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Environmental-Education: Teaching-Approach Model

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I. INTRODUCTION

People began to understand the need to behave more responsibly towards nature, but the responsibility of man to protect the environment is both individual and collective. Nature protection engages cooperation, collaboration, and support on the ground, local, national, and international. Environmental education (EE) should be a collaboration of content and pedagogy that engages students in the study of the environment to encourage behavioral change and action. EE is considered as a learning process that enhances people’s knowledge and skills about the environment and associated challenges that develop necessary skills and expertise for decision making and action implementation (Boca & Sarachi, 2017). EE, according to Chi & de Alva (2017) concerned about implying relationships with others and nature, therefore; students should promote and assume the care of health and environment.

Environmental negligence is a great concern of humanity; environmental people should promote a less polluted environment and promote sustainable use of natural resources, ultimately the protection of natural resources and habitats. Environmental Education leads to generate the environmental awareness and attitudes

of the people to take care of nature. Human actions and activities all shaped towards the intention to protect the environment and its impacts. In this study, teachers are creating environmental awareness and environmental activities. Women also in this study were considered as educators for their children to stimulate change in behavior in the advocacy of protecting the environment (Ali & Sinhan, 2013; Alkins, 2016; Brehma, Eisenhauert, & Stedman, 2013; Chen, 2016; Cui, Hoje, & Velasquez, 2015).

Every environmental event needs the coordination of efforts and collaboration between government agencies, NGOs (non-government organizations), and private sectors. Cooperation is the inter-organizational relations, network, and logic of collective action in a situation where multiple agencies move together to solve problems and accomplish the outcome. It promotes team building, provides maximum resources for partner agencies, and prevent duplication of efforts. It is also the sharing of responsibility, authority, and accountability for achieving results (Sulaiman et al., 2019).

Woolson (2019), environmental humanities can contribute to discussions about sustaining life and quality of life, human communities, the role of human beliefs, values, fears, and political wisdom. Environmental education entails a critical framework that offers wisdom, insights, and knowledge about to solve complex problems across diverse cultural landscapes. This activity involves pedagogical approaches to sustainability.

Environmental education is a complex network of principles, educational theories, and ideological approaches geared toward the goal which is committed to learning processing involving the cultural and political transformation. This change is a series of knowledge on environmental conflict, practices of educators in conducting EE issues and settings. It entails learning-teaching exercises about issues and its innovative practices. (Rivarosa & Astudillo, 2012).

II. THEORETICAL FRAMEWORK

The authors used the framework promulgated by Ali and Sinhan (2013), which underscored that the environmental degradation is a matter of great concern of humanity, human actions and activities should lead to protect the environment, and economic affluence has a marginal direct influence to environmental education.

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This theory means that those who have substantial in life should be actively engaged and active actors of different initiatives about environmental education.

The second theory and framework used in this study were taken from Bueno (2019), which states that environmental education (EE) is a discipline of environmental education (EE), which is highly needed to protect the environment for the future generation and to improve quality of life. The schools' tasks are to prepare young people for the future, which reflects on day-to-day operations and through education for sustainable development. It involves shaping the attitudes and behavior of the students towards the conservation of natural resources, cleanliness, environmental responsibility, social responsibility, and cleanliness. It includes developing environmentally citizens who share a concern for the environment in which they live in and the future generations.

This study was also anchored in principle used by Nassar (2013) using a systematic approach encompassing different dimensions and stressing the importance of integration and interaction across many areas, particularly sustaining strategies that are needed to train people, empower communities, and harmonizing the impacts of globalization. It is also about understanding the nature of each place and pro-active vision of the future.

Since this study is about environmental-tourism education, another theory used by the authors was on the "Economic Development Theory" by Filho et al. (2014) that states that there should be a symbiotic relationship between the progress and nature. This theory laid the frameworks on economic efficiency, social equity, and ecological perspective. It means that development is practically instituting actions by respecting the particularities of the different components of the ecosystem (Filho, et al., 2014).

III. STATEMENT OF THE STUDY

- 1) What is the level of Environmental Education (EE) of BS Tourism students as an entire group and when classified according to section and place of residence?
- 2) Are there significant differences in the respondents' environmental education?
- 3) What are the understandings and perceptions of the respondents on environmental-education (EE)?

Table 1: Shows the distribution of students.

Profile of the Respondents

Category	F	%
A. Entire Group	43	100
B. Section		

- 4) What are the environmental concepts, frameworks, and theories acquired by the respondents?
- 5) What are the learnings of the respondents?
- 6) How these Tourism environmental learning and concepts relate to the respondents' lives?
- 7) What are the suggestions and recommendations of the respondents to improve the Tourism Environmental Plan in the Philippines?
- 8) What should be the teaching-approach model intended to Tourism students at Maritime University in South East Asia towards Tourism-environmental education?

