

# A study on the attitude level of male and female teachers regarding environmental attitude

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**ABSTRACT :** Meaning of the term “Environment” is very wide in the sense that it is taken into account of all those factors which directly or indirectly have a bearing upon the natural surroundings of human beings. The stockholm conference recommended that UNESCO and the other international agencies will establish an international programme in environmental education. The programme will be interdisciplinary in approach to be organized in school and out of school encompassing all levels of education, directed towards the general public in particular the ordinary citizens living in both rural and urban areas, youth and adults alike, with a view to educating them to manage and protect their achievement (Sharma and Merle, 1990). Today man is living in a world of crises. The social, economic, political and value crisis are some of the threats that are quite alarming. Added to this, in the recent decades, the environmental crisis has become another important factor that has made everyone in the world to think of its gravity. The role of education in understanding protecting and solving problems related to environment has been realized all over the world since 1970. Education for environment might succeed if it deliberately directed towards school children. Therefore, the present study was undertaken to assess and compare the environmental attitude of male and female teachers (30-40 years) regarding selected areas of environmental attitude in senior secondary schools. The total sample for the present study consisted of 120 randomly selected respondents *i.e.* 60 males and 60 females from randomly selected fifteen schools of Bikaner city. Data were collected through the standardized environmental attitude scale, Taj (2001). The major findings revealed that majority of the teachers were found to have avourable attitude towards environment and there was no significant difference found between the level of attitude of male and female teachers in all the areas (health and hygiene, wild life, forests, polluters and environmental concern) except population explosion on environmental attitude scale. Thus, it can be concluded that although the teachers had awareness and favorable attitude about different areas of environmental attitude but even, then, it was not sufficient and it was felt that there was a need for imparting knowledge in some of the areas such as population explosion (family planning, poverty etc.).

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**I**n a way environmental education has a long history linked with human’s growing interaction with the natural environment and developing appropriate attitude towards the same. The main objective of environmental

education is to develop knowledge based awareness that will lead to cultivation of responsible attitude to environment, without losing sight of value system of society and individual. From the above objective, it

becomes very clear that environmental knowledge and awareness would be of no meaning without cultivation of right attitude towards environment, so, attitude is a pre-requisite for fostering valuing approach and responsible action which is the ultimate goal of environmental education. In this context, Carson *et al.* (1993) has said that in our rush to “save the earth”, we may tend to bypass a fundamental ingredient which many of us consider basic to any programme for young children, developing to love for and appreciation of the earth. Attitude to acquire values, feelings of concern and motivations towards the participation of environmental improvement and protection. Teaching by drawing on the stories, experiences and flings of teachers, we gain insight into the complex nature of teaching today. We read teaching stories about the challenges, dilemmas and success of teaching. Attitude is the teacher’s attitude towards teaching. An attitude is a more or less stable set or disposition of opinion, interest or purpose involving expectancy of a certain kind of experience and readiness with an appropriate response. An attitude of teacher towards the teaching is assessed as a ‘favourable’ and not so ‘favourable’. Ever since man has been on this earth, there has been a constant interaction between him and the natural world. In the beginning, man lived in harmony with nature, but as his numbers grew and his scientific discoveries and inventions led him on the path of industrialization, he became the predator and his increasing demands on the environment and its resources have led to its exploitation and degradation. (Mercy and Arjunan, 2005) Environmental education has two components, *viz.*, environment and education. Environmental education is the process of recognizing values and the clarifying concepts in order to develop the skill and attitudes necessary to understand and appreciate the interrelatedness among man, his culture and his biophysical surroundings (Shobeiri *et al.*, 2006). Environmental education is about to receive a major boost in primary, secondary schools and universities. During the last decade, Turkey’s national curriculum was amended to include science and technology in primary education after 2005 (Ministry of National Education of Turkey, 2005). The formal science education curriculum for grades 4–8 prepared by the Ministry of National Education and includes five main topics such as the world and universe, matter and energy, living organisms and natural resources (Ministry of National Education of Turkey, 2006). Concepts related to environmental issues

are mainly taught when the topic of living organisms is considered. Most curriculums worldwide try to explain knowledge about environmental issues (Ministry of National Education of Turkey, 2005 and 2006). For example, water pollution, the dirtying of sea and rivers by chemical and nuclear wastes; air pollution, the dirtying of the air through toxic gas from factory chimneys, automobiles and the carbon dioxide from the consumed fossil fuels; soil pollution, the dirtying of soil resulting from the rubbish, acid rains, fertilizing and applying disinfectant; the extinction of animals and the plants by human kind; the perforation of ozone layer; the harmful sun rays for human beings and global warming and climate change (Erten *et al.*, 2003; Kızılaslan and Kızılaslan, 2005; Ozmen and Karamustafaolu, 2006). These environmental issues are presented in many grades in an effort to increase students’ understanding (National Research Council, 1996 and Yılmaz *et al.*, 2004). Furthermore, students were taught about these concepts related to environmental issues in primary school, high school and university. Students at different levels learned about environmental issues in schools. Not only is education about environmental issues are not enough, but students must also be aware of environmental issues, which should give them a more positive attitude. Researchers put forward that environmental education, given in both a formal and informal system of education, helps to protect and conserve the environment and enables people to lead quality lives. In an informal system of education, teaching environmental education depends on not only on the curriculum, but also on the quality of teachers in terms of knowledge, awareness, attitude and skills relating to environmental education (Larijani and Yeshodhara, 2008). *Population explosion, Health, Hygiene, Environmental pollution, Wild life, Forests, Environmental concerns* are six areas of environmental attitude which are included in the present study.

