

Environmental Awareness in Relation to Awareness towards Social Duty and Some Demographic Factors affecting it among Higher Secondary Students

Prashant Astalin *

Department of Education, DDE, Madurai Kamaraj University, Madurai-625021, India.

*E-mail of the corresponding author: astalin.p@gmail.com

Abstract

In this study investigator has tried to establish the relation between environmental awareness and awareness towards social duty among higher secondary students and some demographic factors affecting it. Total 608 students were selected from two different boards by using cluster random sampling technique. For collecting data the two tools namely Paryavaran Jagrukta Prashnavali and Samajik Kartavya Jagrukata Prashnavali constructed by investigator was used. Mean, SD, Karl Pearson's product moment correlation, multiple correlations, regression and multiple regressions had been used for analysis of data. Main findings of this study are that there is a positive ($r = 0.594$) relationship between environmental awareness and awareness towards social duty of higher secondary school students. About 35.28% of the environmental awareness scores of the students may be accounted by the awareness towards social duty scores of the higher secondary students. About of 38.07% of environmental awareness scores students may be explained by sex, caste, religion, locale, parent's occupation, type of family and awareness towards social duty scores of students.

Keywords: Environmental Awareness, Awareness towards Social Duty, Demographic Factors.

1. Introduction

It is a universal truth that the life depends upon natural resources and every living agent is completely interdependent on each other. In the 21st century the living style of most of people followed by anthropocentric view, materialistic, extraordinary consumerism and utilitarian approach towards life, which highlights the individual human and often endorses individual achievement in terms of pleasure, satisfaction and accumulation of physical wealth. This has lead to extreme exploitation and unintelligent use of the natural resources for the production of essential goods which has resulted in great loss of natural resources and accumulation of wastes on earth. We are using nature resources as means to our physical prosperity but going far away from nature day by day.

In modern civilization people's nature is selfish and their behavior with others and activities towards environment is a not proper way because of lack of awareness towards their social duty. According to me the awareness towards social duty refers as a sense of belongingness towards fulfillment of duties expected to be performed being a member of a particular society. These duties may be towards family, community, orphan and helpless people, social institutions etc. It's our duty to serve the society and save the environment by following the approach of sustainable development. That will be useful for the society and also to take away the environmental degradation day by day. We have come out of our comfort zones and try to facilitate those who really needed for some help. There are many issues exist in the society relating to woman, child education, child labor etc. The responses found in this threat that many of us are really worried about our society and feel our responsibilities towards it. But the fact is, we are too much involved with our day to day assignments. The life has become so busy and fast moving that in spite of our sincere desire to do something for the societies, we find ourselves helpless.

The time has come that we should think seriously over the environmental issues and should try to do better for removing the many problems related to it. This is the actual time to take vast stroke for getting better and green environment. Also the society can play a major role in nourishing and molding of the environment for future generations. Serving the society doesn't mean only helping our fellow human beings

but also accumulate the existence of plants, animals, birds, insects etc.

1.1 Rationalization of the Study

Every species on the earth has the right to exist. Nature has provided all facilities to complete the necessity needs of every species to survive to each other in the world. Nature is a self adequate system capable to satisfy needs and have the ability to recuperate from the damages that are below to the level of resilience. As we know all the components of natural environment are interdependent and have specific functions. The prosperity of a nation depends upon the health of its people. If the people are healthy that nation will have good prosperity. In fact, an individual also lives in a society. He has social relations with friends, neighbors, family members and community also. He should act as a model for these persons. If he himself remains busy in the improvement of environment whole heartedly, the people will also follow him because he is their role model. Society is made up of law abiding citizen, who want to live peacefully, they desire a safe home, enough food to eat, decent clothes to wear. They want basic amenities to help them in day to day life.

