



BASURA SA BOTELYA APPROACH AND SANITATION LEVEL OF GRADE 7 STUDENTS

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ABSTRACT

This study aimed to determine the effect of Basura sa Botelya program on the sanitation level of grade seven learners. This study made use of a descriptive-co-relation non-experimental quantitative research method. It was descriptive because the data were presented in quantitative descriptions on the basura sa botelya approach and sanitation level of grade 7 students, descriptive-correlation design determines and supports the way things are. Using a questionnaire in conducting a survey, interview or observations usually collected the data. This study was conducted in Padada National High School, Division of Davao Del Sur. The subjects of this study were the 50 grade seven– 25 were from section A who were the controlled group and 25 were from section B who were the experimental group. The composition of these two sections was homogeneous. Both learners from sections A and B had identical grades. This study made use of the non-random assignment of subjects where all learners of both sections A and B were involved as subjects of the study. This study revealed that the utilization of basura sa botelya approach and sanitation had increased the environmental awareness, engagement in sustainable practices, and overall health and hygiene of grade seven students. It also revealed that there was magnitude of difference between the post test scores of the controlled and experimental groups.

KEYWORDS: Basura sa Botelya, Sanitation

INTRODUCTION

All humans produce wastes of various types. A solid waste or a liquid waste produced at home and in workplaces, schools, hospitals and other public buildings. All these wastes need to be controlled and managed for the benefit of people and the environment that they live in. In urban areas where people live close together and space can be limited, managing these wastes is a difficult problem.

The importance of sanitation to community well-being has been known for thousands of years. Sanitation is one of the most important aspects of community well-being because it protects human health, extends life spans, and is documented to provide benefits to the economy. We can think of sanitation as a prevention of human contact with wastes, or as the provision of facilities and services for the safe disposal of human wastes. More formally, the World Health Organization (WHO, n.d.) defines sanitation as: the provision of facilities and services for the safe disposal of human urine and faeces, the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal.

Solid waste management is an essential service in any society. Solid waste refers to the range of garbage materials—arising from animal and human activities—that are discarded as unwanted and useless. Solid waste is generated from industrial, residential, and commercial activities in a given area, and may be handled in a variety of ways.

Waste can be categorized based on material, such as plastic, paper, glass, metal, and organic waste. Categorization may also be based on hazard potential, including radioactive, flammable, infectious, toxic, or non-toxic wastes. Categories may also pertain to the origin of the waste, whether industrial, domestic, commercial, institutional, or construction and demolition.



Poor sanitation reduces well-being, social and economic development due to impact such as anxiety, risk of sexual assault, and lost opportunities for education and work. It is believed to be the main cause of social, economic and environmental destruction as well.

The primary goal of solid waste management is reducing and eliminating adverse impacts of waste materials on human health and the environment to support economic development and superior quality of life. This is to be done in the most efficient manner possible, to keep costs low and prevent waste buildup.

Managing the waste generated out of households, schools, offices, hospitals, etc. is called as waste management. The waste generated by the above-mentioned sources is called as the solid waste. It is the responsibility of a municipality to dispose of the solid waste in a correct manner. But citizens have a huge role to play in this too, as they are the main generators of this kind of waste. Solid waste mostly includes all types of paper waste, plastic waste, food waste, glass, metals, cloth and textiles, rubber, leather etc. The disposal of the different types of solid waste is done in different ways. One of the most common ways to dispose of the solid waste is to burn. But burning only reduces the volume of the waste and is not an effective method to dispose of. It also gives rise to gases which pollute the environment. Any unburnt waste again piles up and acts as a breeding ground for insects and rats.

The three R's of waste management are Reduce, Reuse and Recycle. All the waste that is generated by humans can be classified as biodegradable waste, non-biodegradable waste, and recyclable waste. Here sorting out the waste is the first step in efficient waste management. Once this is done, disposing of the waste becomes quite an easy process.

Segregation of waste hence is an important aspect of managing wastes. And, segregation starts at the source, right from the point where it is generated. This segregation helps in sorting out materials that can be recycled or reused. With this, we can also achieve reduced waste production.

