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# Environmental Literacy among 1<sup>st</sup> Year BSBA-FM Students at the University of Mindanao Panabo College, Philippines

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**Abstract:** *This study focused on determining the level of environmental literacy among UM Panabo College first-year BSBA-FM students as well as any notable variations in the level of environmental literacy by age group. The study's variable is environmental literacy. Utilizing a quantitative descriptive design, the researchers ascertained the level of environmental literacy. ANOVA and mean were the statistical techniques used in the investigation. The computation using the p-value yields a result of 0.092, which is higher than 0.05. It suggests acceptance of the null hypothesis. Therefore, it was found that there is no significant difference in the extent of environmental literacy among 1st year BSBA-FM students in UM Panabo College when the 1st year students were analyzed with the age group of 18 to 20 years old and 21 to 25 years old.*

**Keywords:** *Environmental Literacy, Environmental Education, Environmental Awareness, Environmental Consciousness.*

## 1. INTRODUCTION

In order to satisfy its demands, humanity is gradually modernizing the world, but as the world approaches the future, problems are also dragging themselves along and becoming worse, especially in the environmental sector. According to Yiğit, Köklükaya, Yavuz, & Demirhan (2014), more research is being done to lessen the effects of environmental problems and prevent future environmental crises as more people become aware of them and live with their consequences. One of the most effective and promising ways to address these problems and raise environmental literacy is through educating people about the environment.

An abundance of ideas and concepts that support comprehending how things function for one another as a species may be found in environmental education. It addresses both



morality and the ethical obligation to preserve the environment. The attempt by the UN to introduce ideas into education with the goal of promoting sustainability has only resulted in a general lack of environmental literacy. A systematic strategy to environmental education is necessary to educate society about the ongoing and existing environmental challenges (Keong, 2021).

The World Wide Fund for Nature (WWF) and Affordable Private Education Center (APEC) schools in Manila, Philippines, collaborated to conduct an online Environmental Education (EE) program that inspired Filipino youth in order to strengthen environmental education in the Philippine academic system and to support RA 9512, the National Environmental Awareness and Education Act of 2008. In order to address existing issues and prepare the country for future challenges in safeguarding not just the country but the entire globe, the program encompassed water, energy, biodiversity, climate change, water and waste, resilience in schools, and sustainability (Calderon, 2021).

Additionally, as reported by Palacio (2016), UP Mindanao arranged a two-day camping event in a Badjao Community in Davao City to educate the inhabitants on the preservation of the ocean environment. The youth were given books and other educational resources to assist them understand the importance of taking action to protect marine life. These kinds of projects were extensively monitored to make sure the program would be successful and to increase public awareness of and responsibility for the environment.

Individuals, businesses, and groups can effectively explore environmental issues and implement environmentally responsible behaviors through environmental education. Comprehensive environmental management can be greatly advanced by creating a society that is ecologically literate and has a heightened sense of responsibility towards the environment (Rogayan & Nebrida, 2019; Yiğit et al., 2014).

The results of this study will give the information required to assess Panabo City's environmental science education program. The researchers believe the following will benefit from the study's conclusion:

It is imperative for this research that environmental science be made widely known, both nationally and locally. This increases the early value of intellectual property as a research tool. Educational institutions benefit from the study's special contribution to the creation of healthier and greener learning environments.

Students might gain from this course by learning about and honing their skills in environmental preservation. It provides students with enough opportunities to engage with real-world problems.

Lastly, the research will be helpful to environmental organizations. As this study assesses the condition of environmental education, they will receive strategies and ideas to ensure they are properly equipped with the knowledge and abilities required to handle complicated environmental challenges.

The concept of environmental literacy has been and is still promoted. The most often used definition of environmental literacy emphasizes awareness of the environment and its concerns together with the knowledge, abilities, and drive to work toward preventing future environmental issues. Despite a shared concern for the environment and an understanding of the critical role that education plays in fostering positive relationships between humans and the environment, researchers have adopted widely divergent discourses on what it means to be



environmentally, ecologically, or eco-literate (Azamovna et al., 2023)

Furthermore, McBride et al. (2013) pointed out that as a result of children no longer growing up in natural surroundings due to the shift from a predominantly agrarian to a more industrial culture, nature study evolved in the late 1800s to provide opportunities for the appreciation and exploration of nature. Due to the Great Dust Bowl and worries about insufficient resource management, conservation education was created in the 1930s and focused on the importance of preserving soil, water, and other natural resources. Concerns that young people in urban areas were not spending enough time outdoors led to the creation of outdoor education in the 1950s. All topic sessions were urged to be held outside, frequently in residential camps. Environmental education with a focus on the social aspects of environmental problems emerged by the late 1960s as a result of growing public awareness of environmental issues (Rogayan & Nebrida, 2019).

