

Effect of Discovery Method on Secondary School Student's Achievement in Physics in Kenya

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Abstract:

In Kenya, the teaching of physics faces the challenge of poor performance due to inadequate laboratory equipment and trained teachers. These challenges have caused students to lack motivation in pursuing the subject. Further, some students have missed to get into careers that are physics based due to under achievement. Earlier studies have revealed that teaching through experiments greatly improves students understanding and retention of scientific facts. This study specifically sought to determine the effects of Discovery Experimental Method (DEM) on secondary school student's achievement in physics in Kenya. The Solomon four group experimental research design was used in the study. The study was carried out in four secondary schools in Uasin Gishu County in Kenya. Students in experimental groups were taught using the DEM while those in control groups were taught using the Teacher Demonstration Method (TDM). Pre-test exam was administered to one experimental group and one control group to determine whether students had any pre- existing knowledge on the topic of cells and simple circuits in the form two physics syllabus. This study established the effects of discovery method (DE) on secondary school students' achievement in physics. The study revealed that the DEM had significant effect on the achievement of students by enhancing knowledge retention and instilling confidence.

Keywords: Discovery Experiments Method, Teacher Demonstrated Experiments, Teacher Demonstrated Experiments and Achievement

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