IV. METHOD

The researchers employed a mixed-method research design by Creswell (2013). The quantitative level of environmental education of the respondents is determined by using the Likert-scale rating instrument, which was validated by the experts and members of the Research Committee of JBLFMU-Molo, Iloilo City. After the validation, the questionnaire was pilot-tested to the selected students who have similar characteristics with the respondents. The statistical tools used were frequency count, percentage, mean, and t-test to determine the differences in the level of environmental education when the respondents are grouped according to 2 categories. The teachers allowed the respondents to write their experiences and learning in their Tourism activities in several places and tourist destinations in Iloilo, which have a relation with the environment by employing a "narrative approach" in qualitative research. These narrative views, insights, and statements of the respondents were captured and analyzed to come up with different "themes" to present the different strategies towards teaching-enhancement of environmental education in maritime universities in South East Asia.

V. RESPONDENTS OF THE STUDY

The respondents of this study were forty-three (43) Bachelor of Science Tourism Management (BSTM) students of the College of Business, JBLFMU-Molo, who were officially enrolled during the School Year 2018-2019. They are categorized according to different groups, such as section and place of origin.

BS Tourism 4-A	21	49
BS Tourism 4-B	22	51
C. Place of Residence		
Rural	21	49
Urban	22	51

VI. RESULTS AND DISCUSSIONS

The respondents have “very high” level of environmental education (EE) as a whole group and

when classified according to section and type of residence as indicated by their mean scores such as 8.73, 8.68, 8.78, 9.12, and 8.44 respectively.

Table 2: Level of Environmental Education (EE) of the Respondents

Category	Mean	Description
A. Entire Group	8.73	Very High (VH)
B. Section		
4A	8.68	Very High (VH)
4B	8.78	Very High (VH)
C. Type of Residence		
Rural	9.12	Very High (VH)
Urban	8.44	Very High (VH)

Legend:

Scale	Description
8.21 – 10.00	Very High (VH)
6.41 – 8.20	High (H)
4.61 – 6.40	Average (A)
2.81 – 4.60	Low (L)
1.00 – 2.80	Very Low (VL)

Differences in the Tourism Environmental Education when the respondents are Grouped according to section and place of residence

Results reveal that students who are classified according to a place of origin had a significant difference ($t = 1.620, p < .05$); those who came from rural places have a higher level of awareness on

environmental education. Moreover, they are exposed to untouched or unexplored places and their culture is slightly leaning towards environmental protection, and conservation compared to those who are raised in the cities.

Table 3: Explains the significance of tourism learning.

T-test Results in Tourism Environmental Education of the Respondents as Classified according to Section and Gender

Category	Mean	T-value	DF	Sig.
4A	Section	-.108	41	.916
4B	8.68	8.78		
Rural	Place of Origin	1.620	41	.023
Urban	9.12	8.44		

Understandings and Perceptions of Environmental Education (EE) of the Respondents

