



## A Comparative Study of Environmental Awareness among Secondary School Teachers in Bareilly District U.P. India

Anita Singh, Sony Kumari and \*Jaspal Singh

Department of Education, Bareilly College Bareilly, U.P. India 243005

Corresponding Author: [jaspalsingh\\_lko@yahoo.co.in](mailto:jaspalsingh_lko@yahoo.co.in)

### Abstract:

The present study is an attempt to examine the environmental awareness of secondary school teachers in relation to sex, type of board and courses of studies. For this purpose, 1000 teachers (600 female and 400 male) were selected from different schools affiliated to CBSE and U. P. Board. In this process of selection only those teachers were selected whose teaching experiences were not less than 8 years. For measuring environmental awareness self made questioner was used, Mean SD and 't' value were used to analyse the data. The study will highlight the influence in type of school, sex and courses of studies on the level of teachers of environmental understanding.

**Keywords:** Environmental awareness, Causes of pollution, Conservation of soil, Forest, Energy, Human health.

### 1.0 Introduction:

Environment protection starts by generating awareness among the societies so that it grows into part of their lifestyle. The key to achieve this goal lies in environmental education and its allied programmed. The objective of environmental education includes awareness, knowledge, attitudes, skills and participation of people in protecting the environment (Kang and Chawla, 2011; Soundararajan, 2013; Kant and Sharma, 2013). Over recent decades, global problems relating to degradation of natural resources and pollution have increased theatrically. It is our foremost duty to conserve our environmental resources. The vital goal of environmental education whether it is formal or non-formal is to create awareness among the citizens of a country (Sahaya and Paul, 2005; Sola, 2014). World educators and environmental specialists have repeatedly pointed out that any solution to the environmental crisis will require environmental knowledge and deeply rooted understanding in the educational system at all levels (Khan, 2013; Deka, and Rabha, 2013). The U.N. World conference on the environment in Stockholm in 1972, the Earth Summit held in Rio d Janeiro in 1992, the Global Forum 1992 and the activities organized by the international NGO forum show that

environment is in the agenda of International Community (Maikuri and Uniyal, 2008; Kant and Sharma, 2013). In order to protect and conserve the environment, enabling people to lead quality life, emphasis has been laid on environmental education in both formal and non-formal system of education. In formal system of education, teachers can play an important role in educating their students about environment related issues (Dhillon and Sandhu, 2005; Kumari *et al.* 2012). It emphasizes the basic aim of environmental education as, "To develop a world population that is aware of and concerned about the environment, its associated problems, so that the population will have the knowledge, skill, attitudes, motivation and commitment to work individually and collectively towards the solutions of current problems and prevention of new ones" (UNESCO, 1990). Global concern regarding the steady deteriorating state of the environment has emphasized the need for environmental education. The need of the hour is to make people sensitive towards nature through a strong programme of environmental education (Nachimuthu and Vijayakumari, 1993; Abraham and Arjunan, 2005). Environmental education is a way of creating knowledge, understanding, values, attitudes, skills, abilities and awareness among individuals and social

groups towards the environment protection (Igbinkpogie *et al.* 1990). It is not just a subject of education but an expansion of its whole philosophy recognizing our environment as continuous with ourselves and in need of the same care and understanding as we give to our personal and social well-being (Smyth, 1995; Singh, 1991; Kukreti and Gihar 2004). World educators and environment specialists have repeatedly pointed out that a solution to environmental crisis will require an environmental awareness and its proper understanding which should be deeply rooted in the education system at all levels of school education (Sukumar, 2005; Shobeiri *et al.* 2007). Gupta (1986), Saha and Maji (2013) studied attitude of teachers towards environmental education and he found out that the majority of teachers showed a favorable attitude towards environmental education. In this present context the need for the environment awareness of teachers is must. It is very much an essential need for each individual to develop an awareness of protection and preservation towards environment. Our environment is threatened by many hazards. Air, water and soil pollution is on the increase. Degradation of environment results in many problems. Therefore, there is a great need to protect and preserve our environment. The role of teachers would go a long way in achieving such desired goals. In order to create awareness towards environment it is necessary to know what intensities of awareness they possess in these areas. So, in this paper a comparative study of environmental awareness in teachers of Bareilly region has been done.

**1.1 Objectives of the study**

The major objectives of the present study are as follows:

1. To see difference in science, art and commerce teachers of secondary level with respects to their level of environmental awareness.

2. To compare the teachers of CBSE and UP Board with respects to their level of environmental awareness.
3. To compare the male and female teachers of secondary level with regards to their level of environmental awareness.

**Hypothesis**

Following null hypothesis have been formulated in accordance with the objectives

1. There is no significant difference between the secondary school teacher of art science and commerce.
2. There is no significant difference between the secondary school teacher of U.P. Board and CBSE Board.
3. There is no significant difference between the male and female secondary school teacher.

