
HIGHER SECONDRY STUDENTS AND ECO-FRIENDLY BEHAVIOUR

Kaji Abdul Kafi

Assistant Professor,
Department of Education,
A.M.U, Murshidabad Centre, W.B.

Abstract

The present study aims at finding the eco-friendly behaviour of higher secondary students. The study is based on primary survey and data was collected by using a questionnaire named, "Interest in Greening Initiatives". A sample of 300 higher secondary students was collected on the basis of purposive Random Sampling technique from seven different schools. For the statistical analysis SPSS software has been used. Inferential statistics were used for the analysis of data and it can be concluded from the study that (a) the higher secondary students have high level of eco-friendly behaviour. (b) There is significant difference in the eco-friendly behaviour of boys and girls students. (c) There is no significant difference in the eco-friendly behaviour of rural and urban students.

Keywords: Eco-friendly behavior, Environment, Higher secondary students.

Introduction

Environment is very closely related to day to day life of human beings and as such man plays a great role in preserving and improving the environment for development and for a better future. Environment refers to the sum total of conditions which surround man at a given point in space and time (Park, 1980). Generally speaking environment is equated with nature wherein physical components of the planet earth viz. land, air, water, soils etc. support and affect life in the biosphere (Singh, 2012). Environment has great influence on all living organisms and also gets influenced by them especially by human being. The environment defines the limits of what we can do on to a certain extent, but since last few decades we have been going beyond that limits resulting in environmental degradation which in turn posing a threat to us for our survival in a healthy way on this planet. So, it becomes our responsibility to take utmost care to protect our environment so that, we can live comfortably in a healthy environment.

Today's environment is totally different from what it was earlier. Urbanisation, industrialization, modernization and luxurious behavior of human being had contaminated the world to a greater extent. In the last few decades environmental issues has become a very important issue and have been discussed worldwide. Nowadays we don't live in the

environment which is stable but rather becoming much unrecognizable and diminishing before our eyes only because of man-made activities like extensive cutting down of trees, over use of natural resources, pollution, waste disposal, population explosion and many other problems (Kumar, Talawar & Kafi,2015). Various species of plants, animals, birds and other creatures are now becoming slowly extinct. They are solely depending on us to protect and preserve them. Even we are also suffering a lot due to environmental degradation. Therefore, at this present time, there is an urgency to make the people aware about the environmental problems and particularly the student community, who are considered as the future citizens, must be made conscious about the alarming situation of our environment. For this, Environmental awareness among the mass should be increased and eco-friendly behaviour must be inculcated in every individual, especially among the student community to make the environment clean, green and healthy.

In recent years, the term "eco-friendly" has become buzz word in many sectors. The term 'eco-friendly' means not damaging to the environment or not harming the environment rather preventing environmental damage. By understanding the true meaning of eco-friendly, we can implement the practices that will lead to healthier living for the planet and its inhabitants. The term actually refers to those practices and activities that lead to healthier living of human beings on this planet by making the environment more green and healthy. In the present study, the phrase eco-friendly behaviour refers to all those activities and practices which help to keep the environment green and healthy by reducing pollution, planting trees, conserving natural resources & energy, using renewable energy resources, judicious use of natural resources and energy, waste management and by reusing and recycling natural resources. Eco-friendly behavior of people contributes a lot to prevent pollution. Eco-friendly behavior of the masses

Particularly of the students can make the environment healthier and more suitable for us because students are the future citizens who will lead this world in future.

Review of Literature

Khan (2013) observed no significant difference between the mean scores of the boys and girls studying in twelfth standard on environmental awareness but he found significant difference in the environmental awareness of the students studying in private and government senior secondary schools of Aligarh city. Hassan, D. and Ratnakar, G. P. (2012) in their study explored that there is no significant difference between the environmental awareness scores of the science group and arts group of higher secondary students and there is also no significant difference between the environmental awareness scores of higher secondary students belonging to different parent's income groups. Pillai (2012) conducted a study on the students of higher secondary level of Cuddalore district and found that there is significant difference between male and female students and also rural and urban students in respect of their environmental awareness. Shivakumar (2012) in a study found that gender and locality have interaction effect on environmental awareness and localities of the schools play an important role on environmental awareness. Selvam and Nazar (2011) in their study suggested that it is the duty of Central and State Governments, public and private companies and NGOs to take initiatives to create more awareness about global warming, natural disaster and environmental degradation. State and Central Educational Departments should allocate

