

A Comparative Study on the Environmental Awareness and Environmental Attitude among the Undergraduate Students

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Abstract: The increase in comprehensive abilities, alertness and sentience towards the biophysical environment and the issues comprising of human interactions and its consequences is known as environmental awareness. Environmental Attitude is the degree of favour or disfavor towards the natural environment. They are latent construct and therefore we cannot observe them directly. The growth of development of awareness, understanding and consciousness towards the biophysical environment and its problems, including human interactions and its effects is known as Environmental Awareness. In other words it means thinking ecologically or in terms of ecological consciousness. The paper aims to study the environmental awareness and environmental attitude among under graduate students and investigates if there is a significant difference between the students of Commerce and Arts streams in terms of their awareness and attitude towards the environment. It is hypothesized that there is no significant difference between the students of Commerce and Arts streams in terms of their awareness and attitude towards the environment. For the purpose of this descriptive study, the investigators have selected a sample of 46 students, (16 in Commerce and 30 in Arts) of the Under-graduate level, from 2 Degree Colleges located within the Guwahati City. Purposive sampling and Simple Random Sampling are used to determine the colleges and the sample respectively. Moreover, the tools used for collecting data are (i) Taj Environmental Attitude Scale by Dr. Haseen Taj and (ii) Environmental Awareness Test by Dr. K. Yeshodhara. t-test has been applied to determine the level of significance of the test results. After analyzing the data, it has been found that there exists a significant difference between the two groups in terms of their awareness towards the environment. However, there is no significant difference between the Commerce and Arts students in terms of their attitude towards the environment

Keywords: Environment, Awareness, Attitude, biophysical consciousness, ecological behaviour.

1. Introduction

The derivative term of the word Environment stands for the French word “Environ”, which means to surround. It is composed of all the physical features and natural resources of the earth’s surface subsuming both abiotic (physical or non-living) and biotic (living) elements. Thus, the environment consists of all that builds up a designed ecosystem. More than any other living beings, the human activities vigorously interact with the environment and thus, its influence on the environment and its eventual effects on the ecosystem are always synchronous.

All the endeavours undertaken by the government of all the developing countries are striving towards and aimed at sustainable development, both economically and socially. Sustainable development means living and meeting the requirements of the existing generation but not at the cost of the abilities of the coming generations to fulfill their own wants and needs. The existence of human societies in the long run is subsisted on sustainable development. This has given rise to the consciousness among the general masses as well as the administrators and has drawn the notice to the issues with extended inferences of current day growth and expansion. For quality development, attempts were made at looking over sustainable development more broadly in view of its profitability, social norms and environmental aspect. Hence, it is the responsibility of the human beings to develop a vital consciousness towards the maintenance of the environment so that its flow of its services is impeded. In view of the maintenance of the quality of global life support services rendered by the environment, proper environmental attitude to save the environment has to be developed. Russell (1984), in the Journal of Environmental Psychology, has rightly presented that “I have no doubt in my own mind that the ideal school is better than the ideal home because it allows more exposure to the students about environmental awareness.” To disseminate knowledge on the environmental problems and create awareness among the masses is an objective of environmental awareness. Moreover, it aims at protecting and moulding an atmosphere where people would find themselves fitting in and thereby enabling them to take part in decision making tasks of the developmental programmes of the environment.

Today students in different schools are taught to take care of the environment and protect it from danger. Environmental degradation comes out to be the biggest challenge in the 21st century. Environmental education plays an effective role in solving environmental issues and with recent development and advances, educationists are very much involved in the process of environmental awareness. In this regard India is putting up great efforts to achieve better targets in relation to environmental awareness.

The environment has become the focal point for all administrators and government transcending all the boundaries of the nations, thereby making the general masses solicitous about the environment. The environmental movements are apprehensive about the quality of air, water, construction of dams and its repercussion like floods, devastation of landscape due to strip mining etc. people are beginning to realize that changes in the environment can have potentially negative impacts on our physical and mental well beings.

The appraisal given to the environment becomes definite in their behavior and is manifested through their environmental sensitiveness and they are expected to display positive behavior towards their environment. However, neither a positive thought nor having knowledge can alone be enough for people to show the righteous attitude towards the environment because the behaviour and performance in support of the environment are affected by social, cultural, economic and emotional factors.