Furthermore, Azamovna et al. (2023) asserted that fostering an ecological culture and increasing the ecological literacy of the younger generation is one of the best ways to address and eradicate environmental issues. Incorporating environmental literacy into the educational process is crucial for this reason. The creation of ecologically aware people is the primary objective of environmental education. On the other hand, acquiring knowledge and skills based in environmental sciences and associated subjects is necessary for environmental literacy. There are several ways to define and describe environmental literacy, but there are four essential components of ecological literacy. The initial steps are to collect and analyze facts, formulate hypotheses, speculate, and create theories about the ecosystem people live in. Next, create and evaluate theories relevant to ecological literacy. The second is understanding the environment's mechanisms and workings, especially how people fit into them. Third, a person with environmental knowledge could recognize, research, and develop environmental issues. Last but not least, everyone in a group or individual that is ecologically literate knows why environmental issues arise and how they affect their own world.

According to Bonnett (2021), environmental consciousness is the knowledge of nature and how it influences our relationships with it. It makes the case that, in the age of a metaphysics of mastery, we might be able to restore a true relationship with nature as the self-arising force in our physical reality by taking part in her natural events and everything that they entail in terms of time and space. A feeling of nature's ultimate purity, agency, normativity, and inherent value could be regained here. A genuinely visible science that is grounded in and improves our daily lives by helping to disclose the infinite in all its complexity and mystery may lend support to this. In other words, achieving sustainability has nothing to do with changing the sources of raw materials or developing sophisticated solutions to issues. Instead, it involves engaging in what may be described as a "spiritual transformation" by seizing opportunities for an open conversation with nature that honors the presence of something greater than ourselves and our artificial environment and allows it to shine in the nobleness of being itself (Pihkala, 2020; Rogayan & Nebrida, 2019).

In addition, to revisit the notion of sustainability, it is critical that people recognize their intrinsic capacity for environmental sustainability through managing environmental concerns and forging appropriate relationships with the natural world. Concern and anxiety around the ecological issue also appear to be intensifying quickly. The several forms of eco-anxiety are addressed, and it is advised that teachers understand these variations. Eco-anxiety has been



discovered to be strongly correlated with a range of challenging emotions, including rage, despair, guilt, and melancholy. An adaptive practical anxiety component does exist in anxiety, though. Expectations, aspirations, and motivation are all related to anxiety. Relevant literature from a range of educational sectors are gathered, and prior research on eco-anxiety and ecological emotions in a variety of academic fields is evaluated. It is claimed that in order for environmental educators to handle their own challenging emotions and grow emotionally intelligent in their field of work, they require organizational and peer support. Teachers should assess their own eco-anxiety before considering all the ways they may help their children grow emotionally (Azamovna et al., 2023; Pihkala, 2020).

In the environmental field, environmental awareness has also been acknowledged as a valuable tool. Knowledge and education have a significant impact on altering people's views on the environment (Rogayan & Nebrida, 2019). The Department of Education (DepEd), the Commission on Higher Education (CHED), and the Technical Education and Skills Development Authority (TESDA) lead the discussion with academics and environmental professionals regarding how to implement environmental education and awareness campaigns through cooperative interagency and multi-sectoral endeavor, protection, and conservation at every level in accordance with Republic Act 9512 of 2008. They work in tandem with relevant agencies such as the Department of Science and Technology (DOST), the Department of Environment and Natural Resources (DENR), and others to accomplish this (Wiernik, 2013).

This study aims to seek the answers to the following questions: (1) What is the extent of environmental literacy among the 1st year BSBA-FM students in UMPC? (2) Is there a significant difference in the extent of environmental literacy among 1st year BSBA-FM students in UMPC when analyzed according to age group?

Moreover, this study hypothesized that there is no significant difference in the extent of environmental literacy among 1st year BSBA-FM students in UMPC when analyzed according to age group at a 0.05 significance level.

## **2. METHOD**

Since the goal of this study was to accurately and methodically explain a population, circumstance, or phenomena through descriptive investigation, a quantitative descriptive design was used. Questions about what, where, when, and how can be answered, but not why (McCombes, 2019).

### **Research Respondents and Informants Selection and Sampling Procedure:**

First-year University of Mindanao Panabo College students majoring in financial management, including 91 students overall, were the research respondents for this study. A sample size of 74 students was employed by the researchers using Raosoft.com. There is an equal chance for participation in this survey for every student because the respondents were chosen at random by the researchers. In order to assign the students to groups according to their survey-related similarities and significance, the researchers chose to employ stratified random sampling (Parsons, 2017).

**Research Instrument:** Questionnaires were used to gather data for the study since they are a



useful technique for gathering information from a lot of participants quickly. The Yiğit, et al. questionnaire was adopted. Al (2014) has twenty statements in all. There are nine statements that assess environmental consciousness, five that assess environmental anxiety, and six that assess environmental awareness. Prior to collecting the respondents' data, the researchers wrote a letter to the school director requesting authorization to perform the study and collect the data. Additionally, the researchers wrote a letter to the school registrar requesting the complete list of registered BSBA-FM students for the upcoming semester. Following acceptance, the participants' survey questionnaires are given out by the researchers while they have free time. After the forms were finished, the researchers collected the questionnaires. It is the researcher's responsibility to arrange, present, and interpret the questionnaire in accordance with the information gathered.

