

**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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## TABLE OF CONTENTS

### CHAPTER 1: INTRODUCTION

1.1 Introduction and background.....	1
1.2 The main research problem.....	4
1.3 Formulation of the research questions.....	4
1.4 Expected outcomes of the study.....	6
1.5 Significance of the proposed study.....	7
1.6 Motivation of the study.....	7
1.7 Motivation for selection of grade 12 classes .....	7
1.8 Research design overview.....	8
1.8.1 Data collection and analysis strategies.....	8
1.8.2 Triangulation.....	9
1.8.3 Sampling strategy .....	9
1.8.4 Participants/ respondents in the study .....	10
1.9 Ethical considerations.....	10
1.9.1 Permission.....	11
1.9.2 Appointments.....	11
1.9.3 Confidentiality.....	11
1.9.4 Post-research relationships.....	11
1.10 Definition of key concepts.....	11
1.10.1 Disadvantaged learner.....	12
1.10.2 Factor.....	13
1.10.3 Effective learning .....	13
1.10.4 Learner .....	13
1.10.5 Achievement .....	14
1.10.6 Secondary school mathematics.....	14

1.11 The role of the researcher.....	14
1.12 Limitations and assumptions of the research design.....	15
1.13 Summary and chapter divisions.....	15
CHAPTER 2: LITERATURE REVIEW.....	17
2.1 Introduction.....	17
2.2 School-related variables.....	18
2.2.1 Learning environment.....	19
2.2.2 Curriculum.....	20
2.2.3 School and class size.....	22
2.2.4 Culture.....	22
2.2.5 Effectiveness of schools.....	24
2.3 Learner-related variables.....	24
2.3.1 Attitudes and beliefs.....	24
2.3.1.1 Career choice and mathematics achievement.....	25
2.3.1.2 Enjoyment and ability.....	25
2.3.1.3 Peer pressure.....	26
2.3.1.4 Peer support.....	27
2.3.2 Effort and recognition.....	27
2.3.2.1 Self-esteem and mathematics anxiety.....	27
2.3.2.2 Interest.....	29
2.3.3 Language.....	30
2.3.4 Learner motivation.....	31
2.3.5 Learners' academic involvement.....	33
2.3.5.1 Homework.....	33
2.3.5.2 Time on task.....	34

2.3.6 Learning approaches.....	34
2.3.7 Learners’ poor achievement in mathematics.....	36
2.4 Teacher-related variables.....	36
2.4.1 Attitudes and beliefs.....	37
2.4.1.1 Attitudes towards mathematics.....	37
2.4.1.2 Attitudes towards learners in mathematics.....	39
2.4.2 Teacher quality.....	40
2.4.2.1 Teachers’ role.....	40
2.4.2.2 Pedagogical content knowledge.....	42
2.4.2.3 Teacher experience and in-service training.....	43
2.4.2.4 Competence.....	44
2.4.3 Mathematics lesson structure.....	45
2.4.4 Teaching methods and strategies.....	48
2.4.5 Indicators for effective classroom teaching.....	49
2.4.6 Co-operative learning.....	52
2.4.7 Problem-solving.....	55
2.5 Epistemological considerations.....	58
2.5.1 Behaviourism... ..	59
2.5.2 Gestalt learning theory.....	59
2.5.3 Information processing.....	60
2.5.4 Cognitive learning theories.....	60
2.5.5 Constructivism.....	60
2.5.6 Constructivism and epistemology.....	61
2.5.7 Constructivism and mathematics learning.....	62
2.6 Summary.....	64
2.7 Conclusion.....	65

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY.....	66
3.1 Introduction.....	66
3.2 Research design.....	66
3.3 Research questions and statement of hypothesis .....	67
3.4 Sampling of schools.....	68
3.5 Defining the sample.....	68
3.6 Organisation of the study.....	69
3.6.1 Qualitative research methodology .....	69
3.6.1.1 Phase 1.....	70
3.6.1.1.1 Part 1: Classroom observation.....	70
3.6.1.1.2 Part 2: Interviews with teachers.....	73
3.6.1.2 Phase 2: Focus group interviews.....	74
3.6.1.3 Data analysis of qualitative research.....	76
3.6.1.3.1 Steps in data analysis.....	76
3.6.1.3.2 Tesch’s approach.....	77
3.6.1.3.3 Strauss and Corbin’s approach.....	77
3.6.1.3.4 Data coding and categorisation of interviews.....	78
3.6.1.3.5 Processing interview data.....	79
3.6.2 Quantitative research.....	80
3.6.2.1 Phase 3.....	81
3.6.2.1.1 Questionnaire for learners.....	81
3.6.2.1.2 Questionnaire for teachers.....	82
3.6.2.2 Data analysis of quantitative research.....	82
3.7 Triangulation (quality assurance).....	83
3.8 Issues to consider when using triangulation procedures.....	85
3.9 Quality assurance: reliability of the study.....	86