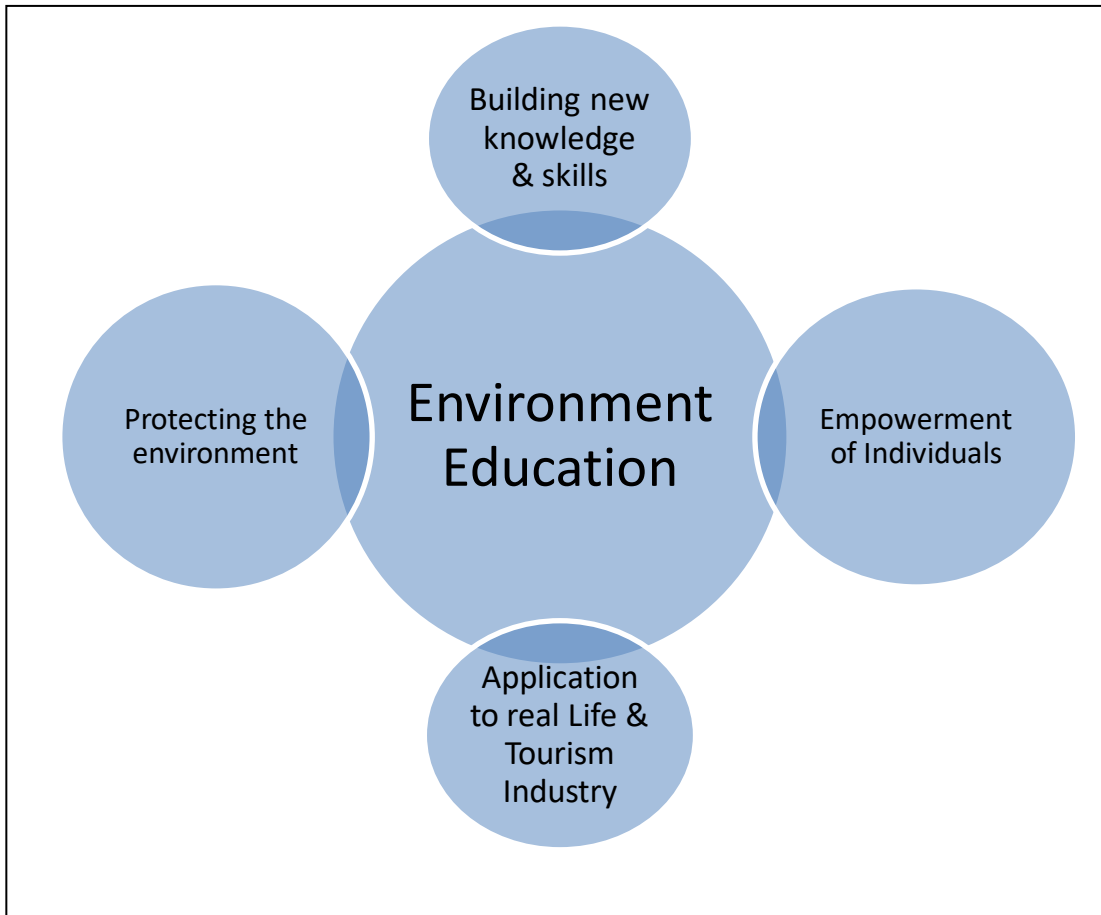
Using the narrative statements and phrases of the respondents, the researchers come up with the four (4) “themes” about the understandings and perception

on environmental education (EE) such as the following: (1) protecting the environment, (2) building new knowledge and skills, (3) empowerment of individuals, and (4) application to real-life and Tourism industry.

The first theme which is “protecting the environment” is about the important role of each individual in conducting or initiating activities or programs that would educate the people in order to protect, conserve, and help the Mother Earth. This is concerned also on the different species that crucially need good and clean surrounding. This theme is supported by the following statements and views of the respondents such as:

1) educate the people to protect, conserve, and help Mother Earth. The statements and views of the respondents are:

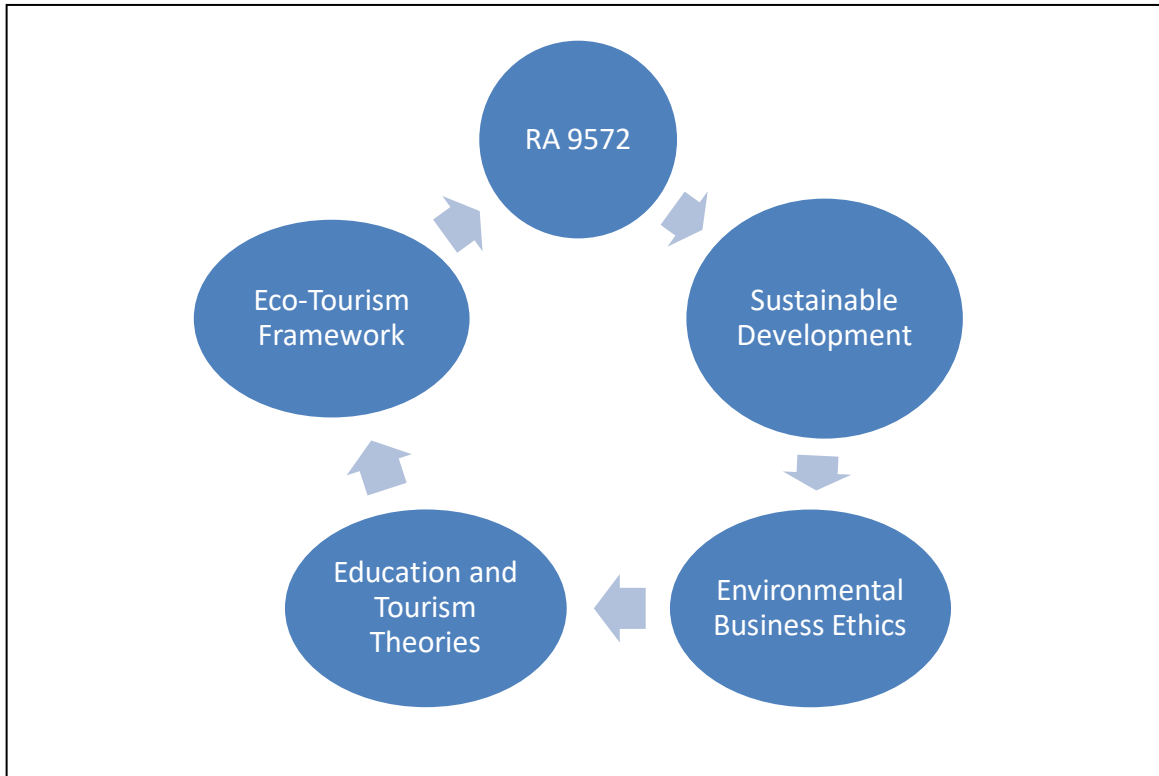
- 2) engage in tree planting and clean-up drive in the places where the respondents lived
- 3) re-cycling activities and programs of the municipalities
- 4) volunteering in cleaning and protecting the Bato Jumpit Falls in Igtuble, Tubungan, Iloilo, Philippines
- 5) involve in the program on “conservation of water,”
- 6) join the community services in respective municipalities



