

Early intervention of mathematics difficulties and performance of standard three pupils in primary schools in Butere sub-county, Kenya

Mathematics skills are not only a basic requirement for every member of the society to productively engage in everyday activities but also a universal language that finds meaning in all cultures and civilizations. Every tribe, culture and social group thinks and communicates ideas through quantities. Mathematics education is to a nation what protein is to a young human organism. It is not only a vital tool for the understanding and application of science and technology but also a great determinant of the kind of courses children take at all levels of learning. However, poor mathematics performance in the national examinations has been of great concern to the educationists and the society at large. Factors such as students' negative attitude to mathematics and high pupil teacher ratio due to Free Primary Education have been attributed to this. However, research studies indicate that six to ten percent (6-10%) of primary school age children in the US experience Mathematics Difficulties which make them struggle a lot in their education. In Kenya, about 20% of learners in primary schools experience Learning Difficulties (LD) in mathematics. These learners achieve poorly in mathematics, their self esteem may be lowered, may become truants and drop out of school. In spite of these, studies reviewed only sought to establish the number of learners experiencing LD in Mathematics and Language and possible factors that influenced the early identification of LD. This study was designed to establish if there was early identification and remedial teaching for children with Mathematics Difficulties in lower primary schools in Butere district. The effect of this remedial teaching on children's achievement in mathematics was also investigated. The study was done in Butere district Kakamega County. Descriptive survey and Quasi-experimental designs were used in this study. Stratified and purposive sampling was also used to select eighty learners with Mathematics Difficulties and eight standard three teachers of the identified schools. A questionnaire was administered to class three teachers and a pre and post experimental test was administered to the pupils in the experimental and control groups. The collected data was coded and analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics such as frequencies, means and percentages were calculated. The t- test calculated was 4.38 with a $p < 0.001$ level at an alpha $p < 0.05$. The p value was less than $p < 0.05$ meaning the result was quite significant and hence the null hypothesis was accepted. This meant there was a significant difference in mathematics performance of pupils with MD who received remedial teaching from those who did not. It was also established that teachers identified pupils with MD, more boys had MD than girls; learners experienced MD in addition with carrying and subtraction with borrowing. Schools mostly conducted paid tuition and not remedial teaching for pupils with MD. The tuition was conducted in the afternoons and during school holidays. There was no significant difference in mathematics performance of pupils with MD neither in public or private schools nor between boys and girls with MD who received remedial teaching. Therefore, it was recommended that MOEST formulate a policy that supports early identification of pupils with MD and give remedial teaching to mitigate the disability. KICD should develop appropriate curriculum and remedial teaching programme for pupils with MD.