

# Content integration of environmental management practices and responsible behavior for senior high school learners

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## Abstract

The world's environmental concerns are currently rising which brought negative effects and became detrimental to organisms which needs to be addressed through participation of human. This study aimed to integrate environmentally responsive content for senior high school learners. Through the use of descriptive developmental design, the study was conducted and participated by one hundred seventy-four (174) Senior High School (SHS) learners of Humanities and Social Sciences strand from a secondary public high school in Candelaria, Quezon, Philippines. Through the use of 4-point Likert scale survey questionnaires, the study found out that learners do not always perform environmental practices same with their environmentally responsible behavior. These results were used as bases in making an instructional material, which was evaluated as highly effective to be used for the environmentally responsive content integration for SHS. Findings demonstrate a significant difference on the pre and post assessment of learners on environmental literacy as to knowledge, attitude and motivation. This suggests that educating learners through the integration of environmentally responsible content in SHS can be a great help in saving and protecting the environment.

**Keywords:** *environmental practices, environmentally responsible behavior, environmentally responsive content integration, environmental literacy, instructional material*

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## Introduction

The reality that plastics have numerous valuable uses in the community, industries, medical institutions and even in the educational sector, cannot be denied. In fact, the community has been dependent in using plastics, particularly single-used plastics due to its convenience and development in different fields that it offers. However, as stated by Parker 2019, plastics kill millions of animals, including fish, birds, and other marine life every year. There are around 700 species known to have been impacted by plastics, including some that are endangered. Almost all types of seabirds consume plastic. Entanglement or malnutrition are the main causes of deaths of animals like seals, whales, turtles, and others are strangled by discarded six-pack rings or fishing gear. More than 100 aquatic species, including fish, shrimp, and mussels destined for our dinner plates, have been confirmed to have microplastics.

United Nations Environment Programme (UNEP), which serves as an authoritative advocate for the global environment, mentioned that plastic pollution doesn't exist in vacuum. It has the potential to modify ecosystems' capacity to adapt to climate change, altering habitats, natural processes, and social and economic well-being for millions of people making it a global problem. Same scenario was observed in the Province of Candelaria, Quezon which is surrounded by rivers. Although there is a Municipal Ordinance that prohibits the use of single-use plastics, there are still lots of plastics being disposed every day and some are flushed and carried away to the river banks. This leads to the contamination of waters, pollution of river which can no longer be used as swimming areas as before and death of aquatic organisms. Furthermore, the study of Quesea and Chua (2020), suggests that in order to raise the level of competence of the students, teachers might use competency-based learning assessments when teaching various topics in other subject areas and it also added that the school administration can improve the instructors' teaching abilities by applying them in the classroom situations since every student has a different learning style.

All these, led the researcher in taking this study and focus on the identified problem, which aimed to integrate the environmental management practices to senior high school content curriculum, develop an environmentally responsible behavior among SHS learners, develop a deeper realization, commitment and inner desire in practicing environmental

involvement and let the learners be avenues in spreading and inspiring their household and even the community to perform environmental practices.

## **Methodology**

A descriptive-developmental research design was used to assess the environmental management practices and responsible behavior of 174 SHS learners from Humanities and Social Sciences strand which was used as basis for designing an Environmental Responsive Content Integration for SHS learners.

The research study used a researcher-made 4-point likert scale survey questionnaires on environmental practices, environmentally responsible behavior and degree of effectiveness of instructional material, pre and post assessment with the same topics on environmental literacy and performance assessment form which assessed the frequency of environmental practices done by students in school. These instruments undergone reliability test and internal and external validations. The said instruments were collected, summarized, tabulated and interpreted after its retrieval from the respondents.

This study utilized descriptive statistics in treating the data statistically in order to present a summary that explains the data sample and its measurements. It also described, illustrated, and summarized the fundamental characteristics of a dataset identified in a certain study and draw conclusions from the sets of data gathered. This includes frequency for the learner's profile of the respondents.

## **Findings**

The study found out that the extent of practicing environmentally responsible behavior of learners as to rethinking, refusing, reducing, repurposing, reusing and recycling is often while rotting is sometimes practiced. Furthermore, it showed that learners are knowledgeable, fully aware, significantly influenced by the control centers, has a good attitude, has very high personal responsibility and intention of acting and has a subjective norms and beliefs on environmentally responsible behavior. It further revealed that the

designed content integration is highly effective to the learners as to language use, coherence, applicability, motivation and knowledge.

It was also found out that the pre and post assessment task of the learners on environmental literacy as to their knowledge is very high, the attitude is satisfactory, and the motivation is also very high. Lastly, the study found out that there is a significant difference on the pre and post assessment tasks of the learners on their environmental literacy as to knowledge, attitude, and motivation.

## Conclusion

Based from the results, the study concluded that the extent of practicing environmentally responsible behavior of learners is shown but not always and learners are knowledgeable, fully aware, significantly influenced by the control centers, has a good attitude, has very high personal responsibility and intention of acting and has a subjective norms and beliefs on environmentally responsible behavior but sometimes fails to perform environmental practices. It was also deduced that the designed content integration is highly effective to the learners as to language use, coherence, applicability, motivation and knowledge which became a significant factor in performing environmental practices. Moreover, it was also assumed that there is a significant difference on the pre and post assessment tasks of the learners on their environmental literacy as to knowledge, attitude, and motivation.

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