

**Title:** Relationship between teachers' use of learning materials teaching strategies and pre-school children's performance in Mathematics in Nairobi County, Kenya

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**Abstract:** Early Childhood Development children require use of learning materials during mathematics activities and the syllabus suggests their use. Previous research has focused on use of materials in ECD, but not on relationship to teachers' use of learning materials and teaching strategies and pre-school children's performance in mathematics. The purpose of this study was to explore and establish the relationship between teachers' use of learning materials and teaching strategies and pre-school children's performance in mathematics, in Nairobi County by testing specific hypotheses Nairobi County was purposely sampled. The study used an ex-post-facto research design. Makadara, Embakasi, and Westland divisions were selected for the study using lottery random sampling method. The study targeted a population of 68 pre-school teachers and 768 pre-school children. A sample size of 60 boys and 60 girls was randomly selected from 6 schools and subjected to PMAE. 6 teachers from the 6 schools were randomly selected for completion of GQT and for observation schedules. Reliability of the scales, and specifically internal consistency was assessed using Cronbach Alpha. The data were analyzed using both descriptive and inferential statistical techniques. Descriptive statistics were measures of central tendencies, frequency distributions, tables, percentages, mean and standard deviations. The inferential statistics used Pearson Product Moment Correlation Co-efficient and independent sample t-test to establish whether there was relationships or differences in mean scores between variables, respectively. The study also found out that the availability of learning materials and in use in the classroom was 66.7% low and there was a significant positive moderate relationship of ( $r=0.475$ ) between teachers' use of learning materials and children's performance in mathematics. There were some teaching strategies that promote, motivate, and stimulate children's skills of manipulation, exploration of materials to understand mathematical concepts. These were teacher gets and holds children's attention; teacher ensures that every child is invited to respond during activities; teacher praises and rewards desirable behavior and reprimands undesirable behavior. The strategies that do not support were teacher . monitors attention during mathematics activities and teacher comments on children's responses. The study found out that boys scored higher than girls in mathematics by a significant mean difference of 0.275. Girls attribute their success to hands on learning materials which were inadequate. The study recommends that teachers should give both boys and girls equal opportunity to use learning materials. Also more emphasis should be made to teachers by MOEST, NACECE and DICECE on the importance of use of learning materials and teaching strategies through in-service courses, as a motivator in relation to pre-school children's good performance in mathematics.