**2.0 Research Methodology:**

The study was conducted in Bareilly region. The sample involved 1000 teachers (400 male and 600 female) teaching in different secondary schools with dissimilar subjects. The average teaching experience ranging was from 8 to 12 years. The questionnaire was distributed, administered and collected by the researcher. To shun any terminology difficulties in the test and conceptual misunderstanding, a half day discussion was made with the respondent and researcher so that respondents can response clearly and correctly. The contrivance was used for the present study was questionnaire, which was developed by the researcher themselves. This Questionnaire contains total 50 items, including 15 from general awareness from day to day life 15 from air pollution, 15 from water and noise pollution and 5 were related to global warming. The sample involved 1000 teachers (400 male and 600 female) of Science Arts and Commerce subjects teachings in different secondary schools. The breakup of the sample is being presented in the following Table.

**Table 1 - Breakup of the sample**

SUBJECT	MALE TEACHER		FEMALE TEACHER		TOTAL TEACHER
	CBSE Board	U.P. Board	CBSE Board	U.P. Board	
Arts	150	150	90	60	450
Science	50	50	70	180	350
Commerce	25	50	40	85	200
U.P. Board teacher		250		325	575
CBSE Board teacher	225		200		425

**3.0 Results and Discussion:**

The first objective of the study was to compare secondary level teachers regarding their courses of study. Hypothesis of this objective was that there is no significant difference between the teachers of

three groups (Science, Arts and commerce). The Environmental awareness Score of secondary school teacher belonging to Arts, Science and Commerce stream have been shown in the given below

**Table 2 - Mean and SD of Arts, Science and Commerce Teachers**

Courses of studies	No. of teachers	Mean	SD
Arts	450	43.12	8.31
Science	350	44.60	7.12
Commerce	200	41.35	8.46

From the above table it is evident that science teachers scored highest mean score and the lowest mean score was that of the commerce teachers this indicates that subject plays an important role

regarding, creating environmental awareness. To measure the significance of mean score of these difference 't' value also calculated which is given below.

**Table 3: Comparison of Environmental Awareness score of secondary school teachers in relation to their Courses of Studies**

Groups Compare	N	Mean	SD	't' value	P
Arts Vs Science	450	43.12	8.31	2.79	0.01
	350	44.60	7.12		
Arts Vs Commerce	450	43.12	8.31	2.52	0.01
	200	41.35	8.46		
Science Vs Commerce	350	44.60	7.12	4.60	0.01
	200	41.35	8.46		

From the above table it is observed that 't' value between the means of Arts and Science teachers was found to be 2.79 which significant at 0.01 level this reveals the fact that Science and Arts teacher differ significantly on Environmental Awareness. Similarly 't' value between Arts and Commerce teachers on Environmental Awareness scale was found to be 2.52, it indicates that Arts and Commerce teachers significantly differ at 0.01 level. Science and commerce teachers were also significantly differ at 0.01 level. Second objective of this study was to compare the teachers belonging to different boards (CBSE Board and UP Board). The teachers of CBSE board achieved greater score then U.P. board.

**Table 4- Statistical differentials indicating types of institution on the test of Environmental Awareness**

Boards	N	Mean	SD	't' value	P
U.P. Board	575	44.10	6.89	0.87	Not significant
CBSE	425	43.90	8.01		

From the above table it is apparent that teachers of CBSE Board obtained higher score on environmental awareness but when the two groups of these teachers were compared it was found that no significant difference exist on environmental awareness because 't' is not found significant at any level. Thus the null hypothesis is accepted regarding this objective. The third objective of this study was to compare the Male and Female secondary school

teachers regarding their environmental awareness score. When Male and Female teachers compared regarding their environmental awareness, Female teachers were found to be more intent, vigilant, sensitive and aware then Male teachers. The summary of result has been presented in the following table 5

**Table 5-** Comparison of the Male and Female secondary school teachers with regard to their environmental awareness score

Sex	N	Mean	SD	't' value	P
Male	475	40.81	8.69	4.86	0.01
Female	525	43.39	8.33		

From the above table it is clear that mean of female teachers were more than male teacher on environmental awareness scale. The 't' value between the means of Male and Female teachers on environmental awareness was found to be 4.86 which was significant at 0.01 level.

**3.1 Findings and Conclusions:**

The teacher plays a vital role in laying the foundation of the society. Science and Arts teachers had more environmental awareness in comparison to Commerce teachers CBSE teachers had more environmental awareness in comparison to UP Board teachers because of the rich educational climate and method of teaching of CBSE schools with compare to the UP board schools.

The female teachers had more environmental awareness in comparison to male teachers because of the female teachers are normally so much emotionally involved with the environment and they also attached with society so that they are having more environmental awareness. These finding of the study corroborated with the findings of Shahnawaj (1990), Rou (1995), Patel and Patel (1995), Szagun and Pablob (1995), Tripathi (2000) and Rajive *et al.* (2011) who were reported type of institution have a fact on the level of environmental awareness.

The study reveals that teachers should sustain their attitude about look for the positive development in the students belonging to different parent's educational group rather than the acquisition of bookish information. Educational policy maker should reform the curriculum offered in the arts and science stream books. The curriculum offered in UP board schools should also be changed according to CBSE schools system. So UP Board Students can study deeply with their interest in simple way. Various activities related to Environmental education like essay writing, mimic etc can be arranged in schools. Organizing awareness campaigns about environment related social issues in rural areas. Environmental education should be

introduced as a separate unit in the higher secondary level with an infused approach of teaching.

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