By providing environmental education to his neighbors and friends, an individual can the environment which will be an act for health promotion and prevention. For the improvement in environment, an individual should encourage the plantation of trees. They need grocery, means of communication, health care units, etc. individual role would be to fit himself in any of the roles that would provide them the much needed security, good health, take care of their need of food, clothes and any other thing. Individual should prove himself to a good social element. Society is an institution formed by the members of it. It consists of people who live in a place most suited to them sometime the members form some goal and carry out the same in a society. As members of a society it is individual's duty to become good citizens and to help in the wellbeing of the people who live there. Here investigator is giving some researches related to social duty which is given below:

Sinha, Malti (1992), studied that to examine the role played by the education in social and occupational mobility after independence. Major finding of this study were more than 80% of educated persons changed their caste-profession and the shift in profession had always been upward. Fatima, Nusrat Jehan (1989), studied the relation between various levels of education and social mobility among women in Bangalore city and concluded that secondary education amongst women had a positive effect on their occupational mobility. Kalaimathi D. Hemalatha and Kumaran D. (2006), studied development and validation of social skills rating scale (SSRS). Social skill implies the selection and exhibition of behavior at appropriate times and in specific situations. Social skills of children were assessed with the help of socio-metric techniques and socio-grams in the past.

Singhai, S. (1986), studied social interest and attitude of girl students of college in Indore city and concluded that a majority of girls students laid emphasis on employment opportunities, marriage situations, family environment and choice for future family organizations. It was found that the social interest and attitude of adolescent girls were adequate, mature, stable and in favour of widow remarriage. The majority of students favoured the idea of role of education in modification and correction of the social interests. It was found that suitable environment influenced development of the healthy social interest and attitude of students. Singh (2005), conducted a study of scientific phenomenon between holistic education and environmental awareness and concluded that environmental Protection, strategies for sustainable development can do only by improving environmental awareness by holistic approach in education. Bahadur, Anshubhi and Dhawan, Nisha (2008), studied social values of parents and children in joint and nuclear families and focused on the importance of the family in making and molding an individual on the one hand and influencing social groups and patterns on the other has been reorganized by social scientists. This study played attention on individual level changes affected by the modifications that are taking place in the family under rapid on-going socio-cultural changes in contemporary Indian society. None of these nobody had tried to conduct the study to measure environmental awareness in relation to awareness towards social duty among higher secondary schools and some demographic factors (caste, religion, locale, type of family, sex and parent's occupation) affecting it.

Analyzing the above research studies some questions have appeared in the mind of investigator-

- What is the relationship between environmental awareness and awareness towards social duty?
- Up-to what extent, the environmental awareness may be predicted by some demographic factors and awareness towards social duty?

Investigator has effort to find answer of these above questions. On the basis of these relations investigator has tried to given its main causes. Hence the problem "Environmental awareness in relation to awareness towards social duty and some demographic factors affecting it among higher secondary students" is worth studying and will go a long way in solving many problems allied with social issues.

1.2 Statement of the problem

Statement of the problem is "Environmental awareness in relation to awareness towards social duty and some demographic factors affecting it among higher secondary students".

1.3 Definition of the Terms Used

1.3.1 Environmental Awareness

It is defined as student's ability to help the social groups and individuals to gain a variety of experiences and acquire the basic understanding of environment and its associated problems. Investigator himself constructed the tool to measure environmental awareness. The scores obtained on the prepared tool were considered as environmental awareness scores of higher secondary students.

1.3.2 Awareness towards Social Duty

A sense of belongingness towards fulfillment of duties expected to be performed being a member of a particular society. These duties may be towards family, community, orphan and helpless persons, social institutions etc. A tool was constructed taking above dimension of social duties. The scores obtained on the tool were considered as awareness of social duty scores among higher secondary students.

1.4 Objectives of the study

The objectives of the study are

- To predict the environmental awareness among higher secondary students with the help of awareness of social duty.
- To predict the environmental awareness among higher secondary students with the help of awareness of social duty and some demographic factors.

1.5 Research Hypotheses of the Study

H_{R1} – Awareness towards social duty affects the environmental awareness among higher secondary students.

H_{R2} – A subset of demographic factors and awareness towards social duty affect the environmental awareness among higher secondary students.

1.6 Null Hypotheses of the Study

H_{O1} – There is no significant relationship between the environmental awareness and awareness towards social duty among the higher secondary students.

H_{O2} – There is no significant relationship between the environmental awareness, awareness towards social duty and some demographic factors among the higher secondary students.

