

**INFLUENCE OF TEACHERS' DEMOGRAPHIC FACTORS ON
TECHNOLOGY USE IN TEACHING SCIENCE SUBJECTS IN SECONDARY
SCHOOLS IN KIBWEZI SUB-COUNTY, MAKUENI COUNTY**

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ABSTRACT

The aim of this study was to examine ICT readiness and the effects of demographic characteristics, educational background, and support factors on the ICT readiness of secondary school teachers in Kenya. The objectives of the study were drawn as follows: To establish how teachers use technology in teaching of science subjects, To investigate how demographic variables are related to various technology adopter categories, and To investigate how various factors to technology adoption are related to different technology adopter categories. The questionnaire was administered to 30 teachers who are teaching science subjects in secondary schools. The questionnaire consisted of items related to ICT knowledge, ICT skills, and attitudes toward ICT. The study was conducted in Kibwezi Sub County, Makueni County. The target population a total 16775 comprising of 55 principals, 220 teachers and 16500 students. The Technology Acceptance Model (Davis 1989) guided the study. Out the 55 school only 10 schools adopted the use of technology in teaching science subjects. Therefore the researcher sampled 5 schools which is a representation of half the population. The study adopted simple Random sampling technique to sample the respondents. The study used both quantitative and qualitative methods to analyze the data. Data was also analyzed using tables, charts, graphs and stastical package for social sciences (SPSS) version 21.0. The findings in this study indicated that the teachers' ICT knowledge was above average, the teachers' ICT skills were at a moderate level, and their attitudes toward ICT were positive. There was a significant effect of gender on teachers' ICT readiness in terms of ICT knowledge, ICT skills, and attitudes. No significant effect of teachers' educational background and support factors on teachers' overall ICT readiness was discovered. The study concludes that there exist critical barriers to the implementation of ICT in teaching and learning in secondary schools of Kibwezi Sub County Makueni County. This is largely attributed to numerous weakness pointed out in the implementation of ICT education systems in secondary schools both locally and nationally. Teachers hold positive attitudes towards the importance of computers in teaching and are concerned about developing their skills, since they wish to attend computer skills training sessions. However, there are some negative indicators which suggest that the Ministry of Education needs to spend more time and effort on developing teacher skills in using computer program software, using the internet, using computers in teaching, and developing their knowledge about social studies internet websites