



# IMPACT THE ENVIRONMENTAL EDUCATION AMONG THE HIGHER EDUCATION STUDENTS IN COIMBATORE CITY

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## **ABSTRACT:**

This study investigates the impact of environmental education on higher education students in Coimbatore, India. The aim is to assess the effectiveness of environmental education programs in enhancing students' awareness, attitudes, and behaviors towards environmental issues. A convenience method with students enrolled in various colleges and universities in Coimbatore. The study explores the extent to which environmental education has influenced students' knowledge of environmental issues, their pro-environmental behaviors, and their intentions to engage in sustainability practices. Additionally, the research examines the role of educational institutions in promoting environmental awareness and fostering sustainable behaviors among students. Findings from this study will provide insights into the significance of environmental education within higher education settings and inform strategies for enhancing environmental literacy and fostering sustainable attitudes among students in Coimbatore.

**keywords:** Keyword: environmental, education, awareness

## **INTRODUCTION:**

Environmental education among higher education students in Coimbatore city has emerged as a critical area of focus due to the growing recognition of environmental challenges and the need for sustainable development. Coimbatore, known as the "Manchester of South India," is an industrial hub facing increasing environmental pressures from rapid urbanization and industrial growth. In this context, environmental education plays a pivotal role in raising awareness, fostering a sense of environmental responsibility, and equipping students with the knowledge and skills to address environmental issues. The impact of such education can be transformative, influencing students' attitudes, behaviors, and career choices towards sustainability and conservation. Therefore, understanding the effectiveness and outcomes of environmental education initiatives among higher education students in Coimbatore is crucial for promoting a more sustainable future in this dynamic urban landscape.

## **STATEMENT OF THE PROBLEM:**

The impact of environmental education among higher education students in Coimbatore city remains underexplored, raising concerns about the effectiveness of current educational approaches in fostering environmental awareness and behavior change. Key questions include the extent to which students perceive the relevance and importance of environmental education, their level of knowledge and understanding of environmental issues, and the degree to which they engage in environmentally sustainable practices both within and outside of the educational setting. Additionally, the efficacy of existing educational strategies and the potential barriers to effective environmental education implementation need to be addressed to inform future curriculum development and policy initiatives aimed at promoting environmental stewardship among higher education students in Coimbatore city.

## **OBJECTIVES:**

- To know the socio-economic profile for the respondents.
- To measure the environmental awareness level among the college students.
- To study the general environmental practices among the college students.
- To evaluate the role of technology in supplementing environmental education
- To students explore environmental opportunities and constraints to foster sustainable practices.

## **SCOPE OF THE STUDY:**

The impact of environmental education among higher education students in Coimbatore City offers a rich scope for study. Potential areas of investigation could include assessing students' awareness levels, attitudes, and behaviors towards environmental issues, examining the effectiveness of current environmental education initiatives in academic institutions, exploring the role of curriculum and teaching methodologies in fostering environmental consciousness, and evaluating the long-term impact of environmental education on students' environmental stewardship and sustainable practices. Additionally, research could delve into identifying barriers and facilitators to implementing environmental education in higher education institutions and proposing strategies for enhancing its effectiveness.

## REVIEW OF LITERATURE:

**Shivani Chandola Barthwal and Vinod B. Mathur (2019)** emphasized the necessity of Ladakh's environmental education system. The study's sample consisted of 277 teachers employed by government schools. The researcher used a questionnaire with an emphasis on wildlife and conservation in accordance with the survey method. The findings showed that Ladakh's population was aware of the region's biodiversity.

**Narwal, K. (2021)** investigated "Development of Environmental Awareness Among Youth: A Review" The study's goal was to investigate youth environmental awareness. It is a descriptive paper. In this study, secondary data have been used. Information was gathered from journals, websites, and books. The findings showed that while most college and university students are aware of environmental issues, post-graduation and graduating students' awareness is higher than that of school-age students. Students in the science and commerce streams are more environmentally conscious than those in the arts stream, and there is no discernible difference in environmental awareness between males and females.