1.7 Delimitations of the Study

Following are the delimitations of the present study

- Population of the present study consists of higher secondary schools of Varanasi city.
- The study has been conducted on 608 students only.

- All the institutions which have been selected into this study are recognized by C.B.S.E. & U.P. Board of higher secondary school.

2. Method of the Study

Descriptive survey method has been used as a method study.

2.1 Population, Sample and Sampling Technique

All the students belong to C.B.S.E. and U.P. Board of Varanasi city was taken as a population. A sample is any group drawn from a population. A sample is a small proportion of a population that is selected for observation and analysis (Best and Kahn, 2008, P.13). In the present study, a random sampling technique was used to select the sample. The sample consisted of total 608 students. The variable-wise distributions of the sample are presented in the table 1.

2.3 Tool

The tools used in the present study were Paryavaran Jagrukata Prashnavali and Samajik Kartavya Jagrukata Prashnavali which was developed by the investigator himself. Paryavaran Jagrukata Prashnavali contains total 37 items including 13 positively & 24 negatively worded were used. By Split-Half Method reliability of this tool is 0.76 and by K-R Method is 0.72 and validity is 0.69. Samajik Kartavya Jagrukata Prashnavali contains total 43 items including 22 positively & 21 negatively worded were used. By Split-Half Method reliability of this tool is 0.84 and by K-R Method is 0.82 and content validity was measured.

2.4 Data Collection and Statistical Strategy

By direct administration of the tools data were collected from the students of above four colleges by investigator. The obtained data were analyzed using Mean, SD, multiple correlations, regression and multiple regressions.

3. Analysis and Discussion

The data have been analyzed by SPSS Package (PASW Statistics Processor 17th version) and interpretation of data is given below. The mean score of environmental awareness of sample was found to be 25.34, which indicates average level of environmental awareness. 49.80% of the total students' scored below average and 50.20% of the total students' scored above average (see in the figure 1). The mean score of awareness towards social duty of sample was found to be 32.20, which indicates high level of awareness towards social duty. 45.43% of the total students' scored below average and 54.57% of the total students' scored above average (see in the figure 2).

3.1. Effect of Awareness towards Social Duty on Environmental awareness

Correlation and regression analysis was performed to assess the combined effect of independent variable awareness towards social duty on the dependent variable i.e. environmental awareness. The results are described in the table 2.

The correlation coefficient of dependent variable environmental awareness with independent variables i.e. awareness towards social duty is 0.594 which is significant at 0.05 level of significance.

The analysis of regression (in the table 3) indicates that independent variable i.e. awareness towards social duty in least square sense in the regression equation do in fact account for 35.28% ($r = 0.594$, $r^2 = 0.3528$) of dependent or predicted variable i.e. environmental awareness. It is significant at 0.05 level of significance. Therefore the null hypothesis that is there is no relationship between dependent variable environmental awareness and independent variables i.e. awareness towards social duty is rejected at 0.05 level of significance.

The value of 0.3528 of r square i.e. r^2 in the table indicates that 35.28% of dependent variable i.e. environmental awareness may be elucidated by the independent variables i.e. awareness towards social duty. Therefore remaining 64.72% may be attributing to others variables.

The regression equation to predict environmental awareness is given by the equation in the form:

$$Y = 8.508 + 0.523X$$

Where,

Y = Predicted Value of Environmental awareness

X = Awareness towards Social Duty

3.2 Effect of Awareness towards Social Duty and Demographic Variables on Environmental awareness

Correlation and regression analysis was performed to assess the combined effect of independent variables like sex, caste, religion, locale, parent's occupation, type of family and awareness towards social duty on the dependent variable i.e. environmental awareness. The results are described in the table 4.

The multiple correlation coefficient of dependent variable environmental awareness with independent variables i.e. sex, caste, religion, locale, parent's occupation, type of family and awareness towards social duty 0.617 which is significant at 0.05 level of significance.

