastes are biodegradable, non-biodegradable, and recyclable’ has a weighted mean of 4.3, labeled as Strongly Agree, ‘pupils gained a better understanding of how improper waste segregation can harm the environment’ has a weighted mean of 4.1 and ‘pupils are consistently segregate the waste into the correct bins’ with 3.9, both labeled as Agree. Followed by ‘I feel that the waste segregation bins are unnecessary or too complicated to use’ with resulted weighted mean of 2.4, ‘I believe that segregating waste does not significantly impact the environment’ and ‘believe the waste segregation bins are unnecessary and make no real difference’ indicates of weighed mean 1.9, both labeled as Disagree. The total average weighted mean of the level of impact of Proper Waste Segregation in terms of Learnings, resulted of 3.12 interpreted as Agree. As this results inclined with the study of R. Molina et al. (2021), it shows that students have enough knowledge in terms ondefinition of solid waste, effect of improper solid waste disposal, solid waste prohibited activities, school initiatives towards solid waste, importance of solid waste management and students’ responsibilities. However, students have low knowledge on the different laws relevant to solid waste management. Television or radio, parents and social media are the sources of these awareness. Theresult also shows that students have good solid waste management practices in terms on segregation,reduction, reuse, recycle and disposal.

Table 2.3 shows the level of impact of proper waste segregation in terms of Responsibility. It presented in the table, indicates that ‘I am confident that practicing proper waste segregation will make a positive impact on the school and the community’ has weighted mean of 4.7, labeled as Strongly Agree, ‘overall cleanliness and organization of the waste area indicates that pupils take pride in their environment and act responsibly’ and ‘I see proper waste segregation as a way to take responsibility for the environment’ has a weighted mean of 4.6, both labeled as Strongly Agree. Moreover, the three(3) lower results, ‘ feel that properly segregating waste is too much responsibility for pupils, and it should be someone else’s duty’, ‘think the responsibility of waste segregation should only be emphasized in specific situations, not as a daily habit’, ‘think that waste segregation is not an important responsibility for students and should not be emphasized’, and ’believe that properly segregating waste not an important responsibility that all students should take seriously’, all resulted of weighted mean of 1.7, all interpreted as Strongly Disagree. Generally, the average weighted mean resulted of 3.2 interpreted as Neutral. This results inclined of an article written by Calma, A (2016) titled “The Role of the Students in Environment Preservation”, if students if properly motivated to assume the duty as sentinels of the environment, would encourage them to participate in different environmental projects. Government and non-government agencies had taken the initiatives and acts to do their parts, it is now up to the school through the leadership of the school head to encourage his students to fulfill their roles in the environment preservation. Constant reminder and encouragement, plus different school activities like clean-up drives and solid waste management programs would surely inspire every student to be sentinels and protectors of the environment.

**Table 2.3. Level of Impact of Proper Waste Segregation in terms of Responsibility.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Responsibility** | **Weighted Mean** | **Rank** | **Interpretation** |
| The overall cleanliness and organization of the waste area indicates that pupils take pride in their environment and act responsibly. | **4.6** | **3** | **Strongly Agree** |
| The proper use of bins reflects the understanding of pupils’ responsibility regarding waste management. | **4.4** | **5** | **Strongly Agree** |
| I see proper waste segregation as a way to take responsibility for the environment. | **4.6** | **3** | **Strongly Agree** |
| I am confident that practicing proper waste segregation will make a positive impact on the school and the community. | **4.7** | **1** | **Strongly Agree** |
| I believe that properly segregating waste is an important responsibility that all pupils should take seriously. | **4.6** | **3** | **Strong Agree** |
| I feel that waste segregation is a task that should only be handled by the school staff, not the pupils. | **2.1** | **6** | **Disagree** |
| I feel that properly segregating waste is too much responsibility for pupils, and it should be someone else’s duty. | **1.7** | **8.5** | **Strongly Disagree** |
| I think the responsibility of waste segregation should only be emphasized in specific situations, not as a daily habit. | **1.7** | **8.5** | **Strongly Disagree** |
| I think that waste segregation is not an important responsibility for students and should not be emphasized. | **1.7** | **8.5** | **Strongly Disagree** |
| I believe that properly segregating waste not an important responsibility that all students should take seriously. | **1.7** | **8.5** | **Strongly Disagree** |
| **Average Weighted Mean** | **3.2** |  | **Neutral** |

**Legend:**

1.00 – 1.79: Strongly Disagree

1.80 – 2.59: Disagree

2.60 – 3.39: Neutral

3.40 – 4.19: Agree

4.20 – 5.00: Strongly Agree

Table 3 revealed the summary of impact of Proper Waste Segregation, as in Students’ Discipline, it resulted of weighted mean of 3.6 interpreted as Agree, accompanied by Learnings has a weighted mean 3.12, interpreted as Neutral, and the Responsibility was found to be 3.2 of weighted mean, interpreted as Neutral.

**Table 3. Summary of impact of Proper Waste Segregation in terms of Students’ Discipline, Learnings and Responsibility.**

|  |  |  |
| --- | --- | --- |
| **INDICATORS** | **WEIGHTED MEAN** | **INTERPRETATION** |
| **Students’ Discipline** | **3.6** | **Agree** |
| **Learnings** | **3.12** | **Neutral** |
| **Responsibility** | **3.2** | **Neutral** |

**Legend**

1.0 – 1.79: Strongly Disagree

1.80 – 2.59: Disagree

2.60 – 3.39: Neutral

3.40 – 4.19: Agree

4.20 – 5.00: Strongly Agree

Table 3.1 revealed that, as Cleanliness and Students’ Discipline has a correlation of 0.66 interpreted as Perfect Positive Correlation, accompanied by P-value of 0.53. Since the P-value exceeds to the alpha level 0.05, the decision is to accept the null hypothesis (H0), it indicates that there is no significant relationship between the effectiveness of 3R’s in terms of 3R’s and the impact of Proper Waste Segregation in terms of Students’ Discipline. On the other hand, the Cleanliness and Learnings, resulted the correlation of 1.17 interpreted as Perfect Positive Correlation, followed by the P-value that resulted of 0.29, and since the alpha level 0.05 is greater than the P-value, it indicates that there is no relationship between the 3R’s in terms of Cleanliness and the impact of Proper Waste Segregation in terms of Learnings. Furthermore, Cleanliness and Responsibility, resulted the correlation of 0.92, categorized as Very High Positive Correlation, as P-value has 0.40. As compared to the alpha level 0.05, it surpass to the alpha level, resulted of accepting the null hypothesis (H0), specify that there is no significant relationship between the effectiveness of 3R’s in terms of Cleanliness and the impact of Proper Waste Segregation in terms of Responsibility.

**Table 3.1. Significant relationship between the effectiveness of 3R’s in terms of Cleanliness and the impact of Proper Waste Segregation in terms of Students’ Discipline, Learnings, and Responsibility.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Correlation** | **Interpretation** | **P-value** | **Decision** | **Interpretation** |
| **Cleanliness and Students’ Discipline** | **0.66** | **High Positive Correlation** | **0.53** | **Fail to reject Ho** | **Not Significant** |
| **Cleanliness and Learnings** | **1.17** | **Perfect Positive Correlation** | **0.29** | **Fail to reject Ho** | **Not Significant** |
| **Cleanliness and Responsibilty** | **0.92** | **Very High Positive Correlation** | **0.40** | **Fail to reject Ho** | **Not Significant** |

**Legend:**

1. : Perfect Positive Correlation

0.75 – 0.99 : Very High Positive Correlation

0.50 – 0.74 : High Positive Correlation

0.25 – 0.49 : Moderately Positive Correlation

* 1. – 0.24 : Very Small Positive Correlation

0 : No Correlation

-0.01 - -0.24 : Very Small Negative Correlation

-0.25 - -0.49 : Moderately Negative Correlation

-0.50 - -0.74 : High Negative Correlation

-0.75 - -0.99 : Very High Negative Correlation

-1.0 : Perfect Negative Correlation

Table 3.2 states that, Awareness and Students’ Discipline has a correlation of 2.68, categorized as Perfect Positive Correlation, followed by P-value of 0.04. Since the P-value is less than the alpha level, the decision is to reject the null hypothesis (H0), it says that there is significant relationship between the effectiveness of 3R’s in terms of Awareness and the impact of Proper Waste Segregation in terms of Students’ Discipline. Moreover, the Awareness and Learnings has a correlation of 3.01, interpreted as Perfect Positive Correlation, followed by P-value of 0.02. Since the P-vakue is less than the alpha level 0.05, it indicates that there is significant relationship between the effectiveness of 3R’s in terms of awareness the impact of Proper Waste Segregation in terms of Learnings. Moreover, thhe Awareness and Responsibility, has also have a correlation of 3.01, interpreted as Perfect Positive Correlation, accompanied ny P-value with a calculated of 0.02. The P-value falls below the alpha level, the null hypothesis is rejected. It indicates that there is significant relationship between the 3R’s in terms of Awareness and the impact of Proper Waste Segregation in terms of Responsibility.

