International Journal of Advanced Research in Management and Social Sciences
ISSN: 2278-6236
Impact Factor: 7.624

RELATIONSHIP BETWEEN ENVIRONMENTAL KNOWLEDGE AND ENVIRONMENTAL ETHICS AMONG SECONDARY SCHOOL STUDENTS

Dr. Janaki.M.,
Assistant Professor,
Department of Studies and Research in Education,
Karnataka State Open University,
Mukthagangotri, Mysore-570 006

INTRODUCTION

The role of education in understanding, protecting and solving problems related to Environment has been realized all over the world since 1970. Evidence to this are a number of conferences, seminars and workshops held on this theme at the national and international levels and the efforts made by different countries in introducing environmental perspective at all levels of education.

Realising the importance of environmental education, the National Policy on Education (1986) emphasized that "there is a paramount need to create a consciousness of the environment. It must permeate all ages of children and all sections of the society, beginning with the child".

As environmental education is of recent origin, it is but natural that there are hardly very few researches conducted in the field.

Keeping the above facts in view, the researcher felt the need to take up research in such new area as it would be challenging and will have novelty.

STATEMENT OF THE PROBLEM

The title of the study for the present investigation was “Relationship between environmental knowledge and environmental ethics among secondary school students”.

OBJECTIVES OF THE STUDY

1. To study the secondary school students’ environmental knowledge.
2. To help the secondary school students to gain a variety of experience and to have a basic understanding about the environment and its problems.

3. To create among the secondary school students a feeling of concern for the environment and the motivation for active participation in the improvement and protection of environment.
4. To create responsibility to understand the environmental consequences of our consumption and create social responsibility to conserve natural resources and protect the earth for future generations.
5. To modify and develop ethics and concern towards environment.

HYPOTHESES OF THE STUDY

1 Environmental knowledge do not account for significant difference in the Environmental ethics of secondary school students of Mysore taluk.

2 Environmental ethics do not account for significant difference among secondary school students with different levels of knowledge.

3 Gender, type of school management, birth ordinal position, type of the family, size of the family and monthly income do not account for significant difference in the environmental ethics of secondary school students.

METHODOLOGY OF THE STUDY

In the present study, "Environmental Knowledge" was the independent variable, environmental ethics was the dependent variables. Sex, type of school management, birth ordinal position, type of the family, size of the family, monthly income were the biographical variables.

SAMPLING PROCEDURE

The population for the study consisted the students of 9^{th} standard, studying in various schools of Mysore taluk. A sample of 200 students was selected using stratified Random Sampling Technique.

TOOLS USED IN THE STUDY

1. Environmental knowledge scale developed by Dr. (Mrs.) Haseen Taj, Lecturer in Education, Bangalore University, Bangalore.
2. Environmental Ethics Scale developed by Dr. (Mrs.) Haseen Taj, Lecturer in Education, Bangalore University, Bangalore.

STATISTICAL TECHNIQUES USED IN THE STUDY

The following statistical techniques were used to analyse the data:

1. Percentages of sample over different variables.
2. t-test
3. Co-efficient of correlation.

ANALYSIS AND INTERPRETATION OF DATA

This study was undertaken to study the environmental ethics of secondary school students. Further, the study has been undertaken to examine the effect of independent variable Environmental Knowledge and Biographical Variables like Sex, Type of School Management, Birth Ordinal Position, Type of the Family, Size of the Family, and Monthly Income on Environmental Ethics. The tools used are:

The tools were administered to 200 students belonging to secondary schools of Mysore taluk. A stratified random sampling technique was used for collecting data.

The data is presented as under:

1. Percentages
2 t-test
3. Co-efficient of correlation

SECTION-I

Table-1

Distribution of Percentage of Sample over Independent variables and different Biographical variables

Sl. No.	Variables	Group	Frequency	Percentage
1	Gender	Boys	99	49.5
		Girls	101	50.5
2	Type of School Management	Government	40	20.0
		Private Aided	80	40.0
		Private Unaided	80	40.0
3	Birth Ordinal Position	First Born	77	38.5
		Middle Born	65	32.5
		Last Born	58	29.0

4	Type Of Family	Joint	66	33.0
		Nuclear	134	67.0
5	Size Of The Family	Small	62	31.0
		Medium	101	50.5
		Large	37	18.5
6	Monthly Income	High	113	56.5
		Low	87	43.5
7	Environmental Knowledge	High	117	58.5
		Low	83	41.5

The table No.1 shows that the sample consists of 99 boys (49.5%) and 101 girls (50.5%) students.