Plastic water bottles are becoming a growing segment of the municipal solid waste stream in the United States and from all over the world. By recycling our plastic bottles, we can positively impact the environment in several ways. The "Basura sa Botelya" idea was introduced so we could be of help in our own little way. We encourage each student to provide a plastic bottle to be used as a container of their plastic wastes such as biscuits and candy wrappers and other wastes classified as non-biodegradable. As a motivation, the more bottles they fill in the bigger the rewards they can have. As the saying goes "Hitting two birds with one stone.", our aim to reduce plastic wastes that end up as litter in roadways and to conserve natural resources were taken into action and lies on our own hands.

In the Division of Davao del Sur particularly in Padada National High School, solid waste management is considered to be one of the most environmental issues. As the population growth increases, the more the generation of waste is prevalent. As an adviser, the issue is very evident in a classroom set up and management of solid waste from inside the classroom as well as in its surroundings outside is believed to be controlled with this collaborative strategy "Basura sa Botelya" idea.

This study has aimed to determine the effect of Basura sa Botelya program on the sanitation level of grade seven learners. Accordingly, in this study it sought to answer the following questions.

1. What is the sanitation level of grade seven learners before the implementation of Basura sa Botelya program?
2. What is the sanitation level of the grade seven learners after the implementation of Basura sa Botelya program?
3. Is there significant difference between the sanitation level of the controlled and experimental groups?

What is the magnitude of effect of Basura sa Botelya Program on the sanitation level of grade seven learners?

METHODOLOGY

Research Design

This study made use of a descriptive-co-relation non-experimental quantitative research method. It is descriptive because the data are presented in quantitative descriptions on the basura sa botelya approach and sanitation level of grade 7 students, descriptive-correlation design determines and supports the way things are. Using a questionnaire in conducting a survey, interview or observations usually collects the data.



Research Respondents

This study was conducted in Padada National High School, Division of Davao Del Sur. The subjects of this study were currently enrolled in the participating school. The 50 grade seven– 25 were from section A which were the controlled group and 25 were from section B which were the experimental group. The composition of these two sections was homogeneous. Both learners from sections A and B had identical grades. This study made use of the non-random assignment of subjects where all learners of both sections A and B were involved as subjects of the study. They provided information that is used to analyze and draw conclusions about the research questions. They participated in observations and activities related to the "Basura sa Botelya" intervention.

	Subjects	No. of Pupils
1	Section A	25
2	Section B	25
	Total	50

Table 1. Distribution of Respondents

Research Instrument

In this study, one (1) set of observation checklist was used. It is a researcher-made observation checklist which was validated by experts of the study and was subjected later to a reliability test using cron bach alpha. It was pilot tested to a school that is not a part of the research locale. The checklist focused on the items of sanitation level of the grade seven learners.

Data Gathering

At the outset of data gathering procedure, the researcher drafted a letter seeking for permission that this research study be conducted were sent to the Schools Division Superintendent of Davao Sur, Dr. Nelson Lopez, CESO V and the school principal of Padada National High School.

While letters seeking permission were delivered to the Schools Division Superintendent and the school principal concerned, the researcher constructed a questionnaire and had it validated by the experts preferably the experts of the study.

After permission had been granted that this study be conducted in Padada National High School and after the research questionnaire had been thoroughly examined by the expert validators, the researcher administered pretest to both controlled and experimental class and eventually commenced her experiment. After three weeks of experimentation, the researcher administered posttest to both sections. Scores of the subjects was submitted to the statistician for statistical computation after which the researcher made analysis and interpretation on the data gathered.

Data Analysis

The following statistical tools will used:

Average Weighted Mean was used to determine the level of Leadership Practices of School Heads

RESULTS AND DISCUSSION

This chapter displays the summary of the findings, conclusions and recommendations drawn out by the researcher after the analysis and interpretation of the findings had been made.

This study sought to determine the effect of contextualized clues on the academic performance of grade eight students in language class.

This study made use of quasi-experimental research design, which is a non-equivalent control group pretest-posttest design. Non-equivalent design is a good design when the researcher has access to one group for experimentation (Vockel 1983). The researcher opted to use this design because the subjects of the study are intact group of learners.

