TEACHER'S USE OF INQUIRY BASED INSTRUCTION IN TEACHING SCIENCE IN EARLY CHILDHOOD EDUCATION IN MERU SOUTH DISTRICT, THARAKA NITHI COUNTY, KENYA

BY

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A RESEARCH PROPOSAL SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF EDUCATION DEGREE (EARLY CHILDHOOD STUDIES) IN THE SCHOOL OF EDUCATION OF KENYATTA UNIVERSITY

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DECLARATION

I declare that this research proposal is my original work and has not been presented for a degree award in any University.

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This research proposal has been submitted for examination with our approval as University Supervisors.

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ABSTRACT

Science skills are basic requirements that enable all members of society to productively engage in everyday technological advancements. Despite this importance, learners continue to perform poorly in science examinations worldwide. The impetus to conduct this study stems from the fact that science education in early childhood is of great importance to many aspects of a child’s development as it can bridge the gap in education achievement in science performance at higher levels of learning. The purpose of this study therefore is to investigate early childhood teachers’ use of inquiry based instructional approaches in science activities. The main objectives of this study are to: (i) determine early childhood teachers’ awareness and understanding of inquiry instruction in science activities, (ii) find out the extent to which constructivist teaching using inquiry was utilized in early childhood science lessons, (iii) determine factors that hinder or promote early childhood teachers’ use of inquiry based instructional approaches in early childhood science teaching in Meru South District. This study is based on constructivism theory. This study will be limited in scope to a study of early childhood teachers in public schools in Meru South District and will adopt an in-depth descriptive research design. The target population for this study will be 270 teachers. The study will purposively select 18 teachers for the study. The instruments for data collection will be phenomenological interview and science lesson observation schedules. Interview questions will be pretested on 2 teachers from Maara district and 2 teachers from Tharaka south district. Credibility of the study instruments will be established through member check, prolonged engagement, persistent observation, peer debriefing, triangulation, multiple data sources and by comparing pretest results from the pilot study in two districts. The reliability of the study instruments will be ensured by keeping accurate descriptions and interpretations of respondent experiences and corroboration of the data by participants at all stages of the research process. Results from the pilot study that will be done in two neighbouring districts on different occasions will be analyzed to check instruments reliability. Based on the pilot study, the Interview questions will be refined before the actual data collection. This study will adopt Dolbeare and Schuman (Schuman, 1982) model of in-depth, phenomenological interviewing of participants for 30 minutes. The researcher will randomly select and observe 3 separate science lessons taught by each teacher in the study sample. Descriptive statistics including frequency counts and percentages will be used to analyze quantitative data while data elicited by interview questions will be analyzed qualitatively by arranging the responses thematically after which the main themes in the responses will be identified and used to determine their adequacy, usefulness and consistency. The results of the study will be discussed in relation to the themes that will emerge. This research will have implications for teachers, teacher educators, curriculum developers, and educational researchers. It is hoped that the findings of this study may improve the delivery of science lessons in early childhood learning environment.