The private aided 80 (40%) and private unaided schools 80(40%) are more than the Government Schools 40(20%).

The percentage of first born students are more 77 (38.5%) than the middle born 65 (32.5%) and last born 58 (29) respectively.

The percentage of students belonging to Nuclear family 134 (67%) is more than the Joint family 66 (33%).

The percentage of students under medium size 101 (50.5%) is more than the small 62 (31%) and large size 37 (18.5%) family.

The percentage of students belonging to high income 113 (56.5%) are more than the low income 87 (43.5%).

The percentage of students belonging to high Environmental Knowledge 117 (58.5%) is more than the low Environmental Knowledge 83 (41.5%).

SECTION-II

Table-2

Distribution of Means and Standard Deviation and't' value of sample over Independent variable and different Biographical Variables on Environmental Ethics.

Sl. No.	Variables	Group	N	Mean	S.D	t-value	Significant level
1	Gender	Boys	99	97.92	11.91	0.44	NS

		Girls	101	97.19	11.58		
2	Type of School Management	Government	40	87.52	7.54	9.87	0.01
		Private Aided	80	104.60	11.53		
		Private Aided	80	104.60	11.53	5.53	0.01
		Private Unaided	80	95.53	9.41		
		Government	40	87.52	7.54	5.04	0.01
		Private Unaided	80	95.53	9.41		
3	Birth Ordinal Position	First Born	77	99.16	11.93	0.55	NS
		Middle Born	65	98.07	11.79		
		First Born	77	99.16	11.93	2.17	0.05
		Last Born	58	94.54	11.09		
		Middle Born	65	98.07	11.79	1.57	NS
		Last Born	58	94.54	11.09		
4	Type Of Family	Joint	66	94.14	9.07	3.26	0.01
		Nuclear	134	99,23	12.63		
5	Size of the Family	Small	62	101.67	12.51	3.35	0.01
		Large	37	94.29	9.33		
		Small	62	101.67	12.51	2.79	0.01
		Medium	101	96.22	11.44		
		Medium	101	96.22	11.44	1.01	NS
		Large	37	94.29	9.33		
6	Monthly Income	High	113	100.56	11.52	4.37	0.01
		Low	87	93.01	10.93		
7	Environmental	High	117	103.69	10.35	8.71	0.01

	Knowledge	Low	83	90.32	9.63		

The results of the Table-2 show that type of school management, type of family, size of the family (except medium-large family is not significant) monthly income and environmental knowledge is significant beyond 0.01 level. Sex and birth ordinal position (first born-last born is significant beyond 0.05 level) does not account for significance on environmental ethics of secondary school students.

SECTION-III

Table 3

Product moment co-efficient of correlation between Environmental Knowledge and Environmental Ethics:

Sl. No.	Variables	N	df	r-value	Level of significance
1	Environmental Knowledge	200	198	0.29	0.01
2	Environmental Ethics	200	198		

In the table-3 the sample size, degrees of freedom, co-efficient of correlation between Environmental Knowledge and Environmental Ethics of Secondary School Students is given along with levels of significance. It is seen from the table that r-value on environmental knowledge and environmental ethics is significant indicating positive relationship between environmental knowledge and environmental ethics.

MAJOR FINDINGS OF THE STUDY

I. Results of t-test

1. There is a significant difference in the secondary school students' environmental ethics belonging to high and low environmental knowledge t = 8.71 p. <0.01).
2. Gender does not account for significant difference in the environmental ethics of secondary school students t = 0.44 p > 0.05).

3. There is significant difference in the environmental ethics of secondary school students belonging to different types of school management (t-9.87, 5.53, 5.04, p <0.01) respectively.
4. There is no significant difference in the environmental ethics of secondary school students belonging to different birth ordinal position (t = 0.55 , 1.57, p > 0.05) respectively but first born last born does account for significant difference (5 = 2.17 p < 0.05).
5. There is significant difference in the environmental ethics of secondary school students belonging to different types of family (t = 3.26 p < 0.01) .
6. There is a significant difference in the environmental ethics of secondary school students belonging to different size of the family (t = 3.35 2.79, P < 0.01) respectively. Medium-large family does not account for significant difference (t = 1.01p < 0.05).
7. There is significant difference in environmental ethics of secondary school students belonging to high and low monthly income ((t = 4.37 , p < 0.01)

II. Results of co-efficient of Correlation

There is a significant relationship between environmental knowledge and environmental ethics of secondary school students r = 0.29 P < 0.01.

