

ENVIRONMENTAL AWARENESS AND PRACTICES OF THE BACHELOR OF SECONDARY EDUCATION STUDENTS OF BATAAN PENINSULA STATE UNIVERSITY: BASIS FOR INSTRUCTIONAL DEVELOPMENT

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KeyWords

Bachelor of Secondary Education. *Clean-Up Drive, Environmental Awareness, Environmental Practice, Mixed-Method, Science Technology Engineering and Mathematics Strand*

ABSTRACT

The environment is the only home that humans have and humanity's entire life support system depends on it. The students nowadays are less concerned about the environment. This study assessed the Environmental Awareness and Practices of the BSED Students at Bataan Peninsula State University. It used both quantitative and qualitative methods. The researcher used a validated questionnaire. To strengthen the result, she also conducted a Focus Group Discussion (FGD) with select students. In analyzing and interpreting the data, descriptive statistics like frequency, percentage, and mean were used with Analysis of Variance (ANOVA) F-test, and NVIVO software for the qualitative part. The study found that majority of the respondents were 19 to 20-year-old, female, and Mathematics majors. The respondents' environmental awareness in terms of green habits and environmental attitudes are moderately aware. There is no significant difference in the environmental awareness of the respondents in terms of green habits and attitudes when they grouped according to profile. The best environmental practice of the respondents is "I try to reduce the amount of waste at home by collecting recyclable materials" as their first choice and "I do not use a plastic bag to wrap things," is the least choice. Among the suggested solutions of the respondents, their first choice in school is to conduct an environmental awareness training seminar and their least choice is to encourage students to read books and other information about the environment. In the community, their first choice is to conduct a clean-up drive, and the least choice is to not dump wastes anywhere. At home, their first choice is to start a garden in the backyard and avoid the open burning of wastes as their last choice. Proper Garbage Segregation is the environmental practices that they perform best. The participants suggested conducting a seminar about the environment and Clean-Up Drive.

INTRODUCTION

The environment is the only home that humans have; it provides air, food, shelter, and other needs. Humanity's entire life support system depends on the well-being of all the environmental factors. Planet Earth faces an increasing number of environmental challenges, including climate change, global warming, water scarcity, droughts, deforestation, floods, and pollution.

The humans' incorrect activities contributed a lot to environmental degradation and to control these, the Philippine government created different laws protecting the environment. These are Republic Act No. 8749 "Philippine Clean Air Act of 1999", Republic Act No. 9275, otherwise known as the "Philippine Clean Water Act of 2004", and Republic Act No. 9512 or the "National Environmental Awareness and Education Act of 2008".

It was also observed that students nowadays appear to be less concern about the environment. Most of them are already dehumanized by technology. Their everyday activities generated wastes of time and energy.

In the study conducted by M. Sivamoorthy et.al (2013) entitled "Environmental Awareness and Practices among College Students", that focused more on various factors like causes of pollution, conservation of soil, forest, air, etc., energy conservation, conservation of human health, conservation of wildlife and animal husbandry. It also discussed environmental practices among college students with regard to the usage of plastic and its disposal, alternative for plastic, toilet usage, its use in the cultivation of saplings, rainwater harvesting and also their participation in environment-related programs. It reveals that the level of awareness is high among the respondents irrespective of gender difference but in practice

level, there is a difference between genders i.e. males practicing more than females.

However, in the study on “Environmental Awareness and Attitudes of Student Teachers: An Empirical Research” conducted by Muztafa (2008), showed that the female elementary student teachers in the last year of an instruction program who have less than three brothers and sisters with high socioeconomic had more positive attitudes towards environment than the other student teachers.

The Science, Technology, Engineering, and Mathematics Strand (STEM), is the perfect choice of the students that end up studying Chemistry, Calculus, Physics, and Biology. In order to enhance more their awareness about environmental issues and develop more positive attitudes towards environment, it is vital to include in the discussion the importance of the environment, its present conditions, and pressing issues related to its protection from degradation. There is a need for both preparing and providing the students with the skills needed for a sustainable and productive future. Thus, education plays a crucial role in raising students’ awareness of different environmental challenges that eventually shaping their attitudes and good practices.

In terms of instructions, to facilitate and enhance the teaching/learning about environmental science, the best suited Instructional material is necessary. There are instructional materials available in teaching environmental science but mostly written by foreign authors and mostly not suited to the kind of environment in the Philippines. This prompted the researcher to study the environmental awareness and practices of these future teachers and reveal their knowledge about the environment. The results of this study can be the basis for instructional development that can be useful for both the teachers and learners.

PROJECT OBJECTIVES

This study aims to assess the Environmental Awareness and Practices of the BSED Students of Bataan Peninsula State University and the results will be the basis for instructional development.

Specifically, the study sought to:

1. Identify the profile of the respondents in terms of:
 - 1.1 age;
 - 1.2 sex; and
 - 1.3 area of specialization
2. Determine the environmental awareness of the respondents in terms of:
 - 2.1 Green Habits
 - 2.1.1 Effects of pollution;
 - 2.1.2 5Rs; and
 - 2.1.3 Climate change
 - 2.2 Attitudes
 - 2.2.1 Enjoyment of nature;
 - 2.2.2 Personal conservation behavior;
 - 2.2.3 Human utilization of nature; and
 - 2.2.4 Support for population growth policies
3. Distinguish the significant difference in environmental awareness of the respondents in terms of green practices and attitudes when grouped according to profile.
4. Recognize the environmental practices of the respondents.
5. Find out the suggested solutions in enhancing the environmental awareness and practices of the respondents.
6. Determine the environmental practices that the participants in the study perform best.
7. Consolidate other suggestions from the respondents in enhancing their environmental awareness and practices.
8. Identify the plan or program that the participants think in improving their environmental awareness and practices.

PROJECT DESCRIPTION

This study is a descriptive-survey method and the respondents were the Bachelor of Secondary Education major in Science students of Bataan Peninsula State University.

LITERATURE REVIEW

Related Literature

Alshuwaikhat and Abubakar (2007), stated that Universities can nowadays be regarded as 'small cities' due to their large size, population, and the various complex activities taking place on campuses, which have some serious direct and indirect impacts on the environment. The environmental pollution and degradation caused by universities in form of energy and material consumption via activities and operations in teaching and research, provision of support services and in residential areas could be considerably reduced by an effective choice of organizational and technical measures. Although many environmental protection measures can be seen at some universities, a more systematic and sustainable approach to reducing the negative impacts of those activities and making the campuses more sustainable, is generally lacking.

In 2008, the Philippines enacted RA 9512 or the "National Environmental Awareness and Education Act of 2008". This legislation concretized the country's support to the United Nations Decade of Education for Sustainable Development (2005-2014) and the ASEAN Environmental Education Action Plan for Sustainable Development (2008-2012). This law has reiterated the policy of the State to protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature. The law has further recognized the vital role of the youth in nation-building, and the role of education to foster patriotism and nationalism, accelerate social progress and provide total human liberation and development.

As enacted by the Senate and House of Representatives of the Philippines in Congress assembled in Section 1 entitled. - This Act shall be known as the "National Environmental Awareness and Education Act of 2008".

As stated in section 3 about the Scope of Environmental Education. - The Department of Education (DepEd), the Commission on Higher Education (CHED), the Technical Education and Skills Development Authority (TESDA), the Department of Social Welfare and Development (DSWD), in coordination with the Department of Environment and Natural Resources (DENR), the Department of Science and Technology (DOST) and other relevant agencies, shall integrate environmental education in its school curricula at all levels, whether public or private, including in barangay day-care, preschool, non-formal, technical vocational, professional level, indigenous learning and out-of-school youth courses or programs. Environmental education shall encompass environmental concepts and principles, environmental laws, the state of international and local environment, local environmental best practices, the threats of environmental degradation and its impact on human well-being, the responsibility of the citizenry to the environment and the value of conservation, protection and rehabilitation of natural resources and the environment in the context of sustainable development.