Concepts, Frameworks, and Theories acquired by the Respondents about Environment

The respondents of this study applied the following ideas, frameworks, and theories to preserve the environment: (1) RA 9512, (2) Sustainable Development, (3) Eco-Tourism Framework, (4) Education and Tourism Theories, and (5) Environmental Business Ethics.

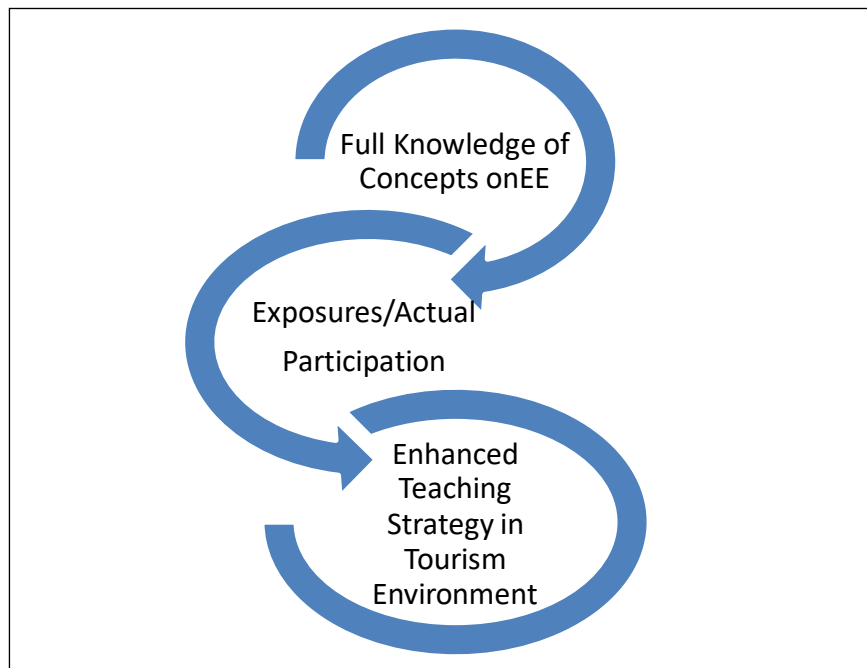




Teaching-Approach Model towards Environmental-Education

They are sensitizing all the remarks and inputs of the respondents. The researchers come up with the "teaching-approach model" intended for the Tourism students at the maritime university (JBLFMU-Molo) in

South East Asia. This model comprises of two dimensions, which are the following: (a) full knowledge of concepts on environmental education (EE) and (b) exposure or actual participation of the students in any activities of the university.



Full knowledge of concepts on environmental education (EE) means that individual has possessed and applied the following: (a) RA 9512 – the

respondents believe that promoting Environmental Awareness through Environmental Education (EE), which shall encompass environmental concepts and

principles, environmental laws, state of the international and local environment, local environmental practices, threats of nature's degradation, impacts on human well-being, the responsibility of the citizenry to the environment, and value of conservation, protection, and rehabilitation of natural resources and environment (FAO, FAOLEX, 2008; www.Chanrobes.com: www.senate.org.ph), (b) Sustainable Development. The respondents shared that this concept is dealing with how to embrace development and progress without destroying nature. It is about protecting and preserving its natural form along with the rapid changes in the surrounding, (c) Eco-Tourism Framework according to the respondents, sustainable development that aims to support environmental conservation efforts and increase community participation that provides economic benefits and improve quality of life of local communities, (d) Education and Tourism Theories.

