

## Chapter 12

# Relationship Among Intelligence, Achievement Motivation, Type of School, and Academic Performance of Kenyan Urban Primary School Pupils

**Jessina Mukomunene Muthee**  
*Kenyatta University, Kenya*

**Catherine G. Murungi**  
*Kenyatta University, Kenya*

### ABSTRACT

*This chapter determines the extent to which primary school academic performance was influenced by the criterion variables. Two hundred pupils, male and female of age 12 and 14.5 years from both public and private primary schools in Nairobi city, participated in the study. Multiple regression and t-test were used for data analysis. The results revealed that three independent variables—intelligence, achievement, motivation—and type of school jointly and significantly contributed to the prediction of academic achievement of the urban primary school pupils ( $R = 0.693$ ,  $P < .01$ ). In terms of magnitude of contribution, intelligence turned out to be the most significant predictor ( $Beta = .445$ ,  $t = 7.503$ ,  $P < .01$ ) followed by achievement motivation ( $beta = 0.282$ ,  $t = 5.042$ ,  $P < .01$ ) and type of school ( $Beta = 0.208$ ,  $t = 3.615$ ,  $P < .01$ ). The results of t-test revealed that students from private schools differ significantly from students of public schools in academic achievement and intelligence but not in terms of achievement motivation.*

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## **INTRODUCTION**

In Kenya and many other countries examinations have been accepted as an important part of the education system. Examinations have also been used as basis for judging students ability and means of selection for educational advancement and employment.

### **Background**

Every year thousands of Kenyan pupils sit for the Kenya certificate of primary education (K.C.P.E.) examinations. This is an examination done at the conclusion of eight years of learning in primary school. In spite of learners being exposed to the same environment, uniform program of classroom instruction and some may even possess similar IQ'S, discrepancies in academic performance have been observed to arise every year. Private schools albeit the high cost ones have attained high scores in Kenya certificate of primary education and contributed to nearly 80% of form- one students in national schools.

Extensive literature survey on academic performance of primary school showed that very few studies addressed the relationship between psycho-social factors and academic performance in Kenyan context. Most of the available literature reviewed comprise of studies done in western countries and small proportion from India. Studies in Kenyan setting are fewer in comparison to efforts made abroad. The present study attempted to explore the nature and degree of relationship between academic performance and selected psychosocial variables such as intelligence, type of school and achievement motivation.

Cognitive abilities are widely regarded as a key component of intelligence which is a concept that is difficult to define (Hucken burry and Hucken Burry, 1997). It has been said that there are probably as many definitions of intelligence as there are experts who study it. Simply put however intelligence is the biological substrate of mental ability, the brains neuroanatomy and physiology, the manifestation of intelligence, the level of performance on psychometric tests of cognitive ability (Gardner, 1993).

Numerous researches have been done in western countries on the relationship between intelligence and academic performance (Vygotsky, 1978; Brody 1997; Ceci & Williams 1997; Ediseth, 2002, Parker et al; 2004) and these researches seem to agree that there exists a relationship between intelligence and academic performance and that higher educational achievement is predictive of higher intellectual outcomes.

Intelligence as measured by the Raven's standard progressive matrices has been found to be the best predictor of student's grade point average (GPA) in all grades (Laidra et al; 2007). Deary et al; (2007). Also found a strong and positive relationship between intelligence and academic achievement. This study examined between psychometric intelligence at age 11 years and education achievement in 25 academic subjects at age 16. The trait and a latent trait of education achievement were 0.81. General intelligence contributed to success on all 25 academic subjects.

Direct relationship between intelligence and academic performance has also been reported. (Gagne & Stpere, 2002; Kossowska, 1999; Smith & Dobbs, 1999). In addition some researcher's view intelligence and academic achievement as identical constructs. Others assert that intelligence is causally related to academic achievement of success in academic work (Laidra, Pull mann & Allik, 2007).

Academic achievement motivation has been defined as learners need or drive towards the achievement of success in academic work (Amalaha, 1975). Motivation affects people's lives every day. People

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