Furthermore, according to Littledyke (2008), Science education has an important part in developing an understanding of concepts that underpin environmental issues, leading potentially to pro-environmental behavior. However, science is commonly perceived negatively, leading to inappropriate and negative models of science that do not connect to people's experiences. The article argues that the cognitive and affective domains need to be explicitly integrated into a science education that informs environmental education, as a sense of relationship is essential for environmental care and responsibility leading to informed action.

It is not only the schools as institutions that are directly involved in environmental issues but financial or other business organizations as well. This can be attested by Gadenne et.al (2008), according to them, with increasing awareness of environmental issues, there has been a rising demand for environmental-friendly business practices. Prior research has shown that the implementation of environmental management practices is influenced by existing and potential stakeholder groups in the form of external pressures from legislators, environmental groups, financial institutions, and suppliers, as well as internally by employees and owner/manager attitudes and knowledge. However, it has been reported that despite business owners/managers having strong "green" attitudes, the level of implementation of environmental-friendly practices is low.

As stated in the Abridged Philippine Development Plan 2017-2022, Ensuring Ecological Integrity, Clean and Healthy Environment by 2022, the country will be cleaner and greener. Moreover, the quality of life of resource-based communities will be significantly improved.

Related Studies

A study conducted by Cruz (2016) entitled "Students' Environmental Awareness and Practices: Basis for Development of Advocacy Program", pointed that environmental degradation has been a problem, which needs to be addressed to meet sustainability. It is important to consider the balance between human activity development and environmental protection requires a sharing of responsibilities that can be equated with the

behavior towards the environment and natural resources. Preservation of the environment is one of the concerns of the Philippines government through the DENR (Department of Environment and Natural Resources). However, it will be a great help if every citizen will be involved most especially the youth. There are some studies conducted about environmental preservation with different outcomes, such as modified environmental awareness scale; development of lesson exemplars; modular package on environmental awareness protection and conservation, etc.

Another study was conducted by Galang (2010) entitled, "Environmental Education for Sustainability in Higher Education Institutions in The Philippines", found that EESD in the Philippines has an official base in the National Environmental Education Action Plan, which provides a framework to guide higher education. Two national networks promote environmental education, while environmental training and curriculum projects have been supported by government agencies and academic institutions, but without explicit policy support for more widespread changes. In contrast, the Dark Green Schools (DGS) program offers a distinctive "whole institution" approach and accreditation system devised in line with the principles of EESD for coherent systemic change. The design and pilot year of the DGS program shows positive potential for "greening" academic institutions and the issues that arise in seeking curriculum change, future funding and formal support at the sector level.

The paper conducted Hassan, et.al (2016) entitled "The Status on The Level of Environmental Awareness in The Concept of Sustainable Development Amongst Secondary School Students ". Research outcomes showed that secondary school students had a "high level" of environmental awareness in the concept of sustainable development. The t-test analysis showed significant differences in the significant level of 95% ($p < 0.05$). It indicated that the level of environmental awareness for the (i) female students was "higher" than the male students, (ii) science stream students were "higher" than the arts stream students, and the (iii) urban school students were "higher" than suburban school students. The Pearson correlation showed that there was a positive but weak relationship between the level of environmental awareness in the concept of sustainable development and the practices, attitudes and moral values of sustainability. The research also revealed the three classifications of concepts for environmental awareness were emotional, attitude, and practices of sustainability awareness.

Weerasiri (2012), conducted research on "Attitudes and Awareness towards Environmental Management and its Impact on Environmental Management Practices (EMPs) of SMEs in Sri Lanka", analyses revealed that there is no significant association between attitudes and awareness or attitudes and environmental management practices. Attitudes appear to be remaining positive even where awareness is limited. Managers/owners who expressed rather more positive attitudes appear no more likely to introduce environmental management practices for their organizations than managers/owners with less or negative attitudes.

The study about "Environmental Awareness, Practices, and Attitudes of Selected UNP Students" conducted by Pardo (2012), showed that the respondents have a very high level of environmental awareness and good practices on the overall environmental themes. The respondents did not favor the cutting of trees, forest burning/forest fires, quarrying, hunting, road widening, squatting, mining, river drilling, use of inorganic fertilizer, and industrialization. Correlation analysis revealed that there is a significant relationship between the level of awareness and extent of the practice of the respondents along with the seven environmental themes.

Marpa and Juele (2016) conducted a study on "Environmental Awareness and Practices among High School Students: Basis for Disaster Preparedness Program", they found out that high school students' extent of awareness and practices was great while moderate in the greening of the environment. Likewise, the same results were obtained when participants were grouped according to the selected variables. However, when grouped according to topography, the extent of awareness and practices of those living in the coastal areas was moderate. Furthermore, significant differences among high school students' environmental awareness and practices were observed on the greening of the environment, elimination of pollutants, and maintaining ecological balance. A significant correlation was also noted between high school students' awareness and practices. This means that high school students' environmental awareness is related to their practices. Thus, it is about time that schools should advocate and integrate environmental education with an emphasis on the greening of the environment.

CONCEPTUAL FRAMEWORK

This study used the diagram showing the current state students' environmental awareness and practices in conserving and protecting the environment. The data were gathered and analyzed properly with the used of appropriate statistical tools. The study also wishes to enhance the students' environmental awareness and practices that eventually provide a huge impact by increasing the positive involvement/participation of them in different Local & National Government Programs on the Prevention and Protection of the Environment in ensuring Ecological Integrity, Clean and Healthy Environment

