



Effectiveness Of E-Content In Teaching Of Mathematics Education Among B.Ed Student – Teachers

Mrs. Jeba Mary R ¹ & Dr. J.Jerlin Femi ²

¹ M.Ed. Student, Sivanthi College of Education, Kundratur, Chennai-600 069, Tamil Nadu, India.

² Professor, Department of Education, Sivanthi College of Education, Kundratur, Chennai-600 069, Tamil Nadu, India.

ABSTRACT

The main aim of the present study is to find the effectiveness of E-CONTENT IN TEACHING OF MATHEMATICS EDUCATION AMONG B.ED STUDENT-TEACHERS. The experimental group was taught through e-content method of teaching, result shows that there no exist significant relationship between the achievement scores of pre-test and post-test of the experimental group. Results indicate that there is an impact of the software in the teaching of Differential Calculus in Mathematics among B.ED college students.

Keywords : E-content, Differential Calculus, etc.

INTRODUCTION

The advent of technology has revolutionized the education sector, transforming the way teachers teach and students learn. In mathematics education, the integration of technology, particularly e-content, has shown promising results in enhancing student engagement, understanding, and achievement. The Bachelor of Education (B.Ed.) program, which prepares student-teachers for the teaching profession, is an ideal context to explore the effectiveness of e-content in mathematics education. Mathematics, often perceived as a challenging and abstract subject, requires innovative and effective teaching methods to foster deep understanding and critical thinking among students. Traditional teaching methods, relying heavily on textbooks and chalkboard lectures, may not be sufficient to cater to the diverse learning needs and styles of students. E-content, encompassing digital resources such as multimedia tutorials, interactive simulations, and online quizzes, offers a potential solution to this challenge. This study aims to investigate the effectiveness of e-content in teaching mathematics education among B.Ed. student-

teachers. Specifically, it seeks to explore the impact of e-content on student-teachers' mathematical knowledge, pedagogical skills, and attitudes towards teaching mathematics. The findings of this study will contribute to the existing body of research on technology-enhanced mathematics education and inform the development of effective e-content resources for mathematics teacher education

NEED AND SIGNIFICANCE OF THE STUDY

The present piece of work has been carried out to explore the effectiveness of E-content in Teaching of Mathematics Education among B.Ed. Student Teachers. For the National Education Policy (NEP) 2020, has given emphasis on the assessment of students on the basis of their Higher Order thinking skills, which will assess their competency and not their rote memorization skills. For the Educationists and psychologists, have already considered the importance of E-content in Teaching of Mathematics Education for one's success in career and life activities as well. Since B. Ed course is a teacher training programme, the aspiring teachers are expected to have necessary awareness on the role of E-content in Teaching of Mathematics Education. For the teacher education institutions, are responsible for imbibing those values, skills, and knowledge among the trainees that are required in their real filed of teaching. For the Teachers, the findings of the study will be helpful for teachers also, as use of E-content in Teaching of Mathematics Education will ensure the students learning. Awareness and training in E-content in Teaching of Mathematics Education will prepare students not only for achievement, but enable them for making critical thinking and contribute in human factor design, information technology, data retrieval and education in general. And, For the Further studies, can be conducted on different levels of education like secondary level, university level, graduate level, etc. Hence with the intention of developing E-content and testing its efficiency, the investigator conducted a study on "EFFECTIVENESS OF E- CONTENT IN TEACHING OF MATHEMATICS EDUCATION AMONG B.ED STUDENT-TEACHERS".

MEANING

E-content is valuable to the pupil and also helpful to the 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 ultimate aim of the E- content is to abolish the disparity among the learners through effective education. The research is investigating the impacts of E-content. This paper intents proposed method of E- content, Stages of New ADDTIE Model which include Analysis, Design, Development, Testing, Implementation and Evaluation. This paper concluded that E- content helps to quality of the material to all level of learners. As a result, quality of effective education is possible.

REVIEW OF RELATED LITERATURE

Muthulakshmi, P. (2016) investigated the effectiveness of Multimedia Packages to develop attitude towards Mathematics. The main objective of the study was to examine the effectiveness of Multimedia in Mathematics. According to homogeneity in the quarterly marks in Mathematics and the Intelligence test score, the students were divided in control and experimental group. Each group consists of twenty one students. A topic was chosen from IX standard Mathematics book. Content was taught through

Traditional method for control group and through Multimedia Based Teaching for experimental group. Pre-test and post-test design was adopted. Significant difference was observed between scores of control group and experimental group towards Mathematical Attitude.

Larysa Lysenko et al. (2016) utilized interactive software to instruct Mathematics. The main objective of the study was to find the effectiveness of the software Emerging Literacy in Mathematics (ELM), which was a bilingual interactive Multimedia tool. The software was developed on the concept “Number Theory”. It was further divided into five sub-topics. They are addition, subtraction, counting, comparing and decomposing. Further every sub-topic was divided into twenty two online activities. Two hundred and thirty four grade one students were taken as sample. It was an experimental study with two group post-test design for a period of seven weeks. Results show that the students who utilized Emerging Literacy in Mathematics (ELM) scored higher than the control group students. It was also found that the students felt interesting and relaxed when learnt through Emerging Literacy in Mathematics (ELM).

OBJECTIVE OF THE STUDY

To examine whether there is a significant difference between the pre-test and post-test scores of the experimental group (with E-Content) in terms of Mathematics education knowledge.

HYPOTHESIS OF THE STUDY

There is no significant difference between the pre-test and post-test scores of the experimental group (with E-Content) in terms of Mathematics education knowledge.

METHODOLOGY

The investigator used SOLOMON FOUR GROUP EXPERIMENTAL DESIGN to find out the EFFECTIVENESS OF E-CONTENT IN TEACHING OF MATHEMATICS EDUCATION AMONG B.ED STUDENT-TEACHERS. The sample consists of forty students in which twenty students were kept under control group and twenty students were kept under experimental group. An entry achievement test was conducted, based on the scores it was found that there exist no significant difference between control group and experimental group. Differential calculus from the Eleventh standard state board curriculum was taken for the experiment. Pre-test was conducted for both the groups. The experimental group was taught by the specially designed Mathematical software Geogebra and control group was taught through traditional method of teaching. Both the groups were post tested.

RESEARCH INSTRUMENTS

1. Personal data sheet developed by the Investigator.
2. Achievement Test in Mathematics on the Unit of “Differential Calculus” constructed and validated by the investigator and guide (2017).

FINDING OF THE STUDY

There is no significant difference between the pre-test and post-test scores of the experimental group

RESULT AND DISCUSSIONS

There is no significant difference between the pre-test and post-test scores of the experimental group

Difference between pre-test and post-test scores of the experimental group

Experimental Group	N	Mean	S.D	Calculated 't' Value	Remarks at level 5%
Pre Test	20	11.05	2.645	0.000	NS
Post Test	20	24.25	1.888		

From the table, it is inferred that the calculated "t" value (0.000) is lesser than the table value (1.96) at 0.05 level of significance. Therefore, the null hypothesis is accepted. Hence it is concluded that there is no significant difference between pre-test scores and the post test scores of the experimental groups.

CONCLUSION

The scores of the achievement test show that there was no significant difference between the pre-test and post-test scores of the experimental group. The mean scores of post-test is greater than the pre-test. It is evident that the improvement of scores in post-test was only due to the intervention of E-Content. Therefore, there is a positive impact of E-Content on the achievement in teaching mathematics among Experimental group students.

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