The reform in educational system is vital to the build of new global ethics. A mere access to new technologies, legislative regulations and a restructuring of the administration cannot solve the environmental problems except if appropriate reforms and discipline in the lifestyles are prioritized by the people. Education as the most effective tool, modifies human behaviour and makes man master the knowledge and recognize his responsibilities and contribute accordingly as a part of the biosphere.

2.Review of Related Literature:

A brief review of the relevant literature in the study area are given below-

Kaur (2013) in the study on “Environmental Awareness Among Elementary School Teachers” revealed that elementary school teachers of the science stream are comparatively more aware than the teachers of the arts stream.

Dhanya and Pankajam (2017) in the study, “Environmental Awareness Among Secondary School Students,” revealed that no significant difference was found among the students of the secondary level regarding their environmental awareness.

Gupta (2017) in the study, “Environmental Awareness of Urban and Rural School students,” revealed that boys and girls of Urban and Rural schools had similar awareness regarding environment.

Katoch (2017) in the study “Awareness and Attitude of School Students Towards Environment,” revealed equal awareness between boys and girls. Moreover, towards the environment, girls projected a positive attitude than their counterparts.

Kaur and Kaur (2017) in the study, “Study of Environmental Awareness among Adolescents in Relation to their Scientific Attitude,” revealed that no significant difference was found between gender and caste regarding environmental awareness. However, location, as a factor, played a significant role on the sample towards their environmental awareness.

3.Rationale of the study:

Environmental awareness provides a good set of influencing beliefs that leads to pro-environmental action. It is believed that if positive values are inculcated among the students, they would manifest the rightful attitude towards the environment and also actively participate in the conservation of the environmental resources for its sustenance. To sustain the future lives on the green planet, the fact that the environment needs to be protected and conserved, cannot be denied. Due to the greedy nature of man and the increasing wants, there has been a huge alteration on the environment. Though being too accommodative, nature has a limit on its regenerative capacity. A rightful conservation, sustenance and refinement of the changing and brittle environment are of utmost necessity. It is very crucial to build awareness and a worthy attitude among the pupil, towards the environment, since; degradation is a burning issue across the globe. Therefore, the investigators have proposed to study environmental awareness and attitude of the students with regard to differences in their streams.

4.Objectives of the study:

The framed objectives in the study are as follows:

1. To compare the environmental awareness of Commerce and Arts students studying in the Undergraduate level.
2. To compare the environmental attitude of Commerce and Arts students studying in the Undergraduate level.

5.Hypotheses of the study:

The hypotheses tested in the study are as follows:

Ho₁ - There is no significant difference in environmental awareness between Commerce and Arts students studying in the Undergraduate level.

Ho₂ - There is no significant difference in environmental attitude between Commerce and Arts students studying in the Undergraduate level.

6.Methodology:

a. **Method:** The study is based on descriptive survey method.

b. **Sources of data-** The study is based on primary data collected from respondents studying in undergraduate classes. The study has been conducted on 46 students of the Undergraduate level who are divided into Commerce and Arts streams, consisting of 16 and 30 samples respectively. The sample is randomly selected from 2 purposively sampled private degree colleges located within the Guwahati city. Primary data has been collected from the samples using two questionnaires to measure the attitude and awareness towards the environment.

The table below shows the population distribution and the samples selected for the study

Table 1
Population distribution and sample

	College X		College Y	
	Commerce	Arts	Commerce	Arts
Total Population	46	82	29	65
20% of the population randomly selected	10	16	6	14
Total Samples from each college	26		20	
Total samples from both the colleges	46			

c. **Tools Used for the study:**

(i)Taj Environmental Attitude Scale (TEAS)5

Haseen Taj developed the test in 2001, consisting of 61 items in Likert Scale type of summated rating procedure spreading over 6 areas.