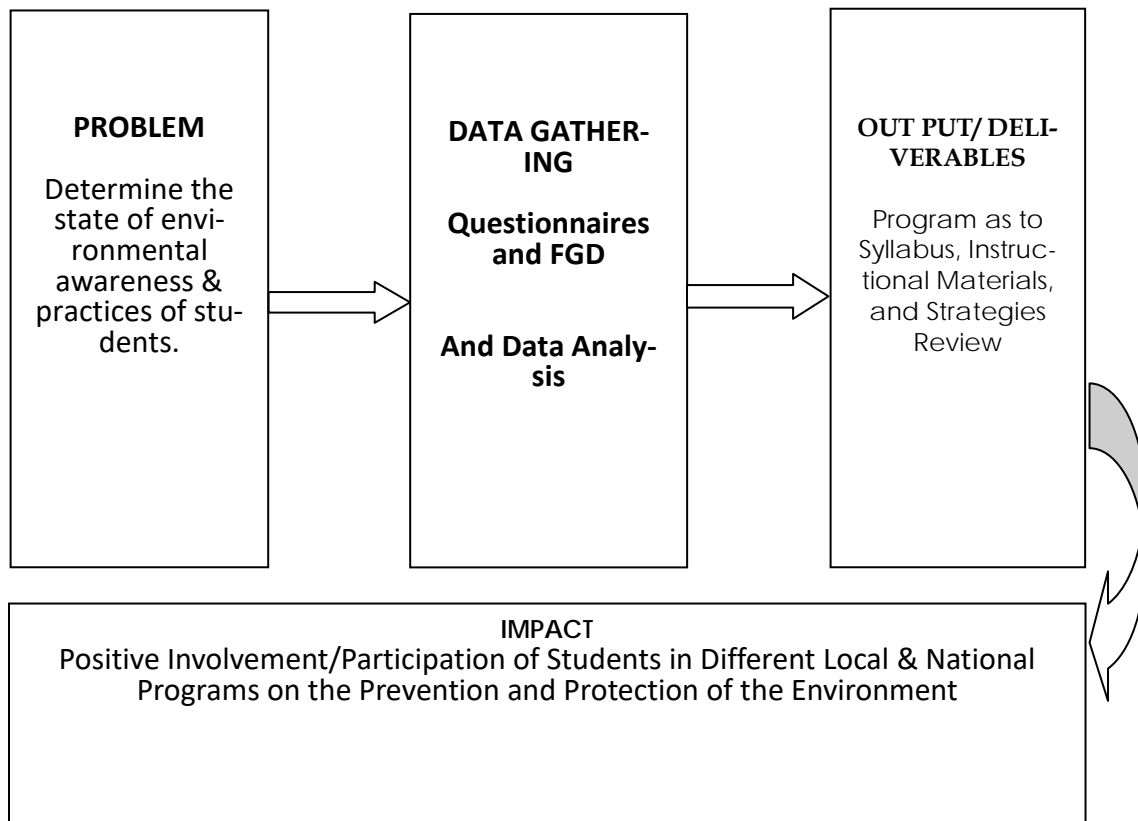


Figure 1
The Paradigm of the Study

METHODOLOGY

- A. **Research Design** The study utilized the mixed method of research in detailing the environmental awareness and practices of Bachelor of Secondary Education Students. The use of such design permits the researcher to present the all-about of the problem under investigation by describing the areas where students are able to improve their environmental awareness and practices.
- B. **Respondents of the study** were all the Bachelor of Secondary Education Students of Bataan Peninsula State University-Dinalupihan Campus.
- C. **Instrument.** This study employed both quantitative and qualitative methods of research. In the quantitative method part of the study, the researcher used a questionnaire and since the questionnaire was researcher-made, it was validated by evaluators comprising specialists in the field. To strengthen the result of the study, the researcher also conducted a Focus Group Discussion (FGD) with a select group of students per major of specialization. This further validated the data gathered from the questionnaire and obtained the true best practices showed by the students.
- D. **Data Collection.** After the approval by the school authorities and the consent of the respondents, the survey-questionnaires were administered accordingly. The respondents were given ample time in answering all the statements incorporated in the instrument.
- E. **Ethical Consideration.** Since the nature of the survey-questionnaire and interview of the study may affect the way how the respondents answered their environmental awareness and practices as a student, clarifications on the utility of the data were discussed to them. This was done by assuring the anonymity and confidentiality of the collected data and their utility for the very purpose of writing the study and enriching the educational practice.
- F. **Statistical Treatment of Data.** In analyzing and interpreting the data, descriptive statistics such as frequency, percentage and mean were used along with Analysis of Variance (ANOVA,) F-test, and NVIVO software for the qualitative part.

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This part deals with the presentation, analysis and interpretation of data relevant to the study the “**Environmental Awareness and Practices of the Bachelor of Secondary Students of Bataan Peninsula State University: Basis for Instructional Development**” This also involves discussions relating the results with the findings of other researches on the same subject as well as the implication of the findings.

For a clear and comprehensive presentation of findings, this is subdivided into six (8) parts corresponding to the Statements of the Problem in Chapter I.

Part I is about the profile of the respondents.

Part II is focused on the environmental awareness of the respondents

Part III Is there a significant difference in environmental awareness of the respondents in terms of green habits and attitudes when they were group according to profile.

Part IV focused on the environmental practices of the respondents.

Part V is the suggested solution in enhancing the environmental awareness and practices of the respondents.

Part VI Best Environmental Practices of the Participants.

Part VII Other Solutions in Enhancing Environmental Awareness and Practices that Participants Suggested.

Part VIII Environmental Plan or Program that the Participants Suggested.

Part I. Profile

Table 1 presents the profile of the respondents to be described in terms of age; sex; and area of specialization.

Table1
Profile of the Respondents

Profile	f	%
Age		
17 to 18 year old	64	45.39
19 to 20 years old	73	51.77
21 year old and above	4	2.84
Sex		
Male	49	34.75
Female	92	65.25
Area of Specialization		
Math	72	51.06
Science	69	48.94
Total	141	100.00

As can be gleaned on the above table, there were 141 respondents from which 73 or 51.77% ages between 19 to 20-year-old, while 64 or 45.39% belong to the age group of 17 to 18-year-old, and 4 or 2.84% ages 21 and above.

In terms of sex, 92 or 65.25% of the total respondents are female, while 49 or 34.75% are male.

As to the area of specialization of the respondents, data shows that 72 or 51.06% of the respondents are specializing in mathematics, while the remaining 69 or 48.94% in science.

Part 2 Environmental Awareness

Table 2 describes the environmental awareness of the respondents on Green Habits: in terms of Effects of pollution.

Table 2
Environmental Awareness of the Respondents on Green Habits in terms of Effects of Pollution

Green Habits	Mean	SD	Descriptive Equivalent
1. I know that exposure to loud noise leads to irritation and increased blood pressure, loss of temper, decrease in work efficiency, and loss of hearing which may be first temporary but can become permanent if the noise stress contin-	4.23	0.82	Extremely Aware

ues.			
2. I know that when mining activities take place, heavy machinery causes a release of dust and other fumes into the atmosphere. This may result in the toxicity of air within the region.	4.13	0.84	Moderately Aware
3. I know that pollution of water bodies by mercury causes Minamata disease in humans and dropsy in fishes.	3.45	1.01	Moderately Aware
4. I know that throwing garbage everywhere can be the source of different diseases and flooding.	4.70	0.77	Extremely Aware
5. I know that solid waste is a mixture of plastics, cloth, glass, metal and organic matter, sewage, sewage sludge, building debris, generated from households, commercial and industries establishments add to soil pollution.	4.37	0.78	Extremely Aware
6. I know that the CFCs (chlorofluorocarbons) seriously damage the ozone layer.	4.06	0.94	Moderately Aware
7. I know that fly ash pollutes air and water and may cause heavy metal pollution in water bodies.	3.87	0.90	Moderately Aware
8. I know that sulfur dioxide emitted from the combustion of fossil fuels like coal, petroleum and other factory combustibles are one the major cause of air pollution.	3.74	0.98	Moderately Aware
9. I know that ammonia is a very common by-product of agriculture-related activities and is one of the most hazardous gases in the atmosphere.	3.54	1.03	Moderately Aware
10. I know that pesticides like DDT and others used in agriculture may contaminate water bodies.	3.70	1.06	Moderately Aware
11. I know that metals like lead, zinc, arsenic, copper; mercury and cadmium in industrial wastewaters adversely affect humans and other animals.	3.74	1.00	Moderately Aware
12. I know that oil pollution of the sea occurs from leakage from ships, oil tankers, rigs and pipelines which kills marine birds and adversely affects other marine life and beaches.	4.17	0.88	Moderately Aware
13. I know that thermal pollution increases water temperature that decreases dissolved oxygen in the water which adversely affects aquatic life.	3.74	1.03	Moderately Aware
14. I know that plastic bags made from low-density polyethylene (LDPE), is virtually indestructible, create a colossal environmental hazard.	3.80	0.97	Moderately Aware
15. I know that a large number of industrial chemicals, dyes; acids, etc. find their way into the soil and are known to create many health hazards including cancer.	3.79	1.01	Moderately Aware
Composite Mean	3.93	0.63	Moderately Aware

Legend: 4.20 – 5.00 Extremely Aware 3.40 – 4.19 Moderately Aware; 2.60 – 3.39 Somewhat Aware; 1.80 – 2.59 Slightly Aware; 1.00 – 1.79 Not at all Aware

As shown on table 3, the respondents Environmental Awareness on Green Habits in terms of Effects of Pollution indicates that the respondents are moderately aware (Mean=3.93, SD=0.63), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 4 “ I know that throwing garbage everywhere can be the source of different diseases and flooding “ (Mean=4.70, SD=0.77) described as extremely aware, while the lowest mean is on indicator 3 “ I know that pollution of water bodies by mercury causes Minamata disease in humans and dropsy in fishes” (3.45, SD=1.01) described as moderately aware.

The findings of Marpa and Juele (2016) are similar with the present study since in their study it revealed that high school students’ extent of awareness and practices were great while moderate in the greening of the environment.

Table 3 describes the environmental awareness of the respondents on Green Habits: in terms of 5Rs.

