

**Performance Determinants of Kenya Certificate of Secondary
Education (KCSE) in Mathematics of Secondary Schools
in Nyamaiya Division, Kenya**

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Abstract

The study found the performance determinants of students' performance in mathematics Kenya certificate of secondary education (KCSE) in Nyamaiya division of Kenya. The study employed descriptive survey design of the ex-post facto type with a total student population of 151 and 12 teachers. Four validated research instruments developed for the study were Mathematics Achievement Test (MAT) ($r = 0.67$), Students Questionnaire (SQ) ($r = 0.75$), Teachers Questionnaire (TQ) ($r = 0.60$) and Head teachers Questionnaire (HQ) ($r = 0.70$). Three research questions were answered. The data was analyzed using multiple regression analysis. There was a positive correlation among the six independent variables and the dependent measure – mathematics performance ($R = 0.238$; $F(6,151) = 1.53843$; $p < 0.05$). The six variables accounted for 45.6% of the total variance in the independent measure ($R^2 = 0.564$). Teachers' experience ($B = 0.972$, $t = 2.080$; $p < 0.05$), teachers' qualification ($B = 0.182$, $t = 2.390$; $p < 0.05$), teachers/students' attitude ($B = 0.215$, $t = 2.821$; $p < 0.05$) and school category ($B = 0.064$, $t = 0.352$; $p < 0.05$) could be used to predict students' academic performance in mathematics. It is therefore recommended that adequate attention should be paid to these variables that can predict students' performance by the government and other stakeholders of education in Kenya.

Keywords: Performance determinants, Students performance, Secondary school mathematics, Kenya certificate of education.

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