This study was conducted in Sta. Cruz National High School, Division of Davao Del Sur. The subjects of this study were the 90 grade eight students – 45 are from section A which comprised the controlled group and 45 are from section B composed the experimental group. The composition of these two sections is heterogeneous



therefore pupils of sections A and B have identical range of performance. This study made use of the non-random assignment of subjects where all learners of both sections A and B were involved as subjects of the study.

This study revealed that the utilization of contextualized clues has increased the academic performance of grade eight students in language class. It also revealed that there is magnitude of difference between the post test scores of the controlled and experimental groups.

Conclusions

Based on the collective findings on this study, the following conclusions are drawn:

The pre-test scores of the grade five pupils both the controlled and experimental groups is at the Beginning level. The post-test scores of the controlled group is at the Developing level while the post test scores of the experimental group is at the Approaching Proficiency level.

Recommendations

In the light of the findings drawn out by the researcher in this study, the following recommendations are offered: It is recommended that teachers teaching language class in grade eight should used contextualized clues as a strategy that would further develop the academic performance of students in order to make the teaching of language class meaningful. If learners take part in the learning process by experiencing the unfolding of the lesson, then he will appreciate the concept being develop, thus, he is learning.

The school heads should promote the use of contextualized clues as a strategy that would engage the child actively in the learning process as it is revealed in the study that it is effective especially on subjects that are narrative in nature and are not interesting to learners. A school policy about the utilization of contextualized clues can be issued. Besides, he can invite the teacher-researcher to demoteach during LAC session using contextualized clues as a strategy in teaching language class.

For future researchers, it is strongly recommended that a relative study on the use of role play as a strategy in teaching will be conducted. Another dimension in teaching can serve as another indicator.

REFERENCES

1. Conant, Jeff (2005). Berkeley, California, USA: The Hesperian Foundation in collaboration with the United Nations Development Programme (UNDP), Sida. p. 6. *Sanitation and Cleanliness for a Healthy Environment (PDF)*. Archived from the original (PDF) on 2014-10-21.
2. European Investment Bank (2019). *On Water*. Publications Office. doi:10.2867/509830. ISBN 9789286143199. Archived from the original on 2020-11-29. Retrieved 2020-12-07. {{cite book}}: |website= ignored (help)
3. Evans, B., van der Voorden, C., Peal, A. (2009). *Water Supply and Sanitation Collaborative Council (WSSCC), Geneva, Switzerland, p. 35 Public Funding for Sanitation - The many faces of sanitation subsidies* Archived 2017-10-11 at the Wayback Machine.
4. Flores, A. (2010). *PhD Thesis, University of Cambridge, UK Towards sustainable sanitation: evaluating the sustainability of resource-oriented sanitation* Archived 2017-06-29 at the Wayback Machine.
5. Gates Foundation (2010). *Gates Foundation. Archived (PDF) from the original on 2020-10-21. "Water Sanitation Hygiene Fact Sheet 2010" (PDF)*. Retrieved 2017-11-17.
6. Gius, Mark; Subramanian, Ramesh (2015). "The Relationship between Inadequate Sanitation Facilities and the Economic Well-Being of Women in India". *Journal of Economics and Development Studies*. 3 (1). doi:10.15640/jeds.v3n1a2. ISSN 2334-2382.
7. GTZ, IWA (2003). *Ecosan - closing the loop - Proceedings of the 2nd international symposium, 7th–11th April 2003, Lübeck, Germany. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH and International Water Association (IWA)*.
8. Harvey, Peter; et al. (2007). *Loughborough: Loughborough university. Water, engineering and development centre (WEDC). Excreta disposal in emergencies a field manual: an inter-agency publication*. p. 250. ISBN 978-1-84380-113-9
9. Human Rights Council resolution 15/9, *Human rights and access to safe drinking water and sanitation*, (6 October 2010), available from <http://www.right2water.eu/sites/water/files/UNHRC%20Resolution%2015-9.pdf> Archived 2017-05-17 at the Wayback Machine
10. Mara, Duncan (2017). *Journal of Water Sanitation and Hygiene for Development*. 7 (1): 1–12. doi:10.2166/washdev.2017.027. "The elimination of open defecation and its adverse health effects: a moral imperative for governments and development professionals". ISSN 2043-9083. Archived from the original on 2018-06-21. Retrieved 2017-08-17
11. Paranipe, Nitin (19 September 2017). "The rise of the sanitation economy: how business can help solve a global crisis". *Thomson Reuters Foundation News*. Archived from the original on 29 December 2019. Retrieved November 13, 2017.



