



ATTITUDE OF STUDENTS TOWARDS ENVIRONMENTAL EDUCATION –A STUDY AT SECONDARY SCHOOL LEVEL.

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Introduction

Environment has been defined as the sum total of all conditions and influences that affect the development and life of organisms. Environment is interwoven in day-to-day life of human beings and as such man plays a great role in preserving and improving the environment for the sake of development for a better future. However, lopsided developmental activities are accelerating the pace of environmental degradation. This accounts for scarcities of natural resources, which subsequently threaten the sustained productivity of the economy, economic production and consumption activities. The environmental consequences of development tend to offset many benefits that may be accruing to individuals and to societies on account of rising incomes. There are direct costs on the health of individuals, their longevity and on the quality of life on account of deterioration in environmental quality. More importantly the environmental damage can also undermine future attainments and productivity, if the factors of production are adversely affected. Therefore, for a sustainable economic development, every country need to follow a stringent environmental policy where people will be responsible for ensuring long- term development, sustainability and suitability of efforts, and the ultimate success of projects at mobilizing local resources for meeting local needs and concerns. Given the overwhelming emphasis being placed on the sustainability of development, it is crucial that environment education be placed at the center stage in the developmental activities. Indeed environmental

education must be accepted as a prerequisite for sustainable development and suitable programmes must be chalked out through formal and non-formal system. Everything that surrounds us may collectively be termed as environment. The air, which we breathe, the soil on which we stand, water living and non-living things around constitutes the environment. Environment has influenced and shaped our lives since time immemorial. It gives food to eat, water to drink, air to breathe, and all necessities of day-to-day life.

IMPORTANCE OF ENVIRONMENTAL EDUCATION

The earth can be thought of as a spaceship with limited resources. The living things including human beings are interdependent on one another and their environment. There is a delicate balance of nature a condition of natural ecosystem. There exists a dynamic equilibrium involving various cycles. Interference of people with these cycles over periods of time could lead to catastrophic changes in the environment. The globe which has been hospitable to its occupants through its life supporting system now endangered by the lack of understanding of the consequence of environmental crisis and the total absence of personal and individualized global ethics. The reform in educational system and process is central to the building of this new global ethics. These environmental problems cannot be solved merely through new technologies, legislative regulations and administrative restructuring unless there has been appropriate reforms and discipline in the life styles of people. Education is the most effective tool to modify the behavior of the individuals and society in order to make man to understand his responsibility as a part of this biosphere. Man who is an integral part of the environment that is constantly interfering with the various equilibrium existing in the natural ecosystem thereby disturbing the balance of the nature. This has been leading to irreparable losses and changes in the environment. The Mother Nature who has been very patient with her sibling is showing her displeasure in the form of various natural disasters and in many other forms. It is high time that we understand the underlying meaning and start reacting best of it without causing much harm to it indeed. For such a thing to happen it is not enough to tackle it with new technologies or administrative strategies or legislative regulatory measures alone. Instead appropriate and effective reforms must be induced and brought about in the behavior patterns and life styles of the people.

Environmental Attitude

Environmental attitudes refer to people's favorable or unfavorable feelings towards some features of the physical environment. **Schultz (2000)** believe that people's attitudes towards the environment and the type of concern they develop towards the environment, are associated with the degree to which they view themselves as interconnected with nature.

An attitude is tendency to act towards or against some environment factors which become thereby a positive or negative value. Environmental education has a long history linked with human's growing interaction with the natural environment and developing appropriate attitude towards the same. The main objective of environmental education is to develop knowledge based awareness that will lead to cultivation of responsible attitude to environment, without losing sight of value system of society and individual. From the above objective, it becomes very clear that environmental knowledge and awareness would be of no meaning without cultivation of right attitude towards environment. So, attitude is a pre-requisite for fostering valuing approach and responsible action which is the ultimate goal of environmental education. In this context, Rachel Carson (1993) has said that in our rush to "save the earth", we may tend to bypass a fundamental ingredient which many of us consider basic to any program for young children, developing a love for and appreciation of the earth.

Objectives of the study

To Study the attitude of students towards Environmental Education.

To Study the significant difference if any in the Environmental attitude of secondary school students due to variation in their Gender, Locality, Management, community.

Hypotheses

The following null hypotheses were formulated to study the above objectives:

1. High school Girls and boys do not differ significantly in their attitude towards environmental Education.
2. Rural and urban high school students do not differ significantly in their attitude towards Environmental Education.
3. The secondary school students belonging to different school managements do not differ significantly in their attitude towards environmental education..

4. The secondary school students belonging to different communities do not differ significantly in their attitude towards environmental education.

Methodology

The nature of the present study involves both explorative and descriptive survey. A total of 656 secondary school students from different mandals in Chittoor District constitute the sample of the study. A five point attitude scale prepared by Surinder Kumar was the tool used for collecting the relevant data. The scale comprises of 29 statements. It is pertinent to mention here that there are five options namely strongly agree, Agree, undivided, Disagree, strongly disagree. The score rating of 5 to 1 was given to positive statements and a score rating from 1 to 5 was given to negative statements respectively. Reliability of the attitude scale was found to be 0.75. The attitude scale has content validity, face validity and an intrinsic validity of 0.86. The summated score of all the 29 items provided the total attitude score of the subjects, the maximum possible score is 145 and the minimum score 29, the data thus collected were analysed using appropriate descriptive and inferential statistical techniques.