more funds to organize conferences, seminars and workshops for creating awareness among students at school, college and university level and insist of all faculties to teach, motivate and inspire the student community. Faculties have greater responsibility of raising the awareness not only among students but also understanding of environmental issues. The results of a study conducted by Astalin (2011) showed that students of 11th and 12th standard were identical as far as their environmental awareness was concerned. Science students had more environmental awareness in comparison to arts students and the male students had more environmental awareness in comparison to female students because of the male students of higher secondary students are normally so much attached with the society so that they are having more environmental awareness. Students belonging to undergraduate, post graduate and research parent's group had more environmental awareness in comparison to high school students. Bas (2010) found that there is a significant difference between environmental awareness and attitude of the experimental group and the control group. The study showed that the multiple intelligence instructional strategy activities helped in the positive development of the student's attitude and the environmental awareness knowledge levels. Uzun (2009) in his study observed that environmental education given through green class model was found to be very effective to enhance the environmental knowledge and its retention among the students. Ajiboye, J.O. and Ajitoni, S.O. (2008) in their study concluded that Students taught by participatory mode perform better than the students in the conventional lecture group on certain environmental issues and concepts. The study also suggests that quasi participatory students performed better than the full participatory group as they had a better opportunity to work in a more flexible way. In their study, Josiah and Nthalivi (2008) found that significant change was observed in the knowledge and attitude of the students after their exposure to the activities in the civic club. Teaching environmental issues for children was found to be more effective through civic club rather than classroom teaching. It was observed that civic club play an important role in promoting environmental issues in Botswana and other countries. Hence this method is promoted in these countries. Shari (2003) conducted a study to investigate the urban middle school student's moral reasoning about environmental situation and concluded that values and ethics should be included in the environmental education as they play a central role in the consideration of environmental problems. The study also suggests that the middle school educators can design and implement environmental curricula in such a way that it help students to understand and evaluate environmental issues in a better way. Shahnawaj (1990) conducted a study to find out the level of awareness and attitude about the environment among secondary and higher secondary school teachers and students and concluded that a positive environmental attitude was observed in 95% teachers and 94% students. Teachers had more awareness of the environment than students. Trained and untrained teachers did not differ on environmental awareness. Girls possessed significantly more awareness of the environment than boys.

Significance of the Study

In current years the world scenario has changed considerably, the world community is encountering multitude of problems pertaining to natural eco-system and human world. As such human environment includes natural resources as well as human resources. Environment is considered on totality. Realizing the grave situation and apparent hazards, all

countries of the world have realized the importance of environmental balance and pollution control.

The concept of man-nature interdependence highlights the dynamic nature of the relationship between human beings and the environment. This should be the cornerstone of bringing about an understanding of environment leading action for sustainable development. Thus, environmental education aims to aid citizen in becoming environmentally knowledgeable and above all, skilled and dedicated, willing to work individually and collectively towards achieving and maintaining a dynamic equilibrium between quality of life and quality of environment. Environmental education helps to develop an eco-friendly behavior among the students. If Eco-friendly behavior is developed among the people, especially among the student community, then they will become more environment concern and will develop an attitude of sustainable development.

There are various man made environmental problems which the environment is facing today and as a result, our environment is getting polluted and become harmful for human being to live on this planet. There are so many environmental issues like climate change, global warming, pollution, ozone depletion, deforestation, acid rain etc. and we have to combat with all these environmental challenges or issues and must be addressed also at educational level by developing eco-friendly behaviour among them to make the student community aware about the present environmental issues so that, this future citizens can fight with these challenges and make the planet greenly, healthy and living worthy. Hence, this study attempts to measure their eco-friendly activities which represent their day to day life activities towards keeping the environment greenly and healthy.

Objectives of the Study

The objectives of the study are as follows:

- To find out the level of eco-friendly behaviour among higher secondary students.
- To analyse the eco-friendly behaviour of the students gender wise.
- To examine the eco-friendly behaviour of the students with respect to their locality.

Hypotheses of the Study

- Higher secondary students are not interested in eco-friendly activities.
- There is no significant difference in the eco-friendly behaviour between boys and girls.
- There is no significant difference in the eco-friendly behaviour between urban and rural students.

Tool Used

The questionnaire named "Interest in Greening Initiatives" was developed in order to find out the level of eco-friendly behaviour among higher secondary students. Each item in the tool is having three response alternatives out of which one is positive, one is neutral and another one is negative response. It consists of 30 items which covers six dimensions namely, (a) Conservation of natural resources (b) Pollution control (c) Conservation of energy (d) Conservation of water (e) Cleanliness and sanitation and lastly (f) Use of poly products.