## EXPERIMENTAL METHODOLOGY

The main aim of the study was to assess and compare the environmental attitude of male and female teachers (30-40 years) regarding selected areas of environmental attitude in senior secondary schools.

### **Locale of the study :**

The study was conducted in Senior Secondary Schools of Bikaner city (Rajasthan).

**Sample and its selection :**

A random selection method was used for the selection of both schools and teachers for the present study. A sample of 120 teachers of 30-40 years of age (60 males and 60 females) teaching in selected 15 senior secondary schools of Bikaner city who fulfilled the criteria fixed were included as a sample for the study.

**Environmental attitude scale :**

The investigator used one standardized tool developed by Taj (2001), consisting of six areas *i.e.* population explosion, health and hygiene, polluters, wild life, forests and environmental concerns for the present study. It consisted of two sections.

**Section A :**

The background information was filled by the respondents in which they gave their personal and familial information.

**Section B :**

The subjects were asked to rate the statements related to selected areas of environmental attitude as per their own perception on a four point scale ranging from “Agree” to “disagree ,strongly agree, strongly disagree” weighted 4, 3, 2, 1, respectively on the scale.

**Analysis of data :**

Frequency and percentage values were calculated to assess each of the six areas of environmental attitude of teachers. ‘Z’ test was applied to compare each of the six areas of environmental attitude of male and female teachers.

**EXPERIMENTAL FINDINGS AND DISCUSSION**

Assessment of the environmental attitude of male and female teachers (30-40 years) of senior secondary schools regarding selected areas of environmental attitude.

The results of Table 1 regarding overall areas on

| Table 1: Percentage distribution of the teachers about selected areas of environmental attitude (n = 120) |                       |            |             |                   |                   |           |
|-----------------------------------------------------------------------------------------------------------|-----------------------|------------|-------------|-------------------|-------------------|-----------|
| Sr. No.                                                                                                   | Areas                 | Categories | Score range | Male teachers     | Female teachers   | Total     |
|                                                                                                           |                       |            |             | (n = 60)<br>F (%) | (n = 60)<br>F (%) | F (%)     |
| 1.                                                                                                        | Health and hygiene    | Low        | 5 – 10      | 0 (0.00)          | 3 (5.00)          | 3 (2.50)  |
|                                                                                                           |                       | Medium     | 11 – 15     | 30(50.00)         | 28(46.67)         | 58(48.33) |
|                                                                                                           |                       | High       | 16 – 20     | 30(50.00)         | 29(48.33)         | 59(49.17) |
| 2.                                                                                                        | Wild life             | Low        | 6 – 12      | 0 (0.00)          | 0 (0.00)          | 0 (0.00)  |
|                                                                                                           |                       | Medium     | 13 – 18     | 28(46.67)         | 34(56.67)         | 62(51.67) |
|                                                                                                           |                       | High       | 19 – 24     | 32(53.33)         | 26(43.33)         | 58(48.33) |
| 3.                                                                                                        | Forests               | Low        | 5 – 10      | 0 (0.00)          | 5 (8.33)          | 5 (4.17)  |
|                                                                                                           |                       | Medium     | 11 – 15     | 34 (56.67)        | 30(50.00)         | 64(53.33) |
|                                                                                                           |                       | High       | 16 – 20     | 26(43.33)         | 25(41.67)         | 51(42.50) |
| 4.                                                                                                        | Polluters             | Low        | 26 – 52     | 0 (0.00)          | 0 (0.00)          | 0 (0.00)  |
|                                                                                                           |                       | Medium     | 53 – 78     | 24 (40.00)        | 36(60.00)         | 60(50.00) |
|                                                                                                           |                       | High       | 79 – 104    | 36 (60.00)        | 24(40.00)         | 60(50.00) |
| 5.                                                                                                        | Population explosion  | Low        | 5 – 10      | 0 (0.00)          | 2 (3.33)          | 2 (1.67)  |
|                                                                                                           |                       | Medium     | 11 – 15     | 39(65.00)         | 41 (68.33)        | 80(66.67) |
|                                                                                                           |                       | High       | 16 – 20     | 21(35.00)         | 17 (28.33)        | 38(31.67) |
| 6.                                                                                                        | Environmental concern | Low        | 14 – 28     | 0 (0.00)          | 0 (0.00)          | 0 (0.00)  |
|                                                                                                           |                       | Medium     | 29 – 42     | 16 (26.67)        | 25(41.67)         | 41(34.17) |
|                                                                                                           |                       | High       | 43 – 56     | 44 (73.33)        | 35(58.33)         | 79(65.83) |
| Overall                                                                                                   |                       | Low        | 61 – 122    | 0 (0.00)          | 0 (0.00)          | 0 (0.00)  |
|                                                                                                           |                       | Medium     | 123 – 183   | 19 (31.67)        | 32(53.33)         | 51(42.50) |
|                                                                                                           |                       | High       | 184 – 244   | 41 (68.33)        | 28(46.67)         | 69(57.50) |

