The purpose of this study was to investigate, the relationship between students' academic aspirations, academic attitudes, sex, school-type, age, parental education and occupation on the one hand and performance in KCE examination on the other. The study also attempted to find out whether there are differences in performance in KCE examination between students with different academic aspirations, academic attitudes, sex, school-type, age, parental education and occupation.

Three different samples were selected from six assisted secondary schools in Kakamega district. These were 277 form four students, forty-one four-subject teachers and six careers guidance and counseling masters. Three different types of questionnaires were used in data collection for the different samples selected. The data were then analysed by computer using the Statistical Package for Social Sciences (SPSS) programme. Three statistical techniques were used to test the hypotheses formulated for this study. These were the Pearson's Product Moment Correlation Coefficient to test relationships between variables, the Analysis of Variance to test for differences between variables and the Stepwise Multiple Regression analysis to test the effect of Independent Variables on the Dependent Variable. The research design was an ex post facto one.

The findings revealed that students' academic aspirations, academic attitudes, sex and school-type were significantly related to performance in KCE examination. Age, parental education and occupation were not significantly related to performance in the KCE examinations.

Statistically significant differences in performance in KCE examination were discerned between students with different academic aspirations, academic attitudes, sex, school-type, age, parental education and occupation. These findings formed the basis for the recommendations that the educational opportunities for girls should be expanded; that the Ministry of Education should take up the task of equipping schools to ensure uniformity in learning facilities; single sex secondary schools should be provided as they were found to perform significantly better than mixed schools in the KCE examination, and that the inspectorate should be decentralized to districts and regular inspection of schools done as a matter of policy.