Table 3
Environmental Awareness of the Respondents on Green Habits in terms of 5Rs

5Rs	Mean	SD	Descriptive Equivalent
1. I encourage carpooling with friends, walking, taking the bus, or riding a bike instead of driving my own car reduces the burning of fuel from automotive.	4.22	0.82	Extremely Aware
2. I know that using durable items instead of one-off disposable items (e.g. replace paper/plastic cups with mugs/glasses) reduces the utilization of plastics.	4.47	0.69	Extremely Aware
3. I know that using reusable lunch bags to take my lunch to school creating lesser wastes.	4.57	0.73	Extremely Aware

4. I know that paper grocery bags can be a good book covers rather than buying new ones.	4.27	0.96	Extremely Aware
5 I know that silverware and dishes instead of disposable plastic utensils and plates are much cheaper and can be useful over again.	4.37	0.83	Extremely Aware
6. I know disposable plastics like plastic bags, straws, bottles, old utensils, lids, cups, and so many others can be made into other useful items like flower vase, decorative items, and displays.	4.50	0.74	Extremely Aware
7. I know that water-based paints instead of solvent-based paints are good for the health and environment.	4.34	0.72	Extremely Aware
8. I know that copying documents on both sides of the paper instead of single-sided copying is less expensive and economical.	4.34	0.89	Extremely Aware
9. I know that sharing gently used clothing and toys with children, with friends and family is good and much practical.	4.22	0.90	Extremely Aware
10. I know that buying in bulk to eliminate excess packaging that needs to be recycled.	4.20	0.83	Extremely Aware
11. I know that collecting items such as newspapers, bottles, and cans and sell them to junkshop.	4.55	0.75	Extremely Aware
12. I limit the amount of time I drive if possible walk	4.38	0.83	Extremely Aware
13. I know how to limit the use of waste paper and things because these can reduce trash.	4.50	0.74	Extremely Aware
14. I know that using rechargeable batteries can reduce trash and unwanted wastes.	4.33	0.81	Extremely Aware
15. I know that animal waste or manure can be transformed into organic fertilizer.	4.56	0.86	Extremely Aware
Composite Mean	4.39	0.57	Extremely Aware

Legend: 4.20 – 5.00 Extremely Aware 3.40 – 4.19 Moderately Aware; 2.60 – 3.39 Somewhat Aware; 1.80 – 2.59 Slightly Aware; 1.00 – 1.79 Not at all Aware

On table 4, the respondents Environmental Awareness on Green Habits in terms of 5Rs indicates that the respondents are extremely aware (Mean=4.39, SD=0.57), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 3 “ I know that using reusable lunch bags to take my lunch to school creating lesser wastes” (Mean=4.57, SD=0.73) described as extremely aware, while the lowest mean is on indicator 10 “ I know that buying in bulk to eliminate excess packaging that needs to be recycled” (Mean=4.20, SD=0.83) described also as extremely aware.

There is quiet similarities and differences in the study of Paghasian (2017), findings showed that the awareness on solid waste management of the students was high; their practices in terms of segregation, reduce and recycle were good; and their practices in terms of recycle and disposal were fair.

Table 4 describes the environmental awareness of the respondents on Green Habits: in terms of climate change.

Table 4
Environmental Awareness of the Respondents on Green Habits in terms of Climate Change

Climate Change	Mean	SD	Descriptive Equivalent
1. Human activities like burning can contribute to climate change.	4.55	0.74	Extremely Aware
2. Climate change is inevitable because of the way modern society works.	4.33	0.85	Extremely Aware
3. We can all do our part to reduce the effects of climate change on all forms of living things.	4.53	0.70	Extremely Aware
4. Climate change is something that frightens me and everybody.	4.33	0.77	Extremely Aware
5. I am uncertain about whether climate change is really happening in the present time.	3.91	1.17	Moderately Aware
6. Developing countries should take most of the blame for climate change.	3.62	1.03	Moderately Aware
7. Human activities have no significant impact on global temperatures.	2.70	1.33	Somewhat Aware
8. It is already too late to do anything about climate change.	2.58	1.36	Somewhat Aware
9. Climate change is just a natural fluctuation in earth’s temperatures.	3.09	1.24	Somewhat Aware
10. People should be made to reduce their energy consumption if it reduces climate change.	3.71	1.05	Moderately Aware
Composite Mean	3.74	0.58	Moderately Aware

Legend: 4.20 – 5.00 Extremely Aware 3.40 – 4.19 Moderately Aware; 2.60 – 3.39 Somewhat Aware; 1.80 – 2.59 Slightly Aware; 1.00 – 1.79 Not at all Aware

Table 4 shows that the respondents Environmental Awareness on Green Habits in terms of climate change indicates that the respondents are moderately aware (Mean=3.74, SD=0.58), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 1 “Human activities like burning can contribute to climate change.” (Mean=4.55, SD=0.74) described as extremely aware, while the lowest mean is on indicator 8 “It is already too late to do anything about climate change.” (Mean=2.58, SD=1.36) described as somewhat aware.

Similar findings were observed by Barreda (2018), although in his study, students have much awareness on climate change issue and in fact, they are much aware that climate change is already happening; it manifests in diverse ways; people are already experiencing its impacts; it is an immediate and urgent concern; it is a threat to sustainable development; and there are research institutions in various levels that look into this issue.

Table 5 describes the environmental awareness of the respondents on Attitudes in terms of the Enjoyment of nature.

Table 5
Environmental Awareness of the Respondents on Attitudes in terms of Enjoyment of Nature

Indicators	Mean	SD	Descriptive Equivalent
1. I am NOT the kind of person who loves spending time in wild, untamed wilderness areas.	3.18	1.16	Somewhat Aware
2. I really like going on trips to the countryside, for example to forests or fields.	3.91	1.01	Moderately Aware
3. I find it very boring being out in wilderness areas.	2.72	1.11	Somewhat Aware
4. Sometimes when I am unhappy, I find comfort in nature.	4.32	0.97	Extremely Aware
5. Being out in nature is a great stress reducer for me.	3.96	1.14	Somewhat Aware
6. I would rather spend my weekend in the city than in wilderness areas.	2.82	1.08	Somewhat Aware
7. I enjoy spending time in natural settings just for the sake of being out in nature.	3.71	1.06	Somewhat Aware
8. I have a sense of well-being in the silence of nature.	4.23	0.85	Extremely Aware
9. I find it more interesting in a shopping mall than out in the forest looking at trees and birds.	2.57	1.04	Somewhat Aware
10. I think spending time in nature is boring.	2.16	1.97	Slightly Aware
Composite Mean	3.36	0.52	Somewhat Aware

Legend: 4.20 – 5.00 Extremely Aware 3.40 – 4.19 Moderately Aware; 2.60 – 3.39 Somewhat Aware; 1.80 – 2.59 Slightly Aware; 1.00 – 1.79 Not at all Aware

As can be gleaned on table 5, the respondents Environmental Awareness on attitudes in terms of enjoyment of nature indicates that the respondents are somewhat aware (Mean=3.36, SD=0.52), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 4 “Sometimes when I am unhappy I find comfort in nature.” (Mean=4.32, SD=0.97) described as extremely aware, while the lowest mean is on indicator 10 “I think spending time in nature is boring.” (Mean=2.16, SD=1.97) described as slightly aware.

According to Torkar (2014), that enjoyment of the outdoors, especially in the childhood, attitudes of parents, life in the countryside, experiences with animals and plants, solitude of remote places, education and experiencing negative environmental changes, all had an influence on the teachers’ care for nature. Experiences with organisms and education were more influential life experiences for teachers. These can improve students’ awareness in the importance of environment.

Table 6 describes the environmental awareness of the respondents on Attitudes in terms of Personal conservation behavior.

Table 6
Environmental Awareness of the Respondents on Attitudes in terms of Personal Conservation Behavior

Indicators	Mean	SD	Descriptive Equivalent
1. I could not be bothered to save water or other natural resources.	2.89	1.34	Somewhat Aware
2. I make sure that during the cold weather air condition or electric fan in my room is not switched on too high.	4.33	0.84	Extremely Aware
3. In my daily life, I’m just not interested in trying to conserve water and/or power.	2.55	1.27	Somewhat Aware

4. Whenever possible, I take a short shower in order to conserve water.	3.70	1.14	Moderately Aware
5. I always switch the light off when I don't need it anymore.	4.44	0.83	Extremely Aware
6. I drive whenever it suits me, even if it does pollute the atmosphere.	2.64	1.23	Somewhat Aware
7. In my daily life, I try to find ways to conserve water or power.	4.13	0.90	Moderately Aware
8. I am NOT the kind of person who makes efforts to conserve natural resources.	2.37	1.27	Slightly Aware
9. Whenever possible, I try to save natural resources.	4.25	0.95	Extremely Aware
10. Even if public transportation was more efficient than it is, I would prefer to drive my car.	2.62	1.22	Somewhat Aware
Composite Mean	3.39	0.54	Somewhat Aware

Legend: 4.20 – 5.00 Extremely Aware 3.40 – 4.19 Moderately Aware; 2.60 – 3.39 Somewhat Aware; 1.80 – 2.59 Slightly Aware; 1.00 – 1.79 Not at all Aware

Table 6 shows that the respondents Environmental Awareness on attitudes in terms of personal conservation behavior indicates that the respondents are somewhat aware (Mean=3.39, SD=0.54), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 5 “I always switch the light off when I don't need it anymore.” (Mean=4.44, SD=0.83) described as extremely aware, while the lowest mean is on indicator 8 “I am NOT the kind of person who makes efforts to conserve the natural resource.” (Mean=2.16, SD=1.97) described as slightly aware.

