

Study Of Environmental Awareness Among Senior Secondary School Students

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Abstract

The present study was conducted to ascertain the environmental awareness across gender, locale, type of schools and academic stream among senior secondary school students. The sample of the study comprised of 300 11th class students studying in different government and non-government senior secondary schools of Sambhal district (U.P.) of Moradabad region. Environment Awareness Ability Measure (EAAM) by Praveen Kumar Jha (1998) was used to collect the data for the purpose. The data were analyzed using descriptive (Mean, Standard Deviations) and inferential ('t'- test) statistics. The findings of the present study revealed that there is significant difference in environmental awareness of senior secondary school students across gender (boys and girls), type of schools (government and non-government) and academic stream (science and arts). However no significant difference is found in case of rural and urban sample. The reason for this result may be the rampant illiteracy in the district. Stakeholders should, therefore, ensure that the curriculum relating to environmental education is transacted as a core curriculum. Other activities related to environmental education viz., curricular, co-curricular and literary activities should also be organized to infuse environmental awareness among students.

1. INTRODUCTION

'Environmental awareness' is a complex term which simply means knowledge and understanding of facts and concepts related to environment and its various visible and invisible consequences. It related with the knowledge of environment, attitude, values and necessary skills to solve environment related problems. NCERT is trying to sensitize and aware the students by developing and implementing the curriculum of environmental

education as the core component in education system. The main hurdle in protecting the environment is the deficit of environmental knowledge and unawareness of the consequences of environment related problems. Thus, the awareness towards the protection and conservation should be developed within each human self, so that they can prevent themselves from ruining the diversity. As the problem is one, of the people, for the people and by the people, a proper understanding and support of the people will go a long way in carrying out antipollution measures. Environmental education, therefore, seems to be one of the remedy for creating awareness in human being to maintain an ecological balance. A properly guided action plan is the need of the hour to realize and fulfill the needs and demands without altering ecological equilibrium. Meinhold and Malkus emphasized the importance of environmental awareness to individuals about ecology and ecological balance and to combine the knowledge with values leading to action. The present study has tried to study the environmental awareness among the secondary school students of Davangere District. The investigators have tried to identify the environmental awareness among the secondary school students and studied the relationship of the environmental awareness among the boys and girls, rural and urban, government and non- government, science and arts school students of Sambhal district of U.P.

2. CONCEPTUAL FRAMEWORK

Environmental Awareness: Concept and Definitions

Environmental awareness is a complex term which simply means knowledge and understanding of facts and concepts related to environment and its various visible and invisible consequences. It is related with the environmental problems and development of critical thinking and problem-solving skills in the people. According to Pardhan (1994) Environment awareness means knowledge and or understanding of facts and concepts relating to the following environmental problems (a) Pollution, (b) Population explosion, Deforestation, (c) Energy crisis, (c) Land use and (d) Ecology description. Environmental awareness may provide power and understanding of some objectives of environmental education that is (i) To recognize the interdependence among living and non-living things. (ii) To take decisions individually and collectively and initiate for conservation of nature and natural resources. (iii) To make people about effective use of environmental resources. Operationally environmental awareness is defined as knowledge & understanding of environment, its related problems along with measures and solutions for environmental protection.

3. REVIEW OF THE RELATED LITERATURES

Rathee and Thakran (2017) conducted a study of environmental awareness among rural and urban secondary school students. Their results show that there exists significant difference in environmental awareness of rural & urban and male and female secondary school students favouring the later in both the cases. Mangat (2016), reported non-significant difference in environmental awareness of rural & urban and male & female

senior secondary school students. Sandhu (2015) observed that female secondary school students are significantly more aware of environment as compared to male students, and urban secondary school students are significantly more aware of environment as compared to their rural counterparts. Sindhu and Singh (2014) reported significant difference between rural and urban favouring urban secondary level students regarding environmental awareness. Sivakumar (2012) made a study on the environmental awareness of high school students, related to their gender (boys/girls), locale (rural/urban) and type of school (govt./private). Results show that (i) gender does not play any role on Environmental awareness i.e. there is no significant difference between boys and girls regarding environmental awareness (ii) Localities of the schools play an important role on environmental awareness. In this case, he found urban students to be more aware than rural students on the measure of environmental awareness.(iii) The types of secondary schools also play an important role on environmental awareness with private secondary school students taking the lead in comparison to their government secondary school counterparts. Bala (2015) pointed out that (i) There is a significant difference in environmental awareness of senior secondary school students living in rural and urban areas favouring the later and (ii) There is a significant difference in the Environment Awareness of Senior Secondary School students of govt. and private school favouring private senior secondary school students. Kaur (2017) in a study, on environmental awareness among +1 class school students of Hoshiarpur district, noted that there existed a significant difference in environmental awareness among science and arts students of senior secondary schools of Hoshiarpur District. Science students were more conscious of their environment than arts students. Singhal and Verma (2012) examined the study to measure environmental awareness among students of different disciplines. They observed environmental awareness to be fairly high in most students of different disciplines without gender difference. The students of humanities showed least awareness while biology and mathematics students showed the maximum environmental awareness. Sebastian and Nima (2005) in a study showed the science students have more awareness of biodiversity and its conservation than other students. These reviews of researches indicate the inconsistencies in the findings of the earlier researches. This compels the present researcher to carry this investigation to ascertain the relationships and differences between the variables in hand. The present investigation will fill the void of knowledge.

