



TECHNOLOGY ENABLED TEACHING LEARNING PROCESS AND ENVIRONMENTAL PROTECTION

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Abstract

As we look around us, we see that our surroundings were originally a natural landscape such as a forest, a river, a mountain, a desert, or a combination of these elements. Most of us live in landscapes that have been heavily modified by human beings, in villages, towns or cities. But even those of us who live in cities get our food supply from surrounding villages and these in turn are dependent on natural landscapes such as forests, grasslands, rivers, seashores, for resources such as water for agriculture, fuel, wood and fish. Thus our daily lives are linked with our surroundings and inevitably affects them. We use water to drink and for other day – to – day activities. We breathe air, we use resources from which food is made and we depend on the community of living plants and animals which form a web of life, of which we are also a part. Everything around us forms our environment and our lives depend on keeping its vital systems as intact as possible. Our dependence on nature is so great that we cannot continue to live without protecting the earth's environmental resources. Students' environmental awareness is the most important indicator for displaying nation. The impact of videos and multimedia technologies in educational outcomes is a field of ongoing research civilization. Video combines many kinds of data (images, motion, sounds, text) in a complementary fashion; learning can be adjusted more easily than with other tools to the diverse learning styles and individual learning pace of students. In this study investigators have examined the impact of video technology on the awareness about the Environment among Primary level students.



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Introduction

Over the past 200 years however, modern societies began to believe that easy answers to the question of producing more resources could be provided by means of technological innovations. For example, through growing more food by using fertilizers and pesticides, developing better strains of domestic animals and crops, irrigating farmland through mega

dams and developing industry, led to rapid economic growth, the ill effects of this type of development led to environmental degradation. Environment is the combination of living things and closely related to the element of nature such as human, animals, as well as plants. Through this connection, there are such doctrines and beliefs from the aspect of philosophy regarding the emergence of this universe, and it has develop an awareness within humans self towards their responsibility to take care the environment. (Hassan, et al, 2009)

The world today faces problems like global warming, green house effect, acid rain, deforestation, overpopulation and so on, the authors over that Environmental education has great importance as our lives to a large extent depend on our response to emerging problems related to the environment (Chandra and Sharma, 2010). At individual level, it requires a great positive commitment, and also an unwavering support from the community to keep environment clean and unpolluted for future generations because it is our responsibility to handover it to the next generation—as our forefathers handed over to us (Raval, 2015).

Since the primary school students are ardent followers of their teachers, they can be taught efficiently to imbibe the environmental values. Environmental educators need to reintroduce learners to their local area by exploring and experiencing it, by learning about it and celebrating it. By doing so, environmental educators help learners develop a sense of wonder and a sense of place (Athman et al, 2001). Research studies of Cimino (2005), Chawla (2006), Arnold (2009), shows that empathy with, and love of, nature grows out of children's regular contact with the natural world.

It is important that children and young people are taken to nature and using all their senses to actively explore, experience, make sense of their environment, and have a sense of independence. At the earliest stages of life, if the conducive classroom learning towards the eco system is imparted, the child may easily grasp because of their keen understand ability of nature.

Modern day classroom must be supplemented with adequate video based instructional process which is having the following beneficial aspects to the new digital learner in the primary schools.

- First, [video-based contexts] provide rich sources of information with opportunities to notice sensory images, dynamic features, relevant issues, and inherent problems.
- Second, they give students the ability to perceive dynamic moving events and to more easily form rich mental models. This advantage is particularly important for lower achieving students and for students with low knowledge in the domain of interest.

The use of video is the needs of today's and tomorrow's learners. Videos can help educators address the challenge of different learning styles and enhance the way in which today's children and youth access, absorb, interpret, process and use information.

Objectives

The present study is based on the following objective:

1. To know the impact of videos on Environmental awareness of primary level students in respect to their type of organization (Govt. and Public).

Hypotheses

The present study is based on the Following hypotheses:

- There is no significant effect of videos on Environmental awareness of Govt. and Public school primary level students.

Research Methodology

For present research work, the researcher has used Experimental Method (One group pre- test and post – test Design) type of study.

Population

All the primary schools of Aligarh District of Uttar Pradesh constituted as the population for this study.

Sample

For the present study, the sample was selected from different Primary level schools. To collect the meaningful data, the researcher has used stratified random sampling technique. In the first phase of sample selection, Aligarh district of Uttar Pradesh was selected. In the second phase 10 primary level schools were selected out of all primary schools of Aligarh district. Then in the third phase, a total 120 primary schools students were chosen as a sample on the basis of their types of organization. Out of 120 students 80 Government and 40 Public school students of primary level were selected as sample.