**Table 3.2. Significant relationship between the effectiveness of 3R’s in terms of Awareness and the impact of Proper Waste Segregation in terms of Students’ Discipline, Learnings, and Responsibility.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Correlation** | **Interpretation** | **P-value** | **Decision** | **Interpretation** |
| **Awareness and Students’ Discipline** | **2.68** | **Perfect Positive Correlation** | **0.04** | **Reject H0** | **Significant** |
| **Awareness and Learnings** | **3.01** | **Perfect Positive Correlation** | **0.02** | **Reject H0** | **Significant** |
| **Awareness and Responsibility** | **3.01** | **Perfect Positive Correlation** | **0.02** | **Reject H0** | **Significant** |

**Legend:**

1.00 **:** Perfect Positive Correlation

0.75 – 0.99 : Very High Positive Correlation

0.50 – 0.74 : High Positive Correlation

* 1. – 0.49 : Moderately Positive Correlation
  2. 0.24 : Very Small Positive Correlation

0 : No Correlation

-0.01 - -0.24 : Very Small Negative Correlation

-0.25 - -0.49 : Moderately Negative Correlation

-0.50 - -0.74 : High Negative Correlation

-0.75 - -0.99 : Very High Negative Correlation

-1.0 : Perfect Negative Correlation

Table 3.3 shows that, the Efficiency and Students’ Discipline has a correlation value of 3.11, interpreted as Perfect Positive Correlation, followed by the P-value of 0.02. Since the P-value falls below to the alpha level 0.05, its specify that the null hypothesis (H0) is rejected. Therefore, it indicates that there is significant relationship between the effectiveness of 3R’s in terms of Efficiency and the impact of Proper Waste Segregation in terms of Students’ Discipline. As Efficiency and Learnings, has a correlation of 3.79, interpreted as Perfect Positive Correlation, accompanied by the P-value of 0.01. Since the P-value isnless than the alpha level 0.05, the decision is to reject the null hypothesis (H0). By that, there is significant relationship between the effectiveness of 3R’s in terms of Efficiency and the impact of Proper Waste Segregation in terms of Learnings. As Efficiency and Responsibility, the correlation resulted of 1.55, labeled as Perfect Positive Correlation, and P-value calculated of 0.18. Compared the P-value to the alpha level 0.05, its exceeds to the alpha level. It indicates that there is no significant relationship between the 3R’s in terms of Efficiency and the impact of Proper Waste Segregation in terms of Responsibility.

**Table 3.3. Significant Relationship between the effectiveness of 3R’s in terms of Efficiency and the impact of Proper Waste Segregation in terms of Students’ Discipline, Learnings, and Responsibility.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Correlation** | **Interpretation** | **P-value** | **Decision** | **Interpretation** |
| **Efficiency and Students’ Discipline** | **3.11** | **Perfect Positive Correlation** | **0.02** | **Reject H0** | **Significant** |
| **Efficiency and Learnings** | **3.79** | **Perfect Positive Correlation** | **0.01** | **Reject H0** | **Significant** |
| **Efficiency and Responsibility** | **1.55** | **Perfect Positive Correlation** | **0.18** | **Accept H0** | **Not Significant** |

**Legend:**

1. : Perfect Positive Correlation

0.75 – 0.99 : Very High Positive Correlation

0.50 – 0.74 : High Positive Correlation

* 1. – 0.49 : Moderately Positive Correlation

0.01 – 0.24 : Very Small Positive Correlation

0 : No Correlation

-0.01 - -0.24 : Very Small Negative Correlation

-0.25 - -0.49 : Moderately Negative Correlation

-0.50 - -0.74 : High Negative Correlation

-0.75 - -0.99 : Very High Negative Correlation

-1.0 : Perfect Negative Correlation

**CHAPTER V**

**SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATIIONS**

This chapter presented the summary, findings, conclusion and recommendation of each problem in the study. The summary included the major findings upon which conclusions were based. The recommendation that had been formulated from the conclusions are also presented in this chapter.

**SUMMARY**

This study conducted, focuses on 3R’s: Implementation of Proper Waste Segregation. The following specific problems that the researchers look into: 1. What are the effectiveness of 3R’s in terms of: Cleanliness, Awareness, Efficiency. 2. What are the impact of Proper Waste Segregation in terms of: Students’ Discipline, Learnings, Responsibility. 3. Is there any significant relationship between the 3R’s and the impact of Proper Waste Segregation?

This study utilize the Quantitative-Experimental research design to determine the level of effectiveness of 3R’s and the impact of Proper Waste Segregation. It also establishes procedures that allow the researcher to test a hypothesis and to systematically and scientifically study causal relationships among variable. The Statistical Treatment of weighted mean was used to determine the overall effectiveness of 3R’s, and impact of Proper Waste Segregation, per day of observation conducted, also average weighted mean was used to find out the overall level of effectiveness of 3R’s and level of impact of Proper Waste Segregation per indicator. Moreover, with the use of Spearman Rank Correlation, researchers determine the significant relationship between the effectiveness of 3R’s and the impact of Proper Waste Segregation, statistically.

**PROBLEM 1**

What are the effectiveness of 3R’s in terms of:

1. Cleanliness
2. Awareness
3. Efficiency

**FINDINGS**

The data presented, as ‘ 3R’s (Reduce, Reuse, Recycle) will gives the school more pleasant to look at’, ‘the 3R’s (Reduce, Reuse, Recycle) are essential for maintaining long term cleanliness in community’ has a weighted mean of 4.9 interpreted as Strongly Agree, ‘reusing materials helps to maintain cleanliness in my surroundings’ resulted of weighted mean of 4.7 and ‘it reduces the consuming of plastic bags’ and ‘3R’s helps the school to be clean and organized’ has a weighted mean of 4.4, both interpreted as Strongly Agree. Among the ten(10) questions, these three (3) recognized as the highest results. Meanwhile, the three (3) lowest results, ‘recycling bins in the school are ineffective in maintaining cleanliness on campus’ and ‘efforts to reduce, reuse, and recycle in school are somehow ineffective in keeping classrooms and hallways clean’ resulted of 2.9 categorized as Neutral, ‘ I do not believe the 3R’s (Reduce, Reuse, Recycle) are effective in maintaining cleanliness in my community’ has a weighted mean of 2.1, interpreted as Disagree, and ‘reusing school supplies does not contribute to maintaining a cleaner school environment’ has a weighted mean of 1.9, interpreted as Disagree.. Generally, the average weighted mean calculated of 5.55, interpreted as Strongly Agree. With this results, it recognized somehow effective the 3R’s is good in cleanliness of environment.

As a result in Awareness, pupils are able to share significance of 3R’s to their classmates’ has a weighted mean of 4.4, labeled as Strongly Agree, ‘pupils manifest willingness in participating in school-initiated recycling activities’ and ‘pupils will reuse materials for their projects, like recycled papers or reusable containers.’ Has a weighted mean of 4.3 both categorized as Strongly Agree. The lowest results among the 10, ‘the 3 different colors of trashbin (red, yellow, blue), pupils doesn’t know what type of trash they will place’ has a weighted mean of 2.7, labeled as Neutral. The Filipino translated label (Nabubulok, Di-Nabubulok, Nareresiklo), not helps to understand and segregate the waste properly, and ‘the use of images/visual aids of examples of wastes that can be place that attached to the trashbin, not necessarily helps the pupil to segregate the wastes properly has a weighted mean of 2.1, both labeled as Disagree. The calculated average weighted mean has resulted of 3.42, interpreted as Agree.

Furthermore, in terms of Efficiency, the ‘teachers and staff will efficiently integrate the 3R’s principles into their daily classroom practices’ with a weighted mean of 4.7 labeled as Strongly Agree. Secondly, the ‘the school will efficiently communicates the importance of the 3R’s to students, parents, and staff’ has a weighted mean of 4.6 categorized as Strongly Agree. Lastly, the ‘believe that incorporating the 3Rs has significantly improve student’s waste segregation efficiency’ and ‘the school’s use of materials and supplies reflects an efficient effort to reduce waste’ both resulted with a weighted mean of 4.1 both identified as Agree. Meanwhile, there were also three (3) lower results. First, the ‘waste segregation bin is rarely used or improperly labeled, making them inefficient’ with a weighted mean of 3.1 labeled as Agree, the second is ‘proper Waste Segregation has not improved pupils’ ability to follow instructions and adhere to school procedures’ and ‘waste segregation bins are not more efficient for every day use’ both resulted with a weighted mean of 2.7, accompanied by ‘recycling efforts in the school are inconsistent and not regularly maintained’ has weighted mean of 2.4, labeled as Disagree. In general, effectiveness of 3Rs in terms of Efficiency has an average weighted mean of 3.56 and its interpretation is Agree. Understanding these results helps to see if the level of Effectiveness in terms of Efficiency is has an effect in environment of Elementary Department.

**CONCLUSION**

In conclusion, the Cleanliness that indicated on the effectiveness of 3R’s categorized as Strongly Agree, indicates that many agreed that Cleanliness is have an important role for the 3R’s. Students’ awareness to the importance of 3R’s resulted many agreed, suggesting that in some way, pupils aware of the effects of wastes to environment, not just about to the usage of bins, but also their awareness to the good effect of 3R’s to our environment. Moreover, the Efficiency also recognized effective with the 3R’s. It shown that the 3R’s of provided Waste Segregation Bins implemented, many agreed that 3R’s is efficiently communicates the importance of 3R’s to students, and it is efficient to use among the students of Elementary.

**RECOMMENDATIONS**

The researchers suggests that they can create a seminar or program about the essence of 3R’s. Also, schools can generate a informative signs or infographics that contains the importance of 3R’s to our environment, and to have an impact to the awareness of students. It can also create an advocacy to reduce waste, reuse and recycle the items that can be recycled.

**PROBLEM 2**

What are the impact of Proper Waste Segregation in terms of:

1. Student’s Discipline
2. Learnings
3. Responsibility

**FINDINGS**

The study results revealed that, ‘the availability of proper waste segregation bins will improve pupils’ awareness of responsible waste disposal’ and ‘regular practice of proper waste segregation improves pupils’ organizational skills in other areas’ resulted with a weighted mean of 4.6 labeled as Strongly Agree, ‘the presence of waste segregation bins encourages pupils to think twice before littering’ and ‘waste segregation bin have contributed to better discipline among pupils during lunch and snack breaks’ has a weighted mean of 4.4 both of interpreted as Strongly Agree. Meanwhile, ‘pupils continue to improperly dispose of waste, despite the presence of designated trash bins’ has a weighted mean of 3, ‘proper waste segregation does not significantly affect pupils’ overall discipline in school’ has a weighted mean of 2.7, both interpreted as Neutral. ‘I don’t believe that following the waste segregation rules has any effect on students’ behavior or discipline’ resulted of weighted mean of 2.1 categorized as Disagree. In general, the average weighted mean resulted of 3.6 interpreted as Agree.

