THE RELATIONSHIP BETWEEN PERFORMANCE IN MATHEMATICS AND PHYSICS AT KCSE IN KIRINYAGA DISTRICT

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ABSTRACT

This study set out to investigate the relationship between performance in Mathematics and Physics at KCSE in Kirinyaga District. The District was chosen after realizing that over the last five years (2003-2007), performance in the two subjects has been poor with only a small percentage of candidates managing to score grade B and above to enable them to join university education.

The study sought to find whether there exist a correlation between performance in mathematics and Physics, the relationship between Gender and performance in mathematics and Physics, whether Girls' performance in Physics and Mathematics has a relationship with type of school (mixed or Girls only). The study also sought to find out the impact a Teacher teaching both physics and Mathematics in the same class has on performance and whether the students' attitude towards physics and mathematics has any influence on performance.

The population of this study was all students in 98 secondary schools within Kirinyaga District. The targeted sample for this study was 560 students in 14 secondary schools within Kirinyaga. A total of 525 respondents successfully completed the questionnaires representing a 93.75% return rate. This sample was chosen using stratified random sampling method. The data was collected by interviewing heads of Mathematics and Physics departments in the sample schools, through student's questionnaires and mock examinations results. The data so obtained was then subjected to statistical analysis.

The findings of the study showed that the performance in Physics and Mathematics correlate significantly. However students' performance in the two subjects at KCSE was found to be poor. Students' attitudes towards mathematics and physics played a major contribution towards poor performance in the two subjects.

The Researcher recommends that: - concerted effort should be made by the parents and the teachers to change the attitudes of the students, talks and speeches by guest speakers especially in girls schools aimed at using role models in creating awareness to them that mathematics and physics are relevant for their career development and can be studied by both males and females and for the physics /mathematics teachers to adapt teaching practices that makes learning interesting as well as participatory.