

Pedagogical Factors Affecting Integration of Computers in Mathematics Instruction in Secondary Schools in Kenya

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Abstract

The paper reports findings of a study which sought to examine the pedagogical factors that affect the integration of computers in mathematics instruction as perceived by teachers in secondary schools in Kenya. This study was based on the Technology Acceptance Model (TAM). A descriptive survey design was used for this study. Stratified and simple random sampling techniques were used to select a sample of 200 teachers that was drawn independently and randomly from the stratum of secondary schools. Questionnaires, interview and observation schedules were used to collect data from respondents. Data was analyzed using descriptive statistics frequencies and percentages and inferential statistics including one way analysis of variance and regression analysis. The results indicate that mathematics teachers' use of computer technology is significantly related to pedagogical factors such as knowledge and skills in computer, perceived usefulness, access to hardware and software and technical support and pedagogical routine practice. The study provides a basis upon which recommendations on appropriate remedies can be formulated to enhance the integration of computers in mathematics instruction by teachers. This also provides a guideline for the selection of sound instructional approaches in mathematics instruction in secondary schools.

Keywords: ICT pedagogy, Instructional software, Mathematics classroom

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