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EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING WATER CONSERVATION AND ITS BENEFITS AMONG ADOLESCENTS

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ABSTRACT
The study was to determine the Effectiveness of video assisted teaching on knowledge regarding water conservation and its benefits among adolescents in selected government pre-university college, bengaluru. Objectives: 1. To assess the pre-existing knowledge regarding water conservation and its benefits among adolescents. 2. To evaluate the effectiveness of video assisted teaching on knowledge regarding water conservation and its benefits among adolescents. 3. To find an association between the pretest knowledge score regarding water conservation and its benefits among adolescents. Methodology: In order to achieve the objectives of the study a pre-experimental one group pre-test post- test approach was adopted. Simple random sampling technique was used to select the sample. The sample consisted of 50 adolescents. The main study was conducted in government pre-university college, bengaluru. Findings: the overall mean knowledge score in the pre-test was 60.56% and 97.17% with the enhancement of 36.22% and it is significant at 0.05 level.

KEYWORDS:
- **Knowledge:** It refers to correct responses of pre-university students on knowledge regarding water conservation and its benefits.
- **Water conservation:** it refers to any beneficial reduction of water usage, loss or waste. It also includes the strategies and activities to manage and protect water resources to meet the demand for human consumption.
- **Adolescents:** students who are in the age group of 16-19 years. In this study it refers to the students studying in science combination at selected government pre-university college, Bengaluru urban district.
- **Pre-university College:** It's an educational institution where the Pre-university courses such as science, arts, commerce are taught. In this study it refers to selected Government Pre-university college at Bengaluru.

INTRODUCTION

Water is one of the very crucial natural resources. It is about 1.4 billion cubic kilometer of water on the earth which comes about 71 percent of the earth's surface. About 97 percent of the water on the earth is in the oceans. The remaining 3percent of the total water is available in the form of ice sheets, cloud, river, lakes, pounds well and springs. Only1-1.6 percent of the 3 percent of water, is useful for human consumption.

Global climate change threatens to create even greater variability in water resources in some area as seasonal or periodic droughts occur more frequently. Even in areas of relative water abundance, increasingly stringent requirements on wastewater discharges and growing infrastructure needs place a premium on reducing the amounts of water used and waste water produced by home and business.

STATEMENT OF THE PROBLEM

"Effectiveness of video assisted teaching on knowledge regarding water conservation and its benefits among adolescents in selected government pre-university college, bengaluru urban district".

OBJECTIVES

1. To assess the pre-existing knowledge regarding water conservation and its benefits among adolescents.
2. To evaluate the effectiveness of video assisted teaching on knowledge regarding water conservation and its benefits among adolescents.
3. To find an association between the pretest knowledge score regarding water conservation and its benefits among adolescents.

HYPOTHESIS

H1: There will be a significant difference between pre-test and post-test knowledge scores of adolescents regarding water conservation and its benefits.

H2: There will be a significant association between pretest knowledge scores of adolescents regarding water conservation and its benefits and selected demographic variables.

Assumptions

1. Adolescents may have some knowledge regarding water conservation and its benefits.
2. Video assisted teaching may promote to encourage water conservation and its benefits in adolescents.

REVIEW OF LITERATURE

Review of literature for the study has been organized under the following headings:

- Literature related to general information about water conservation.
- Literature related to components of water conservation.
- Literature related to benefits of water conservation.

Conceptual frame work: The framework of the study is based on modified Stufflebeam's (1973). Context Input Product Process (CIPP) model.

METHODOLOGY

Research Approach:- Evaluative research approach was adopted.

Research Design: -

Pre-Experimental, i.e., One group pre-test post-test design was adopted for the study.

Schematic representation

Group	Randomization	Pre-test(X)	Intervention	Post-test
Single group	R	O_1	X	O_2

R - Randomization done

O_1 - Pre-test knowledge scores

X - administration of Video assisted teaching

O_2 - posttest knowledge scores

Variables

1) Independent variable:

Video assisted teaching on water conservation and its benefits

2) Dependent variable:

Post-test knowledge scores of adolescents.

3) Attribute variable:

Age, Gender, Religion, Type of family, Place of residence, Educational status of father, Occupation of father, Occupation of mother, Family monthly income, Source of water, Previous knowledge about water conservation.

Setting:- This study was conducted in Government pre-university college Bengaluru.

Population:- The population consisted of Government Pre-university college students.

Sample:- 50 adolescents.

Sampling technique:- Simple random sampling technique

Criteria for selection of sample

Inclusion criteria

1. Adolescents who are available and willing to participate in the study.
2. Adolescents who are available at the time of data collection.

Exclusion criteria

1. Adolescents who are sick at the time of data collection.
2. Adolescents who are less than 16 years of age group.

Data collection tools:- Structured knowledge questionnaire. The tool was divided into two parts. Part A:-Demographic variables and Part B:- knowledge questionnaire related to water conservation and its benefits.

Validity: The tool and the intervention was validated by 12 experts and 1 clinical psychologist.

Reliability: Split Half Technique which measures the co-efficient of internal consistency. The reliability co-efficient of the whole test was estimated by Spearman Brown's Prophency formula. The tool was found reliable r = 0.99, revealing the tool is feasible.

Data Collection Process: Formal written permission was obtained from the Head. Written consent was obtained from all the study subject on the day 1. On the same day pretest was assessed, followed by video assisted teaching was played for 32 minutes.Post test was done on the 7th day by using the same questionnaire.