Methodology

In the present study “Survey Method” was adopted. The questionnaire, “Interest in Greening Initiatives” was provided to 350 students and some questionnaires were incomplete making it a final sample of 300 students at higher secondary level in Berhampore city of Murshidabad district in West Bengal. Purposive Random Sampling Technique was used for collecting the samples. Samples were drawn from seven different schools. The tool consists of 30 items. For each item, score 2, 1 and 0 are given for the positive, neutral and negative responses respectively to measure the level of eco-friendly behaviour among the higher secondary school students. The range of score is from 0 to 60. For the purpose of categorizing the level of eco-friendly behaviour, it is decided to categorize the obtained score into four levels.

- Above 50 = High
- Between 40-50 = Above average
- Between 30-40 = Average
- Below 30 = Low

Data analysis was done by inferential analysis with the help of SPSS. Statistical techniques such as Mean, SD, t-test were employed to achieve the desired goals.

Inferential Analysis:

Testing of Hypothesis:

Hypothesis-1: Higher secondary students are not interested in eco-friendly activities.

Table-1: Showing Mean and SD of the total sample

Scale	N	Mean	SD
Interest in eco-friendly activities	300	50.51	5.668

The above table reveals that the obtained mean score of eco-friendly behaviour of the entire sample is 50.51. Therefore, the null hypothesis is rejected and alternate hypothesis is accepted. It means that the higher secondary students are having high level of eco-friendly behaviour.

Hypothesis-2: There is no significant difference in the eco-friendly behaviour between boys and girls students.

Table-2: Showing ‘t’ value of eco-friendly behaviour between boys and girls students

Group	N	Mean	SD	t-value	Level of Significance
Boys	164	49.10	6.333	4.920	S
Girls	136	52.21	4.169		

Tabulated value at 0.05 level = 1.97

The above table reveals that the calculated t- value is 4.920. It is more than the tabulated value at 0.05 level of significance. Therefore, the null hypothesis is rejected and alternate

hypothesis is accepted. It means that there is a significant difference in the eco-friendly behaviour between boys and girls students.

Hypothesis-3: There is no significant difference in the eco-friendly behaviour between urban and rural students.

Table-3: Showing 't' value of the eco-friendly behaviour between urban and rural students

Group	N	Mean	SD	t-Value	Level of Significance
Rural	132	49.90	5.871	1.653	NS
Urban	168	50.99	5.474		

Tabulated value at 0.05 level = 1.97

The above table reveals that the calculated t-value is 1.653. It is less than the tabulated value at 0.05 level of significance. Hence the null hypothesis is accepted. Therefore, there is no significant difference in the eco-friendly behaviour between urban and rural students.

Result and Discussion

It is concluded that the higher secondary students possess high level of eco-friendly behaviour. The reason may be that proper importance is being given on environmental education in the school curriculum. But the findings of the study reveal that the level of eco-friendly behaviour among higher secondary students varies according to their gender. Level of eco-friendly behaviour is high for girl students as compared to that of boys. The reason may be the difference in attitude. This finding is consistent with the literature that many other studies found female students had more eco-friendly attitude than male students (Kumar, Talawar & Kafi, 2015; Pillai, 2012; Shah Nawaj, 1990). But in another study Astalin (2011) reported that male students had more environmental awareness in comparison to female students. The reason may be that male students are normally so much attached with the society, so that they are having more environmental awareness. On the other hand, in case of urban and rural students, the study revealed no significant difference in eco-friendly behavior on the basis of locality. Eco-friendly behaviour is little high for urban students as compared to that of rural students. The variation may be due to the change in attitudes and culture of the urban students. Nowadays, urban people are experiencing lot of environmental problems like pollution, waste disposal etc. in their daily life, which makes them aware about environment. More often, urban people are experiencing lot of health diseases only because of environmental degradation and because of this reason they are becoming more aware about the environmental issues. Recently, various environmental programs are being organized by different institutions and organizations in urban areas which also creating an eco-friendly attitude within the urban students. The rural students are having little low eco-friendly behaviour compared to that of urban students, because still rural areas are somewhat more safe than the urban places, as there are less environmental problems as compared to that of urban places. That's why the rural students are less aware about present environmental issues and problems and as a result they practice less eco-friendly activities than the urban students, though there is no significant difference between them in terms of eco-friendly behavior.

Educational Implications

The following suggestions based on the findings of the investigation are offered for the development of the eco-friendly behaviour among the students -

Environmental Education must be a compulsory subject in school curriculum.

