ABSTRACT

The environmental education in schools, colleges and universities plays a vital and indispensable role in improving the national quality and strengthening students’ environmental consciousness. The purpose of this study was to investigate how aware are the science teachers in secondary school of environmental issues while teaching science in classrooms.

In the present study we determined awareness levels of prospective science teachers on various environmental aspects using a qualitative and quantitative analysis. The study was carried out in the form of a case study with about 400 teachers teaching up to the class VII in secondary schools of different educational zones in district Bandipora during the academic year 2008-2009.

The sampled teachers were divided into four groups such as, science teachers of govt. schools (STGS), science teachers of private schools (STPS), other subject teachers of govt. schools (OSTGS) and other subject teachers of private schools (OSTPS). A standard questionnaire was prepared incorporating diverse issues of environmental science and applied to all the sampled teachers.

According to the data obtained from the questionnaire results, significant difference were observed in the levels of environmental knowledge and perception in different groups of teachers owing to variability in their educational background, depth of interest, extent of seriousness, professional commitment, scientific attitude and sense of societal responsibility etc. However, the STGS group appeared most prospective with likelihood of improvement and doing better. The study calls for urgently putting in place the strategies and policies by the Education Department so as to save guard the environment.

Keywords: Environmental education, teaching strategies, science teachers, school education, private and govt. schools, environmental consciousness.

INTRODUCTION

People in recent past were not only unaware but also least bothered about the environmental problems and their long term implications. But when environmental catastrophes struck the mankind in the form of huge destruction and challenges like global warming, ozone depletion, degradation of terrestrial and aquatic
ecosystems and the biodiversity sustained by it, man was forced to become conscious about the importance and magnitude of such environmental problems (Gupta et al., 2004). Now though “environment” has become a catchword representing the worries of not only present generation but also the future generations yet very few actually know the same in real perspective.

In the present scenario environment has been conceptualized through every possible way because people have now become over-conscious about the complex man and environmental relationships. It is now mandatory and of paramount importance to create environmental awareness among common masses especially from the early stage of school days (Watts, 2001). Indeed educational institutions are the biggest organized sector for imparting such type of education regarding the importance of conserving environment.

Through schools we can transform the environmental education which in itself is the process that fosters greater understanding among common people about the environmental problems and off course their solutions and also to develop the specific skills and insights, important to understand the structure, requirements and impact of interaction within environmental entities, systems and sub systems.

Nowadays environmental education though has been made mandatory for the schools at different levels by the court of law and has been included in various forms in the school curricula (Thomos et al., 2001), yet the basic objectives remain far from realization.

Teachers of govt. and private schools, in view of their different educational background, subject specialization and depth of interest considerably vary in their view points and perspectives about environment. Such a diversity of perspectives has a long term implications for the way environmental education is imparted to the student community. Hitherto no attempt has been made to evaluate the level of environmental knowledge and understanding among teachers and students. Therefore the present study was conducted to assess the level of environmental awareness among the science teachers and other subject teachers of different schools in the different educational zones of district Bandipora.

Since no such study has been undertaken till date we took initiative to look into the problem and know the approach of teachers to the environmental education.

**Targeted Group**

The study was conducted on 400 teachers teaching from primary to secondary classes in different schools of District Bandipora (both government and private) keeping their qualification and length of service into consideration. The target group of teachers in the present study included four groups of teachers such as:

- **SCIENCE TEACHERS OF GOVT. SCHOOLS (STGS)**
- **SCIENCE TEACHERS OF PRIVATE SCHOOLS (STPS)**
- **OTHER SUBJECT TEACHERS OF GOVT. SCHOOLS (OSTGS)**
- **OTHER SUBJECT TEACHERS OF PRIVATE SCHOOLS (OSTPS)**

**Tools Used**

To assess the awareness and attitude of teachers towards environment and its different components; a standard questioner was developed by the authors that was administered and applied uniformly to different group of teachers. The questioner contained questions pertaining to diverse environmental issues from global to local level.

**METHODOLOGY**

For the present study 100 teachers of govt. schools, 100 teachers of private schools, 100 other subject teachers of Government schools and 100 other subject teachers of private schools were randomly selected.
The surveyed teachers teach in both government and private sector schools of four educational zones namely Bandipora, Quilmuqam, Sumbal and Hajin of district Bandipora (J&K) India. Difference in the performance and level of environmental awareness was calculated by applying t-test. Questions in the questionnaire were ranked according to the degree of commonness and rarity.

The first ten questions of each of the four groups were compared within each other. In this way some aspects of knowledge regarding to the environmental education were found to be common in each group and certain areas were also identified in which four groups differed from each other.

After the analysis it was found that 80% of the Science subject teachers were aware of the environmental issues while as the percentage of awareness about environmental problems among other groups gradually decreased depending upon their subjects which are other than science subjects.

RESULTS

The numbers of the subjects (N) mean score (M) standard deviation (SD) and t value of each group is shown in the Table 1.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Number</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Df</th>
<th>P&lt;0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>STGS</td>
<td>100</td>
<td>14.75</td>
<td>6.22</td>
<td>0.71</td>
<td>12.71</td>
<td></td>
</tr>
<tr>
<td>STPS</td>
<td>100</td>
<td>10.2</td>
<td>7.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSTGS</td>
<td>100</td>
<td>9.1</td>
<td>7.26</td>
<td>1.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSTPS</td>
<td>100</td>
<td>7.3</td>
<td>9.51</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t value indicates that there is a significant difference in the performance of these two groups on their awareness of knowledge about environmental education besides t value indicates that there is also minor difference in the performance of subjects of these two groups on the awareness regarding the environmental education.

Further the difference is in favor of STGS however the score of both these groups are better as compared to their peers. The teachers of these groups have done well because of their enthusiasm to learn more and more about the new subjects.
Comparison of different groups of teachers in relation to percentage of Environmental awareness.

Evidently, this difference in the teacher of govt. schools is due to the lack of interest, seriousness towards their job, their attitude, and lack of accountability. There is a visible difference between the two groups. It has been observed these the STGS group can do better if interest is developed among them keeping the resources available to them in mind.

**DISCUSSION**

The study was done with an aim to develop an understanding among the teachers of various disciplines about the ecological systems (Rajput et.al., 2000) and the place of human beings within those systems and also to know the areas in which they lack the activity oriented approach (Yang Jun et.al., 2001). It was felt that this study would be help full while framing the environmental based curriculum for trainees as a part of their training conducted by various agencies of department of education.

It is evident from the data of this study that the various groups of teachers have some general awareness about some aspects of environment. The awareness percentage about understanding the environment in its true sense is poor amongst all the teachers irrespective of their nature of employment, educational background etc.

**CONCLUSION**

After going through the present study it has been found that the teachers of science stream lack interest, self-motivation and enthusiasm to promote the environmental education, as compared to the teachers of private schools who are relatively more eager to do better in every field. However the teachers belonging to the other streams, of both government and private schools are more interested to learn and adopt the science and activity eco-oriented methodologies being ever ready to modify their methods of teaching to promote and propagate environmental education.

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