The study is the same with Subekti H. (2018), in his study it found out that students conserve the energy by turning-on lamp and air conditioner when it is needed only. It means that they know that they have to conserve energy.

Table 7 describes the environmental awareness of the respondents on Attitudes in terms of Human utilization of nature.

Table 7
Environmental Awareness of the Respondents on Attitudes in terms of Human Utilization of Nature

Indicators	Mean	SD	Descriptive Equivalent
1. It is all right for humans to use nature as a resource for economic purposes.	3.73	1.00	Moderately Aware
2. Protecting peoples' jobs is more important than protecting the environment.	2.27	1.22	Slightly Aware
3. Humans do NOT have the right to damage the environment just to get greater economic growth.	4.24	0.99	Extremely Aware
4. People have been giving far too little attention to how human progress has been damaging the environment.	3.91	0.94	Moderately Aware
5. Protecting the environment is more important than protecting economic growth.	4.09	0.93	Moderately Aware
6. We should no longer use nature as a resource for economic purposes.	3.38	1.05	Moderately Aware
7. Protecting the environment is more important than protecting peoples' jobs.	3.94	1.03	Moderately Aware
8. In order to protect the environment, we need economic growth.	3.56	0.97	Moderately Aware
9. The question of the environment is secondary to economic growth.	3.35	0.96	Somewhat Aware
10. The benefits of modern consumer products are more important than the pollution that results from their production and usage.	2.91	1.27	Somewhat Aware
Composite Mean	3.54	0.55	Moderately Aware

Legend: 4.20 – 5.00 Extremely Aware 3.40 – 4.19 Moderately Aware; 2.60 – 3.39 Somewhat Aware; 1.80 – 2.59 Slightly Aware; 1.00 – 1.79 Not at all Aware

Table 8 shows that the respondents Environmental Awareness on attitudes in terms of human utilization of nature indicates that the respondents are moderately aware (Mean=3.54, SD=0.55), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 3 “Human do NOT have the right to damage the environment just to get greater economic growth.” (Mean=4.24, SD=0.99) described as extremely aware, while the lowest mean is on indicator 2 “Protecting people jobs is more important than protecting the environment.” (Mean=2.27, SD=1.22) described as slightly aware.

According to Li (2018), in his research revealed that students with better environmental awareness present more positive environmental attitudes. These findings can be the basis for improving the respondents' attitudes in the utilization of the environment.

Table 8 describes the environmental awareness of the respondents on Attitudes in terms of Support for population growth policies.

Table 8
Environmental Awareness of the Respondents on Attitudes in terms of Support for Population Growth Policies

Indicators	Mean	SD	Descriptive Equivalent
1. We should strive for the goal of “zero population growth”	4.01	0.97	Moderately Aware
2. The idea that we should control the population growth is wrong	2.80	1.17	Somewhat Aware
3. Families should be encouraged to limit themselves to two children or less.	3.78	0.99	Moderately Aware
4. A married couple should have as many children as they wish, as long as they can adequately provide for them.	3.46	1.17	Moderately Aware
5. Our government should educate people concerning the importance of having two children or less.	3.94	0.87	Moderately Aware
6. We should never put limits on the number of children a couple can have.	3.09	1.12	Somewhat Aware
7. People who say overpopulation is a problem are completely incorrect.	2.96	1.16	Somewhat Aware
8. The world would be better off if the population stopped growing.	3.34	1.09	Somewhat Aware
9. We would be better off if we dramatically reduced the number of people on the Earth.	3.23	1.04	Somewhat Aware
10. The government has no right to require married couples to limit the number of children they can have.	3.13	1.07	Somewhat Aware
Composite Mean	3.37	0.57	Somewhat Aware

Legend: 4.20 – 5.00 Extremely Aware 3.40 – 4.19 Moderately Aware; 2.60 – 3.39 Somewhat Aware; 1.80 – 2.59 Slightly Aware; 1.00 – 1.79 Not at all Aware

Table 8 indicates that the respondents Environmental Awareness on attitudes in terms of support for population growth policies shows that the respondents are somewhat aware (Mean=3.37, SD=0.57), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 1 “We should strive for the goal zero population growth.” (Mean=4.01, SD=0.99) described as moderately aware, while the lowest mean is on indicator 2 “The idea that we should control the population growth is wrong.” (Mean=2.80, SD=1.17) described as somewhat aware.

Peacock (2017) in her research findings suggested participants with working knowledge of ecosystems demonstrated more extensive understanding of the impact of human actions, including population growth, on the environment. This study negates with the result of this study since the respondents perhaps have a little background on the adverse effects of population in environment that resulted to their answer of somewhat aware.

Table 9 summarizes the environmental awareness of the respondents in terms of green habits and attitudes.

Table 9
Summary of Environmental Awareness of the Respondents

Indicators	Mean	SD	Descriptive Equivalent
Green Habits	4.02	0.43	Moderately Aware
Effects of Pollution	3.93	0.63	Moderately Aware
5Rs	4.39	0.57	Extremely Aware
Climate Change	3.74	0.58	Moderately Aware
Attitudes	3.42	0.44	Moderately Aware
Enjoyment of Nature	3.36	0.52	Moderately Aware
Personal Conservation Behavior	3.39	0.54	Moderately Aware
Human Utilization of Nature	3.54	0.55	Moderately Aware
Support for Population Growth Policies	3.37	0.57	Moderately Aware
Overall	3.72	0.37	Moderately Aware

Legend: 4.20 – 5.00 Extremely Aware 3.40 – 4.19 Moderately Aware; 2.60 – 3.39 Somewhat Aware; 1.80 – 2.59 Slightly Aware; 1.00 – 1.79 Not at all Aware

The summary in Table 9 shows that the respondents' Environmental Awareness (Mean=3.72, SD=0.37) is considered moderate, were respondents' awareness in terms of green habits (Mean=4.02, SD=0.43) is considered moderate, similarly, respondents' awareness in terms of attitude (Mean=3.42, SD=0.44) is moderate.

Part 3 Comparison

Table 10 presents the difference in environmental awareness of the respondents in terms of green habits and attitudes when they were grouped according to age.

Table 10
Differences in the Environmental Awareness when Respondents Are Grouped according to Age

Variables	Group	Mean	SD	F	Sig	Decision on Ho	Interpretation
Green Practices	17 to 18 year old	4.02	0.47	1.06	0.35	Failed to reject	Not Significant
	19 to 20 year old	4.01	0.40				
	21 year old and above	4.33	0.21				
Attitudes	17 to 18 year old	3.47	0.41	1.15	0.32	Failed to reject	Not Significant
	19 to 20 year old	3.36	0.43				
	21 year old and above	3.53	0.87				
Overall	17 to 18 year old	3.74	0.39	1.06	0.35	Failed to reject	Not Significant
	19 to 20 year old	3.68	0.35				
	21 year old and above	3.93	0.41				

At 0.05 level of Significant

As presented in table 10, based on the analysis using ANOVA, it can be gleaned that there are not enough pieces of evidence to claim that there exists a significant difference in the environmental awareness of the respondents in terms of green habits ($F=1.06$, $p=0.35$); and attitudes ($F=1.15$, $p=0.32$) when they are grouped according to age, this was further confirmed by the overall F-value of 1.06, significant at 0.35 which is statistically greater than the alpha of .05 thus, failing to reject the null hypothesis.