The analysis of multiple regression (in the table 5) indicates that seven independent variables X_1 , X_2 , X_3 , X_4 , X_5 , X_6 and X_7 combined in least square sense in the multiple equation do in fact account for 38.07% ($R = 0.617$, $R^2 = 0.3807$) of dependent or predicted variable i.e. environmental awareness. It is significant at 0.05 level of significance. Therefore the null hypothesis that is there is no relationship between environmental awareness and independent variables i.e. sex, caste, religion, locale, parent's occupation, type of family and awareness towards social duty is rejected at 0.05 level of significance.

The value of 0.3807 of multiple R square i.e. R^2 in the table indicates that 38.07% of dependent variable i.e. environmental awareness may be elucidated by the independent variables i.e. sex, caste, religion, locale, parent's occupation, type of family and awareness towards social duty. Therefore remaining 61.93% may be attributing to others variables.

The scores of environmental awareness of students may be predicted by the regression equation given below:

$$Y = 9.611 - 1.568X_1 + 0.073X_2 + 0.072X_3 + 0.986X_4 - 0.274X_5 - 0.053X_6 + 0.516X_7$$

Where,

Y = Predicted Value of Environmental Awareness Score

X_1 = Sex

X_2 = Caste

X_3 = Religion

X_4 = Locale

X_5 = Parent's Occupation

X_6 = Type of Family

X_7 = Awareness towards Social Duty

3.3 Findings and Conclusion of the Study

On the basis of the above findings, it may be concluded that there is a positive ($r = 0.594$) relationship between environmental awareness and awareness towards social duty of higher secondary school students. This means that students with better awareness towards social duty are more aware towards environmental awareness and vice-versa.

About 35.28% of the environmental awareness scores of the students may be accounted by the awareness towards social duty scores of the higher secondary students.

About of 38.07% of environmental awareness scores students may be explained by caste, religion, locale, type of family, sex and parent's occupation and awareness towards social duty scores of students.

It may also be concluded that besides awareness of social duty some other educational, demographic and

psycho-social variables may be important correlates of environmental awareness.

3.4 Educational Implication

This study discloses that about 35.28% of the environmental awareness scores of the students may be accounted by the awareness towards social duty scores of the higher secondary students. This study suggests also it may be helpful for policy maker to give more important about the awareness towards social duty in the subject of civics books for higher secondary students. The involvement and identification of the student with a field study based on affective development i.e., feelings, attitudes and values should be made. In order to help children's grow in knowledge, skills and values, attitudes and awareness relevant to environment's teacher and sociologist is expected to be not only dispenser of information and knowledge, but also managers to teaching learning situations. Various activities related to duty education like essay writing, mime, campaign, drama, cooperative works etc. can be arranged in schools. Duty education should be introduced as a separate unit in the higher secondary level with an infused approach of teaching.

References

- Astalin, P.K. (2011), "A Study of Environmental Awareness in Relation to Awareness towards Social Duty among Higher Secondary Students", *PhD Thesis*, Banaras Hindu University, Varanasi.
- Bahadur, A. & Dhawan, N. (April, 2008), "Social Values of Parents and Children in Joint and Nuclear Families", *Journal of the Indian Academy of Applied Psychology*, Vol. 34, Special Issues, 74-80.
- Best, J. W., & Kahn, J. V. (2008). *Research in education*, (10th ed.), New Delhi: Prentice Hall of India, (Chapter 1).
- Fatima, N. J. (1988), "Education, Social Mobility and Social Change among Women in Bangalore City", *PhD Thesis*, University of Mysore.
- Jonson, B. and Christensen, L. (2008). *Educational Research*, (3rd ed.), New Delhi: Sage Publication, (Chapter 18).
- Kalaimathi D. H. and Kumaran D. (April, 2006), "Development and Validation of Social Skills Rating Scale (SSRS)", *Edutracks*, Vol. 5, No. 8, 31.
- Singh, R.D. (2005), "A Study of Scientific Phenomenon between Holistic Education and Environmental Awareness", *Indian Journal of Psychometry and Education, I.J.P.E.*, 168-172.
- Singhai, S. (1986), "Social Interest and Attitude of Girl's Students of Collages of Indore City", *PhD Thesis*, Devi Ahilya Vishwavidyalaya.
- Sinha, M. (1992), "Role of Education in Social and Occupational Mobility", *PhD Thesis*, Patna University.