Additionally, in terms of Learnings, ‘structured label in designated trashbins helps the students to learn of what wastes are biodegradable, non-biodegradable, and recyclable’ has a weighted mean of 4.3, labeled as Strongly Agree, ‘pupils gained a better understanding of how improper waste segregation can harm the environment’ has a weighted mean of 4.1 and ‘pupils are consistently segregate the waste into the correct bins’ with 3.9, both labeled as Agree. Followed by ‘I feel that the waste segregation bins are unnecessary or too complicated to use’ with resulted weighted mean of 2.4, ‘I believe that segregating waste does not significantly impact the environment’ and ‘believe the waste segregation bins are unnecessary and make no real difference’ indicates of weighed mean 1.9, both labeled as Disagree. The total average weighted mean of the level of impact of Proper Waste Segregation in terms of Learnings, resulted of 3.12 interpreted as Agree.

Meanwhile in Responsibility, indicates that ‘I am confident that practicing proper waste segregation will make a positive impact on the school and the community’ has weighted mean of 4.7, labeled as Strongly Agree, ‘overall cleanliness and organization of the waste area indicates that pupils take pride in their environment and act responsibly’ and ‘I see proper waste segregation as a way to take responsibility for the environment’ has a weighted mean of 4.6, both labeled as Strongly Agree. Moreover, the three(3) lower results, ‘ feel that properly segregating waste is too much responsibility for pupils, and it should be someone else’s duty’, ‘think the responsibility of waste segregation should only be emphasized in specific situations, not as a daily habit’, ‘think that waste segregation is not an important responsibility for students and should not be emphasized’, and ’believe that properly segregating waste not an important responsibility that all students should take seriously’, all resulted of weighted mean of 1.7, all interpreted as Strongly Disagree. Generally, the average weighted mean resulted of 3.2 interpreted as Neutral.

**CONCLUSION**

Based on the findings, it concludes that many agreed that Students’ Discipline is part that will affect form the Proper Waste Segregation. Practicing this Proper Waste Segregation helps the students to improves their skills in terms of organizing, and have an overall discipline in school. It recognized how students’ discipline applied on this implementation. Moreover, the learnings of the elementary students has an impact to the Proper Waste Segregation , through the descriptions in the bins, colors, visual aids/images helps the students to learn about the wastes, it gives them insights and learnings of what the purpose of segregating. In Responsibility, many agreed that the students have a responsibilities to their wastes, with the help of implemented Waste Segregation Bins. Generally, its awesome how Elementary students know how to be responsible, and discipline about the waste that they use in their early times.

**RECOMMENDATION**

To further enhance their knowledges and insights about the importance of Proper Waste Segregation, researchers suggest to provide informations through the use of creative infographics that attracts the students to read that information, and paste it near the bins.

**PROBLEM 3**

Is there any significant relationship between the effectiveness of 3R’s and the impact of Proper Waste Segregation?

**FINDINGS**

Based on the results, as Cleanliness and Students’ Discipline has a correlation of 0.27, interpreted as Moderately Positive Correlation, accompanied by P-value of 0.55. Since the P-value exceeds to the alpha level 0.05, the decision is to accept the null hypothesis (H0), it indicates that there is no significant relationship between the effectiveness of 3R’s in terms of 3R’s and the impact of Proper Waste Segregation in terms of Students’ Discipline. On the other hand, the Cleanliness and Learnings, resulted the correlation of 0.45, interpreted as Moderately Positive Correlation, follwed by the P-value that resulted of 0.31, and since the alpha level 0.05 is greater than the P-value, it indicates that there is no relationship between the 3R’s in terms of Cleanliness and the impact of Proper Waste Segregation in terms of Learnings. Furthermore, Cleanliness and Responsibility, resulted the correlation of 0.37, categorized as Moderately Positive Correlation, as P-value has 0.42. As compared to the alpha level 0.05, it surpass to the alpha level, resulted of accepting the null hypothesis (H0), specify that there is no significant relationship between the effectiveness of 3R’s in terms of Cleanliness and the impact of Proper Waste Segregation in terms of Responsibility.

Compared the P-value calculated of 0.26, to the alpha level of 0.05, indicates that the result of P-value is greater than to the alpha level. Furthermore, the null hypothesis (Ho) of has no significant relationship is rejected. It reveals that there is significant relationship between the effectiveness of 3R’s in terms of Awareness and the impact of Proper Waste Segregation in terms of Students’ Discipline. As Spearman Rank Coefficient (rs) resulted of 0.40, calculated with the use of Rank of WM per Day (SOP 1, B) and Rank of WM per Day (SOP 2, B). Additionally, the t-value measured of 1.45, and P- value resulted of 0.17. Since the P-value exceeds to the alpha level of 0.05, its specify that there is significant relationship between the effectiveness of 3R’s in terms of Awareness and the impact of Proper Waste Segregation in terms of Learnings. Meanwhile, with the P-value was found to be 0.17. By comparison of the alpha level of 0.05 to the P-value, it surpasses to the alpha level indicated. Therefore, it can be concluded that there is statistically significant relationship between the effectiveness of 3R’s in terms of Awareness and the impact of 3R’s in terms of Responsibility.

In terms if Efficiency, as Efficiency and Students’ Discipline has a correlation value of 0.81, interpreted as Very High Positive Correlation, follwed by the P-value of 0.02. Since the P-value falls below to the alpha level 0.05, its specify that the null hypothesis (H0) is rejected. Therefore, it indicates that there is significant relationship between the effectiveness of 3R’s in terms of Efficiency and the impact of Proper Waste Segregation in terms of Students’ Discipline. As Efficiency and Learnings, has a correlation of 0.86, interpreted as Very High Positive Correlation, accompanied by the P-value of 0.01. Since the P-value isnless than the alpha level 0.05, the decision is to reject the null hypothesis (H0). By that, there is significant relationship between the effectiveness of 3R’s in terms of Efficiency and the impact of Proper Waste Segregation in terms of Learnings. As Efficiency and Responsibility, the correlation resulted of 0.56, labeled as High Positve Correlation, and P-value calculated of 0.18. Compared the P-value to the alpha level 0.05, its exceeds to the alpha level. It indicates that there is no significant relationship between the 3R’s in terms of Efficiency and the impact of Proper Waste Segregation in terms of Responsibility.

**CONCLUSION**

Based on the data and the statistical computations, all P-value that falls below the alpha level of 0.05, means there is significant relationship between the indicators. The relationship between the effectiveness of 3R’s in terms of Awareness and the imoact of Proper Waste Segregation in terms of Students’ Discipline, Learnings, and Responsibilty, indicates that there is significant relationship. In addition, the relationship between the effectiveness of 3R’s in terms of Efficiency and the impact of Proper Waste Segregation in terms of Student’ Discipline, and Learnings, there is also significant relationship between the two(2). In the other hand, the effectiveness of 3R’s in terms of Cleanliness and the impact of Proper Waste Segregation in terms of Students’ Discipline, Learnings, and Responsibilty, and the effectiveness of 3R’s in terms of Efficiency and the impact of Proper Waste Segregation in terms of Responsibilty, their P-values are higher to the alpha level, means that all of these has no significant relationship between the indicators stated.

**RECOMMENDATION**

The researchers recommends that, scan and search of the other connected benefits of 3R’s and Proper Waste Segregation, for the results of having a significant relationship between those benefits.

**APPENDICES**

**APPENDIX A**

**REFERENCES**

**REFERENCES**

ACTenviro. (2024, October 3). School waste management: Best practices for reducing trash in schools. *ACTenviro*. <https://www.actenviro.com/school-waste-management/>

*PressReader.com - digital newspaper & magazine subscriptions*. (n.d.). PressReader. <https://www.pressreader.com/philippines/sunstar-pampanga/20160418/281646779310562?srsltid=AfmBOorl7Hf_MRs4dnYDrJRlhAPV3x4UzUrT2s7vPOShBkZvZdpZJJ1N>

Ganados, D., Gencianos, J., Mata, R. a. F., Pates, C. S., Salvatiera, C. M., Platino, V. L., Jr, & Marquez, S. R. (2019). Assessment of the implementation of proper solid waste management of the residents in Bonbon, Clarin, Bohol. *ACADEME University of Bohol Graduate School and Professional Studies*, *14*(1), 1–18. <https://doi.org/10.15631/aubgsps.v14i1.137>

Goh, E., Esfandiar, K., Jie, F., Brown, K., & Djajadikerta, H. (2022). Please sort out your rubbish! An integrated structural model approach to examine antecedents of residential households’ waste separation behaviour. *Journal of Cleaner Production*, *355*, 131789. <https://doi.org/10.1016/j.jclepro.2022.131789>

Implementation. (2025). In *Merriam-Webster Dictionary*. https://www.merriam-webster.com/dictionary/implementation

Molina, R. A., & Catan, I. (2021). Solid Waste Management Awareness and Practices among Senior High School Students in a State College in Zamboanga City, Philippines. *Aquademia*, *5*(1), ep21001. <https://doi.org/10.21601/aquademia/9579>

Observation. (2025). In *Merriam-Webster Dictionary*. <https://www.merriam-webster.com/dictionary/observation>

Davies, R. (2023, June 12). *The importance of waste segregation*. Axil Integrated Services. <https://axil-is.com/blogs-articles/waste-segregation/#:~:text=Waste%20segregation%20is%20the%20sorting,can%20save%20your%20company%20money.>

Peprah, K., Amoah, S. T., & Achana, G. T. W. (2015). Assessing ‘3RS’ model in relation to municipal solid Waste management in WA, Ghana. *World Environment*, *5*(3), 112–120. <https://doi.org/10.5923/j.env.20150503.03>

Reduce. <https://www.vocabulary.com/dictionary/reduced>

Recycle. <https://www.dictionary.com/browse/recycle>

Reuse: <https://www.merriam-webster.com/dictionary/reuse>

**APPENDIX B**

**LETTERS OF APPROVAL**

November 22, 2024

**MARY JOYCE N. RAMOS**

SHS Teacher

This Institution

Madam:

Greetings,

We, the Grade 12 HUMSS 3 - MORMONT, are conducting a research study tittled **“3R’s: Implementation of Proper Waste Segregation”.** Given this, we’re reaching out to ask for your expertise in checking our Survey Questionnaire particularly in terms of your expertise in technicalities and grammar.

