

## A Study on The Environmental Awareness Among Secondary School Students in a District of Kerala State

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**Abstract:** *The present investigation reveals the level of environmental awareness of Secondary School students in a district of Kerala State based on gender, locale of study and medium of instruction. Random sampling was used to select 158 secondary school students from Pathanamthitta District, Kerala State. Normative survey method was used for the present investigation. Environmental Awareness Scale constructed and validated by the investigator was used. Calculation of means and standard deviations and test of significance. Total scores of environmental awareness stood at a low level (<50). Girls' environmental awareness was greater than boys, urban students' awareness greater than rural students and Malayalam medium students' awareness greater than English medium students. Environmental education, a process for increasing environmental knowledge and awareness is essential for the future of this world. This study evaluates awareness about the environment among students to remedy lacunae in existing situation.*

**Keywords:** *environmental awareness, students, gender, locale, medium of instructions*

### I. INTRODUCTION

'I went to the woods because I wished to live deliberately, to front only the essential facts of life, and see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived.' The quotation taken from Thoreau's 'Walden' written about 200 years back sets the tone for us to understand the need for environmental awareness in the academic development of children. Thoreau saw nature as the great teacher that helped him to 'live' deliberately. We are living in a world where there is deliberate destruction of nature at a level that is unprecedented in human history. Oil explorations, expansion of human settlements destruction of the flora and fauna that are key to biological cycles are all common place. Some of the factors identified as causes for these are: booming human populations, expanding livestock herds and a potent mix of poverty and human greed. At a global level issues like global warming, greenhouse effects, have resulted in melting of ice in the Antarctic regions causing rise in the sea levels. Scientific research reported in the National Geographic indicates sea levels worldwide have been rising at a rate of 0.14 inches (3.5 millimeters) per year since the early 1990s. The trend, linked to global warming, puts thousands of coastal cities, like Venice, Italy and even whole islands at risk of being claimed by the ocean (National Geographic, 2014). All of these indicate that the delicate balance which keeps nature and its elements in check is being disturbed leading to catastrophic consequences. Awareness regarding the need to protect and sustain nature has to become ingrained in human ethos. Failure will result in a ecological disaster unprecedented in known human history. This awareness regarding the need to protect the environment has to start academically at the school level through an educational process, just as addition and subtraction are essential skills needed for all persons, as part of the daily living skill required for a human being to survive in modern society. Education in its general sense is a form of learning in which the knowledge, skills, and habits of a group of people are transferred from one generation to the next through

teaching, training, or research. Education frequently takes place under the guidance of others, but may also be autodidactic (Dewey, 1916). Therefore, the school and educational system where formal educational inputs are received by the student, have a major and critical role to play in the environmental educational process of the next generation that has to live into the future. This study is merely a small step in that direction, taken as a first step to determine the awareness of students (gender based) in schools studying under diverse conditions (urban/rural, english/malayalam medium) to determine their level of understanding regarding the environment.

### II. NEED FOR THE STUDY

Motivation for awareness about nature should begin at a very early level in schools. It is essential that for this to be implemented a proper educational approach be initiated in schools. Studies in this direction are few especially in the inner regions of Kerala. Pathanamthitta district is an ecologically important district with a huge forest area that is being invaded by human encroachment. This study tries to evaluate the awareness of students in Pathanamthitta district to develop a frame for a larger expression of the need to protect the environment. The recommendations of the Gadgil Committee Report and Kasturirangan report and their implementation have rocked Kerala state, with people of various hues raising a number of questions regarding the bona fides of the reports. In a climate that is vitiated with political stances the generation following us is going to be the victims of confusion. It is therefore necessary that such studies that evaluate the awareness about the environment especially among students, are conducted and the lacunae remedied.

### III. OBJECTIVES OF THE STUDY

Major objectives of the present study are:- 1. To study the

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levels of environmental awareness of Secondary School students in Kerala. 2. To study the environmental awareness of male and female students in Kerala 3. To study the environmental awareness of rural and urban Secondary School students in Kerala 4. To study the environmental awareness of students studying in English and Malayalam Medium schools in Kerala.