**Verma, A. & Verma, V. (2022)** investigated "Environmental Awareness among Students." The purpose of the study is to assess undergraduate regular students' environmental awareness and habitual practices, with a focus on Arts and Science colleges in the Dindigul district of Tamil Nadu. The descriptive design works well for this paper and achieves the goals and objectives stated above. Primary data were gathered using self-made environmental practice questionnaires and a Standardized scale on the Environmental Awareness Ability Measure (EAAMJPK, English to Tamil), which the researcher adopted. The research employed a multi-stage sampling technique to choose the study area participants. Compared to boys, girls behave better in the environment. The practices of the environment and gender are identical. Environmental practice and environmental awareness are not significantly correlated. The investigator recommends that environmental studies should be included.

## RESEARCH METHODOLOGY:

### DATA COLLECTION:

The data and other information's required for the study were collected from both primary and secondary sources. The primary data is collected through respondents directly and indirectly and the secondary data is collected from various sources including libraries, journals, newspapers and websites. The mode of data collection is survey method.

### SAMPLE METHOD:

The sampling technique used for the study is convenience sampling. It is a type of non – probability which involves the sample being drawn from the population which is close to hand. Sample size taken in this study is 120 respondents.

### AREA OF STUDY

A study is conducted in Coimbatore city

## TOOLS USED FOR ANALYSIS

The following statistical tools are applied in accordance with the objective of study.

- Simple percentage analysis
- Rank analysis

## LIMITATION OF STUDY:

- Limited number of respondents may not accurately represent the entire higher education student population in Coimbatore.
- Participants may self-select, leading to a biased sample that may overrepresent individuals already interested in environmental issues.
- Difficulty in assessing long-term impact as the study may only capture short-term changes in behavior or attitudes.
- Findings may not be applicable to other regions or contexts beyond Coimbatore city.
- Objective measurement of the impact of environmental education can be challenging, relying heavily on self-reporting which may not always be accurate.
- Other external factors outside of the study's control may influence participants' attitudes and behaviors, making it difficult to isolate the effects of environmental education.

## DATA ANALYSIS AND INTERPRETATION:

### SIMPLE PERCENTAGE ANALYSIS:

Simple percentage analysis is carried out for most of all the questions gives in questionnaire. This analysis describes the classification of the respondents falling in each category. Through the use of percentages, the data are reduced in the standard form with base equal to 120 respondents, which fact facilities relative comparisons.

#### Formula:

$$\text{Percentage analysis} = \frac{\text{no. of respondents}}{\text{total no. of respondents}} * 100$$

S.NO	VARIABLES	CATEGORIES	NO.OF RESPONDENTS	PERCENTAGE
01	Gender	Male	72	60
		Female	48	40
02	Age	Below 18	23	19
		18-21	65	54
		21-23	21	18
		Above 23	11	9
03		Diploma	32	27

	Education pursuing	UG	88	73
04	Monthly income	Below ₹20,000	24	20
		₹20,000 - ₹40,000	49	41
		₹40,000- ₹60,000	34	28
		Above ₹60,000	13	11
05	Family size	1-2 members	13	11
		3-4 members	85	71
		5-7 members	18	15
		Above 7 members	4	3
06	Important to environmental education	Extremely important	40	33
		Very important	55	46
		Neutral	15	12
		Somewhat unimportant	2	2
		Not very important	8	7
07	Knowledge about environmental education	Very High	28	23
		High	39	33
		Moderate	22	18
		Low	19	16
		Very Low	12	10
08	Concerns of environmental issues	Deforestation	19	16
		Climate change	43	36
		Pollution (air,water,soil)	21	17
		Biodiversity	28	23
		Waste management	9	8
09	College provides opportunities for environmental education	Yes	49	41
		No	71	59
10	Promoting environmental education	Provide more courses on environmental issues	30	25
		Environmental issues	52	43