We would highly value any suggestions and recommendations you will be given in order to improve our Survey Questionnaire. Attached herewith is the copy of our SOP, and Survey Questionnaire. We sincerely look forward with your positive response. Your consideration are highly appreciated.

Thank you and God bless.

Respectfully,

**BRAGAIS, KASSY M.**

**BUBAN, REYJIE D.**

**DACILLO, GUILE DC.**

**GOZO, RICK EMMANUEL M.**

**PRAXIDES, MARKYZZIA CAMILLE B.**

**ROLDAN, EIA N.**

Researchers

Noted:

**GEM ERDY D. CAMINO**

Research Adviser

Approved:

**MARY JOYCE N. RAMOS**

Panelist/Assistant Principal – SHS Department

November 7, 2024

**CHRISTINE JOY F. BACLAO**

SHS Teacher

This Institution

Madam,

Greetings,

We, the Grade 12 HUMSS 3 – MORMONT, are conducting a research study titled “3R’s: Implementation of Proper Waste Segregation”. Given this, we’re reaching out to ask for your expertise in checking our Observation Checklist, particularly in terms of your expertise in statistics.

We would highly value any suggestions and recommendations you will be given in order to improve our Observation Checklist. Attached herewith is the copy of our SOP, and Observation Checklist. We sincerely look forward with your positive response. Your consideration are highly appreciated. Thank you and God bless!

Yours truly,

**BRAGAIS, KASSY M.**

**BUBAN, REYJIE D.**

**DACILLO, GUILE DC.**

**GOZO, RICK EMMANUEL M.**

**PRAXIDES, MARKYZZIA CAMILLE B.**

**ROLDAN, EIA N**

Researchers

Noted:

**GEM ERDY D. CAMINO**

Research Adviser

Approved:

**CHRISTINE JOY F. BACLAO**

ResearchStatistician

November 7, 2024

**ROSELLE S. ESTOY**

SHS Teacher

This Institution

Madam,

Greetings,

We, the Grade 12 HUMSS 3 - MORMONT, are conducting a research study titled **“3R’s: Implementation of Proper Waste Segregation”.** Given this, we’re reaching out to ask for your expertise in checking our Survey Questionnaire particularly in terms of your expertise in technicalities and grammar.

We would highly value any suggestions and recommendations you will be given in order to improve our Survey Questionnaire. Attached herewith is the copy of our SOP, and Survey Questionnaire. We sincerely look forward with your positive response. Your consideration are highly appreciated.

Thank you and God bless.

**BRAGAIS, KASSY M.**

**BUBAN, REYJIE D.**

**DACILLO, GUILE DC.**

**GOZO, RICK EMMANUEL M.**

**PRAXIDES, MARKYZZIA CAMILLE B.**

**ROLDAN, EIA N.**

Researchers

Noted:

**GEM ERDY D. CAMINO**

Research Adviser

Approved:

**ROSELLE S. ESTOY**

Research Panel

November 12, 2024

**FLORIAN M. ECALNER**

SHS Teacher

This Institution

Madam,

Greetings,

We, the Grade 12 HUMSS 3 - MORMONT, are conducting a research study titled **“3R’s: Implementation of Proper Waste Segregation”.** Given this, we’re reaching out to ask for your expertise in checking our Survey Questionnaire particularly in terms of your expertise in technicalities and grammar.

We would highly value any suggestions and recommendations you will be given in order to improve our Survey Questionnaire. Attached herewith is the copy of our SOP, and Survey Questionnaire. We sincerely look forward with your positive response. Your consideration are highly appreciated.

Thank you and God bless.

Respectfully,

**BRAGAIS, KASSY M.**

**BUBAN, REYJIE D.**

**DACILLO, GUILE DC.**

**GOZO, RICK EMMANUEL M.**

**PRAXIDES, MARKYZZIA CAMILLE B.**

**ROLDAN, EIA N.**

Researchers

Noted:

**GEM ERDY D. CAMINO**

Research Adviser

Approved:

**FLORIAN M. ECALNER**

Research Panel

**APPENDIX C**

**SUIRVEY QUESTIONNAIRE**



Republic of the Philippines

Division of Camarines Sur Region V

Department of Education

**KING THOMAS LEARNING ACADEMY INC.**

Malubago, Sipocot Camarines Sur

**——————————————————————————————————--------**

**3R’s : Implementation of Proper Waste Segregation**

**SURVEY QUESTIONNAIRE**

**Name (**optional)**:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Department: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Age: \_\_\_\_\_\_

**SOP#1:** What are the effectiveness of 3R’s in terms of:

1. Cleanliness
2. Awareness
3. Efficiency

**CHECKLISTS**

**Direction:** Put **(**✓**)** marks on the boxes depends on your opinion.

**5** – Strongly Agree

**4** – Agree

**3** – Neutral

**2** – Disagree

**1** – Strongly Disagree

*This survey aims to assess both the strengths and areas for improvement in our school’s implementation of the 3R’s (Reduce, Reuse, Recycle). Your feedback will help us make informed decisions on how to further enhance our sustainability efforts.*

**A)** **CLEANLINESS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Description** | **5**  **Strongly Agree** | **4**  **Agree** | **3**  **Neutral** | **2**  **Disagree** | **1**  **Strongly**  **Disagree** |
| 3R’s helps the school environment to be clean and organize. |  |  |  |  |  |
| It reduces the consuming of plastic bags. |  |  |  |  |  |
| 3R’s helps the school environment to be clean and organize. |  |  |  |  |  |
| Reusing materials helps to maintain cleanliness in my surroundings. |  |  |  |  |  |
| The 3R’s (Reduce, Reuse, Recycle) are essential for maintaining longterm cleanliness in my community. |  |  |  |  |  |
| Practicing the 3R’s does not reduce the amount of trash I see in my area. |  |  |  |  |  |
| Reusing school supplies does not contribute to maintaining a cleaner school environment. |  |  |  |  |  |
| Recycling bins in the school are ineffective in maintaining cleanliness on campus. |  |  |  |  |  |
| Efforts to reduce, reuse, and recycle in school are somehow ineffective in keeping classrooms and hallways clean. |  |  |  |  |  |
| I do not believe the 3R’s (Reduce, Reuse, Recycle) are effective in maintaining cleanliness in my community. |  |  |  |  |  |

1. **AWARENESS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| All students will actively join and cooperate in proper waste disposal based on 3R’s during class or school activities. |  |  |  |  |  |
| Pupils are able to share significance of 3R’s to their classmates. |  |  |  |  |  |
| Pupils will reuse materials for their projects, like recycled papers or reusable containers. |  |  |  |  |  |
| Pupils manifest willingness in participating in school-initiated recycling activities. |  |  |  |  |  |
| Pupils will be aware of  environmental benefits of reducing, reusing, and recycling materials in their daily task. |  |  |  |  |  |
| There are few students seems not in 3R’s activities. |  |  |  |  |  |
| Pupils are confused to identify between materials that should be reuse o recycle. |  |  |  |  |  |
| The Filipino translated label  (Nabubulok, Di-Nabubulok,  Nareresiklo), not helps to understand and segregate the waste properly. |  |  |  |  |  |
| The use of images/visual aids of examples of wastes that can be place that attached to the trashbin, not necessarily helps the pupil to segregate the wastes properly. |  |  |  |  |  |

**C) EFFICIENCY**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| I believe that incorporating the 3Rs has significantly improve student’s waste segregation efficiency. |  |  |  |  |  |
| W segregation bins in the school are easily accessible and properly labeled for efficient use. |  |  |  |  |  |
| The school’s use of materials and supplies reflects an efficient effort to reduce waste. |  |  |  |  |  |
| Teachers and staff will efficiently integrate the 3R’s principles into their daily classroom practices. |  |  |  |  |  |
| The school will efficiently communicates the importance of the 3R’s to students, parents, and staff. |  |  |  |  |  |
| The recycling bins in our school are rarely used or improperly labeled, making them inefficient. |  |  |  |  |  |
| Proper Waste Segregation has not improved pupils’ ability to follow instructions and adhere to school procedures. |  |  |  |  |  |
| Recycling efforts in the school are inconsistent and not regularly maintained. |  |  |  |  |  |
| The pupils choosing to dispose single-use products rather than reduce waste by not choosing to reuse items (e.g., reusable bottles, containers) |  |  |  |  |  |
| Waste Segregation bins are not more efficient for every day use. |  |  |  |  |  |

**SOP#2:** What are the impact of Proper Waste Segregation in terms of:

1. Student’s Discipline
2. Learnings
3. Responsibility

**A) STUDENTS’ DISCIPLINE**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| The availability of proper waste segregation bins will improve students’ awareness of responsible waste disposal. |  |  |  |  |  |
| The presence of waste segregation bins encourages students to think twice before littering. |  |  |  |  |  |
| Regular practice of proper waste segregation improves pupils’ organizational skills in other areas. |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Waste segregation bins have contributed to better discipline among students during lunch and snack breaks. |  |  |  |  |  |
| Proper waste segregation does not significantly affect students’ overall discipline in school. |  |  |  |  |  |
| Pupils continue to improperly dispose of waste, despite the presence of designated trash bins. |  |  |  |  |  |
| Pupils frequently ignore the waste segregation bins and continue to dispose of waste improperly. |  |  |  |  |  |
| There is little evidence that the waste segregation initiative has improved students’ overall discipline regarding cleanliness. |  |  |  |  |  |
| Pupils frequently ignore the designated bins for waste segregation, showing a lack of discipline. |  |  |  |  |  |
| I don’t believe that following the waste segregation rules has any effect on students’ behavior or discipline. |  |  |  |  |  |