Prashant Kumar Astalin (M'08) I became a Member (M) of Alumni Association of Education, B.H.U., Varanasi in 2008. I was born in 1980 in Uttar Pradesh, India. I have completed M.Sc. in Mathematics from Banaras Hindu University and B.Ed. & M.Ed. from C.S.J.M. University, Kanpur. I have been submitted Ph.D. thesis in 1st January, 2011 in Banaras Hindu University, Varanasi, India. Presently, I am working as Assistant Professor in Madurai Kamaraj University. My study specialization is in Mathematics Education.

Table 1: Variable-wise Distributions of the Sample

Variable	Group of students	Total
Caste	SC	87
	OBC	201
	General	320
Religion	Hindu	586
	Muslim	18
	Christian	4
Locale	Rural	93
	Urban	515
Type of Family	Single	337
	Joint	271
Parent's Occupation	Govt. Job	324
	Private Job	284
Sex	Male	280
	Female	328

Table 2: Correlation Matrix among Dependent and Independent Variable for Total Sample (N=608)

Mean	SD	Variables	Y	X
25.3438	5.17744	Y	1.000	0.594
32.1957	5.88351	X	0.594	1.000

Where,

Y = Score of Environmental Awareness,

X = Score of Awareness towards Social Duty

Table 3: Results of Regression Analysis

Dependent Variable	r	r ²	Constant	t	Level of Significance
Y	0.594	0.3528	8.508	18.187	Significant at 0.05 level
Independent Variable X			Regression Coefficient 0.523		

Where, Y = Score of Environmental Awareness

X = Score of Awareness towards Social Duty

r = Correlation coefficient between X and Y

r^2 = Coefficient of determination

Table 4: Inter Correlation Matrix among Variables for Total Sample (N=608)

Mean	SD	Variables	Y	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇
25.3438	5.17744	Y	1.000	-0.157	-0.006	-0.026	0.077	-0.110	0.009	0.594
1.5395	0.49885	X ₁	-0.157	1.000	-0.097	-0.015	0.102	0.032	-0.094	-0.019
1.6168	0.72347	X ₂	-0.006	-0.097	1.000	-0.079	-0.156	0.086	0.008	-0.030
1.0428	0.23277	X ₃	-0.026	-0.015	-0.079	1.000	0.000	0.083	0.006	-0.048
1.8470	0.36025	X ₄	0.077	0.102	-0.156	0.000	1.000	-0.161	-0.088	0.035
1.4671	0.49933	X ₅	-0.110	0.032	0.086	0.083	-0.161	1.000	0.062	-0.117
1.4457	0.49745	X ₆	0.009	-0.094	0.008	0.006	-0.088	0.062	1.000	0.012
32.1957	5.88351	X ₇	0.594	-0.019	-0.030	-0.048	0.035	-0.117	0.012	1.000
Multiple Correlation Coefficient (R) = 0.617										

Where,

Y = Score of Environmental awareness, X₁ = Sex,
 X₂ = Caste, X₃ = Religion,
 X₄ = Locale, X₅ = Parent's Occupation,
 X₆ = Type of Family, X₇ = Score of Awareness towards Social Duty.

Table 5: Results of Multiple Regression Analysis

Dependent Variable	R	R ²	Constant	K	N-K-1	F	Level of Significance
Y	0.617	0.3807	9.611	7	600	52.554	Significant at 0.05 level
Independent Variables	R	Partial r	Regression Coefficient		df	t-value	Level of Significance
X ₁	-0.157	-0.186	-1.568		600	-4.633	Significant at 0.05 level
X ₂	-0.006	0.013	0.073		600	0.311	
X ₃	-0.026	0.004	0.072		600	0.100	
X ₄	0.077	0.084	0.986		600	2.069	
X ₅	-0.110	-0.033	-0.274		600	-0.800	
X ₆	0.009	-0.006	-0.053		600	-0.156	
X ₇	0.594	0.594	0.516		600	18.089	

Where,

Y = Score of Environmental awareness, X₁ = Sex,

X_2 = Caste, X_3 = Religion,
 X_4 = Locale, X_5 = Parent's Occupation,
 X_6 = Type of Family, X_7 = Score of Awareness towards Social Duty,
 r = Correlation coefficient between X and Y, R = Multiple Correlation Coefficient,
 R^2 = Coefficient of Multiple Determination, N = Sample Size,
 K = Total Number of Group.