### Hypothesis of the Study

1. There is no significant difference in the environmental awareness among the male and female Secondary School students in Kerala 2. There is no significant difference in the environmental awareness among the rural and urban Secondary Schools in Kerala. 3. There is no significant difference in the environmental awareness among English and Malayalam medium Secondary School Students in Kerala.

## IV. METHOD

In order to realize the above said objectives, normative survey method was employed. Normative survey method study describes and interprets what exists at present. They are concerned with existing conditions or relations, prevailing practices, beliefs and attitudes etc. Such investigations are termed in research of literature as descriptive survey or normative survey.

### Tools used

Environmental Awareness Scale was constructed and validated by the investigator. The Questionnaire contains twenty five items. The scale consisted of twenty five statements with five responses – strongly agree, agree, undecided, disagree, and strongly disagree. The Questionnaire has construct validity. The scoring procedure was done in such a way that, for every positive statement a weightage of 5,4,3,2,1 was given and for negative statements a weightage of 1,2,3,4,5, was given. A student could get a maximum of 125 and a minimum of 25 on this scale. Based on these three levels were identified as high, average and low levels of awareness. A high awareness score would be the scoring of a 4 or a 5 on the question i.e., 100-125 and a low awareness would be the scoring of a 1 or a 2 on the question i.e., 25-50, average awareness would be the score of 51-99.

### Sample of the study

Random sampling technique has been used in the selection of the sample which consisted of 158 secondary school students from schools in Pathanamthitta District, Kerala, India.

### Statistical Techniques Used

1. The Environmental Awareness scores of the various sub-samples were collected and their means and standard deviations were calculated (vide: Table-1). 2. The 't' test was used to test the hypotheses, details of the calculations are given in Tables 2 to 4.

## V. RESULTS

The range of the scores was between 39.03 to 19.31. The mean score was 29.17 and the standard deviation was 9.86. This indicates that the environmental awareness of the students

stood at a low level (<50). The mean score and standard deviation of entire sample is given below in table 1.

**Table : 1** Mean and standard deviation of environmental awareness scores

Test	N	Mean	S.D.
Total Sample	158	29.17	9.86

The mean score for 158 students is 29.17 with standard deviation of 9.86, which is low when considering the overall maximum score of 125 for the highest level of awareness regarding the environment.

### Hypothesis 1

Comparison of the environmental awareness scores of boy and girl students

A comparison of the means and standard deviations of environmental awareness scores of boy and girl students is shown in table 2 given below:

**Table : 2** Data and result of test of significant difference between the boys and girls students in their environmental awareness

Groups	N	Mean	S.D.	t	Level of significance
Boys	89	29.95	9.42	2.08	Significant at 0.05 level
Girls	69	33.40	11.0		

The above table shows that the obtained t value 2.08 is greater than the table value of 1.96 at 0.05 level of significance. This indicates that there exists a significant difference between boy and girl students' as regards awareness towards environment. The mean score of girl students (33.40) is greater than the mean score of boy students (29.95). It is inferred that girl students have higher awareness regarding the environment.

### Hypothesis 2

Comparison of the environmental awareness scores of rural and urban students

A comparison of the means and standard deviations of environmental awareness scores of rural and urban students is shown in table 3 given below:

**Table : 3** Data and result of test of significant difference between the rural and urban students in their environmental awareness

	N	Mean	S.D.	t	Level of significance
Rural	86	29.77	9.54	2.26	Significant at 0.05 level
Urban	72	33.47	10.77		

The above table shows that the obtained t value 2.08 is greater than the table value of 1.96 at 0.05 level of significance. This indicates that there exists a significant difference between rural and urban students' awareness towards environment. The mean score of urban students (33.47) is greater than the mean score of rural students (29.77). It is inferred that the urban students have higher awareness regarding the environment

### Hypothesis 3

Comparison of the environmental awareness scores of English and Malayalam medium school students

A comparison of the means and standard deviations of environmental awareness scores of English and Malayalam medium students is shown in table 4 given below:

