

A STUDY OF ENVIRONMENTAL AWARENESS AMONG SENIOR SECONDARY SCHOOL STUDENTS OF ROHTAK DISTRICT

***Suruchi Bhardwaj**

ABSTRACT

Environmental education is a new approach to teaching about man's relationship to his environment. It is an integrated process dealing with man's natural and manmade surroundings. The awareness of environmental problems is social awareness. Environmental awareness makes one conscious about the need to understand the consequence of the exploiting conditions of the existing environment and how the degree of deteriorating the environment can be reduced. It also enables an individual to engage himself in self-activities, which results in the regeneration of environmental resources. In this present study, the investigator wants to check Environmental Awareness among senior secondary school students of the Rohtak district. Investigator taking a representative sample of 160 (80 from Government schools and 80 from public schools) students from various schools of Rohtak city. After the analysis of data, the research findings show the level of environmental awareness among Secondary School students is high. Both girls and boys students are having quite a high level of understanding and awareness regarding our environment. By educating our youngsters regarding environmental problems, we will about to create an awareness that will enable them to accept the challenge and the responsibility of the community. The basic aim of environmental education is to succeed in making individuals understand the complex nature of natural and man-made environment resulting from the interaction of their biological, physical, social, and other aspects and require knowledge, attitude, and practical skills to participate responsibly and effectively in anticipating environmental problems, and in managing quality of the environment.

Keywords: Environmental Awareness

INTRODUCTION

There is nothing outside of nature, behind nature, or apart from nature. Life does not occur in a vacuum. The balance of natural ecosystems is being taken care of by nature itself, but with the intervention of human beings, the system is disturbed and leads to the deterioration of the environment today. Today, our planet's fragile eco-system is in danger of being destroyed on a scale never seen before in human history. Man has been ruthlessly consuming natural resources and polluting the environment in his insane race for growth. Several plant and animal species are on the brink of extinction. Forests are disappearing at an unprecedented pace, land masses are eroding, the atmosphere is changing in various parts of the world due to global warming, and clean air and water are becoming increasingly scarce resources. The environment has become the concern of all; the academicians, intellectuals, scientists, policymakers, and governments across the continents. People have become more concerned about the environment. The environmental movement has focused attention on the quality of the air we breathe, and the water we drink, and how new dam constructions harm wildlife, and how strip mining devastates the landscape and causes floods. The human race is increasingly realising that it is at a fork in the road in terms of environmental and growth choices. The industrial countries have enjoyed more than their development, have achieved a decent standard of living. This has given to the biosphere, pollution, and degradation, as a result of affluence and underlying greed. It has now become clear that such a pattern of development, lifestyles, and quality of life is unsustainable. On the contrary, the developing countries are still struggling to attain the minimum levels of sustenance. No doubt, they too have contributed to the eco-degradation and pollution, but he is essentially a need and poverty-based issue. Thus, both over-development in the industrialized world and under-development in the developing countries pollute and degrade the environment, and the latter out of the dire need to eke out an existence. The developing

countries need abundant material growth to fulfill the basic needs of their people, but they cannot afford to repeat the mistakes of industrial countries.

It is the socio-economic environment that determines humanity's interaction with the biophysical environment and in turn, it's modulated by the cultural environment. Environmental sustainability begins with raising public consciousness so that it becomes ingrained in people's lives. Environmental education and related activities are critical to achieving this aim. Environmental education aims to increase people's understanding, knowledge, attitudes, skills, and engagement in environmental protection.

GLOBAL ENVIRONMENTAL ISSUES

The issues which result in widespread interest around the globe can be considered global issues. The most obvious global environmental issues include

- Global warming,
- Ozone depletion and
- Pollution.

