



Effectiveness of E-content in Teaching Mathematics for Standard XI Students

KEYWORDS

E-content, Teaching Mathematics

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ABSTRACT E-content is a very powerful tool of education. E-content is valuable to the learners and also helpful to teachers of all individual instruction systems. E-content is the latest method of instruction that has attracted more attention to gather with the concept of models. The objective of the study is to find out whether there is any significant difference between control and experimental group of standard XI students in their effectiveness of e-content in teaching mathematics with reference to gain score at knowledge understanding, skill and total level. The investigator has used experimental method for the study. The finding shows that the experimental group students are better than the control group students in the gain scores. This may be due to the fact that the e-content presentation in mathematics is effective for standard XI students. Thus e-content is very useful for mathematics learning purpose.

INTRODUCTION

Teaching is an art. Presentation of materials is the style of art. Producing quality in teaching is the essence of the art. Today's classroom teachers must be prepared to provide technology-supported learning opportunities for their students. Being prepared to use technology and knowing how that technology can support student learning must become integral skills in every teacher's professional repertoire.

Significance of the study

In modern world we are enjoying a very happy life and good standard of living because of the development of mathematics. Mathematics equips pupils with a uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem-solving skills, and the ability to think in abstract ways. Mathematics is important in everyday life, many forms of employment, science and technology, medicine, the economy, the environment and development, and in public decision-making.

Mathematics teachers must be prepared to empower students with the advantages technology can bring. Schools and classrooms, both real and virtual, must have teachers who are equipped with technology resources and skills and who can effectively teach the necessary subject matter content while incorporating technology concepts and skills. Real-world connections, primary source material, and sophisticated data-gathering and analysis tools are only a few of the resources that enable teachers to provide heretofore-unimaginable opportunities for conceptual understanding.

E-content is a very powerful tool of education. E-content is valuable to the learners and also helpful to teachers of all individual instruction systems; E-content is the latest method of instruction that has attracted more attention to gather with the concept of models.

The use of e-content is changing teaching in several ways. With e-content, teachers are able to create their own material and thus have more control over the material used in the classroom than they have had in the past.

So, with the intention of developing e-content and testing its efficiency, the investigator conducted a study on "**Effectiveness of e-content in Teaching Mathematics for Standard XI Students**".

Statement of the problem

"Effectiveness of e-content in Teaching Mathematics for

Standard XI Students"**Definition of the operational Terms****Effectiveness:**

It is the state of being "productive for a capable of providing a result (Webster's Dictionary). Effectiveness is the quality of being effective. The study uses a plan for instruction and presentation which causes a desired change in the behaviour or the learner. An assessment of this change will lead to the determination of effectiveness.

E-content:

Electronic content (e-Content) or digital content is defined by those involved in creating, providing and distributing information as the digitalised content, which is viewed on screen and not on paper.

Objective:

- To find out whether there is any significant difference between control and experimental group standard XI students in their effectiveness of e-content in teaching mathematics with reference to gain score at knowledge understanding, skill and total level.

Method Adopted For The Present Study:

The investigator has used experimental method for the study.

Table - 1
Design of Experiment

S. No	Control group	Experimental group
1	Pre-test	Pre-test
2	Chalk and talk method	e-content presentation method
3	Post test	Post test

Description of the Tool:**The following tools are used for data collection.**

- E-content developed by the investigator.
- Achievement test in Mathematics developed by the investigator.

Sample for the Study:

The sample selected for the present study consisted of 60 XI Std students. The sample of 60 students was divided into two equated groups of 30 students in each. Both the control and experimental group students are selected from same school.

Statistical Techniques Used:

The following statistical techniques were used:

1. Mean
2. Standard Deviation
3. 't' – test

ANALYSIS OF DATA**Null Hypothesis:**

There is no significant difference between control and experimental group standard XI students in their effectiveness of e-content in teaching mathematics with reference to gain score at knowledge, understanding, skill and total level.

TABLE -2
DIFFERENCE BETWEEN CONTROL AND EXPERIMENTAL GROUP OF STD XI STUDENTS IN THEIR GAIN SCORE DUE TO E-CONTENT PRESENTATION

Score	Level	Control (N=30)		Experimental (N=30)		Calculated 't' value	Remarks at 5% Level
		Mean	S.D.	Mean	S.D.		
Gain Score	Knowledge	2.97	2.20	6.53	2.32	2.59	S
	Understanding	2.13	1.52	5.30	2.60	2.31	S
	Skill	1.57	1.15	4.80	2.33	2.36	S
	Total	4.63	2.34	8.63	2.83	2.90	S

(At 5% level of significance, the table value of 't' is 2.00)

Since the calculated 't' value is greater than the table value of 't' at 5% level of significance, there is significant difference between control and experimental group standard XI students in their effectiveness of e-content in teaching mathematics with reference to gain score at knowledge, understanding, skill and total level.

FINDING

1. There is significant difference between control and experimental group standard XI students in their effectiveness of e-content in teaching mathematics with reference to gain score at knowledge, understanding, skill and total level.

DISCUSSIONS RELATED TO FINDING

The 't' test result shows that the experimental group students are better than the control group students in the gain scores. This may be due to the fact that the e-content presentation in mathematics is effective for standard XI students. With the help of technology, application of instructional design has expanded. Thus e-content is very useful for learning purpose.

RECOMMENDATIONS OF THE PRESENT STUDY

1. Chalk and talk method of teaching mathematics should be avoided and newer instructional technologies using e-content can be introduced.
2. The e-content Presentation for teaching mathematics is found to be effective and so the same approach can be given for teaching other subjects like language, English, Physics, Chemistry and Social Science etc.
3. E-content presentation can be used to enhance both the theoretical knowledge and practical knowledge of the students.
4. Teachers should be trained to prepare e-content presentation at various levels. In-service training and orientation courses can be provided.
5. More involvement and greater variety in dissemination of content are possible when package is used for instruction.
6. E-content provides opportunity for the learner to study the materials on their own pace and therefore they get motivated for self learning. So this method may be applied in all subjects.
7. E-content presentation is a self-learning device the students can be presented with proper time table as they need.

CONCLUSION

This study clearly indicated that the e-content presentation developed teaching mathematics for standard XI students was effective. This effectiveness was found in terms of gain score of experimental group taught using e-content presentation.

All the reviewed studies and the present study also have showed that e-content presentation was effective than the lecture method. So we can conclude that the e-content presentation was more effective than the traditional way of teaching

E-content generates excitement and enthusiasm. The teacher's role would have a different connotation compared to the traditional role. The teacher has to adopt a number of methods and techniques; he cannot be satisfied with the lecture or the chalk-talk method. The teacher has to be aware of the different available media and their availability.

Hopefully more teachers will incorporate e-content in which it will occupy pre dominant position in the class rooms. Hence, technology exposure is essential to make the learning process more successful and fruitful.

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