		Organize awareness campaigns and events	30	25
		Encourage sustainable practices on campus	8	7
11	Obstacles to promoting environmental education at college level	Lack of awareness	62	52
		Insufficient resources	35	29
		Lack of interest among students	23	19
12	Better incorporate environmental education	Introduce mandatory courses on environmental issues	5	4
		Offer more elective courses related to the environment	19	16
		Collaborate with environmental organizations for workshops	96	80
13	Use technology frequently environmental education	Daily	6	5
		Weekly	16	13
		Monthly	31	26
		Rarely	54	45
		Never	13	11
14	Which technology platform prefer	Websites	16	13
		Mobile apps	24	20
		Social media	52	44
		Online courses	28	23
15	Mode to prefer learning	Traditional methods	47	39
		Technology-based methods	73	61
16	Technology barriers in environmental education	Lack of access to technology	22	18
		Limited internet connectivity	26	22
		Lack of awareness about available resources	34	28
		Prefer traditional methods	38	32
17	Social media contribute to environmental education	By raising awareness	9	8
		Facilitating discussions and knowledge sharing	54	45
		Mobilizing collective action	46	38
		All of the above	11	9

18	Barriers preventing digital environmental education program	Strongly agree	40	33
		Agree	55	46
		Neutral	15	12
		Disagree	2	2
		Strongly disagree	8	7
		Strongly agree	40	33
19	Government provides support for environmental education	Yes	47	39
		No	73	61
20	What motives to engage sustainable practices	Concern for the environment	29	24
		Saving money	24	20
		Social responsibility	35	29
		Health benefits	32	27
21	Biggest barriers to practices for environmental education	Lack of knowledge about sustainable practices	20	17
		Lack of convenient options for sustainable living	38	32
		Cost of sustainable products	18	15
		Social pressure to consume unsustainable	44	36

(SOURCE:PRIMARY DATA)

#### INTERPRETATION:

Majority of respondent (60%) are Male. Majority of respondent (54%) are aged between 18-21. Majority of respondent (73%) are pursuing UG degrees. Mostly(41%) of the respondents earns income between Rs.20,000-Rs.40,000. Majority (71%) of respondents count of family members are between 3-4 member. Mostly (46%) of respondents are very important to environmental education. Mostly (33%) of respondents are high knowledge about environmental issues. Mostly (36%) of the respondent's are climate change on main issues in environmental education. Majority (59%) of the respondent college are not provides opportunities to environmental education. Mostly (43%) of student opinion Environmental issues. Majority (52%) of the respondents are obstacles for lack of awareness to environmental education. Majority (80%) of the respondent's are Collaborate with environmental organizations for workshop. Mostly (45%) of respondents are rarely use technology for environment studies. Mostly (44%) of the respondents are prefer for social media in environmental education. Majority (61%) of the respondents to prefer technology-based methods learning about environmental topics. Mostly (32%) of the respondents are barriers for Prefer traditional methods in environmental education. Mostly (45%) of respondents are Facilitating discussions and knowledge sharing. Mostly(46%) of respondents are barriers digital environment programs. Majority (61%) of the respondents



believe that the government not support for environmental education. Mostly (29%) of respondents are social responsibility to engage sustainable practices. Mostly (36%) of respondents are Social pressure to consume unsustainable for biggest barriers to sustainable practices.

### RANK ANALYSIS:

Ranking analysis is the process of assigning objects or entities inside a dataset based on a predetermined criterion, be it performance, value, importance, or any other pertinent consideration. Finding the corresponding positions or rankings of the objects inside the dataset is the aim of ranking analysis, which enables comparison and evaluation.

Factors	No. of. Respondents										Total	Mean Score	Rank
	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10			
Aware to environment											715	13	IV
Career development	9(10)	71 5	13	IV	4(6)	5(5)	8(4)	14(3)	10(2)	15(1)	726	13.2	II
Technology integration	15(10)	72 6	13. 2	II	10(6)	14(5)	11(4)	7(3)	10(2)	9(1)	808	14.7	I
Research opportunities	32(10)	80 8	14. 7	I	14(6)	13(5)	16(4)	4(3)	7(2)	2(1)	708	12.9	V
Student involvement	14(10)	70 8	12. 9	V	14(6)	10(5)	11(4)	10(3)	8(2)	11(1)	719	13.1	III
Infrastructure development	14(10)	71 9	13. 1	III	9(6)	11(5)	14(4)	15(3)	9(2)	5(1)	592	10.7	VIII
Experiential learning	8(10)	59 2	10. 7	VII I	7(6)	14(5)	16(4)	19(3)	10(2)	15(1)	626	11.4	VI
Environmental literacy assessment	6(10)	62 6	11. 4	VI	12(6)	6(5)	4(4)	12(3)	17(2)	18(1)	617	11.2	VII
Environmenta l ethics	13(10)	61 7	11. 2	VII	17(6)	17(5)	15(4)	9(3)	14(2)	13(1)	525	9.5	X

