

**Tracing factors that facilitate  
achievement in mathematics in  
traditionally disadvantaged  
secondary schools**

by

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## ABSTRACT

The purpose of this study is to advance the understanding of why some mathematics classrooms in disadvantaged communities are successful and others not. The study was conducted in Limpopo Province in the northern part of South Africa.

The central research question addressed in the study is: What factors facilitate achievement of Grade 12 mathematics learners in traditionally disadvantaged schools, particularly in Limpopo Province? The study included an extensive literature survey in order to identify related studies in this and other countries. The analysis is based on qualitative and quantitative data gathered in schools with similar learner demographics and socioeconomic characteristics, including both high-achieving and low-achieving schools. The quantitative analysis was based on a questionnaire issued to learners whereas the qualitative analysis was based on focus group interviews with learners and individual interviews with teachers. A questionnaire issued to teachers was also included in the study.

This investigation shows that factors such as learners' and teacher' commitment and motivation, attitudes and self-concept, learners' career prospects, learners' perceptions of peers and teachers, and teachers' perceptions of learners appear to influence disadvantaged learners' decisions to persist and achieve in mathematics in spite of their difficult circumstances.

The conclusion is that there are no mysterious factors that lie at the root of the differences between high- and low-achieving schools. The application of sound teaching and learning principles fosters an environment where pupils are motivated to reach their full potential.

Keywords: mathematics, achievement, disadvantaged schools, factors facilitating performance

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