**B) LEARNINGS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Structured label in designated trashbins helps the students to learn of what wastes are biodegradable, non-biodegradable, and recyclable. |  |  |  |  |  |
| Pupils are consistently segregate the waste into the correct bins. |  |  |  |  |  |
| The labels or instructions on the waste segregation bins are clear and easy to follow. |  |  |  |  |  |
| The initiative of implementing waste segregation bins has made the pupils more conscious about reducing waste and recycling |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Pupils gained a better understanding of how improper waste segregation can harm the environment. |  |  |  |  |  |
| I feel that the waste segregation bins are unnecessary or too complicated to use |  |  |  |  |  |
| I believe that segregating waste does not significantly impact the environment. |  |  |  |  |  |
| The pupils’ learnings about the importance of Waste Segregation are not reflected in their use of bins throughout the school day. |  |  |  |  |  |
| Pupils s avoid using the waste segregation bins if they are too far from where they are. |  |  |  |  |  |
| I believe the waste segregation bins are unnecessary and make no real difference. |  |  |  |  |  |

1. **RESPONSIBILITY**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| The overall cleanliness and organization of the waste area indicates that pupils take pride in their environment and act responsibly. |  |  |  |  |  |
| The proper use of bins reflects the understanding of pupils’ responsibility regarding waste management. |  |  |  |  |  |
| I see proper waste segregation as a way to take responsibility for the environment. |  |  |  |  |  |
| I am confident that practicing proper waste segregation will make a positive impact on the school and the community |  |  |  |  |  |
| I believe that properly segregating waste is an important responsibility that all pupils should take seriously. |  |  |  |  |  |
| I feel that properly segregating waste is too much responsibility for pupils, and it should be someone else’s duty. |  |  |  |  |  |
| I feel that waste segregation is a task that should only be handled by the school staff, not the pupils. |  |  |  |  |  |
| I think the responsibility of waste segregation should only be emphasized in specific situations, not as a daily habit |  |  |  |  |  |
| I think that waste segregation is not an important responsibility for students and should not be emphasized. |  |  |  |  |  |
| I believe that properly segregating waste not an important responsibility that all students should take seriously. |  |  |  |  |  |

**APPENDIX D**

**TALLY OF THE RESPONSES OF RESPONDENTS**

**SOP 1**: What are the effectiveness of 3R’s in terms of:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **A) CLEANLINESS** | **Strongly Agree**  **(5)** | **Agree**  **(4)** | **Neutral**  **(3)** | **Disagree**  **(2)** | **Strongly Disagree**  **(1)** |
| 1. 3R’s (Reduce, Reuse, Recycle) will gives the school more pleasant to look at | **6** | **1** | **0** | **0** | **0** |
| 2. It reduces the consuming of plastic bags. | **5** | **1** | **0** | **1** | **0** |
| 3. 3R’s helps the school environment to be clean and organize. | **4** | **3** | **0** | **0** | **0** |
| 4. Reusing materials helps to maintain cleanliness in my surroundings. | **5** | **2** | **0** | **0** | **0** |
| 5. The 3R’s (Reduce, Reuse, Recycle) are essential for maintaining long-term cleanliness in my community. | **6** | **1** | **0** | **0** | **0** |
| 6. Practicing the 3R’s does not reduce the amount of trash I see in my area. | **1** | **1** | **0** | **2** | **3** |
| 7. Reusing school supplies does not contribute to maintaining a cleaner school environment. | **0** | **1** | **0** | **3** | **3** |
| 8. Recycling bins in the school are ineffective in maintaining cleanliness on campus. | **1** | **0** | **2** | **1** | **3** |
| 9. Efforts to reduce, reuse, and recycle in school are somehow ineffective in keeping classrooms and hallways clean. | **1** | **0** | **1** | **3** | **2** |
| 10. I do not believe the 3R’s (Reduce, Reuse, Recycle) are effective in maintaining cleanliness in my community. | **1** | **0** | **1** | **2** | **3** |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **B) AWARENESS** |  |  |  |  |  |
| 1. All pupils will actively join and cooperate in proper waste disposal based on 3R’s during class or school activities. | **3** | **2** | **2** | **0** | **0** |
| 2. Pupils are able to share significance of 3R’s to their classmates. | **4** | **2** | **1** | **0** | **0** |
| 3. Pupils will reuse materials for their projects, like recycled papers or reusable containers. | **2** | **5** | **0** | **0** | **0** |
| 4. Pupils manifest willingness in participating in school-initiated recycling activities. | **3** | **3** | **2** | **0** | **0** |
| 5. Pupils will be aware of environmental benefits of reducing, reusing, and recycling materials in their daily task. | **3** | **2** | **2** | **0** | **0** |
| 6. There are few pupils seems not into 3R’s activities. | **0** | **3** | **1** | **3** | **0** |
| 7. Pupils are confused to identify  between materials that should be reuse o recycle. | **0** | **3** | **1** | **3** | **0** |
| 8. The Filipino translated label (Nabubulok, Di-Nabubulok, Nareresiklo), not helps to understand and segregate the waste properly | **0** | **1** | **2** | **1** | **3** |
| 9. The use of images/visual aids of examples of wastes that can be place that attached to the trashbin, not necessarily helps the pupil to segregate the wastes properly. | **0** | **1** | **1** | **3** | **2** |
| 10. The 3 different colors of trashbin (red, yellow, blue), pupils doesn’t know what type of trash they will place. | **0** | **2** | **1** | **4** | **0** |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **C) EFFICIENCY** |  |  |  |  |  |
| 1. I believe that incorporating the 3Rs has significantly improve student’s waste segregation efficiency. | **2** | **4** | **1** | **0** | **0** |
| 2. Waste Segregation bins provided in school are easily accessible and properly labeled for efficient use | **2** | **2** | **3** | **0** | **0** |
| 3. The school’s use of materials and supplies reflects an efficient effort to reduce waste. | **2** | **4** | **1** | **0** | **0** |
| 4. Teachers and staff will efficiently integrate the 3R’s principles into their daily classroom practices. | **5** | **2** | **0** | **0** | **0** |
| 5.The school will efficiently communicates the importance of the 3R’s to students, parents, and staff. | **4** | **3** | **0** | **0** | **0** |
| 6. The waste segregation bin is rarely used or improperly labeled, making them inefficient. | **1** | **0** | **5** | **1** | **0** |
| 7. Proper Waste Segregation has not improved pupils’ ability to follow instructions and adhere to school procedures. | **1** | **1** | **2** | **1** | **2** |
| 8. Recycling efforts in the school are inconsistent and not regularly maintained. | **0** | **2** | **1** | **2** | **2** |
| 9. The pupils choosing to dispose single-use products rather than reduce waste by not choosing to reuse items (e.g., reusable bottles, containers). | **0** | **4** | **1** | **2** | **2** |
| 10. Waste Segregation bins are not more efficient for every day use. | **0** | **0** | **0** | **4** | **3** |
|  |  |  |  |  |  |

SOP 2: What are the impact of Proper Waste Segregation?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **A) STUDENTS’ DISCIPLINE** |  |  |  |  |  |
| 1. The availability of proper waste segregation bins will improve pupils’ awareness of responsible waste disposal. | **0** | **2** | **3** | **0** | **2** |
| 2. The presence of waste segregation bins encourages pupils to think twice before littering. | **4** | **3** | **0** | **0** | **0** |
| 3.Regular practice of proper waste segregation improves pupils’ organizational skills in other areas. | **4** | **2** | **1** | **0** | **0** |
| 4. Waste segregation bin have contributed to better discipline  among pupils during lunch and snack breaks | **4** | **3** | **0** | **0** | **0** |
| 5. Proper waste segregation does not significantly affect pupils’ overall discipline in school. | **3** | **4** | **0** | **0** | **0** |
| 6. Pupils continue to improperly dispose of waste, despite the presence of designated trash bins. | **1** | **1** | **1** | **3** | **1** |
| 7. Pupils frequently ignore the waste segregation bin and continue to dispose of waste improperly | **0** | **0** | **4** | **3** | **0** |
| 8. There is little evidence that the waste segregation initiative has improved students’ overall discipline regarding cleanliness. | **1** | **1** | **3** | **2** | **0** |
| 9. Pupils frequently ignore the designated bins for waste segregation, showing a lack of discipline. | **2** | **1** | **3** | **0** | **1** |
| 10. I don’t believe that following the waste segregation rules has any effect on students’ behavior or discipline. | **1** | **0** | **1** | **2** | **3** |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **B) LEARNINGS** |  |  |  |  |  |
| 1. Structured label in designated trashbins helps the students to learn of what wastes are biodegradable, non-biodegradable, and recyclable. | **3** | **3** | **1** | **0** | **0** |
| 2. Pupils are consistently segregate the waste into the correct bins. | **2** | **3** | **1** | **1** | **0** |
| 3. The labels or instructions on the waste segregation bins are clear and easy to follow. | **2** | **1** | **4** | **0** | **0** |
| 4. The initiative of implementing waste segregation bins has made the pupils more conscious about reducing waste and recycling | **2** | **2** | **2** | **0** | **1** |
| 5. Pupils gained a better understanding of how improper waste segregation can harm the environment. | **2** | **4** | **1** | **0** | **0** |
| 6. I feel that the waste segregation bins are unnecessary or too complicated to use. | **1** | **1** | **0** | **3** | **2** |
| 7. I believe that segregating waste does not significantly impact the environment. | **0** | **1** | **0** | **3** | **3** |
| 8. The pupils’ learnings about the importance of Waste Segregation are not reflected in their use of bins throughout the school day. | **1** | **2** | **0** | **1** | **3** |
| 9. Pupils avoid using the waste segregation bins if they are too far from where they are. | **1** | **2** | **1** | **2** | **1** |
| 10. I believe the waste segregation bins are unnecessary and make no real difference. | **0** | **1** | **0** | **3** | **3** |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **C) RESPONSIBILITY** |  |  |  |  |  |
| 1. The overall cleanliness and organization of the waste area indicates that pupils take pride in their environment and act responsibly. | **5** | **1** | **1** | **0** | **0** |
| 2. The proper use of bins reflects the understanding of pupils’ responsibility regarding waste management. | **3** | **4** | **0** | **0** | **0** |
| 3. I see proper waste segregation as a way to take responsibility for the environment. | **4** | **3** | **0** | **0** | **0** |
| 4. I am confident that practicing proper waste segregation will make a positive impact on the school and the community. | **5** | **2** | **0** | **0** | **0** |
| 5. I believe that properly segregating waste is an important responsibility that all pupils should take seriously. | **4** | **3** | **0** | **0** | **0** |
| 6. I feel that waste segregation is a task that should only be handled by the school staff, not the pupils. | **1** | **0** | **0** | **1** | **5** |
| 7. I feel that properly segregating waste is too much responsibility for pupils, and it should be someone else’s duty. | **1** | **0** | **0** | **1** | **5** |
| 8. I think the responsibility of waste segregation should only be emphasized in specific situations, not as a daily habit. | **1** | **0** | **0** | **1** | **5** |
| 9. I think that waste segregation is not an important responsibility for students and should not be emphasized. | **0** | **1** | **5** | **1** | **0** |
| 10. I believe that properly segregating waste not an important responsibility that all students should take seriously. | **3** | **2** | **2** | **0** | **0** |
|  |  |  |  |  |  |

