



Full Length Research Article

A STUDY ON THE ENVIRONMENTAL KNOWLEDGE OF SCHOOL TEACHERS

¹Alli, J., ²Ganapathy, S. and ^{1,*}Muthumanickam, R.

¹Department of Education, Annamalai University, Annamalai Nagar-608 002, Tamil Nadu, India

²Pope John Paul II College of Education, Pondicherry, India

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ABSTRACT

The Present investigation has been under taken in order to study the environmental knowledge of school teachers in Cuddalore District. Environmental Knowledge of school teachers scale was constructed and validated by the investigators (2011) has been administrated to a random sample of 300 higher secondary school teachers. It is found that there is a significant difference between BT teachers and PGT teachers and there is no significant difference between male and female teachers, and school teachers in the rural and urban area on their environmental knowledge.

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INTRODUCTION

When a child enters to the world he/she finds himself / herself surrounded by innumerable objects and circumstances which influence him/her. All these objects and circumstances from the environment can be defined as a system which includes all non- living things and living things namely, air, water, soil, vegetation, flora and fauna. Today man is living in the world of crises. The social, economic, political and value crises are some of the threats, which the humanity faces and these threats are quite alarming which has made everyone in the world to think on its gravity. Environment has gained its own prominence in the recent past due to several reasons such as urbanization, industrialization, automation and population explosion along with pollution, acid rains, gas leaks and nuclear disaster which have made man a helpless victim.

Environmental knowledge

Knowledge is a base for the formation of attitude on different environmental issues. To be conscious and to have knowledge will provide a better base for decision-making and action. Environmental Knowledge is not a series of separate issues but rather than that an area of knowledge. A holistic approach will offer a better understanding of environmental knowledge. A holistic approach views the relations between different parts as a pattern.

Knowledge is a key concept in this research. It is important from an educational perspective to understand the formation of knowledge in students. It is important to ascertain how students think about the environment and how they develop environmental knowledge.

Review of related literature

Ernest Partridge (1980) in an article, "Responsibilities to future generations: indicated the issue of our responsibility to future generation for not destroying the natural environment.

Blumn (1985) in an internal comparison of high school students found that students possess low level of knowledge about environmental issues when he examined five surveys conducted in the United States, Australia, England and Israel designed to assess knowledge and beliefs of 9th and 10th grade students. Findings indicated that gender (in favour of male students) and general achievement level were the most influential contributing factors to the environment causes were generally sought them this factual and conceptual knowledge.

Hungerford (1990) states that research carried out last two decades indicated and found that education has influenced the students' attitude positively by increasing this knowledge. They said that teachers awareness towards the importance of environmental education in increasing students' knowledge and behaviours about environmental issues should be increased by stake holders and policy makers while providing them to study in environmental education projects and to attend in service training programme.

*Corresponding author: dr.muthumanickam@rediffmail.com

Carson (1995) submitted a paper on “introducing environmental education to the secondary level”. This paper revealed that there is a lack of environmental concepts in secondary school curriculum. They added that school administrators and school staff should introduce more topics on environmental education in secondary level.

Peer (2007) focused on first year students in Israeli teacher training colleges and found pre-service teaching students to have limited environmental knowledge as well as a positive relationship between students’ environmental knowledge/attitude and the educational level of mothers.

Objectives of the Study

To study the Environmental Knowledge of the School Teachers

- a) Gender (Male / Female)
- b) Designation (B.T. Assistants / P.G.T Assistants)
- c) Residence (Rural / Urban)

To find out is there any the significant difference in the sub-samples of School Teachers in Environmental Knowledge

- a) Gender (Male / Female)
- b) Designation (B.T. Assistants / P.G.T Assistants)
- c) Residence (Rural / Urban)

HYPOTHESES OF THE STUDY

1. The Environmental Knowledge of School Teachers does not form a normal distribution.
 - a) Gender (Male / Female)
 - b) Designation (B.T. Assistants / P.G.T Assistants)
 - c) Residence (Rural / Urban)
2. There is no significant difference in the sub samples of School Teachers in Environmental Knowledge
 - a) Gender (Male / Female)
 - b) Designation (B.T. Assistants / P.G.T Assistants)
 - c) Residence (Rural / Urban)

Method of study

The present study aims at finding out the Environmental Knowledge of School Teachers. Therefore, the normative survey method has been used in the study.

Tools used

Environmental Knowledge Scale was constructed and validated by the investigators (2011) was used in the present study.

Sample of the study

The higher secondary schools teachers in Cuddalore District of Tamil Nadu, India were taken as sample. The random sampling technique was used by the investigators for the

selection of sample. A total of 300 School Teachers have been selected for this study.

Statistical techniques used

Descriptive analysis and Differential analysis were used in the present study to test the hypotheses and interpret the data.

