ENVIRONMENTAL ETHICS AMONG HIGHER SECONDARY STUDENTS

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Abstract

The human beings of the rapid changing world need to develop a sense of ethics to conserve the environment as the world suffers from serious environmental threats. A study was conducted on 300 higher secondary students to find their environmental ethics. The result of the study revealed the average level of environmental ethics among the higher secondary students. Further, significant difference was found among them with regard to Subject of Study, Management of School, and Type of Family, but no significant difference was found with respect to Gender. The study suggest for initiation of curricular and co-curricular activities at the school level to create environmental awareness and environmental sensitivity among students for sustainable life in future.

Keywords: *Environmental Ethics, Higher Secondary Students, Gender, Subject of Study, Management of School, and Type of Family.*

Introduction

One of the prominent global issues since 1990's has been the deteriorating condition of global environment. On account of the growing awareness, the environmental crisis has become the top priority of the global community. The international environmental issues include both pollution related issues such as global warming, acid rain and stratospheric ozone depletion; and resources depletion issues such as deforestation and extinction of species besides other bio-diversity issues that are threatening the global eco system for sustainable living. Environmental issues have become the concern of the academicians, intellectuals, scientists, policy makers and government across the world. Widespread and systematic concern for environmental issues has grown world over particularly after the 1960s. The UN World Conference on Environment in Stockholm (1972), the Earth Summit held in Rio de Janeiro (1992), the Global Forum (1992) and the activities initiated by the International NGOs and other Forum helps us to understand that preservation of environment is the greatest worry of the international community.

Environmental Ethics

Environmental ethics concern to human beings ethical relationship with the natural environment. Environmental ethics has developed into a specific philosophical discipline in the 1970's. This emergence was no doubt due to the increasing awareness in the 1960's and the effects that technology, industry, economic expansion, and population growth were having on the environment. The development of such awareness was due to the publication of two important books at that time, Rachal Carson's 'Silent Spring', first published in 1962, alerted readers to how the widespread use of chemical pesticides was posing a serious threat to public health and leading to the destruction of wild life. Of similar significance was Paul Ehrlich's (1968) book, 'The Population Bomb', which warned of the devastating effects the spiralling human population has on the planet's resources. Of course, pollution and the depletion of natural resources have not been only environmental concerns since the time; dwindling plant and animal biodiversity, the loss of wilderness, the degradation of ecosystem, and climate change are all part of a raft of 'green' issues that have implanted themselves into both public consciousness and public policy over subsequent years.

Environmental ethics refers to an ecological conscience or moral that reflects a commitment and responsibility toward the environment, including plants and animals as well as present and future generation of people, oriented toward human societies living in harmony with the natural world on which they depend for survival and well-being. It also refers to the responsibility to understand the environmental consequences of our consumption, and need to recognise our individual and social responsibility to conserve natural resources and protect the earth for future generation. Environmental ethics is basically a human ethics based on social justice for all without discrimination of race, sex, religion, ideology, caste, region or nation. Most of the current environmental problems are essentially resulting of people's activities and their attitude toward the socio-

cultural and natural environment. Historically, individual and societal values have not always been in the best interest of preserving a high quality environment. The present day environment crisis demands a change in attitude, in order that initiatives can be taken to rescue the environment from destruction (Natural Environment Research Council, UK, 1989).

People in the industrial world are quite happy with their standards of living. However, most developing societies suffer from acute environmental problems such as deforestation, pollution, depletion of natural resources. While industrialized nations regard environmental problems to be global warming, ozone layer depletion and high population growth rates. Environmental problems in developing countries are a part of the socio-economic problems caused by land degradation, water scarcity, biodiversity, pollution, etc.

Environmental ethics means the moral relationship of human beings with the environment. It is concerned with the do's and don'ts of the human beings to the environment. Environmental ethics has two major concerns. The first is, human activity aiming at changing the environment for his/her betterment. It raises the ethics the question as to whether this is right from human concern itself. The second is, does the environment have certain rights of its own, and values need to be respected at any cost.

There are two aspects of environmental ethics, instrumental values and intrinsic values. The instrumental value pertains to value of things as means useful to some other ends.

The intrinsic value is the value of things as ends in themselves regardless of whether they are useful as means to other ends or not. Several ethical assertions can be made regardless of their value.

- Each species has the right to exist. Each species has value for its own sake, an intrinsic value unrelated to human needs.
- All species are interdependent. The loss of one species may have far reaching consequences on other members of the community.

Statement of the Problem

The present study is entitled as **"Environmental Ethics among Higher Secondary Students".**

Operational Definitions of Key Terms Used

Environmental Ethics: In the present study, Environmental Ethics refers to the overall score gained by the Higher Secondary School Students on the Environmental Ethics Scale.

