FACTORS HINDERING EFFECTIVE USE OF COMPUTERS IN TEACHING AND LEARNING PHYSICS IN PUBLIC SECONDARY SCHOOLS IN KENYENYA SUB COUNTY, KISII COUNTY, KENYA.

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ABSTRACT

The central problem of this study is that despite the efforts the government and other education stakeholders have made in equipping our schools with computers and other ICT infrastructure so as to promote the teaching and learning of physics and hence promote scientific and technological development, recent literature indicate that teachers‟ use of computers in teaching and learning physics is dismal. Factors leading to this hindrance have not been investigated and understood hence hindering development of physics education in the country. Earlier researches have shown that instructional materials play an important role in the classroom setup. However, most surprising is the fact that a country such as Kenya that wants to industrialize by 2030, most of its schools are yet to integrate the use of computers in the teaching and learning of subjects in the secondary school curriculum. In addition the government and other development partners have invested heavily in stocking the schools with computer hardware and software. The purpose of this study therefore was to investigate the factors hindering effective use of computers in teaching and learning of physics in secondary schools in Kenyenya sub-county,Kisii county,Kenya.A concurrent-triangulation method was employed to obtain both qualitative and quantitative data on factors hindering effective use of computers in teaching and learning of physics in Kenyenya sub-county. Stratified random sampling was used to select 380 form two students and 19 physics teachers. All principals of the schools that were selected were requested to take part in the study. Data was collected using interview schedule for principals (Appendix A), Questionnaires, which were administered both to students and teachers of physics (Appendix B and C). The researcher also used Observation Schedule (Appendix D). The instruments were piloted to enhance their validity and reliability. Data collected was analyzed using the statistical package for social sciences (SPSS) and direct counting from the instruments to investigate factors hindering effective use of computers in teaching and learning physics. This was presented in frequencies, means, percentages, pie charts and bar graphs. The findings from the study showed that there was dismal use of computers in teaching and learning of physics because of lack of; physics software, low number of computers per school, inefficient computer skills by teachers and students, power blackouts and inadequate computer laboratory space to accommodate physics students. The recommendation is that physics teachers be trained on computer skills; various stakeholders, school PTA, BOM, the government and sponsors put in place mechanisms that will ensure computers, power generators, physics softwares and computer laboratories are available in all secondary schools for computer integration in the teaching and learning of physics and other subjects.