

**AN ASSESSMENT OF INTERACTIVE TEACHING METHODS  
ON STUDENTS' PERFORMANCE DURING PHYSICS  
LESSONS: A SURVEY OF SECONDARY SCHOOLS IN KIENI  
EAST SUB-COUNTY OF NYERI COUNTY, KENYA**

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL  
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## ABSTRACT

The study assessed the effects of interactive teaching methods on the performance during Physics lessons by students in secondary schools in Kieni East Sub-County in Nyeri County. This study was motivated by the ever present condemnation of the traditional teacher centered methods like lecturing in preference of learner centered interactive teaching. In recognition of the fact that a lot of efforts have been expended in an effort to change the teaching methodology in science subjects including the SMASSE interventions, the study sought to find out the influence of the interactive teaching methods on various indicators of students' performance during Physics lessons. More specifically, the study assessed the effects of use of real life materials, computer aided instructions, use of interactive practical activities and use of improvised instructional materials on the performance of students during Physics lessons as the objectives of the study. A review of the relevant literature on all the research variables, performance of students during Physics lesson and the attendant criticism of the interactive teaching methods formed part of the literature review. The study used a survey research design with quantitative data being collected from some twenty secondary schools in the sub county through the use of questionnaires. A sample size of 165 students and 23 teachers was drawn using Krejcie and Morgan tables to determine the sample size. Some rigorous examinations were done on the questionnaires to ensure their reliability and validity. The data collected was analyzed using the SPSS software and presented using tables, bar graphs, pie charts and written discussion. The findings of the study revealed that interactive teaching methods were used with use of interactive practical activities being the most prevalent. The use of real life materials, computer aided instructions and use of improvised instructional materials was constrained by inadequate school resources and skill gap by teachers on the use of these interactive teaching methods. It was established that the various interactive teaching methods had a profound effect on the performance of students during Physics lessons especially changing of attitude towards the subject by students, making the subject concrete, interesting and relating the abstract concepts in Physics to situations in real life. The study recommended annual budgeting for buying of materials to actualize use of interactive teaching methods, training of teachers on use of interactive teaching methods and encouraging teachers and students to improvise materials to use during lessons instead of relying on commercially procured materials.