1. A good number of environmental projects must be included in the syllabus to get the students more acquainted with present environmental issues.
2. A participatory approach can be introduced at school level to develop eco-friendly attitude among all the students.
3. The concept of eco-friendly behavior should be incorporated in all curriculums of all the classes.
4. Awareness should be created among the students about the importance of using eco-friendly products or green practices. Measures should be taken to give importance for Environmental Education at school level through various approaches.
5. Establishing Environmental clubs and Eco-clubs in order to organize various programme of environmental importance in schools. Measures should be taken to provide knowledge about eco-friendly activities through the mass media such as Television, Newspaper and Social media.
6. Teacher must aware and encourage the students to protect the environment by optimum use of natural resources, reducing waste, by preserving natural resources and by so many such activities.
7. Students must be made sensitized about the importance of sustainable development.
8. Group discussions, debates, lectures, seminars, poster making etc. related to current environmental issues should be conducted regularly at school level.

Conclusion

The present study has yielded interesting results, which add volume of knowledge already present in this field of investigation. It can be concluded that that the higher secondary school students have high level of eco-friendly behavior. On the other hand, it is revealed that the level of eco-friendly behaviour among higher secondary students varies according to their gender. Level of eco-friendly behaviour is high for girl students as compared to that of boys. It is also found that, there is no significant difference in the eco-friendly behaviour between urban and rural higher secondary students. The students from both of the locality have nearly same kind of eco-friendly behavior.

References

- Ajiboye, J. O. and Ajitoni, S. O. (2008). Effects of full and quasi – participatory learning strategies on Nigerian senior secondary student’s environmental knowledge: Implications for classroom practices. *International Journal of Environmental and Science Education*, 3 (2), 58-66.
- Astalin, P. K. (2011). A Study of Environmental Awareness among Higher Secondary Students and Some Educational Factors Affecting It. *International Journal of Multidisciplinary Research*, 1, 90-101.
- CEE (1999). *Towards a Green Future- A Trainers’ Manual on Education for Sustainable Development*. Ahmedabad: Centre for Environmental Education.
- Gokhan, B. (2010). The effect of multiple intelligences instructional strategy on the environmental awareness knowledge and environmental attitude levels of elementary

students in science course. *International Electronic Journal of Environmental Education*, 1 (1), 53-80.

- Hasan, S. (2013). A Study of Attitude Towards Environmental Awareness In Relation to Certain Variables Among Senior Secondary School Students. *Global Research Analysis*, 2 (4).
- Hassan, D. and Ratnakar, G. P. (2012). A study of relationship between environmental awareness and scientific attitudes among higher secondary students. *Indian journal of Applied Research*, 1 (12), 57-61.
- Josiah, O. A. and Nthalivi, S. (2008). Enhancing Botswana children's environmental knowledge, attitude and practices through the school civic clubs. *International Journal of Environmental and Science Education*, 3 (3), 105-114.
- Kumar, V., Talawar, M. S. & Kafi, K. A. (2015). Greening Initiatives among Higher Secondary Students: An Explorative Study. *International Journal of Education and Management Studies*, 5 (3), 195-200.
- Naim, U. (2009). The effect of the green class model on environmental knowledge and its retention. *Asia-Pacific Forum on Science Learning and Teaching*, 10 (2), 9.
- Park, C. C. (1980). *Ecology and environmental management, a geographical perspective*. Colorado: West-view Press. p.272.
- Pillai, S. K. P. (2012). A Study of Environmental Awareness of Higher Secondary School Students in Cuddalore District. *Research Expo International Multidisciplinary Research Journal*, 2 (2), 44-48.
- Selvam, V. & Abdul N. N. (2011). An Analysis of Environmental Awareness and Responsibilities among University Students. *International Journal of Current Research*, 3 (11), 202-205.
- Shari, L. B. (2003). Environmental Ethics in middle school students: Analysis of the moral orientation of student responses to environment dilemmas. *Research in Middle Level education Online*, 26 (1), 1-5.
- Shivakumar, G. S. (2012). Environmental Concern among the Secondary School Students. *Golden Research Thought*, 1(10), 1-4.
- Sing, S. (2012). *Environmental Geography*. Allahabad: Prayag Pustak Bhawan. P.21-22.
- Uzun, N. (2009). The effect of the green class model on environmental knowledge and its retention. *Asia-Pacific Forum on Science Learning and Teaching*, 10 (2), 1-5.