

# **Environmental Ethics of In-service Teachers, Pre-service Teachers and Teacher Educators**

**Anjuli Suhane**

**Department of Education, Rajeev Gandhi College, Bhopal**

## **Abstract**

**An attempt has been made in this investigation to explore environmental ethics of in-service teachers, pre-service teachers & teacher educators of Bhopal district of Madhya Pradesh. Environmental ethics scale administered to 500 teachers. It is found that: teacher educators have better environmental ethics as compared to in-service teachers and pre-service teachers; female teachers have more environmental ethics than the male teachers; discipline or subject do not influence on their environmental ethics.**

**Keywords:** Environmental Ethics, In-service Teachers, Pre-service Teachers, Teacher

## **Educators**

Gandhi Ji Said, ...”there is enough in the nature for man’s need but not enough for man’s greed.” The whole world’s attention is now focused on the state of environment degradation brought about by developments in science and technology and the need to satisfy the demands of the growing population.

Every human being has the right of decent life, but today there are elements in our environment that tend to militate against the attainment and enjoyment of such a life. The exacerbation of the pollution of environment can cause untold misery. Unhappiness and suffering to human beings crop up, simply because of our lack of concern for the common good and the absence of sense of responsibility and ethics for sustaining a balanced eco-system. If we are to aspire to a better quality of life-one which will ensure freedom from want, from disease and from fear itself, then we must all join hands to stem the increasing toxification of this earth (Minda, C. S, 1990).

Most current environment problems are essentially a result of people’s activities and their attitude towards the environment. Now environment education is the only effective short and long-term instrument to bring about only desired changes or modification of attitude and behavior of individuals towards environment. Environmental education is a learning process that

increases students' knowledge, awareness about the environment & associated challenges, develops the necessary skills, foster attitude, commitment to take decisions and responsible actions. So, environmental education must be integrated into the whole system of formal education at various levels of school curriculum.

**Theoretical framework:** On seeing the importance of environmental education in the present scenario, the Supreme Court of India (2004) directed all the state and educational agencies in the country to introduce environment as a compulsory subject in all classes in school upto higher secondary level for the Academic Session (2004-2005) with the help of central pollution control Board. NCTE discussion document (2004) also emphasized on the importance of environmental education for pre- service teachers and in-service teachers and its inclusion in the teacher training program.

If we want to secure the future of our environment, we have to create awareness & ethics about environment and an attitude of caring and sharing of natural resources in the mind of those who are the future of our nation. As rightly said by Pt. Jawaharlal Nehru that the future of India in shaped in her classroom, where teacher is the central figure. So we can say that the key of successful environmental education is the teacher. The teacher plays an important role in shaping and molding the habits manners and good character of the children. Therefore to gear up the environmental education program, it is essential that teacher should have sufficient knowledge of environmental education.

Quality environment education in school depends more on the qualification, teaching experience and preparation of teachers than in does on school curricula. If teachers do not have the awareness, skills, commitment, ethics ,values and an attitude to environmentalise their curriculum, it is unlikely that environmentally literate students will be produced. (Wilke, 1985). Unfortunately there is dearth of teachers and teacher educators in our country to handle environmental problems as they lack awareness, ethics expertise and perfect training in environmental education.

From the review of related literature, it was found that very scanty work Rajput, Saxena, & Jadhav (1980); Ramsey& Rickson(1976.); Saxena (1996,2004),; Rajput (2004); Shahnawaj (1990); Housebeck, et.al. (1991);. Fong (1994); Hsu, Shih-Jang (2004), Dhawan; Rawat and Sharma (2005) has been done on the field environmental education. An over all view of the

review of previous studies reveals that a lot of researches have been conducted on environmental awareness, environmental attitude, environmental behaviour, environmental knowledge of teachers and students. The researcher felt some research gap and deficiencies after critically going through the past studies. The research gap is that though there are quite good number of studies in this area, very few studies attempted to find environmental ethics of teachers. So researcher tries to investigate the environmental ethics of in-service teachers, pre-service teachers & teacher educators.

