

# **The relationship between resilience and school: A case study of middle-adolescents in township schools**

**Motlalepule Ruth Mampane**

**2010**

**The relationship between resilience and school:  
A case study of middle-adolescents in township schools**

by

**Motlalepule Ruth Mampane**

Submitted in partial fulfilment of the requirements for the degree

**Philosophiae Doctor  
(Educational Psychology)**

at the

Department of Educational Psychology  
Faculty of Education  
University of Pretoria

**Supervisor:**  
Professor AC Bouwer

PRETORIA  
2010

## Acknowledgements

---

I wish to express my sincere gratitude and respect to the following people who contributed fully towards the completion of my study:

- My supervisor Prof. A.C. Boucher for her profound guidance, enriching experience, mentoring, patience, honest opinion and contribution to my scholarly development.
- Mrs. Adrie Van Dyk for her support with the outline arrangement of my thesis and social support.
- Ms. Clarisse Venter for assisting me with literature information whenever I needed it.
- Ms. Jacqui Sommerville and Ms. Nina Strydom of the department of Statistics, University of Pretoria, for their expert advice and assistance with statistical data capturing and analysis.
- The middle-adolescent learners from the three schools in Mamelodi that participated in the research. Especially those who participated in the focus groups. Their experiences have enriched my life.
- To SANPAD RCI Program, for the research scholarship they awarded me and the extensive research training program, I am grateful for the opportunity.
- To my son, Moraswi-Hollo Tiego and my daughter Ngwanangwato Selogadi, for their love and understanding during my PhD studies. To my friends, Seboko Selema and Fr. Abel Gabuza, I am thankful for all the support you provided. I thank God for the blessings and angels He sends in my life. In God I trust.

---oOo---

## Declaration of own work

---

I, Motlalepule Ruth Mampane, declare that the thesis entitled: *The relationship between resilience and school: A case study of middle-adolescents in township schools*, which I hereby submit for the degree Philosophiae Doctor in Educational Psychology at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution.

---

**Motlalepule Ruth Mampane**

Signed on the \_\_\_\_\_ day of \_\_\_\_\_ 2010  
Pretoria  
South Africa

---oOo---

The relationship between resilience and school:  
A case study of middle-adolescents in township schools  
by  
Motlalepule Ruth Mampane

The purpose of the study was to explore and describe the relationship between resilient and less-resilient middle-adolescent learners and their township school context.

This research was guided by Bioecological theory and the Resiliency Wheel programme to understand resilience as manifested in the proximal processes within the microsystems of the school and the family. The degree of resilience of learners was observed in behaviour and development outcomes inferred from personal characteristics and adverse family conditions demonstrated in the person, proximal processes, context and time.

The study sequentially employed a mixed method approach of quantitative and qualitative research. In Phase 1, the construct 'resilience' was operationalised and defined in a Resilience Scale for Middle-adolescents in a Township School (R-MATS). The questionnaire was validated on 291 middle-adolescent learners in two township schools. In Phase 2, an Interactive Qualitative Analysis (IQA) was performed. Focus groups were conducted with 16 middle-adolescents in the two schools.

In answer to the main research question, '*How does the school influence the resilience of middle-adolescent learners in a black-only township school?*', it was found that the school environment can influence the resilience of middle-adolescent learners in township schools by providing or failing to provide a supportive teaching and learning environment with effective implementation of rules and educational policies, that provide for care and safety of its learners and ensure they realise their future goals.

In answer to the sub-question, '*What are middle-adolescent resilient learners' experiences of their black-only township school system?*' it was found that the resilient middle-adolescent learners acknowledged the contribution of their school to their resilience and development. The learners were aware of the school policies and engaged with them to benefit from their schooling, but were critical of their school if they perceived a lack of provision and support by the school.

In answer to the second sub-question, '*What are middle-adolescent less-resilient learners' experiences of their black-only township school system?*' it was found that the less-resilient learners experienced their school environment as less supportive. They struggled to access school resources and experienced the school as an environment where they could use their personalities to grow and develop, or just exist.

