

DIFFERENT DIMENSIONS OF ENVIRONMENTAL ATTITUDE OF PROSPECTIVE SECONDARY SCHOOL TEACHERS

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ABSTRACT

The present study attempts to study the different dimensions of environmental attitude of prospective secondary school teachers. The sample for the present study is 1011 prospective secondary school teachers belonging to fourteen (14) colleges of education in Visakhapatnam district of Andhra Pradesh. The investigators used the normative survey method. Environmental Attitude Scale developed and standardized by Dr. Haseen Taj was used in the present study. Methodology subjects opted at B.Ed. level by the prospective secondary school teachers make a significant difference in their attitude towards environment in the dimensions of health and hygiene, and polluters. The prospective secondary school teachers who opted Social Studies as their methodology subject differed significantly from prospective secondary school teachers who opted Biological Science, Physical Science and Mathematics as their methodology subjects in their attitude towards environment in the dimension of health and hygiene. The prospective secondary school teachers who opted social studies as their methodology subject differed significantly from prospective secondary school teachers who opted Biological Science and Physical Science as their methodology subjects in their attitude towards environment in the dimension of polluters. Locality of prospective secondary school teachers failed to show any significant variation in different dimensions of environmental attitude.

Keywords: *Environment, Environmental Attitude and Prospective secondary school teachers*

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INTRODUCTION

Environmental attitudes can include any attitude related to natural or architecture, but the usual focus is on environmental concern for nature or the amount a person cares about the state of the natural environment. Concern for certain parts of the built environment also deserves some attention. Attitudes, in general, are usually said to have three components: Cognitive, affective and conative. In terms of the environment, the cognitive component refers to what an individual's knows or thinks about a place, including facts and opinions about it. The affective component refers to the emotional aspects of attitudes towards the

place. The conative component refers to an individual's behavioural intentions toward the place.

Today man is living in the world of social, economic, political and value crises. Added to this, in recent decades the environmental crisis has become another important factor, which has made everyone in the world to think of its gravity. This is due to increasing population, urbanization, shrinking of agricultural land, desertification, and technological development and vanishing of forests. All these lead to heavy localized air and water pollution coupled with holes in the ozone layer. To combat environmental degradation many initiatives have been taken up at International, National, State and Institutional level by government and voluntary organizations. Among those, compulsory environmental education at all levels in the education system as directed by Supreme Court is the most appropriate strategy to create awareness, attitude, understanding and action towards environmental protection. The main objective of environmental education is to develop knowledge based awareness that will lead to imbibing of responsible attitude towards environment.

The effectiveness of environmental education depends on the availability of environmentally trained teachers. As stated by Yogamurthy "the teachers should be competent in applying the knowledge of ecological foundations to environmental issues and identify key principles involved. Teachers should develop the similar attitude and competencies in learners to take individual or group decisions and actions". Thus the teachers should have fundamental competencies in environmental concerns, and positive attitude towards environment. These are to be inculcated among prospective teachers as a lamp can never light another, unless it continues to burn its own flame.

According to Belgrade Charter attitude is defined as one's inclination to help individuals and social groups, acquire social values, strong feelings of concern for the environment and motivation to actively participate in its protection and improvement. The main issue now is to what extent future teachers are having positive attitude towards environment.

NEED AND IMPORTANCE OF THE STUDY

Environment is an essential factor for existence of life. Every individual needs positive attitude towards environment. The consciousness about surroundings develops through education which results in the formation of positive attitude towards environment. Teacher plays a key role in developing the environmental awareness and attitude towards environment among students.

The teacher plays an important role in shaping and moulding the habits, manners and good character of the children. Therefore to gear up the environmental

awareness program, it is essential that the teacher should have sufficient knowledge of environmental education. It is the responsibility of teacher training colleges and universities to groom teachers for this task of checking environmental degradation. The curriculum in existing teacher training courses (nursery teacher training, B.Ed., M.Ed., in-service teacher training) should be suitably amended to incorporate environmental education content, by emphasizing methods to deal with environmental education content at school and college and to develop skills in organizing environmental education programs with co-curricular activities like NCC, NSS and so on. The effective implementation of environmental education requires a large number of teachers who are knowledgeable and skillful to deal with environmental education in a meaningful way. This would also require the training to handle child-centred and activity – based curriculum. The role of a teacher in environmental education includes teacher as a planner, sustainers and as a value instigator. Teacher should be at the forefront in pursuing the action on environmental education, whether acting as individuals infusing environmental perspectives into their classes or collectively fostering environmental education through their educational institutions, professional societies, state infrastructures, and local or national advocacy groups. Hence the investigator is interested to know the attitude of prospective secondary school teachers.

