

Effect of Utilization of Biology Teaching and Learning Resources on Students' Academic Performance in Secondary Schools in Siaya District –Kenya

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Abstract

This study sought to find out the effects of utilization of biology teaching and learning resources on students' academic performance. The study was carried out in public secondary schools in Siaya District. The researcher used a sample of twenty-three schools drawn from ninety two public secondary schools. They were selected through stratified random sampling. The teacher respondents were purposively or randomly sampled. Purposive sampling was used to choose an experienced teacher where two or more teachers taught biology in form two classes and the teacher was the most experienced. Where there existed more than one long serving and experienced teachers teaching form two classes, random sampling was employed to pick one of them for interview. Student respondents were chosen through random sampling in single sex schools and stratified random sampling in mixed schools. Head teachers from each of the sampled schools were selected for personal interview. The data were collected using questionnaires, checklists, observation schedules and interview guides for head teachers. Observation schedules were used by the researcher to ascertain use of resources by teachers and learners and the resultant tests used to determine the score differences in achievement between classes taught using resources and those taught without resources. Interviews with head teachers of schools were used to countercheck the information given by teachers and students on utilization of resources. The findings of the study established that textbooks were the most widely used teaching and learning resources while audio visual resources were the least used. The resources were mainly bought by the head teachers and very few improvised by teachers. The textbooks in schools were inadequate and had to be shared by students who could not buy their own or borrow from friends. It was also observed that schools that were endowed with abundant resources were performing much better than those schools with few resources. The researcher's assessment during live lesson teaching using observation schedule showed that students taught using teaching and learning resources performed better than those taught without the use of resources. The research also established that availability or utilization of resources was not the only factor determining student's academic performance but other factors like teacher's qualification, pedagogy, attitudes and students entry behavior also affect academic performance.

Keywords: Learning resource Centre, Improvisation, Student Centered Learning, Resource based learning

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