The respondents perceived the theory as the process of traveling for educational learning and gaining experiences on the different Tourist destinations, religious places, and attractions that promote the culture, way of life, custom, and tradition of people of communities, (e) Environmental Business Ethics. This framework, according to the respondents was every business individual should be responsible for their surroundings. Their products should have harmful or drastic effects on the environment. The business sector should learn to take care of their environment as their corporate social responsibility.

Exposures or actual participation means that individual has immersed himself to the different Tourism environmental activities and have obtained self-realization of the role of the environment such as tree planting and clean-up drive, re-cycling of used materials, volunteering in cleaning and protecting the Bato Jumpit Falls in Igtube, Tubungan, Iloilo, Philippines, involve in the program on "conservation of water," and joining the community services in respective municipalities.

VII. CONCLUSIONS

Based on the findings of this study, the following conclusions were advanced:

The "very high" level of environmental education (EE) as a whole group and when classified according to section and type of residence is influenced by individuals who begun to understand the need to behave more responsibly towards nature and to imbibe the responsibility of man to protect the environment is both individual and collective. In dealing with nature protection, this engages cooperation, collaboration, and support on the ground, local, national, and international. Moreover, it concludes that environmental education (EE) must be a collaboration of content and pedagogy that

engages students in the study of environment to encourage behavioral change and action as stated by Boca, G. & Sarachi, S. (2017) because EE is considered as the learning process that enhances people's knowledge and skills about the environment and associated challenges which develop necessary skills and expertise for decision making and action implementation.

The results were also anchored in the study of Chi & de Alva (2017) that EE implies relationships with people/individuals and nature. Therefore, students should promote and assume the care of health and environment. The environment is a matter of great concern of humanity; people should promote the less polluted environment and promote sustainable use of natural resources, ultimately the protection of natural resources. Studies of Ali & Sinhan (2013), Alkins (2016), Brehma, Eisenhauert, & Stedman (2013), Chen (2016), Cui, Hoje, & Velasquez (2015) supported this result because environmental education (EE) should be laid for generating environmental awareness and attitude of the people to take care of nature. Human actions and activities all shaped towards the intention to protect the environment and its impacts. In this study, teachers are called to create environmental awareness and environmental activities.

Sulaiman, S. et al (2019) and Woolson, M.A. (2019) studies were in coherence with the present study, that every environmental event needs the coordination of efforts and collaboration between government agencies, NGOs (non-government organizations), and private sectors, this means that collaboration means it is the inter-organizational relations, network, and logic of collective action in a situation where multiple agencies move together to solve problems and accomplish the outcome, and this promotes team building, provide maximum resources for partner agencies and prevent duplication of efforts. It is also the sharing of responsibility, authority, and accountability for achieving results. Humanities can contribute to discussions about sustaining life and quality of life and human communities, environmental education entails critical framework that offers wisdom, insights, and knowledge about to solve complex problems across diverse cultural landscapes, and this involves pedagogical approaches to teaching Tourism-environmental-sustainability.

In the same vein, that study of Rivarosa & Astudillo (2012) confirms these results by stating that environmental education in Tourism entails learning-teaching practices and innovative practices among teachers to enhance the students' awareness and appreciation of the subject in connection with the environment.

VIII. IMPLICATIONS OF THE STUDY

The concepts, philosophies, and frameworks on environmental education leads the Tourism students to be vigilant and pro-active in initiating any activities that could be related to environment and surrounding.

Another implication is on the teaching strategy that instructors dealing with Tourism students should have in-depth environmental education that would lead towards interesting learning-teaching and innovative practices of the subject that are indicators of qualities of instructors that have potential guardians towards the preservation and protection.

IX. RECOMMENDATIONS

Based on the findings and conclusions of this investigation the following recommendations were advanced:

- 1) The results of this study shall be utilized among students of other courses at the university so that the environmental-education shall be enhanced and emphasized.
 - 2) The conduct of environmental study shall be done regularly to gather feedback and enhance the learning on environment not only among Tourism students but also all the students to enhance the environmental education (EE) of the university.
 - 3) The roles of teachers or instructors on environmental preservation and conservation should be emphasized always in the different meetings, discussions, dialogues, and conferences to enhance the learning and awareness toward EE.
 - 4) The researchers need to suggest other variables that might contribute the appreciation and transformation of the students towards the environment.
 - 5) The researchers suggest parallel studies to determine other variables that may influence the level of assessment of the environment and its implication in the teaching-learning process of all students in the maritime university.
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