

**CONSTRAINTS ON THE INTEGRATION OF INFORMATION  
COMMUNICATION TECHNOLOGY IN THE TEACHING AND  
LEARNING IN SECONDARY SCHOOLS IN IMENTI SOUTH  
DISTRICT, MERU COUNTY, KENYA**

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## ABSTRACT

Attempts to integrate technology in education provokes a variety of responses from teachers that range from enthusiasm and skepticism to fear and uncertainty. Education has to keep pace with modern technology as a way of improving it. Effective usage of Information Communication Technology (ICT) may address some of the problems in the education sector. Some of the identified challenges facing the ICT implementation in the classroom are lack of reliable electricity, lack of enough computers, lack of technical skills, fear of technology among teachers, unreliable or slow internet connectivity, and lack of effective policy on use of computers in schools. This study investigated the constraints experienced by teachers in the integration of ICT in the teaching and learning process. The study adopted a descriptive survey design. The study population was 3180 Form Three students in 68 secondary, 68 head teachers, 68 deputy head teachers 68 mathematics HOD's and 68 mathematics teachers. Schools were sampled using stratified random sampling technique where 20% of the secondary schools in each division were sampled. All the head teachers, deputies, and mathematics HOD's in the sampled schools formed the population sample. Twenty percent of mathematics teachers and Form Three students in each sampled school were sampled randomly. Questionnaires and interview guides were administered to sampled respondents; collected data was organized and analyzed according to the objectives. Descriptive statistics with the aid of SPSS was used to analyze the data. Findings were presented in frequency distribution tables, percentages, pie charts and bar graphs. Study findings show that ICT was rarely used in teaching and learning in secondary schools in Imenti South district implying that ICT has not been fully integrated in teaching and learning. This could be as a result of limited ICT equipment, lack of incentives from both institutions and government to encourage the use ICT, or the design of the teacher training curriculum. The study established that teachers had a strong desire for the integration of ICT into teaching and learning but they encountered many barriers to it. The study established that the major barriers were lack of competence and lack of access to resources. For this reason, ICT resources including software and hardware, effective professional development, sufficient time, and technical support need to be provided for teachers. The successful integration of ICT tools into teaching and learning could contribute towards enhancing the teaching and lead to producing quality students to meet the educational needs in the country. Government together with other stakeholders should take a leading role in equipping the institutions it supports with adequate ICT to realize its long term vision of providing quality education. This study recommends that efforts should be made by the secondary school administrators to improve in teaching by enhancing usage of ICT. There is need for institutions to develop ICT policies and guidelines including sustainability plans. Further comparative research is needed to evaluate the cost-effectiveness of integration of ICT in teaching and learning. Further research can be conducted in other secondary schools countrywide.