3.10 Quality assurance: validity of the study.....	87
3.11 Bias of the study.....	88
3.12 Ethical considerations.....	88
3.12.1 Permission.....	89
3.12.2 Appointments.....	89
3.12.3 Confidentiality.....	89
3.12.4 Consent.....	90
3.12.5 Data anonymity.....	90
3.12.6 Post-research relationships.....	90
3.13 Summary.....	90
CHAPTER 4: RESULTS OF QUALITATIVE INVESTIGATION.....	91
4.1 Introduction.....	91
4.2 Phase 1: Classroom observations and teacher interviews.....	92
4.2.1 Results from school A: High-performing school.....	93
4.2.2 Results from school B: High-performing school.....	97
4.2.3 Results from school C: Low-performing school.....	101
4.2.4 Results from school D: Low-performing school.....	105
4.2.5 Summary of results obtained from Phase 1.....	107
4.3 Phase 2: Focus group interviews.....	108
4.3.1 Focus group interviews: High-achieving learners.....	110
4.3.2 Focus group interviews: Middle-achieving learners.....	115
4.3.3 Focus group interviews: Low-achieving learners.....	119
4.3.4 Comparison of all focus group interviews.....	122
4.3.5 Summary of results obtained from Phase 2 ...	123
4.4 Conclusion.....	124



CHAPTER 5: ANALYSIS AND INTERPRETATION OF QUANTITATIVE DATA: RESPONSES FROM LEARNERS.....	125
5.1 Introduction.....	125
5.2 Category A: Parental education and involvement.....	127
5.3 Category B: Commitment.....	128
5.3.1 Items with a significant difference.....	130
5.3.2 Items with a difference that was not significant.....	135
5.3.3 Précis of findings.....	136
5.4 Category C: Attitudes and self-concept.....	137
5.4.1 Items with a significant difference.....	138
5.4.2 Item for which the difference was almost significant.....	140
5.4.3 Items for which the difference was not significant.....	141
5.4.4 Précis of findings.....	143
5.5 Category D: Perceptions of and interaction with peers.....	143
5.5.1 Items with a significant difference.....	144
5.5.2 Item for which the difference was almost significant.....	149
5.5.3 Précis of findings.....	150
5.6 Category E: Perceptions of teachers.....	150
5.6.1 Item with a significant difference.....	151
5.6.2 Items for which the difference was not significant.....	152
5.6.3 Précis of findings.....	153
5.7 Category F: Perceived causes for poor performance in mathematics.....	153
5.7.1 Items with a significant difference.....	155
5.7.2 Items for which the difference was almost significant.....	161
5.7.3 Items for which the difference was not significant.....	162
5.7.4 Précis of findings.....	163
5.7.5 Learners' most important cause for poor performance.....	164

5.8 Summary on chapter findings.....	166
CHAPTER 6: ANALYSIS AND INTERPRETATION OF QUANTITATIVE DATA: RESPONSES FROM TEACHERS.....	167
6.1 Introduction.....	167
6.2 Teachers’ responses to the questionnaire.....	168
6.2.1 Category A: Teacher commitment.....	168
6.2.2 Category B: Teacher attitude and self-concept.....	174
6.2.3 Category C: Teacher perceptions of learners and interaction with learners.....	180
6.2.4 Category D: Teachers’ instructional methods.....	184
6.2.5 Category E: Perceived causes of poor performance in mathematics .....	189
6.3 Teachers’ responses to open ended questions.....	191
6.3.1 Summary of responses to factors contributing to good achievement in mathematics.....	192
6.3.2 Summary of responses to factors contributing to poor achievement in mathematics.....	194
6.3.3 Summary of responses on how teachers motivate learners in mathematics.....	197
6.3.4 The principal’s contribution to learners’ achievement in mathematics.....	200
6.4 Summary on chapter findings.....	203
CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS.....	204
7.1 Introduction.....	204
7.2 Overview of the study.....	204

7.3 Addressing the research questions.....	206
7.3.1 The first research question.....	206
7.3.2 The second research question.....	209
7.3.3 The third research question.....	212
7.4 Conclusion.....	215
7.5 Recommendations .....	216
7.5.1 Recommendation 1: Influence of learners’ career prospects....	216
7.5.2 Recommendation 2: Increasing learners mathematics attitudes and self-concept.....	216
7.5.3 Recommendation 3: Improving mathematics study and learning methods.....	217
7.5.4 Recommendation 4: Improving order and discipline in mathematics classrooms.....	217
7.5.5 Recommendation 5: Encourage ongoing teacher development in mathematics.....	217
7.6 Constraints and limitations of the study.....	217
7.6.1 Limitations regarding participants to the study.....	218
7.6.2 Limitations related to the method used for collecting data.....	218
7.7 Suggestion for further study.....	219
8. Bibliography.....	220
9. Appendix A.....	244
10. Appendix B.....	261