BACKGROUND OF THE STUDY

Bhuvaneshwara Lakshmi, G. and Sailaja, V. V. (2008) made a study of the environmental attitude of women prospective teachers in relation with attitude towards science. The results revealed that there were differences observed in the levels of attitude towards environmental science and science among the women prospective secondary school teachers. The subject of methodology at B.Ed. level influenced the environmental attitude of the women prospective teachers. The women prospective teachers of science subjects have more attitude than women prospective teachers of other subjects. Attitude towards environmental science and science were significantly correlated.

Leonard Ashok and Mitra (2008) made a comparative study of teacher's attitude towards environmental education and teaching profession. The results indicated that the teacher's attitude towards environment was not significantly different due to certain characters such as locality and educational qualifications.

STATEMENT OF THE PROBLEM

The title of the present investigation is “Study of the Different Dimensions of Environmental Attitude of Prospective Secondary School Teachers” .

OBJECTIVES OF THE STUDY

The following objectives have been formulated for present study.

1. To assess the impact of methodology subjects opted at B.Ed. level of prospective secondary school teacher on the different dimensions of environmental attitude.
2. To assess the impact of locality of prospective secondary school teacher on the different dimensions of environmental attitude.

HYPOTHESES OF THE STUDY

The following hypotheses have been framed to attain the stated objectives.

1. There is no significant difference in different dimensions of environmental attitude of prospective secondary school teachers in relation to their methodology subjects opted at B.Ed. level.
2. There is no significant difference in different dimensions of environmental attitude of prospective secondary school teachers in relation to their locality.

Limitations of the Present Study

The geographical area of the investigation is limited to only some selected Colleges of Education in Visakhapatnam district of A.P. The present study is confined to 14 Colleges of Education out of the 19 and the level of significance considered in this study is 0.05 and 0.01 level.

METHODOLOGY OF THE STUDY

Sample

Normative Survey Method was adopted in this study. The sample for the study was 1011 prospective secondary school teachers belonging to fourteen (14) colleges of education in Visakhapatnam district of Andhra Pradesh. The sample for this study had been selected by the simple random technique.

Tool used

Environmental Attitude Scale

This scale developed and standardized by Dr. Haseen Taj (2001) was used for this study.

It consists of 61 items in which 31 are favourable and 30 are unfavourable statements. It deals with six different dimensions. They are population explosion, health and hygiene, polluters, wild life, forests and environmental concerns.

Statistical Techniques Used

Mean, Standard Deviation, Critical Ratio, ANOVA and t- Test were used to analyse the data.

Analysis of Data and Interpretation of Results

1. There is no significant difference in different dimensions of environmental attitude of prospective secondary school teachers in relation to their methodology subjects opted

at B.Ed. level.

Table1
DIFFERENCE IN DIMENSIONS OF ENVIRONMENT ATTITUDE WITH RESPECT TO METHODOLOGY SUBJECTS OPTED AT B.ED. LEVEL

Sl. No	Dimensions of E.A.S.	Sources of variance	Sum of squares	df	Mean of squares	F-values
1	Health and Hygiene	Between	65.63	3	21.88	3.52*
		Within	6249.32	1007	6.21	
				1010		
2	Wildlife	Between	8.73	3	2.91	0.47
		Within	6266.36	1007	6.22	
				1010		
3	Forests	Between	38.71	3	12.90	1.83
		within	7093.70	1007	7.04	
				1010		
4	Polluters	Between	405.02	3	135.00	3.12*
		With in	43593.80	1007	43.29	
				1010		
5	Population Explosion	Between	27.45	3	9.15	1.57
		Within	5850.61	1007	5.81	
				1010		
6	Environmental concern	Between	76.13	3	25.38	1.20
		Within	21382.69	1007	21.23	
				1010		

