

Effect of Using Scientific Calculators in Learning Mathematics by Secondary School Students in Embu District in Kenya

Z. K. Mbugua, M. W. Muthomi and M. O. Okere

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 investigate the influence of using scientific calculators in teaching and learning mathematics on students' attitude towards mathematics in secondary schools in Embu District. The study sought to determine whether there was a difference in attitude towards mathematics when students used calculators. The study employed the descriptive survey research design. The research was carried out in nine secondary schools in Embu District in Eastern province in Kenya. The subjects were form three students and a stratified random sampling technique was used to draw the participating schools. The sample size was 370 students. The instrument used was Attitude Questionnaire for students and a teacher's Questionnaire, the reliability of these instruments were 0.79 and 0.82 respectively. The raw data was analyzed using both descriptive and inferential statistics. The hypothesis was tested at a significance level of 0.05. The results indicate that use of calculators influence student attitude towards mathematics. The findings of this study are useful to teacher educators and curriculum developers, and the calculators should be maintained in the mathematics class.

Keywords: Attitude, Learning and Scientific Calculator

Full text link: <http://dspace.fudutsinma.edu.ng/xmlui/handle/123456789/1410>