EDUCATIONAL IMPLICATIONS

1. The Government should introduce Environmental Education as one of the subjects in the curriculum.
2. Organizing out of class activities for real experiences like local visits to ponds, lakes, rivers, farms, zoos, factories, quarries and geological sites, ancient monuments, national parks, so that students acquire much better knowledge through such visits.
3. The training of qualified personnel is a priority activity. This holds good for both pre-service and in-service training for the purpose of familiarizing teachers in formal education, and organizers of non-formal activities for young people.

It can be concluded that through the curricular and co-curricular activities, survey, skits, role-plays, brainstorming, nature games, dramatization, use of audio-visual aids, campaigns, field trips, formation of eco-clubs, celebration of some important days like world health Day (April 7), Earth Day (April 22), World Environment Day (June 5), Hiroshima Day (August 6). These activities will have a positive effect on the level of Environmental Knowledge as

well as Environmental Ethics, which exposes attitudes and behaviour of individuals and societies which are consonant with humanity's place within the biosphere.

LIMITATIONS OF THE STUDY

1. This study is done on secondary level students who are studying in 9th standard.
2. This study is conducted only in few schools of Mysore taluk.
3. Urban students are not considered in the study. Only English Medium students are considered in the study.
4. This study is conducted on students of 9th standard who do not have separate environmental science as a subject of study in their curriculum.
5. Only few variables have been treated in the study.

SUGGESTIONS FOR FURTHER RESEARCH

1. The present study has been largely concerned with the secondary school students of Mysore taluk. It would be highly desirable if similar study could be made perhaps with wider sample.
2. This study has been concerned with only rural secondary school students of Mysore taluk. Therefore, a comparative study may be undertaken for the urban and rural students on the same lines.
3. Study may be undertaken to know the effect of S.E.S. of students on Environmental Ethics.
4. Study may be undertaken by adopting different experimental designs.

BIBLIOGRAPHY

Agarwal, S.P. and Agarwal, J.C.: Environmental Protection, Education and Development', New Concept, New Delhi, 1996.

Agarwal, J.C.: Teacher and Education in a Developing Society', New Delhi, 1995.

Aheran, Susan Kains: 'Biodiversity', Columbia University, DAI-Vol.50, No.1, July 1989.

Blankenship, Glen.: 'Classroom climate, Global Knowledge, Land Global Attitude', Emory; Dal-Vol.51, No.5, November 1990.

Cunningham, P.: Environmental Science A global concern', W.M C. Brown Publishers, USA.

Chhatwal, G.R.: 'Encyclopedia of Environmental Education', Vol. 1, New Delhi, Anmol Publications Private Limited.

Dash, M.C.: 'Fundamentals of Ecology', Tata McGraw Hill Publishing Co. Ltd., New Delhi, 1993.

Derrah, Richard Floyd: The status of Environmental Education in the Secondary Schools of the State MAINE DAI - Vol.56, No.2, August 1995.

Haseen Taj, 'Manual for Environmental Knowledge Test' Agra, India, Nandhini Enterprises.

Haseen Taj: 'Manual for Environmental Ethics Scale', Agra, India, Nandhini Enterprises.

Keller, Edward Daniel Botkin: Environmental Science-Earth as living plant', Laliley and Sons Inc., USA.

Koul Lokesh: 'Methodology of Educational Research', New Delhi, Vikas Publishing House Pvt. Ltd., 1986.

Paneer Selvan A., Mohana Ramakrishnan: Environmental Science Education', Sterling Publishers Pvt. Ltd., 1996.

Sharma R.C.: Environmental Education', Metropolitan Book Co. Private Limited, New Delhi, 1986.

Srivastava N.: Environmental Pollution', Asian Publishing House, New Delhi, 1995.

Vandana Pandey: 'Encyclopedia Dictionary of Environmental Pollution', Vol.-1-4, Bombay, Himalaya Publishing House.