Tool Used

To collect the data investigators were used part B of Environmental **Knowledge & Awareness Scale (EKAS)**. **This scale has 24 items spread over five following dimensions:** remedial measures of air pollution, water pollution, land pollution, noise pollution, and environmental problems.

Beside the above scale investigators were used some video films related to different dimensions of environment to know the effect of videos on environmental awareness of primary level students.

Table-1: Details of the Video films on Environmental Component Treated as Video Packages in the Study

S. N	Title of Video Film	Producing Agency	Duration	Language
1.	Environment Protection (www.youtube.com/watch?v=MEn0oIL3uoo)	Environment Production: Gabriella Keresxies	7min 24sec	English
2.	Environmental Awareness (www.youtube.com/watch?v=dOJstml1iOU)	L'Education Environment	7min 47sec	English
3.	Science - Environment – Pollution (https://www.youtube.com/watch?v=9j56H0YrQIA)	Bodha Guru	10min 48sec	Hindi

Statistical Treatment

In order to make the inquiry exact, precise and scientific the collected data were analyzed with the help of Mean, S.D, and ‘t’ test.

Data Analysis

Table – 2: Pre – test and Post – test Mean and S.D Scores of Primary Level Students Studying in Government Schools on Different Dimensions of Environmental Knowledge and Awareness Scale

Dimensions	Per - test Scores (N=80) Mean S.D	Post – test Scores (N=80) Mean S.D	‘t’ test Value (df 158)
Remedial Measures of Air pollution	3.42 0.80	3.95 0.21	5.73*
Remedial Measures of Water Pollution	3.56 0.52	3.90 0.34	4.89*
Remedial Measures of Land Pollution	3.63 0.50	3.82 0.41	2.63*
Remedial Measures of Noise Pollution	3.76 0.42	3.98 0.11	4.53*
Remedial Measures of other Environmental Problems	5.86 1.11	7.82 0.38	14.94*
Over all Awareness about Environmental	20.25 1.96	23.48 0.76	13.74*

**Significant at .01 Level of Significance*

The analysis of data presented in table – 2, concludes that in case of primary level government school students the environmental awareness influenced by the given videos on different aspects of environment. Table-2 shows that government schools primary level students found to be more aware about remedies measures of pollutions and overall environmental protection on the different dimensions of Environmental Knowledge and Awareness Scale (EKAS). The post – test mean values were found higher than the pre – test mean values. It means Government schools primary school students learn more after teaching with videos.

Table – 3: Pre – test and Post – test Mean and S.D Scores of Primary Level Students Studying in Public Schools on Different Dimensions of Environmental Knowledge and Awareness Scale

Dimensions	Per - test Scores (N= 40)		Post – test Scores (N= 40)		't' test Value (df 78)
	Mean	S.D	Mean	S.D	
Remedial Measures of Air pollution	2.42	1.05	3.95	0.30	8.86*
Remedial Measures of Water Pollution	2.95	0.74	3.97	0.15	8.54*
Remedial Measures of Land Pollution	2.60	0.87	3.97	0.15	9.81*
Remedial Measures of Noise Pollution	3.05	0.84	4.00	0.00	7.15*
Remedial Measures of Other Environmental Problems	6.12	1.34	7.85	0.53	7.59*
Overall Awareness about Environmental Protection	17.15	2.09	23.70	0.64	18.95*

**Significant at .01 Level of Significance*

Table – 3, concludes that in case of the primary level students studying in public schools a sharp variation were identified between pre – test and post – test mean scores on all the dimensions of EKAS (Part – B). On all the dimensions of EKAS, post – test mean scores were found significantly higher than the pre – test mean scores of primary level students studying in public schools. It means videos influence the level learning of primary level students.

Findings:

The null hypothesis is that “there is no significant effect of videos on Environmental awareness of govt. and public school primary level students” fully accepted on environmental awareness. Finding related to above hypothesis is as follows:

- A significant effect of videos was seen on the level of learning of students that why their awareness level was increased. This enhance was seen on remedial measures related to air, land, noise pollution and environmental protection dimensions. Government and public school students' environmental awareness was increased on all the dimensions of EKAS (Part – B) after watching the videos.

Educational Implications

The world scenario is changing rapidly. If we keep our self struck to social conventions and traditions, we can't march ahead with other nations. Our progress will remain segments and our vision of development India will remain unfulfilled. The temperature of the earth is going increase day – by – day. It makes effect to human beings and animals also. The present research aims at determining the effect of videos on environmental awareness of primary level students. The results of the study have significant contribution for the schools, their administrators, headmasters and even for the parents and policy makers. On the basis of this study policy maker can put practical (especially based on visual projection) part in the curriculum of primary level schools. The output of this research indicates that technology enabled learning is having nurture effect. As a teacher we should create technology enabled learning environment in the classroom. So that we can safe our environment. It will also encourage the students to make their environment clean and green.

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