Results & Discussion

To study the influence of background variables such as Gender, Locality, Management and community on attitude of secondary school students towards environmental education, the data was tested for normality and the following tables present the data:

Table -1: Descriptive statistics of attitude scores of secondary school students.

S.No	Measures	Value
1	Mean	75.40
2	Median	75.59
3	Mode	80.69
4	S.D	9.67
5	Q.D	7.59
6	Skewness	0.26
7	Kurtosis	0.62

Table-1 reveals that the mean score obtained by the sample is 75.40, which means the general level of environmental attitude of students towards environmental education programmes is far

less than the maximum score (145) on the scale. The values of median (75.59) and mode (80.69) have confirmed that general level of environmental attitude of students is less than the neutral point. As the spread in the distribution is normal with negligible difference, the distribution belongs to the family of normal curves. As the distribution of attitude scores of students follows normality with marginal exception, it is feasible to apply all the parametric statistics in the analysis of data obtained.

Testing of hypotheses

The hypotheses 1-4 have been tested on appropriately selected groups to assess the significance of the influence of Gender, locality, Management and community.

Table-2

N, Mean, S.D and 't' values of environmental attitude of secondary school students with respect to Gender.

Group	N	Mean	SD	t-value	Level of significance
Girl	328	77.07	9.57	4.45	**
Boy	328	73.74	9.50		

Table -2 Shows that the obtained t-value (4.45) is greater than the tabled ' t' (1.96) value at 0.01 level of significance with degrees of freedom 654. Therefore, the null hypothesis stating that Girl and boy students do not differ significantly in their environmental attitude is rejected. Hence, it may be concluded that Gender is an influencing factor of Environmental attitude of secondary school students. The results of the study are in support of Chan (1996), Mercy and Arjun (2005), Naseem, 2006), Ozkan And Recap (2013) whereas the results of Euler (1989), Anath and Girish (1993), Chetana 2003), and Santhosh Kumar routh & Skriith Agarwal (2006) contradicts the results of the present study.

Table-3: N, Mean, SD and 't' –Value of Environmental attitude of secondary school students with respect to locality.

Group	N	Mean	SD	T	Level of significance
Rural	304	74.80	9.59	1.48	@
Urban	352	75.92	9.73		

Table – 3: Shows that the obtained t-value (1.48) is less than the tabled 't' (1.96) at 0.05 level of significance with degree of freedom 654. Therefore, the null hypothesis that "Rural and urban secondary school students do not differ significantly in their environmental attitude is accepted. Hence it is concluded that locality is not an influencing factor of environmental attitude of secondary school students. The results of Chetana (2003), Naseem, C (2006), are in support of the present study whereas the results of Mercy Arjunan (2005) contradicts the present study.

Table -4: Mean, SD and 't' value of Environmental attitude of secondary school students with respect to their management.

Group Management	N	Mean	SD	F-Value	Level of significance
Govt.H.School	334	74.82	9.64	12.63	**
Private aided H. School	48	69.99	10.16		
Private aided H School	274	77.07	9.22		

Table – 4: Shows that, they obtained F-value (12.63) is greater than the tabled. F-value (3.85) at 0.01 level of significance. Thus, the null hypothesis stating that "Rural and urban students do not differ significantly in their attitude towards environmental education programmes" is rejected and alternative hypothesis is accepted. Thus, it can be concluded that management is a significant factor in influencing environmental attitude of secondary school students.

The above result is in agreement with the results of Naseem (2006) and Ozkan and Recap(2013) whereas contradicts the results of Chetana (2003).contradicts the present study.

Table -5: N, Mean, SD and F-value of attitude of students towards environmental education with respect to their community.

Group Community	N	Mean	SD	F-Value	Level of significance
OC	226	76.97	9.15	7.45	**
BC	285	75.73	9.53		
SC	103	72.55	10.31		
ST	42	75.40	9.68		

Table – 5: Shows that the obtained F-value (7.45) is greater than the tabled F- value(3.85) at 0.01 level of significance with degree of freedom = 652. Therefore, the null hypothesis that “Secondary school students do not differ significantly in their attitude towards environmental education programmes due to variation in their community” is rejected and thus it can be concluded that community is a significant factor in influencing attitude of students towards environmental education. The results are contradicts present study Chethana(2003),Mohini agarwal.

Findings

1. Girls & boys students differ significantly in their attitude towards environmental education.
2. Rural and urban students don't differ significantly in their attitude towards environmental education.
3. Management of the school is a significant factor in influencing student's attitude towards environmental education.
4. Community of the school is a significant factor in influencing student's attitude towards environmental education.

Educational implication

The results of the study reveals that sex, community, and management of the school are the significant factors which influence the attitude of students towards environmental education at high school level. Hence the following are the educational implications of the study.

- To conduct intensive Environmental awareness campus for students and teachers.
- To encourage students projects with competitions ever year at different levels.
- To include co-curricular activities like NSS as part of school curriculum which can mould their attitude and behaviour through activities like clean and green ,vanam-manam, Folk songs ,forest conservation and swatch bharat,maintaining health surrounding etc.,

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