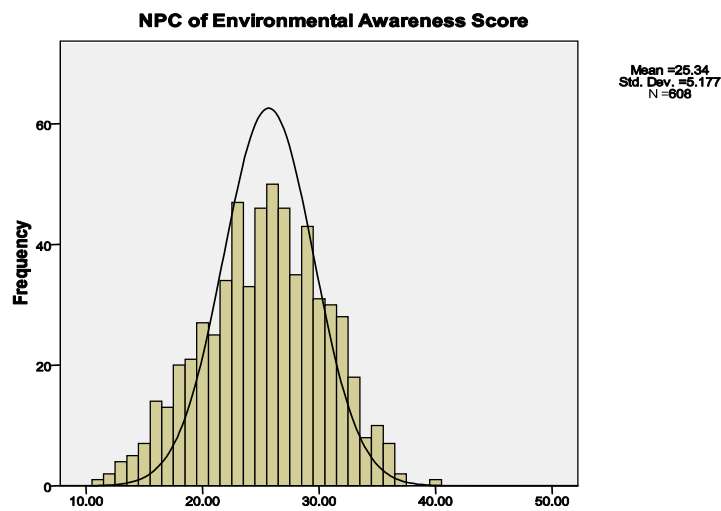


Figure 1: Environmental Awareness Score

The distribution of the environmental awareness score was found to be nearly normal with mean of 25.3438, median of 25.5833, mode 26 and standard deviation of 5.17744. Skewness of distribution of the environmental awareness score was found -0.164 and Kurtosis was found -0.382 . The mean score of environmental awareness of sample was found to be 25.34, which indicates average level of environmental awareness because of 49.80% of the total students' scored below average and 49.20% of the total students' scored above average. The Normal Probability curve of environmental awareness score is given in the above figure 1.

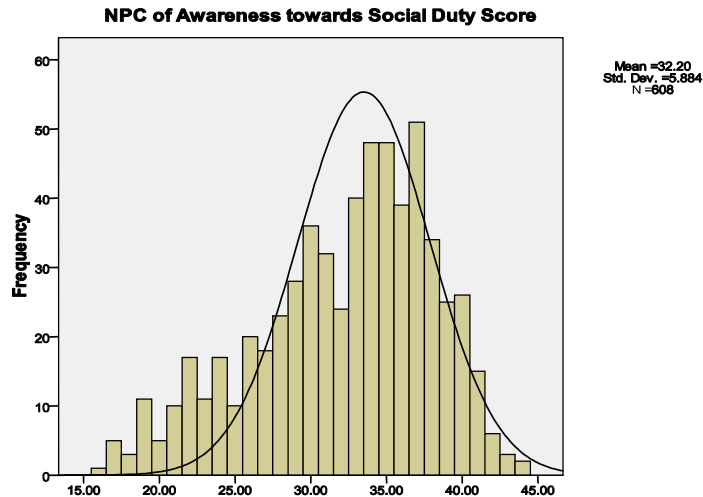


Figure 2: Awareness towards Social Duty Score

The distribution of the awareness towards social duty score was found to be nearly normal with mean of 32.1957, median of 33.2955, mode 37 and standard deviation of 5.88351. Skewness of distribution of the awareness towards social duty score was found -0.566 and Kurtosis was found -0.334 . The mean score of awareness towards social duty of sample was found to be 32.1957, which indicates high level of awareness towards social duty because of 45.43% of the total students' scored below average and 54.57% of the total students' scored above average. The Normal Probability curve of awareness towards social duty score is given in the above figure 2.

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage:

<http://www.iiste.org>

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. **Prospective authors of IISTE journals can find the submission instruction on the following page:**

<http://www.iiste.org/Journals/>

The IISTE editorial team promises to review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