ENVIRONMENTAL EDUCATION

Environmental education is an approach to learning. It aims to foster a mindset that requires people to transcend biases. It aids in the development of easy to complex learning experiences. The principle of environmental education is that it makes the pupil's education problem related to understanding the environment and hazards of its pollution. This environmental education is socially relevant as it helps us to know how unchecked and unplanned development pollutes, air, water, and soil and thereby threatening our subsistence and existence. Therefore, environmental education means the educational process dealing with men's relationship with their natural and man-made surroundings and includes this relation of population pollution resource allocation and depletion, conservation, transportation, technology, energy, and urban and rural planning to this total biosphere.

Environmental education is education through the environment, about the environment, and for the environment, it is both a style and subject matter of education. In so far as the style is concerned, it means using the environment in so far as the teaching for the environment is concerned, it means controlling this environment, as a teaching-

learning aid and an approach to education. In so far as the subject matter or content is an icon, as a teaching-learning aid, and as an approach to education. In so far as the subject matter or content is concerned, it means teaching about the components and constituents of the environment, establishing proper ecological equilibrium, which entails proper use and conservation of resources and also involves control of environmental pollution. It also entails proper environmental preparation so that the environment is not only usable but also pleasing to the eye. Horticultural planning, agricultural planning, and urban planning are all examples of this.

This definition of environmental education appears on the first reaction to be simplistic and superficial but actually, it is comprehensive and deep, for it denotes that environmental education is a medium and process of education and that it covers man's relationship with his natural as well as social and man-made environment. Environmental education should be a lifelong process and should aim at not merely imparting knowledge and understanding of man's total environment and of the methods and their application for improving our nears and surroundings but it should also aim at inculcating skills, attitudes, and values necessary to understand, appreciate and improve our biosphere and troposphere. Environmental education is the process of understanding values and clarifying concepts in order to acquire the skills and attitudes required to comprehend and appreciate the interconnectedness of man, his society, and his biophysical environment. Environmental education also entails practice in decision-making and self-formulation of a code of behavior about issues concerning environmental quality.

The educational principles that buttress support the inclusion of Environmental education in the school curriculum are given below:-

- Environmental education helps in programming learning experiences from simple to complex.

- Environmental education aids children in moving from vague to concrete concepts. The setting aids children in correcting their interpretation and progressing from indefiniteness to definiteness of ideas. Environmental Education helps children to proceed from the concrete to the abstract.
- Environmental education helps the ordering of learning experiences from the empirical to the national.
- Education can aid in the self-development of the child. This means that kids should be able to do their own research and come to their own conclusions.
- The another of environmental education is that it makes child's education problem bases, for understanding environmental and the hazards of its pollution, the pollution of air and water, the destruction of wildlife, the derelictions of land, etc. so are problems that all of us should solve to save mankind from extinction.
- In conclusion, environmental education is subject that is very practical and is also supported by sound pedagogical principles.

Goals of Environmental Education:-

To foster clear awareness of and concern about economic, social, political, and ecological interdependence in urban and rural areas about the environment.

To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment, and skills needed for the protection and improvement of the environment. To create a new pattern of behavior of individuals, groups, and society as a whole towards the environment.

Objectives of Environmental Education

These were formulated to help social groups and individuals towards the following:-

Awareness i.e. acquires an awareness of and sensitivity to the total environmental and its allied problems.

Knowledge i.e. gains a variety of experiences and acquires a basic understanding of the environmental issues associated with the problem.

Attitude i.e. acquires a set of values and feelings of concern for the environment and the motivation for the environment and the motivation for active participation in environmental improvement and protection.

Skill i.e. acquires skills for identifying and solving an environmental problem.

Valuation ability i.e. evaluates environmental measures and education programs in terms of ecological, and economic, social, aesthetic, and educational factors.

Participation i.e. provides an opportunity to be actively involved at all levels in working towards the resolution of environmental problems.