Higher Secondary School Students: In this study, higher secondary school students refer to the students pursuing XI Std. (+1) in the city of Chennai, who pursued the study during the academic year 2015 - 2016.

Objectives of the Study

The present study is carried out with the following objectives.

1. To find out the level of Environmental Ethics of Higher Secondary Students.
2. To find out the significant difference in Environmental Ethics of Higher Secondary Students with respect to gender.
3. To find out the significant difference in Environmental Ethics of Higher Secondary Students with respect to subject group.
4. To find out the significant difference in Environmental Ethics of Higher Secondary Students with respect to the type of management of school.
5. To find out the significant difference in Environmental Ethics of Higher Secondary Students with respect to family type.

Hypotheses of the Study

In this study, the following hypotheses are formulated by the researcher.

1. The level of Environmental Ethics of Higher Secondary Students is average.
2. There is no significant difference in Environmental Ethics of Higher Secondary Students with respect to gender.

3. There is no significant difference in Environmental Ethics of Higher Secondary Students with respect to subject group.
4. There is no significant difference in the Environmental Ethics of Higher Secondary students with respect to type of management of school.
5. There is no significant difference in Environmental Ethics of Higher Secondary Students with respect to type of family.

Methods and Procedures of Study

Survey method was adopted to carry out the present study. The Students of Higher Secondary Schools constituted the population of the present study. For this study, a sample of 300 students from plus one (+1) of higher secondary schools were selected randomly from the city of Chennai. To test the hypotheses formulated, in the present study the following tools have been used. (i) **Personal Data Sheet** developed by the Investigator and (ii) Environmental Ethics Scale developed and validated by Haseen Taj (2001) is adopted in this research. The tool contains 45 items. It is a likert type 3 point scale with the options of 'agree', 'slightly agree' and 'disagree'. The scale includes 8 "true-keyed" and 37 "false-keyed" items. Each positive statement is given a weightage of 3, 2, and 1 score for agree, slightly agree and disagree respectively. But the score is given reverse order for the negative items. Thus the total score for the entire tool ranges from 45 to 135. A pilot study was conducted to determine the suitability of the tool used in the present investigation. A random sample of 50 plus one (+1) students of higher secondary schools were selected for the study to establish the reliability and validity of the tool. In order to establish the reliability of Environmental Ethics Scale, odd-even method was used to establish the reliability of the tool. The reliability of Environmental Ethics Scale was found to be 0.74. The index of validity which is the square root of reliability. The validity of Environmental Ethics Scale was found by computing the square root of reliability value and it is found to be 0.86. Hence, Environmental Ethics Scale was considered to be reliable and suitable for the present study. After obtaining necessary permission from the heads of the higher secondary schools, the researcher has given necessary instruction to the students with regard to the tools used. Suitable statistical techniques were used to analyse and interpret the data to draw out meaningful results. In the present study, Descriptive Analysis, and Differential Analysis were used.

Analysis and Interpretation of Data

Hypothesis: 1

The level of Environmental Ethics of Higher Secondary Students is average.

Table - 1 Level of Environmental Ethics of Higher Secondary Students

Level of Environmental Ethics	Frequency	Percentage
Low	78	26.0
Average	136	45.3
High	86	28.7
Total	300	100.00

From the above table, it is observed that the level of Environmental Ethics of the Higher Secondary Students is average (45.3%).

Hypothesis: 2

There is no significant difference in Environmental Ethics of the Higher Secondary Students with respect to gender.

Table -2 Mean, S.D and t-values of Environmental Ethics of Higher Secondary Students with respect to Gender

Variable	Gender				t – value	Significance at 0.05 level
	Male		Female			
	Mean	S.D	Mean	S.D		
Environmental Ethics	102.62	15.412	104.79	12.382	1.341	Not Significant

From the above table, no significant difference is observed in Environmental Ethics of Higher Secondary Students with respect to gender.

Hypothesis: 3

There is no significant difference in the Environmental Ethics of Higher Secondary Students with respect to subject group.

Table – 3 Environmental Ethics of Higher Secondary Students with respect to Subject Group

Variable	Subject Group	df	Sum of Square	Mean Square	F – ratio	Significance at 0.05 level
Environmental Ethics	Between group	2	10665.26	5332.63	32.82	Significant
	Within group	297	48262.02	162.5		
	Total	299	58,927.28			

From the above table, significant difference is observed in Environmental Ethics of Higher Secondary students with respect to subject group. So critical ratio test is done to find the significant difference among the group and the calculated values are presented in Table 3.1

Table - 3.1 Mean, S.D, t-values of Environmental Ethics of Higher Secondary Students with respect to Subject Group

Variable	Subject Groups	N	Mean	S.D	t-values	Significant at 0.05 level
Environmental Ethics	Arts	103	95.44	11.73	7.270	Significant
	Science	147	107.88	14.182		
	Arts	103	95.44	11.973	6.681	Significant
	Vocational	50	108.32	9.343		
	Science	147	107.88	14.182	0.206	Not Significant
	Vocational	50	108.32	9.343		

From the above table, significant difference is observed in Environmental Ethics of Higher Secondary Students with respect to subject group of Arts and Science; and Arts and Vocational. But, no significant difference is noted between the science and vocational subject group students. However, the students of vocational subject group have gained more mean score (108.22) as compared to science (107.88), and arts (95.44) group students.