Table 11 presents the difference in environmental awareness of the respondents in terms of green habits and attitudes when they were grouped according to sex.

Table 11
Differences in the Environmental Awareness when Respondents Are Grouped Sex

Variables	Group	Mean	SD	t	Sig	Decision on Ho	Interpretation
Green	Male	3.97	0.40	0.98	0.33	Failed to reject	Not Significant
	Female	4.05	0.45				
Attitudes	Male	3.32	0.42	1.90	0.06	Failed to reject	Not Significant
	Female	3.47	0.44				
Overall	Male	3.65	0.34	1.68	0.09	Failed to reject	Not Significant
	Female	3.76	0.39				

At 0.05 level of Significant

As presented in table 11, based on the analysis using independent sample t-test, it can be gleaned that there are not enough pieces of evidence to claim that there exists a significant difference in the environmental awareness of the respondents in terms of green habits ($t=0.98$, $p=0.33$); and attitudes ($t=1.90$, $p=0.06$) when they are grouped according to sex, this was further confirmed by the overall t-value of 1.68, significant at 0.09 which is statistically greater than the alpha of .05 thus, failing to reject the null hypothesis.

Sivamoorthy, M. et.al (2013), their findings are similar to the present study because both studies revealed that the level of awareness of the respondents are the same irrespective of gender.

Table 12 presents the difference in environmental awareness of the respondents in terms of green habits and attitudes when they were grouped according to the area of specialization.

Table 12
Differences in the Environmental Awareness when Respondents Are Grouped Area of Specialization

Variables	Group	Mean	SD	t	Sig	Decision on Ho	Interpretation
Green	Math	4.02	0.37	0.10	0.92	Failed to reject	Not Significant
	Science	4.02	0.49				

Attitudes	Math	3.42	0.37	0.02	0.99	Failed to reject	Not Significant
	Science	3.42	0.50				
Overall	Math	3.72	0.32	0.05	0.96	Failed to reject	Not Significant
	Science	3.72	0.42				

At 0.05 level of Significant

As presented in table 12, based on the analysis using independent sample t-test, it can be gleaned that there are not enough pieces of evidence to claim that there exists a significant difference in the environmental awareness of the respondents in terms of green habits ($t=0.10$, $p=0.92$); and attitudes ($t=0.02$, $p=0.99$) when they are grouped according to area of specialization, this was further confirmed by the overall t-value of 0.05, significant at 0.96 which is statistically greater than the alpha of .05 thus, failing to reject the null hypothesis.

Part 4 Environmental Practices

Table 13 describes the environmental practices of the respondents

Table 13
Environmental Practices of the Respondents

Environmental Practices	Mean	SD	Rank	Descriptive Equivalent
1. I am concern about environmental problems at my place.	4.31	0.78	2	Strongly Agree
2. I discuss environmental problems with my family and friends.	3.82	0.90	9	Moderately Agree
3. I follow ordinances in environmental protection.	4.10	0.82	4	Moderately Agree
4. I monitor the burning of wastes in my place and repot them in authority.	3.43	1.05	14	Moderately Agree
5. I feel disappointed with water pollution and participated actively in coastal clean-up.	3.94	0.91	7.5	Moderately Agree
6. I feel disappointed with land pollution and join in clean-up drive sponsored by barangay officials.	3.81	0.96	10	Moderately Agree
7. I feel disappointed with noise pollution and limit the activities that create noise that is irritating to my neighbors.	3.94	0.86	7.5	Moderately Agree
8. I try to reduce the amount of waste at home by collecting materials that can be recycled.	4.42	1.20	1	Strongly Agree
9. I do composting the food residue to become fertilizer.	3.44	1.12	13	Moderately Agree
10. I do not use a plastic bag to wrap things.	3.28	1.03	15	Slightly Agree
11. I walk in traveling short distances to conserve fuel.	4.03	0.91	6	Moderately Agree
12. I conserve the use of electric energy at home.	4.13	0.84	3	Moderately Agree
13. I conserve the use of water supply.	4.06	0.97	5	Moderately Agree
14. I am involved in environmental responsiveness activities in school.	3.59	1.06	12	Moderately Agree
15. I am involved in environmental responsiveness activities in our community.	3.60	1.05	11	Moderately Agree

Legend: 4.20 – 5.00 Strongly Agree 3.40 – 4.19 Moderately Agree; 2.60 – 3.39 Slightly Agree; 1.80 – 2.59 Disagree; 1.00 – 1.79 Strongly Disagree

As shown on the above table, among the best environmental practices provided to the respondents, it can be gleaned that indicator8 “I try to reduce the amount of waste at home by collecting materials that can be recycled” with (Mean=4.42, SD=1.20) is at rank 1, followed by indicator 1 “I am concern about environmental problems at my place”, with (Mean=4.31, SD=0.78) in rank 2 and indicator 12 “I conserve the use of electric energy at home”, with (Mean=4.13, SD=0.84) in rank 3, however, indicator 10 “I do not use a plastic bag to wrap things,” with (Mean=3.28, SD=1.03) is at rank 15 which is the least among the indicators.

These findings can be associated with Pardo (2012), her study showed that the respondents have very high level of environmental awareness and good practices on the overall environmental themes. The respondents did not favor the cutting of trees, forest burning/forest fires, quarrying, hunting, road widening, squatting, mining, river drilling, use of inorganic fertilizer, and industrialization.

Part 5 Suggested Solutions

Table 14 presents the suggested solutions in enhancing the environmental awareness and practices of the respondents.

Table 14
Suggested Solutions in Enhancing Environmental Awareness

Indicators	Rank					Mean Rank	Rank
	1	2	3	4	5		
School							
1. Include Environmental Science in the curriculum in all programs or discipline.	66	21	12	18	24	2.38	2
2. Conduct an environmental awareness training seminar in School.	31	63	22	15	10	2.36	1
3. Encourage waste segregation in school.	22	19	60	23	17	2.96	3
4. Help students understand the need for energy conservation by putting up signage in the strategic places highlighting water and electric conservation activities.	14	20	26	66	15	3.34	4
5. Encourage students to read books and other information about environment protection and conservation.	12	17	22	14	76	3.89	5
Community							
1. Conduct clean-up drive campaign in your barangay.	68	30	17	8	18	2.13	1
2. Sharing environmental information with neighbors and friends.	22	63	22	20	14	2.58	2
3. Encourage and help organize car-pooling and promote walking or taking public transport.	16	15	59	33	18	3.16	3
4. Enforce prohibition of littering.	13	23	23	60	22	3.39	4
5. Refrain from dumping wastes anywhere.	25	16	16	14	70	3.62	5
Home							
1. Start a garden by planting in the backyard.	79	24	12	11	15	2.00	1
2. Get creative with recyclables and come up with ideas of something they could make and use, like a pencil holder from a plastic milk bottle or a desk organizer from an egg carton.	14	61	27	26	13	2.74	2
3. Use green materials or environmentally friendly products like abaca sack and 100% recyclable paper.	10	25	71	20	15	3.04	3
4. Consume eco-friendly foods like vegetables. Cutting down on meat can have a huge impact on the health of our planet.	10	20	23	60	28	3.54	4
5. Avoid open burning of wastes materials.	26	16	12	23	64	3.59	5

As shown on Table 14, among the suggested solutions provided to the respondents, in term of school, it can be gleaned that indicator 2 “Conduct an environmental awareness training seminar in School,” (Mean Rank=2.36) is at rank 1, followed by indicator 1 “Include Environmental Science in the curriculum in all programs or discipline” (Mean Rank=2.38) in rank 2 however, indicator 5 “Encourage students to read books and other information about environment protection and conservation.” (Mean Rank=3.89) is at rank 5 which is the least among the indicators.

In terms of community, indicator 1 “Conduct clean-up drive campaign in your barangay.” (Mean Rank=2.13) is at rank 1, followed by indicator 2 “Sharing environmental information with neighbors and friends.” (Mean Rank=2.58) in rank 2 while, indicator 5 “Refrain from dumping wastes anywhere.” (Mean Rank=3.62) is at rank 5.