JUSTIFICATION OF THE STUDY

Today environment has become foul contaminated and undesirable and therefore harmful for the health of living organisms including man the splendid plentifulness of nature is a heritage that should never be spoiled. But the unlimited exploitation of nature by man has disturbed the delicate components of the planet 'earth'. Today, India, which ranks seventh among the world's industrialized developing countries, has well-developed industrial infrastructure in a variety of industries, including chemical, power, nuclear energy, food, petroleum, pesticides, and plastics, among others. Rapid advancements in atomic and nuclear energy have resulted in a massive increase in radioactive contaminants in the environment. Several industrial effluents and emissions especially toxic gases are released into the air regularly. Thus the environment deteriorates to such an extent that it has crossed the critical limit and has become lethal to all organisms including man. The USA is the most polluted continent of the world today and New Delhi is the most polluted metropolitan city in India. The very survival of man depends on the solution to these problems. Awareness among the masses is essential to solving these problems. That's why

the present venture i.e. to study the awareness towards environmental is the need of an hour to make this environment suitable for human survival.

OBJECTIVES OF THE STUDY

- To study the level of environmental awareness among Secondary School students.
- To study the difference in environmental awareness between the Secondary girls and boys students.
- To study the difference in environmental awareness between Govt. & Non-Govt. Secondary school students.

HYPOTHESES

- There is no significant difference in the environmental awareness of Secondary school girls and boys students.
- There is no significant difference in the environmental awareness of the Govt. and Non-Govt. Secondary school students.

Study Related to Environment Awareness

Saxena Preeti and Srivastava Pallavi (2012) studied environmental awareness about eco-friendly behaviour through the sample drawn randomly from two CBSE affiliated schools of Bhopal. Findings indicate that respondents had only a limited understanding of environmental issues which positively impact eco-friendly behaviour.

Kant Shiv and Sharma Mishra (2013) investigated the environmental awareness of secondary school students about their intelligence. The result of the analysis shows that there exists a significant difference between Environmental awareness of students belonging to rural and urban background, moreover a significant positive relationship between intelligence and environmental awareness was found.

DESIGN OF THE STUDY

The procedure of the study almost starts under the broad canvas of the survey method of research. The design of the study consisted of taking a representative sample of 160 (80 from Government schools and 80 from public schools) students from various schools of Rohtak city. An appropriate tool i.e. environmental awareness ability measure test by '**Parveen Kumar Jha**' is used for checking the awareness towards environments. The data were analysed with help of suitable statistical techniques like mean, standard deviation, standard error of the mean, and t-test or t-ratio.

SELECTION OF SAMPLE

The population for the study is secondary school students of Rohtak town. The schools were selected randomly which was convenient to the investigator. The selection of students was done by Systematic Random Sampling. Two hundred students were randomly taken as the sample of the present study from various schools and faculties.

TOOLS USED

The **environmental Awareness Ability Measure** questionnaire by **Parveen Kumar Jha** was selected for the collection of data in the present study.

PROCEDURE OF DATA COLLECTION

(Administration and scoring of the test)

The test has 51 items (including 43 positively and 8 negatively worded). A numerical weightage of 1 (one) is assigned to the response category of agree in case of positive items and disagree in the case of negative items. To collect the data, the investigator visited the various schools of Rohtak city personally. The students were requested by the investigator to give responses of all questions by motivating them towards environmental awareness. The test was administered keeping in view the instructions given in the manual of the test. The proper guidance, instructions were given to the students. It took ten days for collection of data.

STATISTICAL TREATMENT

It indicates tabulation of data and analysis of data.

Tabulation of Data: After collecting the data as per instructions given in the manual-scoring was done. The scores of the students were recorded in the master sheet as per need of research.

Analysis of Data: The scores obtained by students were subjected to computer analysis for 't' test using SPSS Software. The 't' test was applied to compare the significance of the difference between means of different groups.

ANALYSIS AND INTERPRETATION OF DATA

In the preceding chapter the background of the study, review of related literature and the method and procedure have been discussed. The next step is to analyze and interpret the data in light of the objectives of the study. As stated in chapter –

1, the main purpose of the present study is to study the environmental awareness among these secondary school students of Rohtak district. In the present study the measure of central tendency (Arithmetic Mean

s) and the measure of dispersion (SD) was applied to study the nature of the data, 't'-test was applied to study the significant difference between girls and boys and govt. and non-govt. secondary school students.

