

**ATTITUDES OF SECONDARY SCHOOL STUDENTS ON USE OF SCIENTIFIC
CALCULATORS IN THE LEARNING OF MATHEMATICS; A CASE STUDY IKATINI
SECONDARY SCHOOL IN IKATINI ZONE OF MASINGA SUB-COUNTY**

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BEDA/ 111/03370

**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF EDUCATION
MANAGEMENT AND CURRICULUM STUDIES IN PARTIAL FULFILLMENT OF
THE REQUIREMENT FOR A DEGREE OF BACHELOR OF EDUCATION (ARTS)
MOUNT KENYA UNIVERSITY**

2014

ABSTRACT

Mathematics plays a crucial role in technological development of any country; attainment in the subject determines the rate of adoption of appropriate technology and industrialization. In Kenya mathematics is compulsory in primary and at secondary school level. Use of scientific calculators was introduced in Kenya secondary schools in the year 2005. However its influence on students' attitude towards mathematics has not been established. The purpose of the study was to find out attitudes of secondary school students on use of scientific calculators in the learning of mathematics. The study had the following objectives, to establish the attitudes of secondary students on the use of the scientific calculators, to find out students' gender attitudes towards the use of calculators in learning mathematics, to determine accessibility and frequency use of scientific calculators in learning mathematics and finally to assess the benefits and challenges of using scientific calculators in learning mathematics. Purposive sampling was used to select the respondent of the study. The study used the descriptive survey research design. The research was carried out in Ikatini secondary school in Masinga Sub County. The research instrument used in the study Questionnaire and interview. This study was guided by Diffusion of Innovations (DoI) theory which was put forward by Rodgers in 1995 to avoid defeating from the main objective. The target population was 1500 students and 80 teachers in Ikatini zone from which one was selected to form the sample size. Ikatini secondary school was selected where 5 mathematics teachers and 65 form threes formed the sample size. Data was analyzed by use of SPSS and findings presented by use of tables and graphs. The findings of the study were that the scientific calculator as pedagogical and manipulative equipment in the successful teaching and learning of mathematics. The benefit of the study was to help the curriculum developers to develop guidelines to establish how the mathematics curriculum should be structured to

meaningfully incorporate the scientific calculator also book publishers and curriculum developers to include work in their text books that calls for use of calculators to enrich students' experiences.