Further, in terms of home, indicator 1 “Start a garden by planting in the backyard.” (Mean Rank=2.00) is at rank 1, followed by indicator 2 “Get creative with recyclables and come up with ideas of something they could make and use, like a pencil holder from a plastic milk bottle or a desk organizer from an egg carton,” (Mean Rank=2.74) in rank 2 while, indicator 5 “Avoid open burning of wastes materials.” (Mean Rank=3.59) is at rank 5.

The findings are the same with Du et.al, (2018), that environmental awareness increased and manifested in better environmental behavior and understanding of environmental status due an improvement in rural infrastructure and a greater amount of information provided to rural residents about the environment. Place of residence had a considerable influence on respondents’ environmental awareness. Adoption of more

effective environmental management measures is important.

Part 6 Best Environmental Practices of the Participants.

Part 6 to 8 displays the results from the FGD with the twelve participants from the BSED Science and Mathematics majors. The three questions that were asked to the participants are their best environmental practices, their suggested solutions, and programs or plans they think in enhancing the environmental awareness and practices.

“What environmental practices do the participants in the study perform best?”

Participant A

Iwasan ang pagsusunog ng basura tulad ng mga plastics. Avoid burning plastic or garbage

Participant B

Paghihiwalay ng mga basura at pag aaplay ng 3R's sa aming bahay at kumunidad. Segregation of garbage; apply the 3R's in our house and community.

Participant C

Magtanim ng mga puno at tamang pagiimbak ng basura. Planting trees and proper designation of waste.

Participant D

The plastic-free campaign in our university and this practice can be a big help to save the environment and the biodiversity that we have

Participant E

Pick up garbage in our surroundings or in the field; throw garbage in the right place

Participant F

Applying the 3R's which is Reuse, Recycle and Reduce in our garbage

Participant G

Maglinis sa paligid at tamang pagtatapon ng basura. Clean up and segregation of wastes.

Participant H

Proper waste management is the best practice because it can prevent pollution if garbage is properly disposed of.

Participant I

Magtanim ng puno. Tree planting and applying 3R's.

Participant J

Proper waste disposal

Participant K

Hindi na kami nagtatapon ng basura sa ilog. We're not throwing garbage in the river anymore.

Participant L

I always throw my candy wrappers or anything at the trash can. If there is no trash can I just put it on my pocket or bag

The theme that can be associated with the question, “What environmental practices do the participants in the study perform best?” Based on the transcribed responses of the participants, Proper Garbage Segregation is their best practices. These practices are common not only in schools but even in the community. The local government have their own program relative to garbage segregation.

Part 7 Other Solutions in Enhancing Environmental Awareness and Practices that Participants Suggested.

What other solutions in enhancing the environmental awareness and practices can the participants suggest aside from the choices mentioned in question number 5?

Participant A

Have some orientation regarding the enhancement of environmental awareness. This will inform us students.

Participant B

Regular orientation about environmental awareness: Tell the pros and cons of it so that we can be more knowledgeable about how to protect our environment.

Participant C

Seminars about enhancing our knowledge or awareness about the environment. We need that since we are future teachers.

Participant D

Another solution is that the proper dissemination of the campaign for environmental causes and I think social media is the biggest platform that we can use to achieve that.

Participant E

Seminars ang pinakamabisang paraan upang maging aware ang mga tao sa tamang paraan ng environmental protection. The best way is to prevent environmental distraction by prevention.

Participant F

Implementation of seminars about environmental awareness. We will surely be informed more about environmental protection.

Participant G

Seminar to acquire awareness is for me the best way to be more informed about environmental protection.

Participant H

Make an orientation about environmental awareness. We will participate in that activity.

Participant I

Seminars for awareness and practices about environment will be more informative for us students.

Participants J

Seminars that will help the people to be more aware and practice proper environmental protection.

Participant K

Proper mobilizing of environmental awareness. This can be done through series of seminars.

Participant L

*Dapat magkaroon ng orientation ang bawat baranggay sa environment awareness.
There should be an orientation in every barangay about environmental awareness.*

The theme that can be associated with the question, "What other solutions in enhancing the environmental awareness and practices can the participants suggest aside from the choices mentioned in question number 5? The participants still considered Seminar in Environmental Awareness as the best way that they can be more informed and oriented about the issues on the environment conservation and protection.

Part 8 Environmental Plan or Program that the Participants Suggested.

What plan or program that you think that can be developed?

Participants A

Program of "Clean up drive". This can be done in school and community.

Participants B

Like in our school "Plastic Free." This is being implemented in the campus for more than a year now.

Participants C

Clean up drive and tree planting program at designated places.

Participants D

Implement more programs like tree planting and other environmental concerns because it will make a big impact; because our micro effort will have a micro effort.

Participants E

Clean up Drive in places where we stay.

Participants F

"Clean Up Drive" like "Tapat ko, Linisin ko". In school and barangay.

Participants G

Clean up Drive. Ito ang madaling paraan na makakasama ang maraming students.

Participants H

Reuse, Recycle, Reduce segregation.

Participants I

Clean up Drive for me is effective.

Participants J

Clean up Drive in the school per section.

Participants K

Plastic Free in the campus and must be extended to the community.

Participants L

Maaring magkaroon ng seminar ang bawat barangay at ituro ang tamang pag-aalaga sa kalikasan. There should be a seminar in every barangay about the proper ways of caring for the environment.

The theme that can be associated with the question, "What plan or program that you think that can be developed?" The participants of the study considered attending Clean-Up Drive since this can encourage them to be more involved and concerned about the environment.

In the report of Chavez posted in Manila Bulletin last May, 2019, there are concerned people that pushes for eco-friendly cleanup drive. The Environment group Eco Waste Coalition urged the participants of Brigada Eskwela to ensure that school repair and renovation activities are done in an eco-friendly manner. This activity can be participated by students and other stakeholders and also launch their own version of clean-up drive.

SUMMARY OF THE FINDINGS

Part I. Profile

In terms of Age, there were 141 respondents from which 73 or 51.77% ages between 19 to 20-year-old, while 64 or 45.39% belong to the age group of 17 to 18-year-old, and 4 or 2.84% ages 21 and above. As to the sex, 92 or 65.25% of the total respondents are female, while 49 or 34.75% are male. As to the area of specialization of the respondents, data shows that 72 or 51.06% of the respondents are specializing in mathematics, while the remaining 69 or 48.94% in science.

Part 2 Environmental Awareness

The respondents' Environmental Awareness on Green Habits in terms of Effects of Pollution indicates that the respondents are moderately aware (Mean=3.93, SD=0.63), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 4 "I know that throwing garbage everywhere can be the source of different diseases and flooding" with (Mean=4.70, SD=0.77) described as extremely aware, while the lowest mean is on indicator 3 "I know that pollution of water bodies by mercury causes Minamata disease in humans and dropsy in fishes" with (3.45, SD=1.01) described as moderately aware.

The respondents' Environmental Awareness on Green Habits in terms of 5Rs indicates that the respondents are extremely aware (Mean=4.39, SD=0.57), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 3 "I know that using reusable lunch bags to take my lunch to school creating lesser wastes" (Mean=4.57, SD=0.73) described as extremely aware, while the lowest mean is on indicator 10 "I know that buying in bulk to eliminate excess packaging that needs to be recycled" (Mean=4.20, SD=0.83) described also as extremely aware.

The respondents' Environmental Awareness on Green Habits in terms of climate change indicates that the respondents are moderately aware (Mean=3.74, SD=0.58), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 1 "Human activities like burning can contribute to climate change." (Mean=4.55, SD=0.74) described as extremely aware, while the lowest mean is on indicator 8 "It is already too late to do anything about climate change." (Mean=2.58, SD=1.36) described as somewhat aware.

The respondents' Environmental Awareness on attitudes in terms of enjoyment of nature indicates that the respondents are somewhat aware (Mean=3.36, SD=0.52), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 4 "Sometimes when I am unhappy I find comfort in nature." (Mean=4.32, SD=0.97) described as extremely aware, while the lowest mean is on indicator 10 "I think spending time in nature is boring." (Mean=2.16, SD=1.97) described as slightly aware.

