

**AN INVESTIGATION OF HOME-BASED DYNAMICS ON CHILDREN'S
ACADEMIC ACHIEVEMENT IN SCIENCE ACTIVITIES IN EARLY CHILDHOOD
CENTRES IN MAGUMONI DIVISION, THARAKA-NITHI COUNTY, KENYA**

KENNETH SICILLY MUTHONI

**A Research Project Submitted to the School of Education in Partial Fulfillment of the
Requirement for the Award of Degree of Master of Education in Early Childhood Studies
of
Mount Kenya University**

November 2014

ABSTRACT

The purpose of this study was to conduct an investigation of home-based dynamics influencing children's academic achievement in science activities in early childhood centers in Magumoni Division in Meru South Sub County, Tharaka-Nithi County, Kenya. It has not been found out how home based dynamics affects children's science activities in pre-school in the area. The objectives of the study were to: determine whether parent's education level influences pre-school children's academic achievements in science, investigate whether family income has an influence in preschool children's academic achievements in science. To determine the influence of parent-child communication at home on pre-school children's academic achievements in science and to determine the influence of culture on pre-school children's academic achievements in science. The study adopted a descriptive survey research design and targeted 3275 subjects that comprised 95 pre-school teachers, 1590 parents, 1590 pre-school children in Magumoni Division. Stratified random sampling was employed to select, 10 teachers, 159 children and 159 parents. The study collected data using questionnaires for teachers and parents. Then interview guide for parents and science test for pre-school children and parents. The research instruments were examined by experts in the department of education at Mount Kenya University to evaluate content and construct validity. Before the actual data collection, a pilot study was done. The data collected from the questionnaires was cleaned, coded and entered in the computer for analysis using SPSS version 21 for windows. Descriptive statistics was used to analyze the quantitative data obtained. The statistics used included frequency counts and percentages. This analysis was thematically presented in narrative form and where possible tabular form. The results of data analysis were presented in frequency tables and figures. It was established that the parental educational level had an influence in preschooler's achievement in science subject, and that educated parents were at a better position in helping their children understand some of science concepts, the family's level of income had an influence on preschooler's achievement in science subject in that the parents with higher levels of income were able to provide their children with extra reading and learning materials. The parent's communication with children at home had an influence on preschooler's achievement in science in that the parents who had a regular and frequent communication with their children did perform better in science subject. The families that brought in an essence of culture in family tasks influenced the preschooler's attitude towards science subject. This was caused by cultural inclination of some of the household tasks, to a particular gender. It was concluded that the parental educational level, family's level of income, parent's communication with children influenced the preschooler's attitude towards science subject. The study recommends that; All the stakeholders should co-operate in provision of learning materials such as textbooks, toys, charts, and other teaching aids, The parents should be advised to buy extra science instructional materials to enable the children to be reading and learning science while at home, The parents should be sensitized on the need of their involvement in the children's science learning and that the school administration should also organize seminars and educate the parents on the importance of creating a good home reading environment, and relationship with their children.