**APPENDIX E**

**STATISTICAL COMPUTATIONS**

**COMPUTATION OF THE WEIGHTED MEAN FOR INDICATORS**

SOP 1: What are the effectiveness of 3R’s in terms of:

**A) CLEANLINESS**

1) 6(5)+1(4)+0(3)+0(2)+0(1)

7

= 30+4+0+0+0

7

=34

7

= 4.86

2) 5(5)+1(4)+0(3)+1(2)+1(1)

7

= 25+4+0+2+1

7

= 32

7

= 4.57

3) 4(5)+3(4)+1(3)+0(2)+0(1)

7

= 29+12+3+0+0

7

= 35

7

= 5

4) 5(5)+2(4)+0(3)+0(2)+0(1)

7

= 25+8+0+0+0

7

=33

7

=4.71

5) 6(5)+1(4)+0(3)+0(2)+0(1)

7

= 30+4+0+0+0

7

= 34

7

= 4.86

6) 1(5)+1+4)+0(3)+2(2)+1(1)

7

= 5+4+0+4+1

7

=14

7

= 2

7) 0(5)+1(4)+0(3)+3(2)+3(1)

7

=0+4+0+6+3

7

= 13

7

= 1.86

8) 1(5)+0(4)+2(3)+1(2)+3(1)

7

= 5+0+6+2+3

7

=16

7

=2.28

9) 1(5)+0(4)+1(3)+3(2)+2(1)

7

= 5+0+3+6+2

7

= 16

7

= 2.29

10) 1(5)+0(4)+1(3)+2(2)+3(1)

7

= 5+0+3+4+3

7

= 2.14

**B) AWARENESS**

1) 4(5)+2(4)+1(3)+0(2)+0(1)

7

= 20+8+3+0+0

7

=31

7

=4.43

2) 4(5)+2(4)+1(3)+0(2)+0(1)

7

= 20+8+3+0+0

7

= 31

7

=4.43

3) 2(5)+5(4)+0(3)+0(2)+0(1)

7

= 10+20+0+0+0

7

= 30

7

= 4.28

4) 3(5)+3(4)+1(3)+0(2)+0(1)

7

= 15+12+3+0+0

7

= 30

7

= 4.29

5) 3(5)+2(4)+2(3)+0(2)+0(1)

7

= 15+8+6+0+0

7

= 29

7

= 4.14

6) 0(5)+3(4)+1(3)+3(2)+0(1)

7

= 0+12+3+6+0

7

= 21

7

= 3

7) 0(5)+3(4)+1(3)+3(2)+0(1)

7

= 0+12+3+6+0

7

= 21

7

= 3

8) 0(5)+1(4)+2(3)+1(2)+3(1)

7

= 0+4+6+2+3

7

= 15

7

= 2.14

9) 0(5)+1(4)+1(3)+3(2)+2(1)

7

= 0+4+3+6+2

7

= 15

7

= 2.14

10) 0(5)+2(4)+1(3)+4(2)+0(1)

7

= 0+8+3+8+0

7

= 19

7

=2.71

**C) EFFICIENCY**

1) 2(5)+4(4)+1(3)+0(2)+0(1)

7

= 10+16+3+0+1

7

=30

7

=4.29

2) 2(5)+2(4)+3(3)+0(2)+0(1)

7

= 10+8+9+0+0

7

= 27

7

= 3.86

3) 2(5)+4(4)+1(3)+0(2)+0(1)

7

= 10+16+3+0+0

7

= 29

7

= 4.14

4) 5(5)+2(4)+0(3)+0(2)+0(1)

7

= 10+16+3+0+0

7

=29

7

=4.14

5) 4(5)+3(4)+0(3)+0(2)+0(1)

7

= 20+12+0+0+0

7

= 32

7

=4.57

6) 1(5)+0(4)+5+3)+1(2)+0(1)

7

= 5+0+15+2+0

7

= 22

7

= 3.14

7) 1(5)+1(4)+2(3)+1(2)+1(1)

7

=5+4+6+2+1

7

=18

7

= 2.57

8) 0(5)+2(4)+1(3)+2(2)+0(2)

7

= 5+4+6+2+1

7

=18

7

= 2.57

9) 0(5)+4(4)+1(3)+2(2)+0(1)

7

=0+16+3+4+0

7

=23

7

=3.29

10) 0(5)+0(4)+0(3)+4(2)+3(1)

7

= 0+0+0+8+3

7

=11

7

= 1.57

SOP 2: What are the impact of Proper Waste Segregation in terms of:

A) **STUDENTS’ DISCIPLINE**

1) 0(5)+2(4)+3(3)+0(2)+2(1)

7

= 0+8+9+0+2

7

= 19

7

=2.71

2) 4(5)+3(4)+0(3)+0(2)+0(1)

7

= 20+12+0+0+0

7

= 32

7

= 4.57

3) 4(5)+2(4)+0(3)+0(2)+0(1)

7

= 20+8+0+0+0

7

= 28

7

= 4

4) 4(5)+3(4)+1(3)+0(2)+0(1)

7

= 20+12+3+0+0

7

= 35

7

= 5

5) 3(5)+4(4)+0(3)+0(2)+0(1)

7

= 15+16+0+0+0

7

= 31

7

= 4.43

6) 1(5)+1(4)+1(3)+3(2)+1(1)

7

= 5+4+3+6+1

7

=18

7

= 2.57

7) 0(5)+2(4)+4(3)+3(2)+0(1)

7

= 0+8+12+6+0

7

=26

7

= 3.71

8) 1(5)+1(4)+3(3)+2(2)+0(1)

7

= 16

7

= 2.29

9) 2(5)+1(4)+3(3)+0(2)+1(1)

7

= 10+4+9+0+1

7

=24

7

= 3.43

10) 1(5)+0(4)+1(3)+2(2)+3(1)

7

= 5+0+3+4+3

7

= 15

7

=2 .14

**B) LEARNINGS**

1)3(5)+3(4)+1(3)+(2)+0(1)

7

= 15+12+3+0+0

7

= 30

7

= 4.29

2) 2(5)+3(4)+1(3)+1(2)+0(1)

7

= 10+12+3+2+0

7

= 27

7

= 3.86

3) 2(5)+1(4)+4(3)+0(2)+0(1)

7

= 10+4+12+0+0

7

=26

7

= 3.71

4) 2(5)+2(4)+2(3)+0(2)+1(1)

7

= 10+8+6+0+1

7

=25

7

= 3.57

5) 2(5)+4(4)+1(3)+0(2)+0(1)

7

= 10+16+3+0+0

7

= 29

7

=4.14

6) 1(5)+1(4)+0(3)+3(2)+3(1)

7

= 5+4+0+6+3

7

= 18

7

= 2.57

7) 0(5)+1(4)+0(3)+3(2)+3+1)

7

= 0+4+0+6+3

7

= 13

7

= 1.86

8) 1(5)+2(4)+0(3)+1(2)+3(1)

7

= 5+8+0+2+3

7

= 18

7

= 2.57

9) 1(5)+2(4)+1(3)+2(2)+1(1)

7

= 5+8+3+4+1

7

=21

7

= 3

10) 0(5)+1(4)+0(3)+3(2)+3(1)

7

= 0+4+0+6+3

7

= 13

7

= 1.86

**C) RESPONSIBILITY**

1) 5(5)+1(4)+1(3)+0(2)+0(1)

7

= 25+4+3+0+0

7

= 32

7

= 4.57

2) 3(5)+4(4)+0(3)+0(2)+0(1)

7

= 15+16+0+0+0

7

= 31

7

= 4.42

3) 4(5)+2(4)+0(3)+0(2)+0(1)

7

= 20+8+0+0+0

7

= 28

7

= 4

4) 5(5)+2(4)+0(3)+0(2)+0(1)

7

= 25+8+0+0+0

7

=33

7

= 4.71

5) 4(5)+3(4)+0(3)+0(2)+0(1)

7

= 20+12+0+0+0

7

= 32

7

= 4.57

6) 1(5)+0(4)+0(3)+1(2)+5(1)