(SOURCE:PRIMARY DATA)

### INTERPRETATION:

Form the analyses it shows that most of the respondents have ranked Technology integration as I implement, then career development as II implement, then student involvement as III implement, then Aware to environment as IV implement, then Research opportunities as V implement, then Experiential learning as VI implement, then Environmental literacy assessment as VII implement, then Infrastructure development as VIII implement, then Curriculum integration as IX implement and then X implement is Environmental ethics.



**FINDINGS:**

- Majority of respondent (54%) are aged between 18-21.
- Majority of respondent (60%) are Male.
- Majority of respondent (73%) are pursuing UG degrees.
- Mostly (41%) of the respondents earns income between Rs.20,000- Rs.40,000.
- Hence the majority (71%) of the respondents count of family members are between 3-4 members.
- Mostly (46%) of respondents are very important to environmental education.
- Mostly (33%) of respondents are agree about environmental issues.
- Mostly (36%) of the respondents are climate change on main issues in environmental education.
- Majority (59%) of the respondent college are not provides opportunities to environmental education.
- Mostly of students opinion (43%) Environmental issues.
- Majority (52%) of the respondents are obstacles for lack of awareness to environmental education.
- Majority (80%) of the respondents are Collaborate with environmental organizations for workshop.
- Mostly (45%) of respondents are rarely use technology for environment studies.
- Mostly (44%) of the respondents are prefer for social media in environmental education.
- Majority (61%) of the respondents to prefer technology based methods learning about environmental topics
- Mostly (32%) of the respondents are barriers for Prefer traditional methods in environmental education.
- Mostly (45%) of respondents are Facilitating discussions and knowledge sharing.
- Mostly (46%) of respondents are barriers digital environment programs.
- Mostly (61%) of the respondents believe that the government not support for environmental education.
- Mostly (29%) of respondents are social responsibility to engage sustainable practices.
- Mostly(36%) of respondents are Social pressure to consume unsustainable for biggest barriers to sustainable practices.

**SUGGESTIONS:**

- Knowledge about the changes that have altered the environment — land, water, weather, vegetation, social, cultural and political environment are essential components of environmental education. Consequently, the general populace should be equipped with all these to be able to solve the problems of the environment.
- Land, water, forest and other mineral resources utilization is the dominant feature of rural economy with agriculture the driving force. Uncontrolled and improper exploitation of these resources have implications on the environment causing disruption in the living standard, starvation, displacement and human suffering. Environmental education is therefore necessary to create awareness of the causes and effects of these problems viz: food and water scarcity, pollution, outbreak of epidemics and natural disaster such as flood, erosion and desert encroachment and of course how to prevent them.
- Environmental education is needed to foster international co-operation and understanding.

- Public enlightenment on the impact of government policies on local environment should be useful both to the government and the local people.
- Awareness of such global environmental issues is an essential component of environmental education which ordinary citizen should be aware of.
- Environmental education for the over-all social and economic emancipation of women and children. These form a substantial percentage in the utilization of natural resources especially at the rural areas.

## CONCLUSION:

Environmental education is a dynamic process. The priority of such education is to develop cautious mind of people about their total surrounding. Its main task is to impart proper knowledge and training to solve various problems of our environment systematically. In order to enable people to enjoy good health and a high quality of life, it is vital to prevent harmful effects to human health or damage to the environment caused by pollution of air, water and soil, noise, vibration, noxious smells etc. Environmental Education is a methodology in which people pick up familiarity with their surroundings and secure learning, abilities, values, experiences, and passion, all of which will empower them to act separately and aggregately and to take care of present and future environmental issues. It is the study of relationship and interactions between natural and human systems. Environmental education should constitute a comprehensive lifelong education, one responsive to changes in a rapidly changing world. It should prepare the individual for life through an understanding of the major problems of the contemporary world, and the provision of skills and attributes needed to play a productive role towards improving life and protecting the environment with due regard given to ethical values.

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