*Significant at 0.05 level

Table No. 1 shows that the obtained F- values (3.52 and 3.12) for $df = 3$ and 1007 are greater than the table value of 2.60. Hence, they are significant at 0.05 level. Therefore, the null hypotheses are rejected. It revealed that methodology subjects opted at B.Ed. level by the prospective secondary school teachers make a significant difference in their attitude towards environment in the dimensions of Health and Hygiene and Polluters.

The remaining obtained F-values for $df = 3$ and 1007 are less than the table value of 2.60. Hence, they are not significant at 0.05 level. Therefore, the null hypotheses are accepted. It can be inferred that methodology subjects opted at B.Ed. level by the prospective secondary school teachers do not make a significant difference in their attitude towards environment in the dimensions of Wild life, Forests, Population explosion and Environmental concern respectively.

As the F-value is not significant at 0.05 level, no further probing of obtaining differences in different methodology subject of different dimensions i.e. Wild life, Forests, Population explosion and Environmental concern of environmental attitude is attempted. Since the F-Value is significant, further probe was attempted to know which methodology groups differ

significantly in their different dimensions i.e. Health and hygiene and Polluters of environment attitude.

Table No.1 (a)
DIFFERENCE IN HEALTH AND HYGIENE WITH RESPECT TO
METHODOLOGY SUBJECTS OPTED AT B.ED. LEVEL

Variable	N	Mean	SD	df	D	$\frac{\sigma}{D}$	t-values
Biological science	190	15.70	2.49	310	0.02	0.28	0.07
Physical science	122	15.72	2.32				
Biological science	190	15.70	2.49	421	0.09	0.24	0.38
Mathematics	233	15.61	2.52				
Biological science	190	15.70	2.49	654	0.54	0.22	2.45*
Social studies	466	15.16	2.52				
Physical science	122	15.72	2.32	353	0.11	0.27	0.40
Mathematics	233	15.61	2.52				
Physical science	122	15.72	2.32	586	0.56	0.24	2.33*
Social studies	466	15.16	2.52				
Mathematics	233	15.61	2.52	697	0.45	0.20	2.25*
Social studies	466	15.16	2.52				

* Significant at 0.05 level

Table No. 2 shows that the obtained t- values (2.45, 2.33 and 2.25) for df = 654, 586 and 697 are greater than 1.96. Hence, they are significant at 0.05 level. Therefore, the null hypotheses are rejected. The prospective secondary school teachers who opted Social Studies as their methodology subject differed significantly in their attitude towards environment in the dimension of Health and hygiene from prospective secondary school teachers who opted other methodology subjects. The mean differences are in favour of prospective secondary school teachers who opted Biological science, Physical Science and Mathematics as their methodology subjects. It can be inferred that prospective secondary school teachers who opted Biological Science, Physical Science and Mathematics as their methodology subjects have favourable attitude towards environment on the above said dimension when compared to their counterparts.

The remaining obtained t-values for df =310, 353 and 421 are less than 1.96 and 1.97. Hence, they are not significant at 0.05 level. Therefore, the null hypotheses are retained. It can be inferred that prospective secondary school teachers who opted Biological Science as their methodology subject do not differ significantly from Physical Science and Mathematics

methodology subjects in their attitude towards environment in the dimension of Health and hygiene. And also prospective secondary school teachers who opted Physical Science as their methodology subject do not differ significantly from Mathematics methodology subject in their attitude towards environment on the above said dimension.