7

= 5+0+0+2+5

7

= 12

7

= 1.71

7)1(5)+0(4)+0+3)+1(2)+5(1)

7

= 5+0+0+2+5

7

= 12

7

=1.71

8) 0(5)+1(4)+5(3)+1(2)+0(1)

7

= 0+4+15+2+0

7

=21

7

=3

9) 1(5)+0(4)+0(3)+1(2)+5(1)

7

= 5+0+0+2+5

7

= 12

7

= 1.71

10) 3(5)+2(4)+2(3)+0(2)+0(1)

7

= 15+8+12+0+0

7

= 35

7

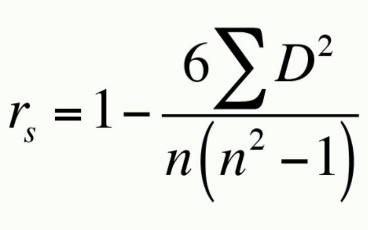
=4.42

**COMPUTATIONS OF THE WEIGHTED MEAN FOR RESPONDENTS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Respondents | Cleanliness | Awareness | Efficiency | Students’  Discipline | Learnings | Responsibility |
| 1 | 3 | 3.4 | 3.7 | 3.5 | 3.2 | 3 |
| 2 | 3.6 | 3.8 | 3.6 | 3.6 | 3.1 | 3.5 |
| 3 | 4.7 | 4.1 | 4.4 | 4.4 | 4.8 | 4.9 |
| 4 | 3.4 | 3 | 3.2 | 3 | 3 | 2.4 |
| 5 | 3.1 | 3 | 2.9 | 2.9 | 2.4 | 2.9 |
| 6 | 3.1 | 3.4 | 3.7 | 3.9 | 3.1 | 2.7 |
| 7 | 3 | 3.3 | 3.5 | 3.7 | 2.3 | 2.9 |

**SPEARMAN RANK CORRELATION COEFFICIENT**

Formula:



**AA) What are the effectiveness of 3R’s in terms of Cleanliness and impact of Proper Waste Segregation in terms of Students’ Discipline.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SOP 1 A**  **(x)** | **SOP 2 A**  **(y)** | **Rx** | **R*y*** | ***D*** | ***D²*** |
| 3 | 3.5 | 6.5 | 5 | 1.5 | 2.25 |
| 3.6 | 3.6 | 2 | 4 | -2 | 4 |
| 4.7 | 4.4 | 1 | 1 | 0 | 0 |
| 3.4 | 3 | 3 | 6 | -3 | 9 |
| 3.1 | 2.9 | 4.5 | 7 | -2.5 | 6.25 |
| 3.1 | 3.9 | 4.5 | 2 | **-**2.5 | 6.25 |
| 3 | 3.7 | 6.5 | 3 | 3.5 | 12.25 |
|  |  |  |  |  | **∑D²= 40** |

6∑*D²*

rs = 1– *n(n²*–1*)*

= 1– 6(40)

7(7²–1)

= 1 – 240

336

=1- 0.285714286

= 0.285714286

**AB) The effectiveness of 3R’s in terms of Cleanliness and impact of Proper Waste Segregation in terms of Learnings**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SOP 1 A**  **(x)** | **SOP 2 B**  **(y)** | **Rx** | **R*y*** | ***d*** | ***d²*** |
| 3 | 3.2 | 6.5 | 2 | 4.5 | 20.25 |
| 3.6 | 3.1 | 2 | 3.5 | -1.5 | 2.25 |
| 4.7 | 4.8 | 1 | 1 | 0 | 0 |
| 3.4 | 3 | 3 | 5 | -2 | 4 |
| 3.1 | 2.4 | 4.5 | 6 | -1.5 | 2.25 |
| 3.1 | 3.1 | 4.5 | 3.5 | 1 | 1 |
| 3 | 2.3 | 6.5 | 7 | -0.5 | 0.25 |
|  |  |  |  |  | ∑D²= 30 |

6∑*D²*

rs = 1 – *n(n²*-1*)*

= 1 – 6(30)

7(7²–1)

= 1 – 180

7(48)

= 1 – 180

336

= 1 – 0.535714285

= 0.464285715

**AC) The effectiveness of 3R’s in terms of Cleanliness and impact of Proper Waste Segregation in terms of Responsibility**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SOP 1 A**  **(x)** | **SOP 2 C**  **(y)** | **Rx** | **R*y*** | ***d*** | ***d²*** |
| 3 | 3 | 6.5 | 3 | 3.5 | 12.25 |
| 3.6 | 3.5 | 2 | 2 | 0 | 0 |
| 4.7 | 4.9 | 1 | 1 | 0 | 0 |
| 3.4 | 2.4 | 3 | 7 | -4 | 16 |
| 3.1 | 2.9 | 4.5 | 4.5 | 0 | 0 |
| 3.1 | 2.7 | 4.5 | 6 | -1.5 | 2.25 |
| 3 | 2.9 | 6.5 | 4.5 | 2 | 4 |
|  |  |  |  |  | **∑D²=34.5** |

6∑*D²*

rs = 1– *n(n²*–1*)*

= 1– 6(34.5)

7(7²–1)

= 1 – 207

336

= 1 – 0.616071428

= 0.384928572

**BA) The effectiveness of 3R’s in terms of Awareness and impact of Proper Waste Segregation in terms of Students’ Discipline**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SOP 1 B**  **(x)** | **SOP 2 A**  **(y)** | **Rx** | **R*y*** | ***d*** | ***d²*** |
| 3.4 | 3.5 | 3.5 | 5 | -1.5 | 2.25 |
| 3.8 | 3.6 | 2 | 4 | -2 | 4 |
| 4.1 | 4.4 | 1 | 1 | 0 | 0 |
| 3 | 3 | 6.5 | 6 | 0.5 | 0.25 |
| 3 | 2.9 | 6.5 | 7 | -0.5 | 0.25 |
| 3.4 | 3.9 | 3.5 | 2 | 1.5 | 2.25 |
| 3.3 | 3.7 | 5 | 3 | 2 | 4 |
|  |  |  |  |  | **∑D²= 13** |

6∑*D²*

rs = 1– *n(n²*-1*)*

= 1 – 6(13)

7(7²–1)

= 1 – 78

336

= 1 – 0.232142857

= 0.767857143

**BB) The effectiveness of 3R’s in terms of Awareness and impact of Proper Waste Segregation in terms of Learnings**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SOP 1 B**  **(x)** | **SOP 2 B**  **(y)** | **Rx** | **R*y*** | ***d*** | ***d²*** |
| 3.4 | 3.2 | 3.5 | 2 | 1.5 | 2.25 |
| 3.8 | 3.1 | 2 | 3.5 | -1.5 | 2.25 |
| 4.1 | 4.8 | 1 | 1 | 0 | 0 |
| 3 | 3 | 6.5 | 5 | 1.5 | 2.25 |
| 3 | 2.4 | 6.5 | 6 | 0.5 | 0.25 |
| 3.4 | 3.1 | 3.5 | 3.5 | 0 | 0 |
| 3.3 | 2.3 | 5 | 7 | -2 | 4 |
|  |  |  |  |  | **∑D²= 11** |

6∑*D²*

rs = 1– *n(n²*–1*)*

= 1 – 6(11)

7(7²–1)

= 1 – 66

336

= 1 – 0.196428571

= 0.803571429

**BC) The effectiveness of 3R’s in terms of Awareness and impact of Proper Waste Segregation in terms of Responsibility**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SOP 1 B**  **(x)** | **SOP 2 C**  **(y)** | **Rx** | **R*y*** | ***d*** | ***d²*** |
| 3.4 | 3 | 3.5 | 3 | 0.5 | 0.25 |
| 3.8 | 3.5 | 2 | 2 | 0 | 0 |
| 4.1 | 4.9 | 1 | 1 | 0 | 0 |
| 3 | 2.4 | 6.5 | 7 | -0.5 | 0.25 |
| 3 | 2.9 | 6.5 | 4.5 | 2 | 4 |
| 3.4 | 2.7 | 3.5 | 6 | -2.5 | 6.25 |
| 3.3 | 2.9 | 5 | 4.5 | 0.5 | 0.25 |
|  |  |  |  |  | **∑D²=11** |

6∑*D²*

rs = 1– *n(n²*–1*)*

= 1– 6(11)

7(7²-1)

= 1– 66

336

= 1 – 0.196428571

= 0.803571429

**CA) The effectiveness or 3R’s in terms of Efficiency and impact of Proper Waste Segregation in terms of Students’ Discipline**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SOP 1 C**  **(x)** | **SOP 2 A**  **(y)** | **Rx** | **R*y*** | ***d¹*** | ***d²*** |
| 3.7 | 3.5 | 2.5 | 5 | -2.5 | 6.25 |
| 3.6 | 3.6 | 4 | 4 | 0 | 0 |
| 4.4 | 4.4 | 1 | 1 | 0 | 0 |
| 3.2 | 3 | 6 | 6 | 0 | 0 |
| 2.9 | 2.9 | 7 | 7 | 0 | 0 |
| 3.7 | 3.9 | 2.5 | 2 | 0.5 | 0.25 |
| 3.5 | 3.7 | 5 | 3 | 2 | 4 |
|  |  |  |  |  | **∑D²= 10.5** |

6∑*D²*

rs = 1– *n(n²*–1*)*

= 1 – 6(10.5)

7(7²–1)