Table 2
Detail of the items selected for the final form of the Taj Environmental Scale

Sl no	Serial no of Items in the scale		Total no of items in each area
	Favourable	Unfavourable	
1. Health and hygiene	46,52,61	3,59	5
2. Wild Life	54	18,19,26,56,58	6
3. Forests	-	5, 33, 48, 53, 55	5
4. Polluters	15, 20, 21, 25, 29, 30, 31, 40, 41, 42, 43, 44, 45, 47, 57	1, 8, 12, 16, 17, 22, 24, 27, 28, 34, 50	26
5. Population explosion	2,4	6, 9, 35	5
6. Environmental concern	7, 10, 11, 13, 14, 23, 32, 37, 49, 51, 60	36,38,39	14
Total	32	29	61

Scoring procedure:

Each alternative in items is assigned a weightage ranging from 4 (Strongly Agree) to 1 (Strongly Disagree) for favourable items. In case of unfavourable items, the scoring is reversed i.e. from 1 (Strongly Agree) to 4 (Strongly Disagree). The range of scores on the scale is from 61 to 244 with the higher score indicating the more favourable

attitude towards environment and vice versa. The attitude score of an individual would be the sum total of item scores on all the areas.

(ii) Environmental Awareness Test (EAWT)6

The EAWT was developed by K. Yeshodhara in 2003. It consists of 36 items distributed over 8 areas of Environmental Awareness. The total marks on the test would be 36. For a right response to each question, one mark is allotted. The respondent has to identify the correct answers among the alternatives given and write the corresponding alphabet in the space given on the left side of the item.

Table 3
Distribution of test items in the Environmental Awareness Test

Sl no	Areas of Environmental Awareness	Serial no of items in the test	Total no of items in each area
1	Environmental concepts	1, 3, 11, 19	4
2	Pollution and its control	2, 5, 9, 13, 21, 25, 29, 33	8
3	Population and health and hygiene	16, 17, 24, 27	4
4	Animal world	10, 14, 18	3
5	Bio-diversity	4, 8, 23, 26, 30, 35	6
6	Energy	6, 7, 31	3
7	Environmental concern and legislation	12, 15, 22, 32, 34, 36,	6
8	Sustainable development	20,28	2
Total			36

d. **Statistical Technique:** Mean and Standard Deviation were calculated and t-test was employed to find out the significant difference in Environmental Attitude and Awareness between Commerce and Arts students.

e. Operational Definitions of the study:

(i)**Environmental Awareness:** Awareness refers to the knowledge and comprehension of a situation or a fact. It is a concern about and well-informed interest in a particular situation or development. Environmental awareness means being aware of the natural environment and making choices that benefit the earth, rather than hurt it.

In this study effort has been made to find out environmental awareness pertaining to the areas of environmental concepts, pollution and its control, population and healthy and hygiene, animal world, biodiversity, energy, environmental concerns and legislation and sustainable development.

(ii) **Environmental Attitude:** According to Thurstone, “Attitude denotes the sum total of man’s inclinations and feelings, prejudice or bias, per-conceived notions, ideas, fears, threats about any specific topic”. The attitude towards the environment implies the manifestation of concerns and the interest of the people towards the environment- its issues and improvement.

In this study, effort has been made to find out attitude towards environmental concerns that comprises the area of health and hygiene, wildlife, forests, polluters, population explosion and environmental concerns.

i. **Undergraduate Students:** An Undergraduate student is one who has not taken a first degree from a university. In this study, Undergraduate students refer to the students of the Degree 3rd and 5th semester of the Commerce and Arts streams enrolled under Gauhati University, studying in private degree colleges affiliated to the university.

Delimitation:

Following are the delimitations of the study-

1. The study has been conducted in the Greater Guwahati area
2. The study considers general degree colleges functioning under private enterprise affiliated to the Gauhati University.
3. The samples include the students of the Undergraduate level, studying in the 3rd and 5th semesters of the Commerce and Arts streams.

7. Analysis of the data:

The study deals with the testing of the following hypotheses:

- a. H_{01} - There is no significant difference in environmental awareness between Commerce and Arts students studying in the Undergraduate level

The mean, SD and t-test result for environmental awareness has been given in the following table:

Table 4
Mean, SD and t-test result for environmental awareness between Commerce and Arts students

Streams	Sample	Mean	SD	t-significance at 0.05 level
Commerce	16	15.75	7.24	2.77
Arts	30	10.86	4.7	

The table shows the value of t with a difference of 2.77. The critical value of t at 0.05 level is 2.02 and the obtained value is 2.77 which is higher than the table value. The result is statistically significant which indicates that Commerce and Arts students defer on Environmental Awareness. Therefore, the hypothesis is rejected. The Mean indicates that the Commerce students are more aware towards the environment compared to the Arts students.