Table

DIFFERENCE IN ENVIRONMENTAL AWARENESS BETWEEN SECONDARY SCHOOL MALE AND FEMALE STUDENTS

Groups	N	Mean	S.D	T-Ratio
Girls	100	30.41	3.21	

Boys	100	23.92	7.08	8.35*
-------------	-----	-------	------	-------

***Significant at .01 level.**

From the table, it is observed that the mean scores of girls and boys are 30.41 and 23.92 respectively. The 't' value between the two groups has been found 8.35 which is significant at a .01 level of significance. It means that there is a significant difference between the mean scores of secondary school girls and boys. So, the hypothesis, which states that there is no significant difference in the environmental awareness of secondary school boys and girls, was rejected. So there is a significant difference in the environmental awareness of secondary school boys and girls.

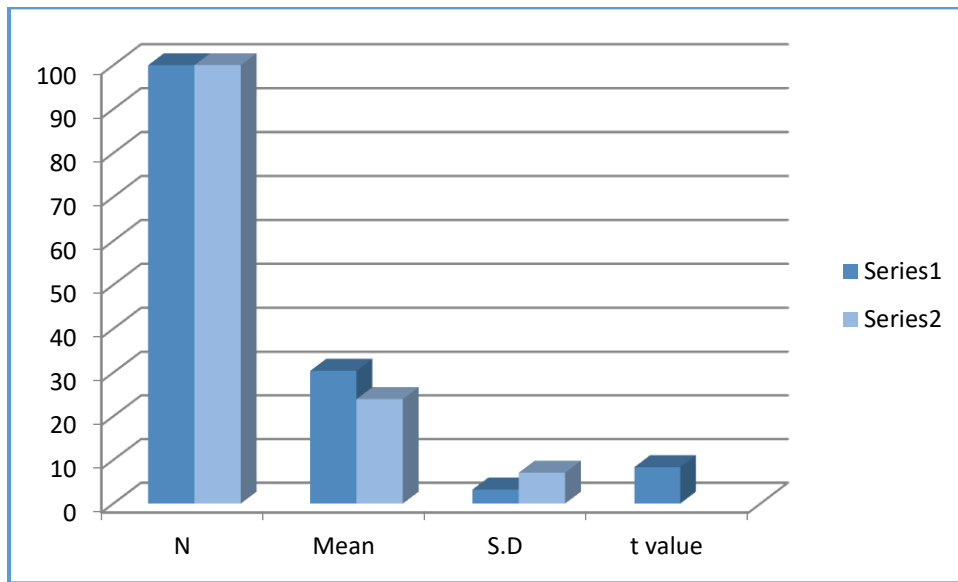


Fig. Difference In Environmental Awareness Between Secondary School Male and Female Students

**Table
 DIFFERENCE IN ENVIRONMENTAL AWARENESS
 BETWEEN SECONDARY GOVT. AND NON-GOVT. SCHOOL STUDENTS**

Groups	N	Mean	S.D	T-Ratio
Govt.	100	23.86	6.10	6.81*
Non-Govt.	100	29.48	2.87	

***Significant at .01 level.**

It can be observed from the Table that environmental awareness scores of secondary govt. and non-govt. school students are found to be 23.86 and 29.48 with S.D. of 6.10 and 2.87 respectively. The 't' value between the mean scores of two groups was found 6.81 which is significant at .01 level of significance. So, the hypothesis is rejected. It means that govt. and non-govt. secondary school students have a difference in environmental awareness. The non-govt. secondary school students are having higher awareness scores than the govt. secondary school students. It can be inferred that govt. secondary school students are having a better understanding and awareness regarding the environment than the govt. secondary school students. Thus, the hypothesis that there is no significant difference in environmental awareness between the govt. and non-govt. secondary school students is accepted.

