

EFFECTIVENESS OF WEB INTEGRATED INSTRUCTIONAL PACKAGE OVER TRADITIONAL METHOD ON PRIMARY STUDENTS ACHIEVEMENT IN ENVIRONMENTAL SCIENCE

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ABSTRACT

In the present study an attempt has been made to study the effectiveness of Web Integrated Instructional Package over Traditional Method in teaching of Environmental Science on students achievement at Primary School level. Random sampling method was used to select the sample. The sample of the study consisted of 120 students of third class drawn from six urban english medium schools of Delhi NCR. In the present study, a pre-test, post-test control group quasi experimental design was employed. Two groups of students involved in the present study were designated as the experimental group and the control group. The result shows that the teaching through Web Integrated Instructional Package can be a better method of imparting knowledge as compared to the traditional method of teaching.

INTRODUCTION

Education is of utmost importance in everybody's life. Present scenario around the world expects each and every individual to make maximum utilization of technology because no aspect of day to day human life has remained untouched by technology.

Similarly, technology today has changed the way children learn in the classroom. Technology has altered how students engage in learning activities, the format of learning material they use, how tasks are completed and how they demonstrate what they know. Also, we can observe a drastic change in how teachers design and deliver learning experiences to their students.

Web technologies are rapidly growing and have come into the space of teaching like never before. Experts of software industry claim that web can unbound teaching and learning from the physical boundaries of classroom as well as the time constraints of the class schedules. Traditional methods of teaching can be easily converted into web based multimedia learning experiences for learners. Web technologies are adding elements of vitality to virtual environments for the purpose of teaching-learning process. Due to web technologies capability to offer anytime and anywhere access to remote learning resources it is a powerful tool

for offering educational opportunities to anyone who for some or the other reason are unable to find a place for themselves in regular classroom teaching. Web technology though in itself is a software technology but it works in combination with hardware, multimedia and other delivery systems.

RATIONALE OF THE STUDY

With a well knitted combination of hardware and software, web technologies are able to provide enhanced learning facilities to the learners. Anticipating the potential growth in this field, yet there is hardly any software that deals with environmental science teaching of primary students with rich multimedia content which is also suitable in Indian context. The investigator aims to develop a web technology based teaching package of environmental science for primary students to enable them to learn the subject at their own pace, anywhere, anytime.

The purpose of the present investigation was also to see the effect of web integrated instructional package as compared to the conventional method of teaching. The present research is also an attempt to support the previous researches in using the experimental technique in studying the variables of the study. Perhaps this study will reach scientific conclusions over research ethics in the field of

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integration of technology and education. This study also aims to study the scope of technology in educational research and development.

OBJECTIVES

1. To develop an instructional package for environmental science with web technologies.
2. To develop an achievement test of environmental science.
3. To compare mean scores on the achievement test in environmental science of the two groups of students of class 3 to be taught with use of web integrated package and traditional method of teaching before the experimental treatment.
4. To study the effectiveness of web integrated instructional package and traditional method in relation to scholastic achievement of class 3 students in environmental science.
5. To compare the mean achievement test scores of experimental group taught with web integrated package before and after the experimental treatment.
6. To compare the mean achievement test scores of control group taught with web integrated package before and after the experimental treatment.

HYPOTHESES

1. There is no significant difference in the mean scores on the achievement test in environmental science of the two groups of students of class 3 to be taught with use of web integrated package and traditional method of teaching before the experimental treatment.
2. There is no significant difference in the mean scores on the achievement test in environmental science of the two groups of students of class 3 to be taught with use of web integrated package and traditional method of teaching after the experimental treatment.
3. There is no significant difference in the mean achievement test scores of experimental group taught with web integrated package before and after the experimental treatment.

4. There is no significant difference in the mean achievement test scores of control group taught with web integrated package before and after the experimental treatment.

DELIMITATIONS

1. Sample – The experiment was restricted to a group of 120 students of class 3.
2. The study is delimited to Delhi NCR only.
3. The content of web instructional package is delimited with few topics of environmental science of class 3.
4. The content of web instructional package was developed for English medium only.

DESIGN

A pre-test, post-test control group quasi experimental design was employed with a random sampling.

DESIGN OF THE STUDY

Group	Independent Variables	Outcomes before the treatment	Outcomes after the treatment	Difference in outcomes	Net effect
Experimental	Web Integrated instructional package	E1	E2	E = E2 - E1	E - C
Control	Conventional teaching method	C1	C2	C = C2 - C1	

Where,

E = Gross outcome measures for experimental group.

C = Gross outcome measures of control group.

E1 = Measure of outcome of the experimental group before the treatment.

C1 = Measure of outcome of the control group before the treatment.

E2 = Measure of outcome of the experimental group after the treatment.

C2 = Measure of outcome of the control group after the treatment.

TOOLS USED FOR THE STUDY

1. Achievement test of environmental science (developed by the investigator).
2. Web Integrated Instructional Package for environmental science.

FINDINGS

1. No significant difference was found in the pre-test mean achievement scores of students of experimental and control groups.
2. It was found that students who were exposed to web integrated instructional package achieved much higher scores on achievement tests in comparison to those who were exposed to the conventional method of teaching.
3. Significant difference was found in the pre-test and post-test mean achievement scores of students of experimental group taught environmental science through instructional package.
4. It was found that experimental group of students who were taught through instructional package achieved significantly higher mean gain score on achievement test as compared to the control group.

CONCLUSION

Impact of technology in education is enormous in present scenario. Due to its multi sensorial approach technology is playing a very appreciative role in pedagogy. If used properly, it can help students acquire the skills they need to survive in contemporary complex, highly technological knowledge based economy. It not only improves student's academic achievement rather it makes sure of students active engagement, frequent student-teacher interaction, immediate feedback and connection to the real world experts. The effectiveness of web integrated instructional package over the conventional method of teaching for class 3 students has been established through present research.

This study helps in understanding the fact that educational technologies can help in addressing various issues of educational equity and open up the doors for democratic and easily accessible educational opportunities for all. Results of the present study indicates that with web technologies students can be educated in the least restrictive environment with greater effectiveness.

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