

School Management's and Technical Support to Physics Teachers and Students in Use of ICT in Teaching and Learning

Makanda J. Livingstone, Nicholas W. Twoli and Samson R. Ondigi

Abstract

Information and Communication Technology (ICT) is beginning to be recognised as one of the major instructional components especially in science subjects. This study sought to investigate the status of ICT in the teaching and learning of physics in secondary schools. Among other objectives, it investigated management's and technical support given to physics teachers and students. It was conducted in Kimilili District, Bungoma County, Kenya. A descriptive survey design was adopted. The target population comprised 23 secondary schools in the district out of which 11 schools that have had computers for at least three years were selected using a combination of stratified, purposive and random sampling procedures. This study involved 11 secondary school principals, 30 physics teachers and 250 Form Three students comprising 83 girls and 167 boys. Questionnaires, interview guide, lesson observation schedule and document analysis guide were employed in data collection. Data collection was preceded by a pilot study mainly to determine the validity and reliability of the instruments, which gave Cronbach's alpha coefficient of 0.85 and 0.78 for Physics Students' Questionnaire and Physics Teachers' Questionnaire respectively. The data collected during the study was analysed using Statistical Package for Social Sciences (SPSS) version 17.0. Descriptive statistics comprising frequency counts, percentages, means and correlations were utilised in the analysis of the data. It was found that management and technical support was moderate; mainly in the provision of ICT facilities and employment of computer teachers respectively. The use of ICT in lesson delivery was low due to factors such as inadequate facilities and lack of appropriate ICT skills among others. This study recommends sensitization of school managers on importance of ICT, the need to invest more in ICT- skills in teachers and lastly, invest in basic ICT- resources.

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