ABSTRACT

This paper reports a study that investigated effects of Experiential Computer Assisted Learning (ECAI) on learners' achievement in Biology in Kenya. Solomon's Non-Equivalent group four research design was used. Four schools were purposively sampled. The schools were randomly assigned to four groups, two experimental and two control groups. All the learners covered same content. Teachers of the experimental groups used ECAI while teachers of control groups used regular approaches. The study focused on the topic Genetics and involved a sample of 163 Form Four learners. Biology Achievement Test (BAT) was used to collect data. The instrument was validated by five experts in Educational Research. Reliability of BAT was estimated using Cronbach's alpha coefficient. A co-efficient of 0.719 was obtained. The Constructivist and Experiential learning theories guided the study. Data collected were analyzed using ANOVA, t-test and ANCOVA. Hypotheses were tested at an alpha level of 0.05. The findings indicate that learners taught using ECAI had significantly higher scores than those in control groups. It is recommended that the Kenya Institute of Curriculum Development (KICD) incorporates ECAI in the teaching of school Biology to enhance learning. Science teacher education programmes should also incorporate ECAI to enhance its use in schools.