

**ENVIRONMENTAL LITERACY AMONG UNDERGRADUATE STUDENTS IN
AN INSTITUTE OF HIGHER LEARNING IN MALAYSIA: A STUDY IN A
SELECTED PUBLIC AND PRIVATE UNIVERSITY**

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i. Introduction

Environmental literacy has been main concern in society in modern times. Environmental problems are caused directly or indirectly by the patterns of production by industries, patterns of consumption and behavior of the consumers. Accordingly, aims to determine the level of knowledge, environmental concern and ecologically conscious consumer behavior need to be identified together with the understanding in the extent of involvement in nature-related activities of the consumer.

The planet has environmental problems that threaten every type of ecosystem. Humans are making changes to the environment without pretests or complete understandings of the consequences and these changes threaten the habitability of the earth for humans and many other species. Most educational courses still come from the obsolete thought that resources are endless and pollution is not a serious issue instead of the more realistic paradigm of sustainability. Educated decisions will have to be made in the personal, business and government arenas to address the environmental challenges of the future, yet we still graduate most students with an undergraduate degree that has no requirement to become environmentally literate.

At a number of colleges and universities, the core general education requirements for all degrees include an in depth exposure to environmental literacy. Many colleges are also including a degree requirement in the area of social responsibility and/or civic engagement. Some higher education institutions have integrated environmental literacy, social responsibility and sustainability course materials into existing liberal arts and specialty courses.

ii. Problem Statement & Significance of Study

Higher education shapes the mindsets of the world's leaders, and our collective mindsets shape the world. To create a healthy, just, and sustainable world, we need leaders, professionals, and citizens in all sectors, fields, and walks-of-life with a deep understanding of the scientific and normative aspects of sustainability and the ability to lead their personal and professional lives aligned with sustainability principles.

All students in institutes of higher learning, as the consumers of the future, need to know about environmental problems and how to help create an environmentally healthy and more humane world. Currently, most institutions of higher learning have done little to systematically provide this knowledge.

Thus, a study needs to be carried out to determine and ascertain the extent of environmental literacy among students in institutes of higher learning. In this study, environmental literacy is defined as a basic understanding of the concepts and knowledge of the issues and information relevant to the sustainability of the environment as well as environmental issues related to human health (Wolfe, 2001).

Data gathered in this research would serve as a relative indicator of environmental literacy of undergraduates enrolled in these institutions. This information could be used to develop the strength of environmental literacy among undergraduates, as future leaders, to address the environmental issues in the country.

iii. Research Objective

This study is defined to evaluate environmental literacy among university-level non-environmental undergraduate students and to identify various approaches for increasing environmental literacy at a undergraduate level.

The study would be conducted in a selected public and private university with the objectives to inter alia:

- 1) Study the extent of understanding of concept on the environmental sustainability among non-environmental undergraduate students
- 2) Study the level of knowledge of environmental issues among these undergraduate students.
- 3) Propose an enhancement in terms of environmental literacy in these selected public and private university.

thus ensuring that when research is conducted regardless of major, environmental concerns are taken into consideration.

iv. Literature Review

Although initiatives to include environmental education in universities have been increasing since the 1970s, the question remains as to whether these programs are having a positive impact on the environmental values of students. Environmental values are those that propose or support action directed towards environmental care and responsibility. Regardless, many suggest that to create an attitude of environmental responsibility, both facts and values must be taught. In fact, some authors consider this to be a moral responsibility or social mission of higher educational institutions (McMillan, Wright and Bezly, 2004).

The knowledge of environmental action strategies is necessary to identify specific environmental issues faced in modern living. As such, students need to be equipped with knowledge of environmental action strategies, and they need to be given training in order to develop skills and expertise in the use of these strategies. (Ho, 2007).

At most institutions of higher learning, students can graduate with an undergraduate degree and be both environmentally illiterate and unaware of resource distribution inequities (Wolfe, 2001). Developing graduates who help implement a paradigm of sustainability is a crucial need for society, yet educational curricula often do not adequately address this need (Cortese, 1999).

In institutions of higher learning, there is an accepted norm to produce analytical thinkers. Many students and graduates feel overwhelmed by our society's environmental problems. They feel that the problems are so large and complex they cannot do anything about it, and decide to give up and just take care of themselves. Knowledge should be empowering our students to help create a better society instead of making them passive.

Rowe (1999) found that students who had an interdisciplinary course with a focus on creating a more humane and environmentally sustainable future, developed an increased caring about the future of society, an increased belief that they can make a difference, and an increased willingness to participate in solving societal and environmental problems.

For example, economic students could gain a sense of the scope of problems and the relative expenditures required for solutions. Students read analyses on how global population can be stabilized, starvation and malnutrition can be virtually eliminated, drinking water can be cleaned, deforestation, greenhouse gas excesses and ozone depletion can be stopped, renewable energies and energy efficiency technologies can be implemented in developing nations, debt can be retired, and illiteracy can be eliminated.

The area where the most improvement is needed is to ensuring graduates, regardless of major, are environmentally aware and literate. (McIntosh, Cacciola, Clermont, Keniry, 2001).

v. Research Methodology

