

EFFECTIVENESS OF WILDLIFE WEEK MATERIALS (1995) IN ENVIRONMENTAL EDUCATION: A STUDY AMONG SECONDARY SCHOOL CHILDREN

N.K. Arjunan and S. Shyam Kumar

Introduction

Environmental education aims to raise people's awareness of their environment by developing their knowledge and understanding of the processes by which it is shaped. Mass communication media is recognised as a powerful and effective tool for spreading information about the environment. Communication depends not merely on the distinctive technological capabilities of a given medium but on the overall socio-economic situation of a society. As a result of low purchasing power and inadequate technological infrastructure, the reach of electronic media is very limited in a country like India (Prasad, 1982). The print media consisting of news papers and magazines continue to be the most popular mass media in India because each news paper and magazine is read by more persons than in affluent countries. But due to low literacy rate and the difficulties in distributing publications to distant areas, the information provided by print media fails to reach important segments of population. Rao (1989) estimated that only about two percent of the rural population in India has access to news papers. A study conducted in Kerala context shows that only a small proportion (12.3%) of secondary school students are interested in reading articles on environmental issues that appear in news papers and news magazines; whereas a higher proportion (47.8%) showed interest in watching graphic materials like posters, charts, diagrams, colour images, maps, wall papers, cartoons and stickers (Kumar, 1991). It indicates that as far as school children are concerned graphics are better materials of environmental education than in-depth articles and reports that appear in news papers and news magazines. In this context, an investigation was carried out to study the educational value of the graphic materials (posters, charts, outline diagrams, colour images and stickers) produced and circulated by different agencies in connection with Wildlife Week, 1995.

Materials and Methods

Sample:

One hundred and twenty IX grade students (60 boys and 60 girls) drawn randomly from three different schools of Trivandrum district (Kerala) constituted the samples for the present study.

Tools:

1. Wildlife week materials

A total of 24 different graphic materials produced and circulated by various government and non-government agencies in connection with the wildlife week (1995) were used both as a self-instruction material as well as teaching aid in imparting awareness about four environmental concepts viz., conservation biodiversity, wildlife resources, and ecological relationships.

2. Environmental Awareness Test (EAT)

It is a standardised test prepared for the purpose of the study to measure the environmental awareness of the students

Procedure

The subjects, equated in terms of age and intelligence, were divided randomly into three batches (Batch-A, Batch-B, and Batch-C) of 40 students - 20 boys and 20 girls each. A pre-test of environmental awareness was carried out in all the three batches. Batch-A was then permitted to interact freely with wildlife week materials displayed concept-wise on a board for a period of 40 minutes. The four concepts selected for the study (conservation, biodiversity, wildlife resources, and ecological relationships) were introduced to batch-B by following a rigid lesson-plan (40 minutes duration) prepared based on the ideas depicted in the wildlife week materials. No other teaching aids were used except the black-board. The four concepts were introduced to batch-C by following the same lesson-plan (40 minutes) by the same teacher using the wildlife week materials as teaching aids. This was followed by the post-test of environmental awareness of the students. The significance of the differences between means of pre-test and post-test were then computed by applying t-test.

Results and Discussion

The means, standard deviations, and t-values of the pre-test and post-test scores are shown in Table 1. The mean scores of the pre-test shows that the awareness of the students in the four selected areas of study viz., conservation, biodiversity, wildlife resources, and ecological relationships are poor. The maximum score of the EAT administered on the subjects was 40; but the mean scores of pre-test are 14.58, 14.26, and 14.83 for batch-A, batch-B, and batch-C respectively. The mean values of the post-test show an increase in the achievement of all the three batches. The t-value obtained on the comparison of the mean scores of pre-test and post-test shows that there is a significant difference in the achievement of all the three batches which in turn shows the success of the learning situations provided. However, it has to be admitted that even after providing the learning experience, the achievement of all the batches of students are rather bad. The poor performance of the students can be attributed to the fact that the wildlife week materials used for the study suffered seriously from the lack of continuity and simplicity. An analysis of the study materials showed that most of the concepts depicted in them are treated in isolation and little attempt has been made to establish links between them.

An inter-batch comparison of the post-test scores were carried out by computing the t-values to study the influence of different learning situations on the achievement of the students. The result are summarised in Table 2. The t-value obtained on comparison of batch-A, and batch-B shows that there is no significant difference in the achievement of the

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groups. It indicates that, as a self-instructional material the wildlife week materials are not superior to usual class-room teaching where the four concepts are introduced to the children by conventional lecture method. The t-value obtained on comparison of batch-A and batch-C is significant at 0.05 level and that obtained on comparison of batch-B and batch-C is significant at 0.01 level. It indicates that a better awareness of the environment can be created in the children if the wildlife materials are used as teaching aids rather than as self learning material. In order to serve the purpose of a self-learning material, the concepts illustrated in the graphics should be further simplified and attempt should be made to establish links between related concepts.

Table 1. Comparison of the pre-test and post-test scores of different batches

Batch	Pre-test			Post-test			t-value
	N	M	SD	N	M	SD	
A	40	14.54	7.82	40	19.33	8.32	2.62**
B	40	14.26	7.41	40	18.29	7.59	2.37*
C	40	14.83	7.69	40	22.62	8.81	4.17**

*P<0.05 **P<0.01

References

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Table 2. Inter-batch comparison of post-test scores

Batch	N	M	SD	t-value
Batch-A	40	19.33	8.32	0.59
Batch-B	40	18.29	7.59	
Batch-A	40	19.33	8.32	2.2 *
Batch-C	40	23.62	8.81	
Batch-B	40	18.29	7.59	2.87 **
Batch-C	40	23.62	8.81	

*P<0.05 , **P<0.01

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