= 1 – 63

336

= 1 – 0.1875

= 0.8125

**CB) The effectiveness of 3R’s in terms of Efficiency and impact of Proper Waste Segregation in terms of Learnings**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SOP 1 C**  **(x)** | **SOP 2 B**  **(y)** | **Rx** | **R*y*** | ***d*** | ***d²*** |
| 3.7 | 3.2 | 2.5 | 2 | 0.5 | 0.25 |
| 3.6 | 3.1 | 4 | 3.5 | 0.5 | 0.5 |
| 4.4 | 4.8 | 1 | 1 | 0 | 0 |
| 3.2 | 3 | 6 | 5 | 1 | 1 |
| 2.9 | 2.4 | 7 | 6 | 1 | 1 |
| 3.7 | 3.1 | 2.5 | 3.5 | -1 | 1 |
| 3.5 | 2.3 | 5 | 7 | -2 | 4 |
|  |  |  |  |  | **∑D2= 7.75** |

6∑*D²*

rs = 1– *n(n²*-1*)*

=1– 6 (7.75)

7(7²–1)

= 1 – 0.138392857

= 0.861607143

**CC) The effectiveness of 3R’s in terms of Efficiency and impact of Proper Waste Segregation in terms of Responsibility**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SOP 1 C**  **(x)** | **SOP 2 C**  **(y)** | **Rx** | **R*y*** | ***d*** | ***d²*** |
| 3.7 | 3 | 2.5 | 3 | -0.5 | 0.25 |
| 3.6 | 3.5 | 4 | 2 | 2 | 4 |
| 4.4 | 4.9 | 1 | 1 | 0 | 0 |
| 3.2 | 2.4 | 6 | 7 | -1 | 1 |
| 2.9 | 2.9 | 7 | 4.5 | 2.5 | 6.25 |
| 3.7 | 2.7 | 2.5 | 6 | -3.5 | 12.25 |
| 3.5 | 2.9 | 5 | 4.5 | 0.5 | 0.25 |
|  |  |  |  |  | **∑D2= 24** |

6∑*D²*

rs = 1- *n(n²*-1*)*

**=** 1– 6(24)

7(7²–1)

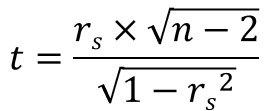
= 1 – 144

336

= 1 – 0.428571428

= 0.571428572

**T- VALUE**

Formula:

**AA)**

*t* = rs

= rs

= rs

= rs

=0.285714286 (2.236067977)

0.958314847

= 0.638876564

0.958314847

= 0.6667

**AB)**

*t* = rs

= rs

= rs

= rs

=0.4647285715 (2.236067977)

0.885453191

= 1.039164677

0.885453191

= 1.1735964

**AC)**

*t* = rs

= rs

= rs

=0.383928572 (2.236067977)

= 0.858490385

0.923362795

= 0.929743313

**BA)**

*t* = rs

= rs

= rs

=0.3767857143 (2.236067977)

= 1.716980768

0.640621111

= 2.680181372

**BB)**

*t* = rs

= rs

= rs

=0.803571429 (2.236067977)

= 1.79684034

0.595208358

= 3.018842588

**BC)**

*t* = rs

= rs

= rs

=0.803571429 (2.236067977)

= 1.79684034

0.595208358

= 3.018842588

**CA)**

*t* = rs

= rs

= rs

=0.8025 (2.236067977)

= 1.816805231

0.58296119

= 3.116511463

**CB)**

*t* = rs

= rs

= rs

=0.861607143 (2.236067977)

= 1.926612141

0.50757574

= 3.795713603

**CC)**

*t* = rs

= rs

= rs

=0.571428572 (2.236067977)

= 1.277753131

0.5820657806

= 3.116511463

**APPENDIX F**

**DOCUMENTATIONS**

**DOCUMENTATIONS**

****

‌

‌

****

****

**APPENDIX H**

**CURRICULUM VITAE**

**BUBAN, REYJIE D.**

Bikal, Libmanan, Camarines Sur

09814120443

Email Address: [jieboybuban304@gmail.com](mailto:jieboybuban304@gmail.com)

**PERSONAL DATA**

NICKNAME : Jie

AGE : 17

SEX : Male

HEIGHT : 5’2

BIRTHDAY : October 27, 2007

BIRTHPLACE : Libmanan, Camarines Sur

FATHER’S NAME : Reynaldo B. Buban

MOTHER’S NAME : Juliet D. Buban

CIVIL STATUS : Single

NATIONALITY : Filipino

RELIGION : Roman Catholic

**EDUCATIONAL BACKGROUND**

**SECONDARY KING THOMAS LEARNING ACADEMY INC.**

(2023-Present)

Malubago, Sipocot, Camarines Sur

**CENTRAL BICOL STATE UNIVERSITY OF**

**AGRICULTURE – SIPOCOT** ( 2019 – 2023 )

Coloy-coloy, Impig, Sipocot Camarines Sur

**ELEMENTARY**   **SIPOCOT SOUTH CENTRAL SCHOOL (**2015-2019)

Sipocot, Camarines Sur

**ROLDAN, EIA N.**

Udoc, Libmanan, Camarines Sur

Email Address: [eyyahroldan@gmail.com](mailto:eyyahroldan@gmail.com)

**PERSONAL DATA**

NICKNAME : Eia

AGE : 17

SEX : Female

HEIGHT : 5’4

BIRTHDAY : October 17, 2007

BIRTHPLACE : Libmanan, Camarines Sur

FATHER’S NAME : Retendor E. Roldan

MOTHER’S NAME : Amalia N. Roldan

CIVIL STATUS : Single

NATIONALITY : Filipino

RELIGION : Roman Catholic

**EDUCATIONAL BACKGROUND**

**SECONDARY KING THOMAS LEARNING ACADEMY INC.**

(2023-Present)

Malubago, Sipocot, Camarines Sur

**DON MARIANO C. SAN JUAN HIGH SCHOOL**

(2019 – 2023 )

Udoc, Libmanan Camarines Sur

**ELEMENTARY**   **UDOC ELEMENTARY SCHOOL (**2015-2019)

Sipocot, Camarines Sur

**PRAXIDES, MARKYZZIA CAMILLE B.**

Sipocot, Camarines Sur

Email Address: [markyzziacamillep@gmail.com](mailto:markyzziacamillep@gmail.com)

**PERSONAL DATA**

NICKNAME : Camille

AGE : 17

SEX : Female

HEIGHT : 4’8

BIRTHDAY : October 10, 2007

BIRTHPLACE : Sipocot, Camarines Sur

FATHER’S NAME : Mark Anthony B. Praxides

MOTHER’S NAME : Krizzia Mae B. Praxides

CIVIL STATUS : Single

NATIONALITY : Filipino

RELIGION : Roman Catholic

**EDUCATIONAL BACKGROUND**

**SECONDARY KING THOMAS LEARNING ACADEMY INC.**

(2023-Present)

Malubago, Sipocot, Camarines Sur

**KING THOMAS LEARNING ACADEMY INC.**

(2019 – 2023 )

Malubago, Sipocot Camarines Sur

**ELEMENTARY**   **KING THOMAS LEARNING ACADEMY INC.**

**(2**015-2019)

Sipocot, Camarines Sur

**DACILLO, GUILE DC.**

Sipocot, Camarines Sur

Email Address: [guiledacillo998@gmail.com](mailto:guiledacillo998@gmail.com)

**PERSONAL DATA**

NICKNAME : Guile

AGE : 18

SEX : Male

HEIGHT : 5’7

BIRTHDAY : September 8, 2006

BIRTHPLACE : Bicol Sanitarium

FATHER’S NAME : Gilbert Dacillo

MOTHER’S NAME : Fe Dela Cruz

CIVIL STATUS : Single

NATIONALITY : Filipino

RELIGION : Born Again Christian

**EDUCATIONAL BACKGROUND**

**SECONDARY KING THOMAS LEARNING ACADEMY INC.**

(2023-Present)

Malubago, Sipocot, Camarines Sur

**SIPOCOT NATIONAL HIGH SCHOOL**

(2019 – 2023 )

Sipocot, Camarines Sur

**ELEMENTARY**  **ISABELA CAUAYAN ELEMENTARY SCHOOL**

**(**2015-2019)

**BRAGAIS, KASSY M.**

Sipocot, Camarines Sur

Email Address: [kassybragais15@gmail.com](mailto:kassybragais15@gmail.com)

**PERSONAL DATA**

NICKNAME : Kassy

AGE : 17

SEX : Female

HEIGHT : 5’3

BIRTHDAY : December 9, 2007

BIRTHPLACE : Sipocot District Hospital

FATHER’S NAME : Nelson F. Bragais

MOTHER’S NAME : Jovy M. Bragais

CIVIL STATUS : Single

NATIONALITY : Filipino

RELIGION : Roman Catholic

**EDUCATIONAL BACKGROUND**

**SECONDARY KING THOMAS LEARNING ACADEMY INC.**

(2023-Present)

Malubago, Sipocot, Camarines Sur

**SIPOCOT NATIONAL HIGH SCHOOL**

(2019 – 2023 )

Sipocot, Camarines Sur

**ELEMENTARY**  **SOLEDAD R. VILLAFUERTE ELEMENTARY SCHOOL**

**(**2015-2019)

**GOZO, RICK EMMANUEL M.**

Lupi, Camarines Sur

Email Address: [gozorickemmanuel@gmail.com](mailto:gozorickemmanuel@gmail.com)

**PERSONAL DATA**

NICKNAME : Emman

AGE : 17

SEX : Male

HEIGHT : 5’8

BIRTHDAY : August 12, 2007

BIRTHPLACE : Ragay District Hospital

FATHER’S NAME : Rodecrick A. Gozo

MOTHER’S NAME : Jinky L. Mendoza

CIVIL STATUS : Single

NATIONALITY : Filipino

**EDUCATIONAL BACKGROUND**

**SECONDARY KING THOMAS LEARNING ACADEMY INC.**

(2023-Present)

Malubago, Sipocot, Camarines Sur

**COLACLING NATIONAL HIGH SCHOOL**

(2019 – 2023 )

Lupi, Camarines Sur

**ELEMENTARY**   **COLACLING ELEMENTARY SCHOOL**

**(2**015-2019)

Sipocot, Camarines Sur