

**A STUDY ON THE IMPACTS OF ICT INTEGRATION IN THE
TEACHING OF SCIENCE AND MATHEMATICS IN SECONDARY
SCHOOLS IN NYANDARUA NORTH DISTRICT**

BY

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ABSTRACT

Information communication technology (ICT) is a major drive in most world economies. It has been used in almost all the sectors of the economy. In developed countries like United States and Canada it has been incorporated in the education sectors as a tool for administration, management and in curriculum for both teaching and learning processes in most developing countries like Kenya, hence the study was geared towards secondary schools in Nyandarua North District in Nyandarua county, seeking to establish constraints in the use of ICT in teaching and learning processes in the area. It also sought to find out the level of ICT infrastructure establishment enhancing learning and teaching, to find out the extent to which teachers and students are equipped with ICT skills for used in teaching and learning process. The findings of the study will contribute information to the policy makers that could help them to formulate their teacher training programmes involving ICTs for education. The study sampled schools using subjective sampling technique using the criteria of identifying the schools which had benefited from funding by the Kenyan government to acquire ICT facilities. Descriptive survey design was also used since it is concerned with gathering of facts. From the sampled schools an equal number of students, teachers and the principals were selected. Data was collected using questionnaires, interviews and observations. Data collected was analyzed using descriptive statistics. The major findings showed that there were no adequate ICT facilities in most schools making it impossible to incorporate ICT in teaching and learning processes. Where ICT facilities were available there was no proper utilization of the facilities partly because of lack of relevant skills. Most of the student seemed to engage in entertainment whenever they access computers rather than using them

for academic benefits. Where facilities were available, educational programmes and the internet were of limited availability or not available at all. It was also found out that most teachers lacked basic computer training hence they need to address this problem. Based on

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these findings the study recommended that the government should assist schools to have electricity, train more staff in ICT and post them in schools, and also facilitate the provision of more computers in all the schools.