Table : 4 Data and result of test of significant difference between the English and Malayalam medium students in their environmental awareness

Medium	N	Mean	S.D.	T	Level of significance
English	95	29.77	9.42	2.50	Significant at 0.05 level
Malayalam	63	34.0	10.98		

The above table shows that the obtained t value 2.50 is greater than the table value 1.96 at 0.05 level of significance. This indicates that there exists a significant difference between English and Malayalam Medium Students' Awareness towards Environment. The Mean Score of Malayalam Medium students (34.0) is greater than the mean score of English medium school students (29.77). It is inferred that Malayalam Medium students have a higher level of awareness regarding the environment.

## VI. DISCUSSION

This study has found that in Pathanamthitta District of Kerala state girls showed greater awareness than boys in environmental awareness, urban students showed greater awareness than rural students in environmental awareness and Malayalam medium students showed greater awareness than English medium students. An analysis of various studies on environmental awareness has shown mixed results and conclusive understandings cannot be reached on the general trend in awareness regarding male/female, rural/urban regarding their environmental awareness.

Sharma, (2014) in a study conducted with college students in Kangra District of Himachal Pradesh found that there was no significant difference in environmental awareness of male and female students. Mondal and Mete (2010) studied students in West Bengal, results showed only a negligible difference between the scores of boy and girls. Sengupta, Das and Maji in a study of students in Kolkotta found that girl students were more environmentally aware than boy students. In a comparative study of environment awareness among secondary school students in Iran and India (state of Mysore) by Shobeiri, Omidvar, and Prahallada (2007), the students in India or Iran showed no significant difference between boy and girl students as regards their environmental awareness. In a study by Singh (2001) in Uttar Pradesh, results revealed that there was no significant difference between the male and female students of general castes, other backward castes and scheduled castes regarding their level of environmental awareness. Kant and Sharma (2013) found that there is no significant difference between boys and girls regarding environmental awareness. Pillai (2012) in Cuddalore District in Tamil Nadu found that male students (Mean = 29.84) are marginally better than their female counterparts (Mean = 29.14) as regards Environmental Awareness.

As regards the awareness of rural and urban students, studies quoted above have been used to understand the awareness levels. In the study by Pillai (2012) in Cuddalore District in Tamil Nadu it was found urban area students (Mean = 30.24)

are found to be better than their rural counterparts (Mean = 28.43). In the study by Kant and Sharma (2013) it was found that there is significant difference of environmental awareness among students belonging to rural and urban area with rural students showing greater awareness than urban students. Mondal and Mete (2010) found that the scores of urban students were significantly higher than the scores of rural students.

Studies regarding environmental awareness on the basis of English/Malayalam medium students in Kerala have not been published for analysis and evaluation.

Overall the environmental awareness levels of students in Pathanamthitta District are low and steps to improve the levels of awareness are required.

## V.II CONCLUSION

Environmental Awareness is a critical area which can be ignored or neglected only at our own peril. We are already witnessing the effects of global warming on the one side, depletion of natural forests and wild life on the other side. In addition, the high incidence of diseases like cancer that is playing havoc with human lives due to pollution and unregulated use of pesticides is the preventable tragedy of humanity. Water contamination is making it impossible to drink even well water, which itself has its table level reduced. Kerala is known as God's own country with lush green forests and free flowing streams and rivers that flow strongly at least for eight to nine months of the year and a few throughout the year. However, the picture is slowly changing and it is possible to see dry river beds and heat affected forest cover during the January- April months, with fears of expanding summer and depleting rains. Neglect in this direction can be disastrous. Environmental education is a learning process that increases people's knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration, 1978). It is this educational process which will ensure continued environmental protection and sustenance. If the authorities in Kerala do not seriously consider environmental education at the grass root level for protecting this 'God's own country' we would have destroyed what God has freely given to us for our abundance of life. Awareness regarding the need to protect the environment cannot be implemented after a person reaches adulthood, it has to start at the very basic level through an educational process in school and it is hoped that this paper will be a step in that direction.

## VIII. REFERENCES

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