Plan for Data Analysis: The demographic variables were analyzed by using descriptive statistics (frequency & percentage). The effectiveness of video assisted teaching was analyzed by using inferential statistics (paired 't' test). Association between demographic variables with knowledge scores were analyzed by using chi square test.

RESULTS

Section I

Table-1: pre -test and post- test mean knowledge on water conservation and its benefits among adolescents N=50

	Max .score	Respondents Knowledge			Paired 't' Test
		Mean	SD	Mean (%)	
Pre-test	36	21.84	2.61	60.67	31.49*
Post-test	36	34.88	1.27	96.89	
Enhancement		13.04	2.93	36.22	

*Significant at 0.05 Level, t(0.05, 49Df) =2.01

Table -2: Aspect wise mean pre-test and post-test knowledge on water conservation and its benefits among adolescents N=50

Aspects of Knowledge	Respondents Knowledge						Paired 't' Test
	Pre-test		Post-test		Enhancement		
	Mean	SD	Mean	SD	Mean	SD	
Basic information of water	9.38	1.21	13.90	0.36	4.52	1.20	26.64*
Benefits of water	1.94	0.71	2.94	0.24	1.00	0.70	10.10*
Water conservation	2.24	0.72	2.94	0.24	0.72	0.70	7.00*
Water conservation methods and Benefits	8.24	1.72	15.20	1.18	6.96	2.05	24.00*
Overall knowledge	21.80	2.67	34.98	1.27	13.20	2.91	31.49*

*Significant; ^{NS}is not significant, t (0.05, 49df) = 2.01

Section – II: Association between pre-test knowledge with selected demographic variables

Table - 3: Association between socio-demographic variables and pre-test knowledge level of respondents on Water conservation and its benefits N=50.

Demographic variables	Category	Overall knowledge				Chi square
		Median and below		Above median		
		N	%	N	%	
Age	16 – 17 years	3.00	10.71	25.00	89.29	0.571^{NS}
	18 – 19 years	4.00	18.18	18.00	81.82	DF=1
Gender	Male	0.00	0.00	0.00	0.00	No statistics
	Female	7.00	14.00	43.00	86.00	
Religion	Hindu	5.00	13.16	33.00	86.84	2.86^{NS}
	Muslim	2.00	33.33	4.00	66.67	
	Christian	0.00	0.00	6.00	100.00	DF=2
	Others	0.00	0.00	0.00	0.00	
Type of family	Nuclear family	5.00	14.29	30.00	85.71	0.09 ^{NS}
	Joint family	2.00	13.33	13.00	86.67	DF=1
Place of residency	Urban	5.00	12.20	36.00	87.80	0.61 ^{NS}
	Rural	2.00	22.22	7.00	77.78	DF=1
Education status of father	No formal education	1.00	25.00	3.00	75.00	9.49 *
	Primary education	0.00	0.00	8.00	100.00	
	Secondary education	2.00	28.57	5.00	71.43	
	PUC	1.00	5.26	18.00	94.74	DF=4
	Degree and above	3.00	25.00	9.00	75.00	
Occupation of Father	Coolie	1.00	9.09	10.00	90.91	8.08*
	Agriculture	0.00	0.00	4.00	100.00	
	Private employee	5.00	14.71	29.00	85.29	DF=3
	Government employee	1.00	100.00	0.00	0.00	
Occupation of Mother	Coolie	1.00	20.00	4.00	80.00	2.56 ^{NS}
	House wife	2.00	6.90	26.00	89.66	
	Private employee	4.00	23.53	13.00	76.47	DF=2
	Government employee	0.00	0.00	0.00	0.00	
Family Monthly income	Below 10,000	3.00	33.33	6.00	66.67	11.17 *
	11,000 - 15,000	2.00	22.22	7.00	77.78	

	16,000 - 20,000	2.00	8.70	21.00	91.30	DF=5
	20,000 and above	2.00	8.70	21.00	91.30	
Source of water	Bore well	1.00	14.29	6.00	85.71	2.38 ^{NS} DF=3
	Muncipality /	2.00	33.33	4.00	66.67	
	corporation	4.00	11.43	31.00	88.57	
	Well	0.00	0.00	2.00	100.00	
previous knowledge about water conservation	YES	5.00	10.64	42.00	89.36	7.35 ^{NS} DF=1
	NO	2.00	66.67	1.00	33.33	
Source of information	Friends / Relatives	2.00	16.67	10.00	83.33	0.784 ^{NS} DF=2
	Mass media	2.00	7.41	25.00	92.59	
	Self-reading	1.00	12.50	7.00	87.50	
	Contact with health personnel	0.00	0.00	0.00	0.00	
	Any other specify (No Info)	0.00	0.00	0.00	0.00	

*is significant; ^{NS} is not significant

DISCUSSION

In this study the pre-test mean knowledge percentage was 60.56%. and post-test mean knowledge percentage was 97.17% with an enhancement of 36.22%. The paired 't' test value was found to be 31.49 which is significant at 0.05 level. The overall mean knowledge score during pre-test was 21.80 and 34.98 in the post -test.

Recommendations

A similar study can be replicated on a large sample.
An experimental study can be undertaken with a control group.

CONCLUSION

The study findings analysis show that there was significant gain in knowledge regarding water conservation and its benefits among adolescents.

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