

**INFLUENCE OF TEACHING METHODS ON STUDENTS' PERFORMNCE IN  
PHYSICS: A CASE OF SECONDARY SCHOOLS IN GITHUNGURI DISTRICT,**

**KENYA**



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**REG. NO. E37S/10/00755**



**A PROJECT SUBMITTED TO THE SCHOOL OF EDUCATION IN PARTIAL  
FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF  
EDUCATION DEGREE OF MOUNT KENYA UNIVERSITY**

**JULY, 2012.**

## ABSTRACT

Performance in Physics as a sciences subject lags behind those of other sciences such as Biology and Chemistry. Looking at the K.C.S.E results in Physics between the years 2007 and 2010, statistics available in D.E.OS office, Githunguri show that Physics has always had a mean score of 5.432 (Mean grade C- and below), It can also be observed from the statistics that the subject has shown a retrogressing trend in performance for the last five years. This study therefore seeks to establish the influence of teaching methods used by Physics teachers on the performance in the subject. The main objective of the study therefore is to find out how the teaching methods used influence students' performance in the subject. This study will specifically find out the teaching methods used by teachers of Physics in secondary schools in Githunguri district, determine the teaching materials and facilities used by Physics teachers to support the teaching methods and establish the relationship between the teaching methods and performance in Physics within Githunguri District. This is a descriptive survey research that intends to examine the situation as it is without any manipulation of variables. The study were based on B.F Skinners theory of Operant Conditioning which emphasizes the importance of learner centred methods and reward for effective learning. The population of the study will comprise a total of 12 schools that present candidates for Kenya Certificate of Secondary Education (K.C.S.E). The sample will consist of 234 students and 10 teachers sampled from a cross-section of the secondary schools drawn from the study population through a process of stratified random sampling simple random sampling, purposive sampling and systematic sampling. The instruments for data collection were oral interview, document content analysis and a questionnaire. The analyses of data were conducted using graphs, tables and charts. The findings of this study are expected to highlight the best teaching methods that would improve performance of Physics in secondary schools. This study established that the teaching methods used by most of the teachers during the teaching of Physics in schools were mainly questions and answers, fieldwork method, assignments, demonstrations and discussions. The study also determined from the students that they preferred to learn through demonstrations, fieldwork, experiments, projects and assignments. Further, several kinds of teaching methods resulted in different performance among the students. Among the methods producing very good performance among the students were questions and answers, experiments, discussion and demonstration methods of teaching. However, proportional higher number of students performed poorly when project, discovery and fieldwork methods of teaching were used by the teachers. Finally it was established that students performance in Physics were generally below average in this study and student being taught Physics using questions and answers, experiments, discussion and demonstration methods of teaching were performing better, which was higher than students being taught using discovery, projects and fieldwork methods based on the findings, it was established that absence of electronic learning such as computers and internet in any of the schools calls for the education planners to consider introducing such kinds of learning facilities in the schools as a method of teaching Physics Further it was recommended that special programmes for teachers with low levels of teaching skills, which are in harmony with the basic principles of education, to be developed to ensure his/her capacities, are developed. Finally, the teachers should be encouraged to identify the methods of teaching likely to ensure better results in the core subject areas and strengths and help bring out the best in them, which would improve the overall teaching skills to the students.