

Research Paper

Students' Perception Towards Environment And Sustainable Development _a Case Study From Secondary Level Of Greater Guwahati

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ABSTRACT

Environmental awareness is gaining more importance in recent years because of environmental crisis. The present day needs environmentally conscious citizens who can save our mother earth from artificial and natural disaster. Awareness can create a positive attitude towards environment as well as sustainable development. The major purpose of the present study is to know about the perception of secondary school students towards environment and sustainable development. The study attempts to determine 'perception' (which is a qualitative phenomenon) of secondary school students in a quantitative way through an Attitude Scale. The study offers a general idea on the fact how today's pupil of secondary level think and perceive about environment and sustainable development.

Rationale of the Study:

Sustainable Development is one of the most pivotal concepts in the development vocabulary. Sustainability has become a wide ranging term that can be applied to almost every facet of life, from local to a global scale. The concept of Sustainable Development, popularized with the Brundtland Commission Report, accepted the limitations set by the carrying capacity of the environment, and established a link between a healthy economy and healthy environment (Ref: WCED, 1987-Our Common Future, World Commission on Environment and Development). The term 'Sustainable Development' was further developed following the 1992 United Nations Conference on 'Environment and Development' in Rio-de-Jenerio. Sustainable Development, "development that meets the needs of the present without compromising the ability of future generations to meet their needs" (Ref: WCED, 1987-Our Common Future, World Commission on Environment and Development, p-43) is widely accepted as the milestone to the future. The basic principles of sustainable development relates with the:

- Concern for the well-being of the future generation, i.e.to preserve our natural resources or natural wealth and use them in such a way that it remains for the future generation too.
- Sustainability seeks the need for a balance among the different dimensions.
- Sustainability also emphasizes on the awareness of the multidimensional impacts of any decision whether economic, environmental, educational and social.

Environmental Education is gaining more importance in recent years because of environmental crisis. So, the present day needs environmentally conscious citizens who can save our mother earth from artificial and natural disaster. Awareness can create a positive attitude towards environment and sustainable development.

Considering all these points in mind, the investigators have carried out a study on:

STATEMENT OF THE PROBLEM:

STUDENTS' PERCEPTION TOWARDS ENVIRONMENT AND SUSTAINABLE DEVELOPMENT ____A CASE STUDY FROM SECONDARY LEVEL OF GREATER GUWAHATI

OPERATIONAL DEFINITIONS OF DIFFERENT TERMS USED:

- **Perception:** Perception is an act of giving meaning to sensory experiences. It is an active state of mind. It is an act of knowing about the object we see, hear, feel and touch.
- **Environment:** Environment is the sum total of all the external forces, influences and conditions which effect the life, nature, behaviour, growth and development of living organisms.
- **Sustainable Development:** Development that is necessary to meet human needs and improve the quality of life without depleting the capacity of the natural environment to meet present and future needs.
- **Case Study:** An intensive study of a case which may be an individual, an institution, a system, a community, an organization, an event, or the entire culture.
- **Secondary Level:** consist of students of 8th, 9th and 10th standard.

OBJECTIVES OF THE PRESENT STUDY:

1. To study about the perception of secondary students on environment and sustainable development.
2. To make a comparative analysis of attitude towards 'environment and sustainable development' among the respondents with respect to:
 - a) Students of Urban versus Semi-Urban area
 - b) Male versus Female students

c) Class VIII, IX and X.

HYPOTHESES: As the objective 1 is a fact finding issue, so there is no need to formulate any hypothesis. To fulfil the objective 2[(a), (b) & (c)] the following null hypotheses have been formulated:

(a) H01: There is no significant difference in attitude on 'environment and sustainable development' among the respondents between semi-urban and urban areas.

(b) H02: There is no significant difference in attitude on 'environment and Sustainable development' among the respondents between male and female students.

(c) H03: There is no significant difference in attitude on 'environment and Sustainable development' among the students of three classes (class VIII, IX and X).

METHOD: Descriptive survey method was followed for the present study.

SAMPLES: Fifty-four (54) student samples were selected at random from six (6) purposively selected secondary schools, of which three (3) were from semi urban and the rests three (3) were from urban areas of greater Guwahati. The features of sample selection (or delimitations of the present study) were:

- Six(6) high/higher secondary schools of which three were located in urban and three in semi-urban areas of greater Guwahati.

- Fifty-four (54) secondary students of which twenty-seven (27) were from urban schools and twenty-seven (27) from the schools located in semi-urban areas.

- Out of fifty-four total samples, twenty-five (25) were male and twenty-nine (29) were the female students.

TOOLS USED: For gathering data, the investigators have developed a scale named as "ATTITUDE SCALE ON ENVIRONMENT AND SUSTAINABLE DEVELOPMENT (ASOESD)" which was constructed by taking some ideas of a standardised tool 'Taj Environmental Attitude Scale'. The self-designed ASOESD was constructed by considering thirty (30) items on various issues on environment and sustainable development. Out of thirty items, two were open-ended, where one was about the definition and importance of sustainable development and the rest was on personal daily behaviour of the respondents. Twenty-eight (28) were the closed or structured items. For the structured items, five (5) items were from health and hygiene; six (6) from natural resources and energy; five (5) from industrial concern and polluters; five (5) from the issues on population explosion and the rests seven (7) were taken from the environmental concerns. For the purpose of scoring, the investigators have used Likert 3-Point Summated Rating Scale. e.g. Agree (score=3), Undecided (score=2) and Disagree (score=1). As the scale consists of 28 structured statements, thus, the score for any respondent would fall between 28 and 84.