4. RATIONALE OF THE STUDY

Environmental problem is a global issue. The degradation in its quality is affecting every citizen of the globe irrespective of their origin and place. Therefore, this needs to be tackled collectively. Educating about its dire consequences in face of its ill effects and motivating them for protection and safeguard of environmental awareness is the need of the hour. A properly guided awareness is necessary to instill and enlighten the mind of global communities. Without proper educational efforts the awareness analysis action chain does not move smoothly and effectively (Santhosh kumar Rout & Sukirti Agarwal 2006, p.25). If the present trend of environmental imbalance continues unchecked, it will

lead to annihilation of living beings from this planet. Considering the consequences of the degraded environment, the investigator decided to take up the present study, “Study of Environmental Awareness among Adolescents”.

5. OBJECTIVES

In the light of the review of the literatures, the present investigation was conducted with the following objectives:

1. To study environmental awareness across gender (boys and girls) of senior secondary school students.
2. To study environmental awareness across locale (rural and urban) of senior secondary school students.
3. To study environmental awareness across type of schools (government and non- government) of senior secondary school students.
4. To study environmental awareness across academic stream (science and arts) of senior secondary school students.

6. HYPOTHESES

Based on the review of literatures and aforementioned objectives the present study formulated the following hypotheses:

- H₁. There is no significant difference in environmental awareness of senior secondary school students across gender (boys and girls).
- H₂. There is no significant difference in environmental awareness of senior secondary school students across locale (rural and urban).
- H₃. There is no significant difference in environmental awareness of senior secondary school students across type of schools (government and non-government).
- H₄. There is no significant difference in environmental awareness of senior secondary school students across academic stream (science and arts).

7. DELIMITATIONS OF THE STUDY

1. Sample of the study is delimited to senior secondary level students of Sambhal district of U.P only.
2. The study is delimited to certain selected variables viz., gender (boys and girls) and locale (rural and urban), type of schools (government and non-government) and academic stream (science and arts) only.
3. The study is delimited to environmental awareness as dependent variable only.
4. The study is delimited to the following tool to gather the data: Environment Awareness Ability Measure (EAAM) by Dr. Praveen Kumar Jha (1998)

8. METHODOLOGY

This study utilized survey techniques due to its descriptive nature. This section is comprised of sample, research tool and procedure of the data collection.

➤ **Sample**

The present study is conducted on senior secondary school students of Sambhal district of Moradabad region in state of Uttar Pradesh. A representative sample of 300 11th class students was randomly selected from government and non-government senior secondary schools located in rural and urban areas of said district. The ages of the students ranged from 16 to 17 years.

➤ **Tool used**

The researcher used the following tool for collecting the data to study the research in hand.

➤ **Environment Awareness Ability Measure (EAAM) by Dr. Praveen Kumar Jha (1998)**

Environment Awareness Ability Measure (EAAM) has been constructed and standardized by Dr. Praveen Kumar Jha (1998). This tool measures the degree of awareness of students in five areas of awareness - (i) Causes of pollution, (ii) Conservation of soil, forest, air, etc., (iii) Energy conservation, (iv) Conservation of human health and, (v) Conservation of wild life and animal husbandry. The tool contains 51 items, 43 positively and 8 negatively worded. A weightage of 1 was assigned to the agreed items and 0 to each disagreed items but the negative items are scored inversely. Thus, on the total scale the scores ranged between 0-51. The scale gives composite scores of environmental awareness ability of the subject.

➤ **Procedure of data collection**

The researcher collected the data personally with prior permission of the schools and concerned teachers. The administration of the tool viz., Environment Awareness Ability Measure (EAAM) by Dr. Praveen Kumar Jha (1998) was completed following the instructions given by the author of the tool.

9. ANALYSIS OF THE DATA

Descriptive statistics (Mean, Standard Deviations) were computed and the inferential statistics ('t' test) was employed to compare the means of the students across said variable.

Results and discussion

The comparison of the samples on the selected variable was done by testing the significance of difference between their means by using t-tests. The results are presented in the following tables:

- H₁**. There is no significant difference in environmental awareness of senior secondary school students across gender (boys and girls).