- b. H_{02} - There is no significant difference in environmental attitude between Commerce and Arts students studying in the Undergraduate level.

The mean, SD and t-test result for environmental attitude has been given in the following table:

Table 5
Mean, SD and t-test result for environmental attitude between Commerce and Arts students

Streams	Sample	Mean	SD	t-significance at 0.05 level
Commerce	16	150.94	7.61	0.60
Arts	30	152.6	9.48	

The table shows the value of t with a difference of 0.60. The critical value of t at 0.05 level is 2.02 and the obtained value is 0.60 which is less than the table value. The result is statistically insignificant which indicates that Commerce and Arts students do not defer on Environmental Attitude. Therefore, the hypothesis is accepted.

8. Major Findings of the study:

The statistical analysis of the data helped in testing the various hypotheses formulated to realize the objectives of the study and found the following:

- a. The students of the Commerce stream are found to be more aware than the students of the Arts stream. Therefore, the stream, as a variable, may influence the environmental awareness of the Under Graduate students. The students of commerce stream have better exposure and access to the scientific facts related to the environmental issues and thus their level of awareness has been found to be high.
- b. It is found from the study that the students of the Commerce and Arts streams do not differ in their attitude towards the environment. They have similar attitude. The attitude of the students towards the environment seems to be the same irrespective of their background of their chosen streams.
- c. However, the students of both the streams differ in their awareness towards the environment.

It can be said that students lack awareness towards the environment and its critical issues which is necessary for the development of a positive attitude towards the environment. The knowledge of the environment, awareness and a favourable attitude is very important for all the individuals for the sake of the nature and survival of the universe.

9.Suggestions:

Educating mankind and spreading awareness about the environment and sustainable development is very essential to achieve a good quality of life on earth. The following are some of the suggestive measures to tackle the issue:

- a. As a compulsory core subject, environmental education should be accredited with credits and not mere grades. The present study has its implications for the teachers, educators, educational planners, parents and educational administrator to make environmental education as a compulsory subject.
- b. The teachers should encourage students to explore environmental issues and analyze their solutions and also guide them in increasing knowledge about global and local environmental concepts.
- c. Lectures, seminars, debates, poster and paintings, essay writing competitions, innovation from disposed items and celebrating World Environment Day are some of the ways to sensitize students towards the environment.
- d. Teacher educator and parents should arrange special awareness programs in the form of seminars, symposiums, camps and community visits to provide awareness to the teachers, students, parents and also masses. Administrators and planners should provide training to teachers for developing or inculcating environmental awareness among the students.
- e. For applying the theoretical learning into the practical lives, students should be encouraged to think critically.
- f. Activity based programmes need to be undertaken and students must be encouraged to participate in them that would be motivating them to undertake some projects about the environmental aspects in their locality.
- g. In creating environmental attitude amongst the future generation, Eco Club activities must be strengthened.
- h. Most common people who understand the knowledge of environment and development process is based on information which is provided by conventional education on traditional beliefs. Thus, they may remain ignorant about ways in which they could improve traditional production practices and protect the natural sources in a better way. Education should therefore provide comprehensive knowledge in order to prevent environment degradation and global warming which has been coming out as a serious threat to human society. Unless people have a sensitive attitude towards nature, extremely enforced laws and regulation will be ineffective.

10.Conclusion:

For the shaping and creation of a sustainable environment, individual cognizance of the environmental problems and improvement of environmental sensitivity makes a great contribution. A sustainable way of life cannot be possible without a befitting educational system which is mapped out to manifest the principles of sustainability and embodied them in the work and life of your youth. Technology and law alone are not sufficient in the solution of the environmental problems. Within the framework of sustainable development, the behaviour of the people are of utmost importance. However, as individuals on the social level, the awareness towards environmental problems are not sufficient among the people.

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