**Data Analysis:** In order to assess and ascertain the collected data, the researcher will need to employ the following statistical tools: Mean was utilized to ascertain the degree of environmental literacy and the variables that signify environmental literacy among BSBA-FM students. The study also used the Analysis of Variance (ANOVA) test to see whether there was a significant difference in the degree of environmental literacy depending on the age group.

### **3. RESULTS AND DISCUSSION**

This section shows the results of the study that answers the research questions. It indicates the interpretation and analysis of data gathered with the corresponding implications supporting the analytical discussions.

#### **The Extent of Environmental Literacy among 1st year BSBA-FM Students**

The degree of environmental literacy among UM Panabo College first-year BSBA-FM students yielded an overall mean of 4.00, which is the descriptive equivalent of high. It indicates that UMPC first-year BSBA-FM students are knowledgeable about the environment. This finding is consistent with earlier research by McBride et al. (2013) that shows how education has helped to build positive interactions between people and the environment, which has been a key strategy in the promotion of environmental literacy.

Furthermore, out of all the variables that were given, environmental awareness had the highest mean (4.17), which is the descriptive equivalent of strong. The statement "I would warn people if they caused harm to the environment" had the highest mean of all the statements under the environmental awareness category—4.31, which is descriptively similar to very high. Additionally, the environmental awareness indicator gave the statement, "When I read a newspaper, I pay attention to the topics related to the environment," a mean score of 4.08, which is descriptively equivalent to strong. This indicates that the students were sufficiently literate to understand the potential courses of action for protecting the environment. Furthermore, with a descriptive equivalent of high, the indicator of environmental anxiety had a mean score of 4.12. The statement "I would throw old newspapers; empty glass-plastic bottles, and cans into recycling boxes" had the highest mean of 4.27 among the statements under the category of environmental anxiety, which is descriptively similar to very high. With a descriptive equivalent of strong, the statement "I think we will not find a place to have a



picnic within a few generations" received the lowest mean score of 3.81. This suggests that the students were worried about what might happen to the environment in the event that the appropriate steps are not done to protect it. Finally, with the descriptive equivalent high, the indicator of environmental consciousness received a mean score of 3.81. The statement "There is nothing wrong with pouring waste cooking oil into the sink" received the lowest mean score of 1.92 with the descriptive equivalent of low among the statements under environmental consciousness, while the statement "I'm in favor of using energy sources like solar power and natural gas since the gases given out from stoves are more harmful" received the highest mean of 4.54 with the descriptive equivalent of very high. This suggests that the students were conscious of and worried about the kinds of acts that should be taken—and not taken—in order to protect the environment.

Table 1. The Extent of Environmental Literacy among 1st year BSBA-FM Students

Indicators	Mean	Descriptive Equivalent
Environmental Consciousness	3.81	High
Environmental Anxiety	4.12	High
Environmental Awareness	4.17	High
<b>Overall</b>	<b>4.00</b>	<b>High</b>

**Significant Difference in the Extent of Environmental Literacy among 1st BSBA-FM Students when Analyzed According to Age Group**

When BSBA-FM students are categorized by age group, Table 2 shows a noteworthy variation in the degree of environmental literacy. P-value is 0.092, which is greater than 0.05, according to the results. It suggests that the rejection of the null hypothesis. By analyzing the first-year BSBA-FM students according to the age group that is provided, it indicates that there is no discernible variation in the level of environmental literacy. Our findings validate those of Wiernik (2013) findings where the age does not substantially impact a person's understanding of conserving and safeguarding the environment. Those of different ages have distinct views about the environment and vary in the extent to which they engage in different environmental acts, according to their research. Age effects have been identified through research, although their extent and progression may vary.

Table 2. Significant Difference in the Extent of Environmental Literacy among BSBA-FM Students when Analyzed According to Age Group

Variable	Groups	N	Mean	p	Decision on Ho @ 0.05 level
Environmental Literacy	18 to 20 years old	60	3.98	0.092	Ho is accepted
	21 to 25 years old	14	4.06		



#### 4. CONCLUSION

Based on the study, the following conclusions are made: First-year BSBA-FM students at UM Panabo College have a high level of environmental literacy. When the degree of environmental literacy among first-year BSBA-FM students is broken down by age group, there is no discernible variation.

#### Recommendations

The study's conclusions and findings lead to the following recommendations, which are as follows: students should keep an eye on their surroundings and take small steps that can help conserve the environment. Environmental organizations should also take the initiative to educate the public and run campaigns to support environmental preservation in order to increase environmental sensitivity and awareness among all people. In order to effectively support and promote environmental efforts, businesses and organizations should include environmental sustainability into their corporate or organizational goals.

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