Hypothesis: 4

There is no significant difference in Environmental Ethics of Higher Secondary students with respect to type of management of school.

Table – 4 Environmental Ethics of Higher Secondary Students with respect to Type of Management of School

Variable	Management of School	df	Sum of Square	Mean Square	F – ratio	Significance at 0.05 level
Environmental Ethics	Between group	2	13232.54	6616.27	43.00	Significant
	Within group	297	45694.74	153.85		
	Total	299	58,927.28			

From the above table, significant difference is observed in Environmental Ethics of Higher Secondary Students with respect to type of management of school. Therefore, critical ratio test is done to find the significant difference among the group and the calculated values are presented in Table 4.1

Table 4.1 Mean, S.D, t-values of Environmental Ethics of Higher Secondary Students with respect to Type of Management of Schools

Variable	Type of School Management	N	Mean	S.D	t-values	Significant at 0.05 level
Environmental Ethics	Government	100	112.99	9.29	7.69	Significant
	Govt.Aided	100	100.10	13.93		
	Government	100	112.99	9.29	9.19	Significant
	Un-Aided	100	97.95	13.46		
	Govt.Aided	100	100.10	13.93	1.11	Not Significant
	Un-Aided	100	97.95	13.46		

From the above table, significant difference is observed in Environmental Ethics of Higher Secondary Students of Government and Govt. Aided Schools; and Government and Un-Aided Schools. But, no significant difference is observed between the Higher Secondary Students of Govt. Aided and Un-Aided Schools. Among them, the government school students have gained more mean score (112.99) as compared to government aided (100.10), and unaided (97.95) school students.

Hypothesis: 5

There is no significant difference in Environmental Ethics of Higher Secondary Students with respect to type of family.

Table – 5 Mean, S.D and t-values of Environmental Ethics of Higher Secondary Students with respect to Type of Family

Variable	Type of Family				t – values	Significance at 0.05 level
	Nuclear		Joint			
	Mean	S.D	Mean	S.D		
Environmental Ethics	104.68	13.77	100.06	14.53	2.37	Significant

From the above table, significant difference is observed in Environmental Ethics of Higher Secondary Students with respect to type of family. The students from nuclear family have gained more mean score (104.68) as compared to the students of joint family (100.06).

Major Findings of the Study

1. The level of Environmental Ethics of Higher Secondary students in average.
2. No significant difference is noted in Environmental Ethics of Higher Secondary students with respect to gender.
3. Significant difference is observed in Environmental Ethics of Higher Secondary students with respect to subject group. In this case, the students of vocational subject group have gained more mean score (108.32) as compared to the students of science group (107.88), and arts (95.44) group.
4. Significant difference is noted in Environmental Ethics of Higher Secondary students with respect to type of management of school. Among them, the government school students have gained more mean score (112.99) as compared to government aided (100.10), and unaided (97.95) school students.
5. Significant difference is found in Environmental Ethics of Higher Secondary students with respect to type of family. The students from nuclear family have gained more mean score (104.68) as compared to the students of joint family (100.06).

Educational Implications of the Study

In order to acquaint with the knowledge of environment, suitable well organized curricular and co-curricular activities need to be organized at all levels of education especially at the higher secondary level. A special programme on environmental education need to made compulsory at all levels of education. Frequent workshops, seminars, conferences, exhibitions, field visits, etc may be organised to create awareness and also to develop ecological sensitivity among the students. Educational institutions should establish environmental clubs/association to involve the student community to practice all the skills they have learnt in relation to environment. Awareness programme may be organised intensively for the student community and new teaching-learning techniques could be used to higher secondary students in such a manner to develop for

Environmental Ethics among them. This study will be helpful to produce environmentally literate citizens to preserve the global environment for sustainable living.

Conclusion

In the fast changing world, human being tried to make use of the entire scientific and technological means to conquer and modify the nature for their convenience. Such human activities drastically affected the nature. Sustainable living in this earth is completely determined by the favourable eco system. To maintain the equilibrium, the younger generation need to be educated to develop ecological sensitivity among them. Protection of the environment from further deterioration, developing attitudes toward the environment and ensuring sustainable life to the future generation is more possible through environmental education at the school level has become imperative at the global level.

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