Environmental ethics is the scientific study of various issues related to the rights of the individual with regard to the environment. It is the moral relationship of human beings with the environmental. It deals with ecological rights of all creatures present today as well as those that will follow on the earth. Environmental ethics refer to the responsibility to understand the environmental consequence of our consumption and need to recognize our individual and social responsibility to conserve natural resources and protect the earth for future generation.

## **Method**

### **Objectives of the Study:**

This present study has been conducted with the following objective

- To study the nature of score of environmental ethics of teachers.
- Whether there is any significant difference in the environmental ethics of in-service teachers , pre-service teachers and teacher educators;
- Whether there is any significant difference in the environmental ethics of male and female in-service teachers, pre-service teachers & teacher educators.
- Whether there is any significant difference in the environmental ethics of science and arts subject in-service teachers, pre-service teachers & teacher educators.

### **Sample**

200 pre-service teachers of one year full time B.Ed. programme and 100 teacher educators were selected from the different teacher training institutions of Barkatullah University, Bhopal by random purposive sampling.

200 in-service teachers teaching at the secondary and senior secondary level in the schools of M.P. government at Bhopal were selected by random purposive sampling.

## Tool Used

Environmental ethics scale constructed by Haseej Taj (2001 ) has been used in the present study .The test has content validity and reliability value 0.71 calculated by split half method.

Interpretation of Results:

*In order to analysis of first objective, the mean, median, mode and standard deviation values are given in the following table:*

*Table: Nature of distribution of the scores of environmental ethics (N=500)*

<i>Mean</i>	<i>Median</i>	<i>Mode</i>	<i>SD</i>	<i>SEm</i>	<i>SK</i>	<i>KU</i>	<i>MN</i>	<i>MX</i>
<b>106.03</b>	<b>108</b>	<b>108</b>	<b>8.43</b>	<b>0.87</b>	<b>-0.10</b>	<b>-0.21</b>	<b>135</b>	<b>55</b>

The mean of environmental ethics scores of the 500 teachers is 106.03. From the above table it is clear that mean and median are very close to each other. The scores ranged from 55 to 135 and standard deviation is 8.43. Standard error of mean is found to be 0.87 hence population mean will not be beyond  $\pm 1.67$  and  $\pm 2.24$  at 95% and 99% confidence level respectively. This means that the population mean will be in between 104.36 to 107.7 at 95% confidence level and 103.79 to 108.27 at 99% of confidence level. The skewness is -0.10; it is negatively skewed showing a slight edge of high-level group size over the low-level group size. The magnitude of skewness indicates that the distribution tends to normal. The value of kurtosis is -0.21 is less than 0.263, so the distribution is leptokurtic. A person can get a maximum and minimum score of 135 and 45 respectively. Since the mean value is greater than the mid score of 90. So we can say that environmental ethics of teachers are in higher side.

To achieve the second objective the following null hypotheses have been formulated

- There is no significant difference in the environmental ethics of in-service teachers and pre-service teachers.
- There is no significant difference in the environmental ethics of in-service teachers and teacher educators.

- There is no significant difference in the environmental ethics of pre-service teachers and teacher educators.

To test the aforesaid hypotheses, t- test has been employed and the calculation are given below on the following table

**Table : Significance of ‘t’ between different category of teachers in respect of their environmental ethics**

Category	A.M.	SD	N	df	‘t’	0.05 level of Significance
In-service teachers	105.19	8.77	200	398	1.66	Not Significant
Pre service teachers	103.84	7.72	200			
Pre service teachers	103.84	7.72	200	298	5.06	Significant
Teacher educators	109.06	8.8	100			
In-service teachers	105.19	8.77	200	298	3.61	Significant
Teacher educators	109.06	8.8	100			

It is found that all the values of ‘t’ are significant except between environmental ethics of in-service teachers and pre-service teachers. Hence the first hypothesis is accepted and next two hypotheses are rejected. It means that environmental ethics of in-service teachers and pre-service teachers are more and less same but environmental ethics of teacher educators have significant difference as compared to in-service teachers and pre-service teachers. When means are compared, it is found that mean score of environmental ethics of teacher educators (A.M.=109.06) is greater than that of in-service teachers (A.M.=105.19) and pre-service teachers(A.M.= 103.84). From this it may be inferred that teacher educators have better environmental ethics as compared to in-service teachers and pre-service teachers.

