

**DIGITAL COMPETENCE, SELECTED PEDAGOGICAL FACTORS AND
LANGUAGE INSTRUCTION AMONG EARLY CHILDHOOD EDUCATION
TEACHERS IN UPPER EASTERN REGION, KENYA**


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DECLARATION AND RECOMMENDATION

This thesis is my original work and has not been presented for any award of a diploma or conferment of a degree in any other University or institution.

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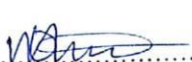
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DEDICATION

This research thesis is dedicated to my family especially to my beloved wife Wakaka Sybil and my lovely daughters Rosalie Tatiana and Taliah Tiana who overwhelmingly accorded me peace of mind during the whole duration of study. I also Dedicate this study to my parents Mr and Mrs Oyieno and siblings (Judy, Job, Beryl and Don) for continuous encouragement towards my studies.

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ABSTRACT

ECDE teachers' digital competence is crucial in the integration of learning of children in the ECDE Units which requires availability and utilization of digital resources in the instructional process. The study aimed to explore the relationship between ECDE teachers' digital competence, selected pedagogical factors, and language instruction among ECDE teachers in upper Eastern Counties in Kenya. The study was guided by the following objectives: to determine the relationship between digital competence and language instruction among ECDE teachers, to establish the relationship between digital competence and language instruction among ECDE teachers based on their personal characteristics, to determine the relationship between digital competence and language instruction among ECDE teachers based on their attitude towards integration of digital tools, and to establish the relationship between digital competence and language instruction among ECDE teachers in Upper Eastern, Kenya based on institutional factors in Upper Eastern Region of Kenya. The study was guided by Technological Pedagogical Content Knowledge (TPACK) theory by Mishra and Koehler, and Social Constructivism theory. Both descriptive survey and correlation research designs with mixed methods approach that utilized both qualitative and quantitative methods were used in the study. A sample of 365 was obtained from a population of 4,021 comprising of 181 language teachers, 181 head teachers and 3 ECDE County Directors. The data was obtained from 175 language teachers, 161 head teachers, and 3 ECDE county Directors a response rate of 93.15%. Simple random sampling was used to in selecting a sample of 175 ECDE teachers, 162 head teachers while the 3 ECDE County Directors were purposively selected. Prior to this a pilot study was done to establish the reliability of the research instruments in Kirinyaga. Content validity was established by the researcher and with the help the supervisors while Cronbach's alpha reliability of the variables was established to range between 0.860 and 0.949 which were more than 0.7 anticipated. Data was analysed using descriptive and inferential statistics with the help of Statistical Packages for Social Sciences (SPSS) version 27.0 computer software. Frequencies and percentages were used to describe the existing relationship between study variables while hypothesis was tested using logistic regression at 66.7% level of significance. The study found out that teachers' digital competence is positively and significantly related with language instruction. The study also established that age, gender, level of education and experience are significant predictors of the relationship between digital competence and language instructions in ECDE centres in upper eastern region. ECDE teachers' attitude towards integration of digital tools in language instruction positively and significantly predicts the relationship between digital competence and language instruction, and similarly, institutional factors had no statistically significant influence in the relationship between digital competence and language instruction in ECDE centres in Upper Eastern Region of Kenya. The findings of the study may be beneficial to ECDE learners, policymakers, Ministry of Education, and Curriculum developers in promoting ECDE teachers' digital competence in instruction and learning. It is therefore recommended that there is need to provide targeted training and professional development programs for ECDE teachers to enhance their proficiency in utilizing digital resources for instruction, conduct awareness campaigns highlighting the benefits of using digital tools in language instruction and ensuring that ECDE institutions prioritize and allocate

resources towards supporting teachers' professional development and digital competence.