Frequency =F, Percentage= (%)

environmental attitude scale revealed that majority of the male (63.33%) possessed high level of attitude followed by 31.67 per cent having medium level of attitude. None of the males had low level of attitude. Whereas, majority of female (53.33%) had medium level of attitude followed by 46.67 per cent having high level of attitude. None of the female was found to low level attitude. The above findings corroborated with findings of Bahrainy and Amini (2001), who found that so far these organization lacked the ability to prepare the context for people involvement in environment conservation. Similarly, Khalid (2001) reported that elementary school teachers spend more time on the activities over realization of environmental goals. Therefore, in formal school-based environmental education, teachers have an important role in providing student an adequate knowledge base and clear understanding of environmental problems.

#### Comparison between the attitude level of male and female teachers regarding selected areas of environmental attitude :

The findings in Table 2 revealed that the value of “Z” calculated was less than tabulated “Z” value at 5 per cent level of significance in all the selected areas on environmental attitude scale except population explosion. Therefore, it can be said that there was no significant difference found between the level of attitude of male and female teachers in the areas of health and hygiene, wild life, forests, polluters and environmental concern on environmental attitude scale. The above results can be supported by the results of the study stated by Sabhlok (1995) on teachers of Jabalpur district revealed that male and female teachers differed significantly on their environmental attitudes in favour of female teachers.

Similar findings were also reported by Ek *et al.* (2009); Fernandez-Manzanal *et al.* (2007); Jenkins and Pell (2006); Ozmen *et al.* (2005); Tuncer *et al.* (2005); Larijani (2010) and Zelezny *et al.* (2000). The reason of this may be of that females ones are more aware of environmental problems and individuals responsibilities. In addition, females also seem to be socially responsible and make significant contribution to environmental projection (Jekins and Pell, 2006 and Zelezny *et al.*, 2000). Vipinder and Jaswinder (2005), reported that male and female teachers had equal levels of scores on environmental education. Khalid (2001), reported that it is required for elementary school teachers that spend more time on the activities over realization of environmental goals. Therefore, in formal school-based environmental education, teachers have an important role in providing student an adequate knowledge base and clear understanding of environmental problems. It can be concluded from the results of Table 2 that the level of attitude related to population explosion was higher in male teachers than female teachers because the males are supposed to interact with other people more frequently, used to gain information through different sources (newspapers, television, internet etc.) and their mobility is more in comparison to females, whereas, females are engaged more in household activities and rearing children most of the time along with their teaching profession. Hence, the teachers should make efforts to be well informed about sustaining environment means they should develop favourable attitude towards appreciating and encouraging human beings to protect environment to live in healthy and hygiene conditions by keeping clean surroundings from polluters like pesticides, gas emissions, industrial wastes, garbage wastes, air pollution etc.

**Table 2 : Comparison between the levels of attitudes of male and female teachers (30-40 years) regarding selected areas of environmental attitudes**

| Sr. No. | Areas                 | Total no. of items | Mean score    |                 | Mean per cent score |                 | Mean difference | S.D. | Z value  |
|---------|-----------------------|--------------------|---------------|-----------------|---------------------|-----------------|-----------------|------|----------|
|         |                       |                    | Male (n = 60) | Female (n = 60) | Male (n = 60)       | Female (n = 60) |                 |      |          |
| 1.      | Health and hygiene    | 5                  | 15.53         | 14.95           | 77.67               | 74.75           | 0.58            | 0.37 | 1.581 NS |
| 2.      | Wild life             | 6                  | 18.90         | 18.43           | 78.75               | 76.81           | 0.47            | 0.44 | 1.055 NS |
| 3.      | Forests               | 5                  | 15.53         | 15.02           | 77.67               | 75.08           | 0.52            | 0.39 | 1.323 NS |
| 4.      | Polluters             | 26                 | 79.23         | 76.50           | 76.19               | 73.56           | 2.73            | 1.45 | 1.879 NS |
| 5.      | Population explosion  | 5                  | 15.42         | 14.67           | 77.08               | 73.33           | 0.75            | 0.37 | 2.033 *  |
| 6.      | Environmental concern | 14                 | 44.13         | 44.12           | 78.81               | 78.78           | 0.02            | 0.90 | 0.019 NS |
|         | Total                 | 61                 | 188.75        | 183.68          | 77.36               | 75.28           | 5.07            | 2.82 | 1.794 NS |

NS = Non- significant

\* indicate significance of value at P=0.05

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