To achieve the third objective the following null hypothesis have been formulated

- There is no significant difference in the environmental ethics of male and female in-service teachers.
- There is no significant difference in the environmental ethics of male and female pre-service teachers.

- There is no significant difference in the environmental ethics of male and female teacher educators

To test the aforesaid hypothesis, t- test has been employed and the calculation are given below on the following table

**Table : Significance of ‘t’ between male and female in-service teachers, pre service teachers & teacher educators in respect of environmental ethics**

Category	A.M.	SD	N	df	‘t’	0.05 level of Significance
Male in-service teachers	102.72	10.25	72	198	3.63	Significant
Female in-service teachers	107.67	7.30	128			
Male pre-service teachers	101.23	8.25	90	198	4.70	Significant
Female pre-service teachers	106.45	7.30	110			
Male teacher educators	105.45	9.35	40	98	3.98	Significant
Female teacher educators	112.67	8.30	60			

The values of ‘t’ are found to be significant and hence hypotheses are rejected. This indicates that male in-service teachers, pre-service teachers & teacher educators do differ significantly from their female in-service teachers, pre service teachers & teacher educators respectively in respect of their environmental ethics. When means are compared, it is found that mean score of environmental ethics of female in-service teachers (A.M.=107.67) is greater than that of male in-service teachers (A.M.=102.72). Further on observing the other means, it is found that female (A.M. = 106.45) pre-service teachers are superior to their male (A.M. = 102.72) counterparts in environmental ethics and female (A.M. =112.67) teacher educators are also superior to their male (A.M. =105.65) counterparts in environmental ethics. Raju,G. (2007) found significant difference between male and female students in respect of environmental ethics; girl student have more environmental ethics than the boys. This finding is favour of present finding of the study. From this it may be inferred that female teachers are found to have

more environmental ethics as compared to their male counterparts, may be due to the reason that Indian girls are more sincere and responsible by nature because of parental treatment right from beginning at homes.

To achieve the forth objective the following null hypothesis have been formulated

- There is no significant difference in the environmental ethics of science group and social studies group in-service teachers.
- There is no significant difference in the environmental ethics of science group and social studies group pre-service teachers.
- There is no significant difference in the environmental ethics of science group and social studies group teacher educators.

To test the aforesaid hypothesis, t- test has been employed and the calculation are given below on the following table

Table : Significance of ‘t’ between Science group and Social studies group in-service teachers , pre-service teachers and teacher educators in respect of environmental ethics

Category	A.M.	SD	N	df	t	0.05 level of Significance
Science group in-service teachers	106.23	6.65	90	198	1.61	Not Significant
Social studies group in-service teachers	104.15	7.89	110			
Science group pre-service teachers	104.25	8.30	100	198	0.75	Not Significant
Social studies group pre-service teachers	103.43	7.2	100			
Science group teacher educators	107.52	10.50	45	98	1.66	Not Significant
Social studies group teacher educators	110.60	7.35	55			

The values of ‘t’ are found to be not significant and hence all three hypotheses are accepted. This indicates that science group in-service teachers, pre service teachers & teacher educators do not differ significantly from social studies group in-service teachers, pre service

teachers & teacher educators respectively in respect of their environmental ethics. So it is concluded that the discipline of teachers do not effect their environmental ethics.

### **Educational Implication**

It is responsibility of teacher training institution to develop environmental ethics in trainees for this purpose environmental education should be made compulsory in pre-service teacher education programme (B.Ed.) and master of education (M.Ed.). The curriculum of secondary level pre-service teacher education programme (B.Ed) should be amended and should be based on the following philosophy:

- Education about the environment as it is concerned with the knowledge og environment.
- Education for the environment which is concern with attitude and values for the environment.
- Education through the environment using the environment as a resource for learning based on the above philosophy either infusion into the existing curricula or insertion of new course of study can be applied.
- It is the also the responsibility of the institutions such as NCERT, SCERT, NIEPA, Academic staff colleges and Department of Education in the Universities to promote environmental awareness and develop environmental ethics of in-service teachers and teacher educators desirable for environmental conservation.

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