The respondents' Environmental Awareness on attitudes in terms of personal conservation behavior indicates that the respondents are somewhat aware (Mean=3.39, SD=0.54), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 5 (Mean=4.44, SD=0.83) described as extremely aware, while the lowest mean is on indicator 8 (Mean=2.16, SD=1.97) described as slightly aware.

The respondents' Environmental Awareness on attitudes in terms of human utilization of nature indicates that the respondents are moderately aware (Mean=3.54, SD=0.55), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 3 "Human do NOT have the right to damage the environment just to get greater economic growth." (Mean=4.24, SD=0.99) described as extremely aware, while the lowest mean is on indicator 2 "Protecting people jobs is more important than protecting the environment." (Mean=2.27, SD=1.22) described as slightly aware.

The respondents' Environmental Awareness on attitudes in terms of support for population growth policies shows that the respondents are somewhat aware (Mean=3.37, SD=0.57), and among the indicators, it can be gleaned that the highest mean rating was provided by the respondents on indicator 1 "We should strive for the goal zero population growth." (Mean=4.01, SD=0.99) described as moderately aware, while the lowest mean is on indicator 2 "The idea that we should control the population growth is wrong." (Mean=2.80, SD=1.17) described as somewhat aware.

Part 3 Comparison

Based on the analysis using ANOVA, it showed that there are not enough pieces of evidence to claim that there exists a significant difference in the environmental awareness of the respondents in terms of green habits ($F=1.06$, $p=0.35$); and attitudes ($F=1.15$, $p=0.32$) when they are grouped according to age, this was further confirmed by the overall F-value of 1.06, significant at 0.35 which is statistically greater than the alpha of .05 thus, failing to reject the null hypothesis.

Based on the analysis using independent sample t-test, it showed that there are not enough pieces of evidence to claim that there exists a significant difference in the environmental awareness of the respondents in terms of green habits ($t=0.98$, $p=0.33$); and attitudes ($t=1.90$, $p=0.06$) when they are grouped according to sex, this was further confirmed by the overall t-value of 1.68, significant at 0.09 which is statistically greater than the alpha of .05 thus, failing to reject the null hypothesis.

Based on the analysis using independent sample t-test, it showed that there are not enough pieces of evidence to claim that there exists a significant difference in the environmental awareness of the respondents in terms of green habits ($t=0.10$, $p=0.92$); and attitudes ($t=0.02$, $p=0.99$) when they are grouped according to area of specialization, this was further confirmed by the overall t-value of 0.05, significant at 0.96 which is statistically greater than the alpha of .05 thus, failing to reject the null hypothesis.

Part 4 Environmental Practices

Among the best environmental practices provided to the respondents, it revealed that indicator 8 "I try to reduce the amount of waste at home by collecting materials that can be recycled" with (Mean=4.42, SD=1.20) is at rank 1, followed by indicator 1 "I am concern about environmental problems at my place", with (Mean=4.31, SD=0.78) in rank 2 and indicator 12 "I conserve the use of electric energy at home", with (Mean=4.13, SD=0.84) in rank 3, however, indicator 10 "I do not use a plastic bag to wrap things," with (Mean=3.28, SD=1.03) is at rank 15 which is the least among the indicators.

Part 5 Suggested Solutions

Among the suggested solutions provided to the respondents, in term of school, it revealed that indicator 2 "Conduct an environmental awareness training seminar in School," (Mean Rank=2.36) is at rank 1, followed by indicator 1 "Include Environmental Science in the curriculum in all programs or discipline" (Mean Rank=2.38) in rank 2 however, indicator 5 "Encourage students to read books and other information about environment protection and conservation." (Mean Rank=3.89) is at rank 5 which is the least among the indicators.

In terms of community, indicator 1 "Conduct clean-up drive campaign in your barangay." (Mean Rank=2.13) is at rank 1, followed by indicator 2 "Sharing environmental information with neighbors and friends." (Mean Rank=2.58) in rank 2 while, indicator 5 "Refrain from dumping

wastes anywhere.” (Mean Rank=3.62) is at rank 5.

Further, in terms of home, indicator 1 “Start a garden by planting in the backyard.” (Mean Rank=2.00) is at rank 1, followed by indicator 2 “Get creative with recyclables and come up with ideas of something they could make and use, like a pencil holder from a plastic milk bottle or a desk organizer from an egg carton,” (Mean Rank=2.74) in rank 2 while, indicator 5 “Avoid open burning of wastes materials.” (Mean Rank=3.59) is at rank 5.

Part 6 Best Environmental Practices of the Participants.

Based on the results of the FGD with the twelve participants of the study. The participants revealed their best environmental practices, they suggested solutions, and programs or plans of actions that they think can enhance their environmental awareness and practices.

The theme that can be associated with the question, “What environmental practices do the participants in the study perform best?” Based on the transcribed responses of the participants, Proper Garbage Segregation is their best practices.

Part 7 Other Solutions in Enhancing Environmental Awareness and Practices that Participants Suggested.

The theme that can be associated with the question, “What other solutions in enhancing the environmental awareness and practices can the participants suggest aside from the choices mentioned in question number 5? The participants still considered Seminar in Environmental Awareness as the best way that they can be more informed and oriented about the issue on the environment.

Part 8 Environmental Plan or Program that the Participants Suggested.

The theme that can be associated with the question, “What plan or program that you think that can be developed?” The participants of the study considered attending Clean-Up Drive since this can encourage them to be more involved and concerned about the environment.

CONCLUSIONS

1. The majority of the respondents are 19 to 20-year-old, female and specializing in Mathematics.
2. The respondents' environmental awareness in terms of green habits and environmental attitudes are considered moderately aware.
3. There is no significant difference in the environmental awareness of the respondents in terms of green habits and attitudes when they were grouped according to age, sex, and area of specialization.
4. The best environmental practice of the respondents is “I try to reduce the amount of waste at home by collecting materials that can be recycled” as their first choice and “I do not use a plastic bag to wrap things,” is the least among their choices.
5. Among the suggested solutions provided to the respondents, their first choice in terms of school is to conduct an environmental awareness training seminar in School and their least suggested solution is to encourage students to read books and other information about environment protection and conservation. In terms of community, their first choice is to conduct a clean-up drive campaign in your barangay and their last choice is to refrain from dumping wastes anywhere. In terms of home, their first choice is to start a garden by planting in the backyard and avoid open burning of wastes materials as their last choice.
6. Proper Garbage Segregation is the environmental practices that the participants in the study perform best.
7. The participants further suggested that seminars that can enhance their environmental awareness and practices.
8. The participants consider the Clean-Up Drive plan or program that they think they can join in enhancing their awareness and practices.

RECOMMENDATIONS

1. Regardless of the respondents' area of specialization, this study recommends that equal opportunities related to their improvement in environment should be extended to them.
2. To improve the environmental awareness and practices of the respondents, the university should provide more orientation seminars and school activities that will encourage them to be more responsible in caring for the environment.
3. To ensure full participation of the students in all the school activities that will be sponsored by the campus related to environmental protection, a special assignment should be given to the student organizations so that they will be more responsible once they feel they are part of the program.
4. The students should be taught more about the recycling of waste since it is their interest. The plastic-free campaign of the campus should be monitored closely and ensure the proper implementation of the program.
5. Students should be encouraged to read more about environmental issues either in books or online. The teachers handling science subjects should incorporate the environmental topic in their lessons. In the community, the barangay officials should be vigilant in monitoring those people dumping or burning of their wastes anywhere.
6. The students should be given recognition if they follow the proper waste segregation in school, at home, or in community.

7. More seminars or orientation should be given annually to update students about the proper caring of the environment and the benefits that they can get from this.
8. The 4 o'clock habit project of the university wherein everyone should clean their area must be seriously implemented and monitored.

Acknowledgment

The author wishes to express gratitude to the officials of the Research and Development Office of the Bataan Peninsula State University for providing research assistance for the completion of the study.

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