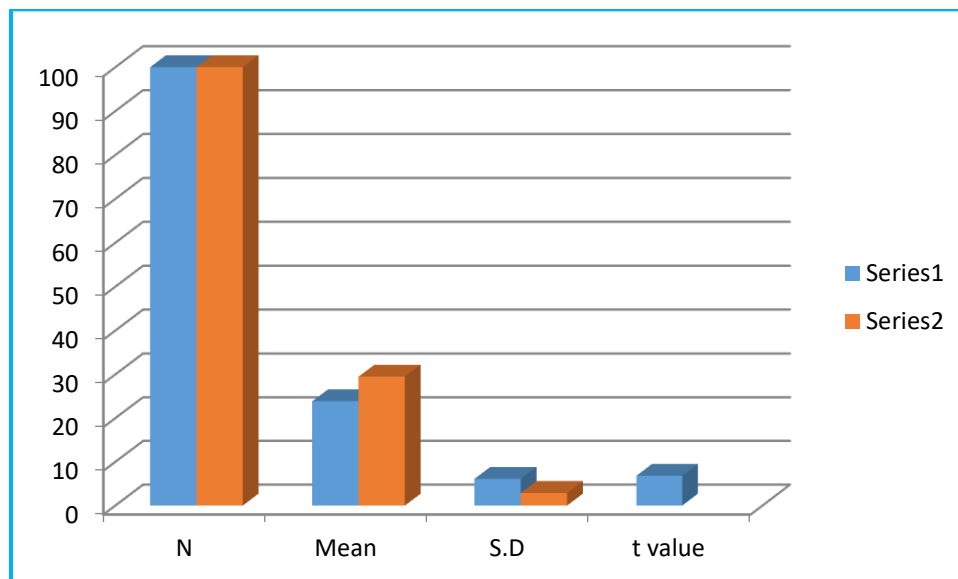


Fig. Difference in Environmental Awareness between Secondary Govt. And Non-Govt. School Students

MAIN FINDINGS

- The level of environmental awareness among secondary school students is high. Both girls and boys students are having quite a high level of understanding and awareness regarding our environment.
- The secondary girls and boys students were found to have a difference in their environmental awareness. The girl's secondary school students are having higher awareness scores than the boy's secondary school students. Thus, it can be interpreted to mean that secondary girls students are having a better understanding and awareness regarding our environment than the boy's secondary school students.
- While making a comparison between the environmental awareness scores of secondary govt. and non-govt. school students, it was found that govt. and non-govt. secondary school students have a difference in environmental awareness. The non-govt. secondary school students are having a higher awareness level than the govt. school students. In short, we can say that non-govt. secondary school students are having a better understanding and awareness regarding our environment than the non-govt. secondary school students.

EDUCATIONAL IMPLICATIONS

The study is supported to emphasize the need for environmental awareness among secondary school students and to solve the problem of environmental pollution. The findings of the study show that non-govt. secondary school students are more aware of the environment than the students of govt. secondary school students.

The present study has its implication for the teacher educators, educational planners, parents' educators, and educational administrators, to make environmental education a compulsory subject. Teacher educators and planners should

arrange a special awareness program 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/inculcating environmental awareness among the students. 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 many remain ignorant about ways in which they could improve traditional production practices and protect the natural source in a better way. Education should, therefore, provide comprehensive knowledge to prevent environmental degradation and global warming which has been coming out as a serious threat to human society. Unless people have a sensitive attitude towards nature, externally enforced laws and regulations will be ineffective.

The foregoing discussion confirms that environmental education can play a significant role in reducing the imbalance in nature. Now the question arises as to how environmental education can spread among the rural and urban areas in India. In this respect, mass media can be used like TV, Cinema, Newspaper, etc. Through formal education, environmental education can be imported in the following three stages.

AT PRIMARY SCHOOL LEVEL

At this stage, the emphasis should be made mostly on building up awareness, through real-life situations. At this level, environmental education would consist mainly of perceiving natural objects, plants, and animals, etc. The teaching strategy should include audio-visual aids and field-visits.