13. Platzer, C., Hoffmann, H., Ticona, E. (2008). *Alternatives to waterborne sanitation – a comparative study – limits and potentials* Archived 2017-10-09 at the Wayback Machine. IRC Symposium: Sanitation for the urban poor – partnerships and governance, Delft, The Netherlands
14. PRIA (2019): *Lived Realities of Women Sanitation Workers in India: Insights from a Participatory Research Conducted in Three Cities of India* Archived 2022-12-11 at the Wayback Machine. Participatory Research in Asia, New Delhi, India
15. Shepard, J.; Stevens, C.; Mikhael, G. (2017). *The world can't wait for sewers; Advancing container-based sanitation businesses as a viable answer to the global sanitation crisis*. EY, WSUP.
16. Sphere Association (2018) *The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response* Archived 2019-05-12 at the Wayback Machine, fourth edition, Geneva, Switzerland, 2018.
17. Tilley, E., Ulrich, L., Lüthi, C., Reymond, Ph. and Zurbriigg, C. (2014). *Swiss Federal Institute of Aquatic Science and Technology (Eawag), Duebendorf, Switzerland Compendium of Sanitation Systems and Technologies. 2nd Revised Edition* Archived 2021-08-28 at the Wayback Machine Tilmans, Sebastien; Russel, Kory; Sklar, Rachel; Page, Leah; Kramer, Sasha;
18. Davis, Jennifer (2015-04-13). "Container-based sanitation: assessing costs and effectiveness of excreta management in Cap Haitien, Haiti". *Environment and Urbanization*. 27 (1): 89–104. doi:10.1177/0956247815572746. PMC 4461065. PMID 26097288.
20. Thor Axel Stenström (2005) *Breaking the sanitation barriers; WHO Guidelines for excreta use as a baseline for environmental health* Archived 2008-11-22 at the Wayback Machine, Ecosan Conference, Durban, South Africa
21. Toilet Board Coalition. 2017. *Introducing the Sanitation Economy* (PDF). Archived (PDF) from the original on 2018-07-31. Retrieved 2017-12-19.
22. uSanA (2008). *Towards more sustainable sanitation solutions* Archived 2017-10-12 at the Wayback Machine. Sustainable Sanitation Alliance (SuSanA) Velkushanova, Konstantina; Strande, Linda; Ronteltap, Mariska; Koottatep, Thammarat; Brdjanovic,
23. Damir; Buckley, Chris, eds. (2021). *Methods for Faecal Sludge Analysis*. IWA Publishing. doi:10.2166/9781780409122. ISBN 978-1780409122. Text was copied from this source, which is available under a Creative Commons Attribution 4.0 International License
24. Venkataramanan, Vidya; Crocker, Jonathan; Karon, Andrew; Batram, Jamie (2018). "Community-Led Total Sanitation: A Mixed-Methods Systematic Review of Evidence and Its Quality". *Environmental Health Perspectives*. 026001–1 (2): 026001. doi:10.1289/EHP1965. PMC 6066338. PMID 29398655.
25. WELL (1998) *DFID guidance manual on water supply and sanitation programmes* Archived 2022-01-20 at the Wayback Machine WELL Loughborough University UK
26. WHO and UNICEF (2017) *World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 2017 Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines*. Geneva:
27. WHO and UNICEF *Progress on Sanitation and Drinking-water: 2015 Update* Archived 2021-02-12 at the Wayback Machine, WHO, Geneva and UNICEF, New York
28. World Bank, ILO, WaterAid, and WHO (2019). *Health, Safety and Dignity of Sanitation Workers: An Initial Assessment* Archived 2022-12-11 at the Wayback Machine. World Bank, Washington, DC.
29. WSP (2011). *The economic Impacts of Inadequate Sanitation in India*. Water and Sanitation Programme, The World Bank.
30. WWAP (United Nations World Water Assessment Programme) (2017). *The United Nations World Water Development Report 2017. Wastewater: The Untapped Resource*. Paris. ISBN 978-92-3-100201-4. Archived from the original on 2017-04-08.