Table No.1 (b)
DIFFERENCE IN POLLUTERS WITH RESPECT TO METHODOLOGY SUBJECTS
OPTED AT B.ED. LEVEL

Variable	N	Mean	SD	df	D	$\frac{\sigma}{D}$	t-values
Biological science	190	72.05	6.41	310	0.26	0.721	0.36
Physical science	122	71.79	6.10				
Biological science	190	72.05	6.41	421	0.67	0.66	1.012
Mathematics	233	71.38	7.15				
Biological science	190	72.05	6.41	654	1.54	0.553	2.78**
Social studies	466	70.51	6.47				
Physical science	122	71.79	6.10	353	0.41	0.724	0.57
Mathematics	233	71.38	7.15				
Physical science	122	71.79	6.10	586	1.28	0.63	2.03*
Social studies	466	70.51	6.47				
Mathematics	233	71.38	7.15	697	0.87	0.56	1.55
Social studies	466	70.51	6.47				

* Significant at 0.05 level

** Significant at 0.01 level

Table No. 3 shows that the obtained t-values (2.78, and 2.03) for df = 654, 586 are greater than 2.58 and 1.96 respectively. Hence, they are significant at 0.01 and 0.05 level. Therefore, the null hypotheses are rejected. The prospective secondary school teachers who opted social studies as their methodology subject deferred significantly in their attitude towards environment in the dimension of polluters from prospective secondary school teachers who opted other methodology subjects. The mean differences are in favour of prospective secondary school teachers who opted Biological Science and Physical Science as their methodology subjects. It can be inferred that prospective secondary school teachers who opted Biological Science and Physical Science as their methodology subjects have favourable attitude towards environment on the above said dimension when compared to their counterparts.

The remaining obtained t-values for $df = 310, 353, 421,$ and 697 are less than the table value of 1.97 and 1.96 . Hence, they are not significant at 0.05 level. Therefore, the null hypotheses are retained. It can be inferred that prospective secondary school teachers who opted Science as their methodology subjects do not differ significantly from neighbour groups in their attitude towards environment on the above said dimension. And also prospective secondary school teachers who opted mathematics as their methodology subject do not differ significantly from Social Studies methodology subject in their attitude towards environment in this dimension.

Hypothesis 2

There is no significant difference in different dimensions of environmental attitude of prospective secondary school teachers in relation to their locality.

Table No.4
DIFFERENCE IN DIFFERENT DIMENSIONS OF ENVIRONMENTAL ATTITUDE
OF PROSPECTIVE SECONDARY SCHOOL TEACHERS IN RELATION TO
THEIR LOCALITY

Dimensions of E.A.S.	Urban N=414		Rural N=597		D	$\frac{\sigma}{D}$	C.R.
	Mean	SD	Mean	SD			
Health and Hygiene	15.38	2.58	15.47	2.44	0.09	0.16	0.56
Wild life	15.76	2.49	15.83	2.49	0.07	0.16	0.44
Forests	14.26	2.63	14.53	2.67	0.27	0.17	1.59
Polluters	71.44	6.35	70.95	6.77	0.49	0.42	1.17
Population explosion	15.76	2.42	15.70	2.40	0.06	0.15	0.40
Environmental concern	41.96	4.67	41.94	4.57	0.02	0.3	0.07

Not significant at 0.05 level

Table No. 4 shows that all the obtained C.R. values are less than 1.96 . Hence, they are not significant at 0.05 level. Therefore, the null hypotheses are retained. It reveals that locality of prospective secondary school teachers failed to show any significant relation with different dimensions of environmental attitude.

Major findings of the Study

1. Methodology subjects opted at B.Ed. level by the prospective secondary school teachers make a significant difference in their attitude towards environment in the dimensions of Health and hygiene, and Polluters.
2. The prospective secondary school teachers who opted Social studies as their methodology subject differed significantly from prospective secondary school

teachers who opted Biological Science, Physical Science and Mathematics as their methodology subjects in their attitude towards environment in the dimension of Health and hygiene.

3. The prospective secondary school teachers who opted social studies as their methodology subject deferred significantly from prospective secondary school teachers who opted Biological Science and Physical Science as their methodology subjects in their attitude towards environment in the dimension of Polluters.
4. Locality of prospective secondary school teachers failed to show any significant variation in different dimensions of environmental attitude.

EDUCATIONAL IMPLICATIONS

Independent environmental education programmes and activities are to be incorporated in the teacher training programmes to cater to the learning needs of prospective teachers of different methodologies as many attitudes are formed because of the influence of the core subjects they might have studied at the graduate or post graduate level.

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