Table No.1: Comparison of environmental awareness across ‘gender’

Variables	Respondents	N	Mean	S.Ds	t-value	Level of Significance
Gender	Boys	180	32.13	4.12	4.61	.01
	Girls	120	34.71	4.68		

Means of boys and girls for senior secondary school students on the measure of environmental awareness are 32.13 & 34.71 and their respective S.Ds are 4.12 & 4.68. When the t-test was applied to compare the mean of both the groups, t-value is found to be 4.61 which is significant at .01 level of significance. This result indicates that environmental awareness significantly differs in case of boys and girls of senior secondary school. This significant difference favouring girls might be due to their proactive behavior toward environmental issues and attitude for conservation and environmentally favorable behavior. This result is in consonance with the researches of Rathee & Thakran (2017) and Sandhu (2015). Hence the null hypothesis 1 (H_1) is rejected and it may be reframed as there is significant difference in environmental awareness of senior secondary school students across gender (boys and girls).

H_2 . There is no significant difference in environmental awareness of senior secondary school students across locale (rural and urban).

Table No.2: Comparison of environmental awareness across ‘locale’

Variables	Respondents	N	Mean	S.Ds	t-value	Level of Significance
Locale	Rural	150	33.63	4.48	1.10	N.S.
	Urban	150	34.19	4.36		

Perusal of the table-2 reveals that means and S. Ds on the measure of environmental awareness for rural and urban students are 33.63 & 4.48 and 34.19 & 4.36 respectively. When the t-test was applied to compare the mean scores of both the groups, t-value is found to 1.10 which is non-significant. Hence the null hypothesis 2 (H_2) is retained.

H₃. There is no significant difference in environmental awareness of senior secondary school students across type of schools (government and non-government).

Table No. 3: Comparison of environmental awareness across ‘type of schools’

Variables	Respondents	N	Mean	S.Ds	t-value	Level of Significance
Type of Schools	Government	200	31.23	4.24	7.86	.01
	Non-government	100	35.51	4.55		

Perusal of the table-2 reveals that mean scores on the measure of environmental awareness for government and non-government senior secondary school students are 31.23 and 35.51. Their respective S.Ds are 4.24 and 4.55. When the t-test was applied to compare the mean scores of both the groups, t-value is found to be 7.86 which is significant at .01 level of confidence in favour of non- government school students. This significant result favouring non- government school students may be attributed to inculcation of positive attitude towards environment by periodical organization of different literary and cultural activities like essay writing, poster making, quizzes, mime and organizing awareness campaigns etc. focusing environment by the stakeholders. This result is in agreement with the researches of Bala (2015) and Sivakumar (2012). Hence the null hypothesis 3 (H₃) is rejected and it may be reframed as there is significant difference in environmental awareness of senior secondary school students across type of schools (government and non-government).

H₄. There is no significant difference in environmental awareness of senior secondary school students across academic stream (science and arts).

Table No. 4: Comparison of environmental awareness across ‘academic stream’

Variables	Respondents	N	Mean	S.Ds	t-value	Level of Significance
Academic Stream	Science	150	39.19	5.22	4.52	.01
	Arts	150	36.53	4.98		

Perusal of the table-4 reveals that there is a significant difference between the means of science and arts students of senior secondary schools. This significant difference at .01 level of significance favouring science stream students suggests that academic stream has a meaningful effect on the awareness of environment among senior secondary school

students. The better awareness among science stream students may be due to their association with environmental education as many environment related topics are incorporated in the science curricula. The study of this curriculum develops better environmental awareness and attitudes in them in comparison to arts students. This finding is also supported with the researches of Kaur (2017) and Sebastian and Nima (2005). Hence the null hypothesis 4 (H_4) is rejected and it may be reframed as there is significant difference in environmental awareness of senior secondary school students across academic stream (science and arts).

10. FINDINGS

1. There is significant difference in environmental awareness of senior secondary school students across gender (boys and girls).
2. There is non-significant difference in environmental awareness of senior secondary school students across locale (rural and urban).
3. There is significant difference in environmental awareness of senior secondary school students across type of schools (government and non-government).
4. There is significant difference in environmental awareness of senior secondary school students across academic stream (science and arts).

11. CONCLUSION

The present study was conducted to ascertain the environmental awareness across gender, locale, type of schools and academic stream among senior secondary school students. The findings of the present investigation reveal that female, science stream students and non-government senior secondary school students are environmentally more aware in comparison to their respective male, arts stream and government schools counterparts as they score more on the Environment Awareness Ability Measure (EAAM). However no significant difference is observed in case of rural and urban comparison in case of selected sample. It is, thus, concluded that locale is not a factor affecting environmental awareness of senior secondary school students. Stakeholders should ensure that every member of the society, particularly students community, participate in environment protection activities whole heartedly so that the planet is non-toxic and non hazardous for the living organism on the planet and for the generation coming afterwards. To develop a world that is concerned and aware about the environment and its associated problems in the face of its degradation, every individual irrespective of their gender, locale, institutional association and academic background should work together to find solution of the environmental crisis.

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