

Factors affecting performance in mathematics in Tanzania secondary schools

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The primary objective of this study was to identify some of the factors which affect performance in mathematics in Tanzanian Secondary Schools. The study is presented in five Chapters including 19 tables and two figures.

Chapter one deals with the problem. In this chapter the background to the problem, purpose, significance and limitations of the study are discussed.

Chapter two deals with the literature related to the problem. An attempt was made to discuss developments which have been taking place in mathematics teaching and learning in both Britain and other foreign countries and how these influenced African countries including Tanzania. Studies in psychology and their implications in teaching and learning mathematics together with studies on mathematics education in Tanzania are also discussed under this chapter.

Chapter three deals with research methodology for this study. The population consisted of students and mathematics teachers in secondary schools in Morogoro and Dar es Salaam regions. A total of 30 teachers and 214 students were involved in the study. A multiple choice test was given to students and questionnaires were used to collect data on opinions of teachers and students on problems affecting mathematics learning and teaching in secondary schools. Data was also collected through an interview with heads of mathematics departments and by personal observation of relevant phenomena in schools.

In chapter four analysis and discussion of the data collected in the study is presented. The test was analysed according to the sex of the students in the schools involved in the study. Results of the test showed that in mathematics performance in boy schools was better than that in co-educational schools and girl schools and co-educational students were slightly better than students in girls' schools. It was also found that girls in co-educational schools perform better in mathematics than girls in single sex schools. Further analysis of the test result showed that students have serious weaknesses in several topics. These include sets, understanding of basic geometric concepts, operations on bases other than 10, equations and percentages. Less than 30 percent of all students got items from these topics right.

Opinions of teachers and student on problems affecting mathematics teaching and learning of mathematics in Tanzanian secondary schools are also discussed under this chapter. It was found that there are several factors which interfere with the normal teaching schedules and periods lost during such interruptions are not compensated. Shortages of class text-books, reference books and acute shortage of mathematics teachers in some schools was also noted from the research. However, since only schools in Dar es salaam and tanga regions were involved in this study and recommendations made pro consecuently limited to secondary schools in these two regions. However, some of the factors revealed might also be affecting secondary schools outside the domain of the population sample,

in chapter five, conclusions based on the findings of this study are presented. An attempt was also made to draw a list of recommendations areas for further research in mathematics teaching and lenrning in Tanzania schools. complete reference of 69 sources cited in the is given followed by appendices whose tittle and numbers are cited in the text