AT SECONDARY SCHOOL LEVEL

At this stage general and easy concepts of environment, various environmental problems, their solutions and various theoretical and practical contents which increase the interest of students towards environment should be given preference in the syllabus.

AT HIGHER LEVEL

At the higher education level, environmental education should be included in the curriculum as a compulsory subject. At this stage, various national and international problems of the environments should also be included in the curriculum. Hence, the research work regarding different environmental problems, their reasons effects, and solutions should also be given a place in the curriculum. Practical and action-oriented field work should also be managed.

Besides these, environmental education should be included in the curriculum of teacher training institution, college, extension training centers, industrial training institutions, polytechnics, engineering so that after getting the training when they will engage in government and non-government services, the students will be able to expand the environmental education in the society.

The real fact is that in India more than 50% of the total population do not get the opportunity of formal education. Therefore, only a formal system of education is not sufficient for creating environmental awareness among the general public. The mass media such as radio, TV newspapers, periodicals, feature films, etc can be used effectively in the expansion of environmental education.

SUGGESTIONS FOR FURTHER STUDY

Environmental education is a vast and relatively new subject. There are various fields in which research can be conducted, some of them are suggested as follows:-

- A similar study can be conducted on a larger sample selected from all the districts of Haryana.
- The study can be replicated on a sample at the college and university level.
- To verify the findings of the present study interstate and cross-cultural studies can be conducted.
- Production of textbooks, additional reading materials, and audio-visual aids for a different level of education.
- Development of environmental awareness programs for different sections of the society.
- Case study of environmental problem of a locality/village/town.

- A comparative study of the attitude of adult literate males and females and illiterate males and females towards their environment.

REFERENCES

Aggarwal, Y.P. (1988). Research in Emerging Fields of Education: Concepts, Trends, and Prospects. Sterling Publishers.

Altman, I. (1976). Privacy: A conceptual analysis. *Environment and Behaviour*, 8:7-29.

Ambasht, R.S. & (1994). *Environment and Pollution: An Ecological Approach*, P.K. Students Friends Corporation. Varanasi, Lanka Publishing House.

Arora, B.B. & (2001). *Modern's Botany (Vol-III)*. Modern Publishers, Jalandhar. Saini, R.C..

Bhargava, Gopal. (1992). *Pollution and its Control*. Mittal Publications, New Delhi.

Berry, J.W. et. al. (1986). On the edge of the forest: Cultural adaptation and cognitive development in central Africa, Lisse: Swets & Zeitlinger..

Deswal, S. & Deswal, A. (2004). *A Basic Course in Environmental Studies*. Dhanpat Rai Publications.

Gupta, P.K. (1994).

Cytology, Genetics Evolution Ecology, Biotechnology & Biostatistics. Rastogi Publications, Meerut.

Jain, U. (1987). Effect of population density and resources on the feeling of crowding and personal space. *Journal of Social Psychology*, 27:331-338.

Kumar, Yogesh. (2000) *Awareness towards Environmental Pollution in the Post-Graduate and Under-Graduate Students*. M.Ed. Kurukshetra University, Kurukshetra.

Meeti, Rajan (1996). 'A study on Environmental Awareness Among the PostGraduateStudentsofKurukshetraUniversity.'KurukshetraUniversity,Kurukshetra..

Stokols,D.andAltman,I.(Eds.)(1987).HandbookofEnvironmentalPsychology;NewYork,
Wiley.

Todaro, Michael, P. (1985). Economic Development in the Third World,
orientLongman,Pp.61-68.

Vashist,Himanshu.(2002)EnvironmentalEducationProblemsandSolutions.BookEnclave,Jaipur

Worchel,S.andTeddlie,C.(1976).TheexperienceofCrowding:atwo-
factorththeory.JournalofPersonalityandSocialPsychology,34:30-40.