Statistical analysis and interpretation of data

i) Descriptive Analysis

The Environmental Knowledge mean value of Male School Teachers (N = 125) is found to be 24.86 with a SD of 2.49. The Environmental Knowledge mean value of Female School Teachers (N = 175) is found to be 24.49 with a SD of 2.18. The mean difference in the Environmental Knowledge of the School Teachers caused by the variable. The mean of B.T. Assistants (N = 201) is found to be 24.42 with a SD of 2.27. The mean of P.G. Assistants (N = 99) is found to be 25.10 with a SD of 2.35. The mean difference in the Environmental Knowledge of the School Teachers caused by the variable. The mean of Rural resident School Teachers (N = 41) is found to be 25.10 with a SD of 1.58. The mean of Urban resident School Teachers (N = 259) is found to be 24.57 with a SD of 2.41. The mean difference in the Environmental Knowledge of the School Teachers caused by the variable.

Table 1. Environmental knowledge of school teachers on the basis of gender, designation and residence

S.No	Samples	Sub-Samples	N	Mean	S.D
1	Gender	Male	125	24.86	2.49
		Female	175	24.49	2.18
2	Designation	B.T. Assistants	201	24.42	2.27
		P.G.T Assistants	99	25.10	2.35
3	Residence	Rural	41	25.10	1.58
		Urban	259	24.57	2.41

ii) Differential Analysis

In order to check the Null Hypothesis, the t-test was made. The mean of Male School Teachers (N = 125) is found to be 24.86 with a SD of 2.49. The mean of Female School Teachers (N = 175) is found to be 24.49 with a SD of 2.18. The mean difference in the Environmental Knowledge of the School Teachers caused by the variable, Gender is 0.37, whose t-value is computed to be 1.35. The tabulated t-value at 0.05 levels is 1.96 for 298 df. Since the calculated t-value is lesser than the tabulated t-value, the hypothesis is accepted. Accepting the null hypothesis, it is concluded with 95 per cent confidence that the Male and Female School Teachers do not differ significantly in their Environmental Knowledge. The mean difference is in favour of Male School Teachers. In order to check the Null Hypothesis, the t-test was made. The mean of B.T. Assistants (N = 201) is found to be 24.42 with a SD of 2.27. The mean of P.G. Assistants (N = 99) is found to be 25.10 with a SD of 2.35. The mean difference in the Environmental Knowledge of the School Teachers caused by the variable, Designation is 0.68, whose t-value is computed to be 2.42. The tabulated t-value at 0.05 levels is 1.96 for 298 df. Since the calculated t-value is greater than the tabulated t-value, the null hypothesis is rejected. Rejecting the null

Table 2. Environmental Knowledge of School Teachers on the basis of Gender, Designation and Residence

S.No	Samples	Sub-Samples	N	Mean	S.D	Md.	't' value	Level of significance
1	Gender	Male	125	24.86	2.49	0.37	1.35	NS*
		Female	175	24.49	2.18			
2	Designation	B.T. Assistants	201	24.42	2.27	0.68	2.42	Significant at 0.05 level
		P.G.T Assistants	99	25.10	2.35			
3	Residence	Rural	41	25.10	1.58	0.53	1.35	NS*
		Urban	259	24.57	2.41			

NS*-Not Significant

hypothesis, it is concluded with 95 per cent confidence that the B.T. Assistants and P.G. Assistants do differ significantly in their Environmental Knowledge. The mean difference is in favour of P.G. Assistants. In order to check the Null Hypothesis, the t-test was made. The mean of Rural resident School Teachers (N = 41) is found to be 25.10 with a SD of 1.58. The mean of Urban resident School Teachers (N = 259) is found to be 24.57 with a SD of 2.41. The mean difference in the Environmental Knowledge of the School Teachers caused by the variable, Residence is 0.53, whose t-value is computed to be 1.35. The tabulated t-value at 0.05 levels is 1.96 for 298 df. Since the calculated t-value is lesser than the tabulated t-value, the hypothesis is accepted. Accepting the null hypothesis, it is concluded with 95 per cent confidence that the rural resident School Teachers and Urban resident School Teachers do not differ significantly in their Environmental Knowledge. The mean difference is in favour of rural resident School Teachers.

Findings

1. The mean difference in the Environmental Knowledge of the School Teachers caused by the variable, Gender is 0.37, whose t-value is computed to be 1.35. Since the calculated t-value is lesser than the tabulated t-value, the null hypothesis is accepted, and it is found that male and female teacher do not differ significantly in their environmental knowledge.
2. The mean difference in the Environmental Knowledge of the School Teachers caused by the variable, Designation is 0.68, whose t-value is computed to be 2.42. Since the calculated t-value is greater than the tabulated t-value, the

null hypothesis is rejected, and the research hypothesis is accepted. It is found that the P.G teacher and B.T teacher differ significantly in their environmental knowledge.

3. The mean difference in the Environmental Knowledge of the School Teachers caused by the variable, Residence is 0.53, whose t-value is computed to be 1.35. Since the calculated t-value is lesser than the tabulated t-value, the null hypothesis is accepted. Therefore it is found that teacher from rural and urban schools do not differ significantly in their environmental knowledge.

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