Statistical Test of Significance:

To make comparison of attitude towards environment and sustainable development between the students of urban and semi-urban areas and between the boys and girls the 't' test has been adopted for testing the significant difference. Again, to make comparison of attitude towards environment and sustainable development between the students of three classes i.e. class VIII, IX and X, the one way ANOVA has been applied.

Analysis and Interpretation of Data: After collecting the relevant data, those were analysed and interpreted (objective wise) in the following ways.

Objective 1: To study about the perception of secondary students on environment and sustainable development.

ANALYSIS OF THE OPEN-ENDED QUESTIONS

(A) DEFINITION AND IMPORTANCE:

Survey respondents were asked to indicate whether or not they had heard the term 'sustainable development' and subsequently asked to describe in their own words what the term exactly defines. Only 18 (33.33%) students had heard the term, however only 5 (9.26%) could describe what the term refers to. In the same way, only 5 (9.26%) students considered sustainable development as important, while for the rest of the students it was either not important, or the importance was contingent on the situation.

(B) PERSONAL DAILY BEHAVIOUR:

52 (96.3%) respondents stated that they are careful about saving electricity and turn off unnecessary lights and appliances; 2(3.7%) students were not concerned. Similarly, 53 (98.1%) of the respondents were also careful about their water consumption; 1 (1.9%) student was not concerned. 29 (53.7%) of the respondents stated that they sort their rubbish (i.e. paper, glass, plastic), while 22 (40.7%) do not, 3 students (5.6%) did not comment. While 20 (37.0%) respondents do not use aerosols, 33 (61.1%) use them; 1 (1.9%) respondent did not comment. While 28 respondents (51.9%) are cautious about purchasing recyclable products, 24 students (44.4%) stated the opposite; 2 (3.7%) respondents did not comment.

ANALYSIS AND INTERPRETATION OF THE STRUCTURED ITEMS:

Objective 2 and Hypothesis 1: To make comparison of attitude towards environment and sustainable development between the students of Semi-urban and Urban areas.

(H01: There is no significant difference in attitude on 'environment and sustainable development' among the respondents between semi-urban and urban areas.)

Table-1: Mean attitude score between the samples with respect to area and their 't'-value

Area of school located	Mean	SD	t-value	Significance at 0.05 level
Semi-Urban(n=27)	56.81	20.07	0.43	Not Significant (p>0.05)
Urban(n=27)	59.15	20.14		

Table 1 has depicted that the mean attitude score among the students from urban schools is higher (59.15 ± 20.14) than that of semi-urban school students (56.81 ± 20.07). The mean difference between the two groups of students is not significant as the calculated value of t is smaller than the standard table value of t for $27+27-2=52$ degrees of freedom at 0.05 level of significance. Hence, the null hypothesis H01 has been accepted.

Objective 2 and Hypothesis 2: To make comparison of attitude towards environment and sustainable development between the female and male students.

(H02: There is no significant difference in attitude on 'environment and sustainable development' among the respondents with respect to their sex and 't'-value)

Table 2: Mean attitude score between the samples with respect to gender and 't' value

Gender	Mean	SD	t-value	Significance at 0.05level
Girls(n=29)	55.66	20.13	0.82	Not Significant (p>0.05)
Boys(n=25)	60.12	19.66		

Table 2 has shown that the mean attitude score among the boys is higher than their counterparts. The mean and SD scores among the boys are found to be 60.12 ± 19.66 ; while in case of girls, the mean and SD scores are 55.66 ± 20.13 . Regarding the test of significance, there exists no significant mean difference between the two groups as the calculated value of t is smaller than the standard table value of t. So, the null hypothesis H02 has been proved in the present study.

Objective 2 and Hypothesis 3: To make comparison of attitude towards environment and sustainable development between the students of class VIII, IX and X.

H03: There is no significant difference in attitude on 'environment and sustainable development' among the students of three classes (class VIII, IX and X).

To test the H03, the investigators have adopted F (i.e.ANOVA) test of significance. The calculated values and F-ratio are shown in the following ANOVA table

Table 3: ANOVA table

Source	d.f.	S.S	M.S.	F-ratio
Between Classes	3-1=2	142.48	71.24	0.173(N.S.)
Within Classes	53-2=51	20944.5	410.68	
Total	54-1=53	21086.98		

Table 3has shown that there exists 'no significant difference' in attitude towards environment and sustainable development among the students of three classes, as the calculated value of F is smaller than the table value of F at 0.05 level for 2,51 degrees of freedom(d.f.). So, the null hypothesis H03 has been accepted in the present study.

Major Findings of the Study undertaken:

1. Overwhelming majority of students is aware of environmental problems that they are facing in day-to-day life.
2. The students care for the environment and other people around them.
3. The students consider the health and quality of life of future generations as very important and willing to take action to create a faire, healthy and safe world for all.
4. Majority of the students are not familiar with the term 'sustainable development', though they are very much concerned with the practical aspects of sustainability in their daily behaviour pattern without knowing the proper definition and scope of the term.
5. Regarding the comparison of attitudes among the students between the semi-urban schools and urban schools, there exists 'no significant difference'.
6. There exists a 'no significant difference' of overall attitudes between male and female students.
7. There exists a 'no significant difference' in attitude between the students of class VIII, IX and X.

Concluding Remark:

Sustainability has important effects in satisfying the basic needs and improving the quality of life of individuals. The importance of the sustainable development in reducing the impact of the social, economic and environmental burdens by efficient use of natural resources, reducing energy consumption, reducing emissions, minimizing waste, more efficient land use and creating better employment conditions has long been recognized in developed countries. In spite of this, in the developing countries the importance, benefits and advantages, and the positive impact, not only on the individuals but also on the communities, have now been widely understood. At the same time, the attitude and behaviour of people have a direct influence on the sustainability.

References

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