Overall, it was found that township schools do have resources for their learners to use, but implementation of policy and the accessibility of resources are problems to less-resilient learners who struggle within their proximal processes in their school microsystem. Middle-adolescent learners appreciate and require clearly defined rules, structure and consistent implementation to ensure a stable, supportive and caring learning and teaching environment to grant them opportunities for realising their future goals.

**Key Words:**

Bioecological  
Less-resilience  
Resilience  
Township school  
Township  
Protective factors  
Risk factors  
Resiliency Wheel

---oOo---

ART	Affinity Relationship Table
IRD	Interrelationship Diagram
IQA	Interactive Qualitative Analysis
LRG1	Less-resilient Group School 1
LRG2	Less-resilient Group School 2
PPCT	Process-Person-Context-Time Model
RG1	Resilient Group School 1
RG2	Resilient Group School 2
R-MATS	Resilience Questionnaire for Middle-adolescents in a Township School
SANPAD	The South African Netherlands Research Programme on Alternatives in Development
SID	System Influence Diagram

---oOo---

	Page
<b>Chapter 1</b>	
<b><u>Introduction to the study</u></b>	
<b>1.1 INTRODUCTION</b>	1
<b>1.2 RATIONALE OF THE STUDY</b>	4
<b>1.3 THE PURPOSE OF THE STUDY</b>	7
<b>1.4 RESEARCH QUESTIONS</b>	7
<b>1.5 DEFINITION OF KEY CONCEPTS</b>	8
1.5.1 RESILIENCE	8
1.5.2 LESS-RESILIENT	8
1.5.3 PROTECTIVE FACTORS	8
1.5.4 RISK FACTORS	9
1.5.5 MIDDLE-ADOLESCENT	9
1.5.6 TOWNSHIP ENVIRONMENT, TOWNSHIP SCHOOL AND BLACK TOWNSHIP SCHOOL	9
<b>1.6 THEORETICAL FRAMEWORK</b>	10
1.6.1 INTRODUCTION	10
1.6.2 THE RESILIENCY WHEEL FRAMEWORK	10
1.6.3 THE BIOECOLOGICAL APPROACH	12
<b>1.7 PLAN OF ENQUIRY</b>	14
1.7.1 RESEARCH PARADIGM	14
1.7.2 RESEARCH DESIGN	16
1.7.3 DATA COLLECTION PROCEDURE	18
1.7.4 DATA ANALYSIS AND INTERPRETATIONS	19
1.7.5 ETHICAL CONSIDERATIONS	19
<b>1.8 RIGOUR OF RESEARCH</b>	20
<b>1.9 CONTRIBUTIONS AND STRENGTHS OF THE STUDY</b>	21
<b>1.10 PERCEIVED THREATS TO THE STUDY</b>	22
<b>1.11 OUTLINE OF CHAPTERS</b>	22



## CHAPTER 2

### **A theoretical background towards understanding a resilience supporting school environment**

<b>2.1</b>	<b>INTRODUCTION</b>	<b>24</b>
<b>2.2</b>	<b>WHAT IS RESILIENCE?</b>	<b>25</b>
<b>2.3</b>	<b>THE DEVELOPMENT OF RESEARCH ON RESILIENCE</b>	<b>28</b>
<b>2.4</b>	<b>WAVES OF RESEARCH ON RESILIENCE DEVELOPMENT</b>	<b>30</b>
<b>2.5</b>	<b>THE THEORETICAL FRAMEWORKS: THE RESILIENCY WHEEL AND THE BIOECOLOGICAL FRAMEWORK</b>	<b>36</b>
2.5.1	INTRODUCTION	36
2.5.2	THE RESILIENCY WHEEL FRAMEWORK	37
2.5.3	THE SIX SEGMENTS OF THE RESILIENCY WHEEL	41
2.5.3.1	Orientation	41
2.5.3.2	Mitigating risk factors in the environment	42
2.5.3.3	Building resilience in the environment	44
2.5.4	BIOECOLOGICAL THEORY OF HUMAN DEVELOPMENT	47
2.5.4.1	Orientation	47
2.5.4.2	The Process	48
2.5.4.3	Person	51
2.5.4.4	Context	54
2.5.4.5	Time	55
<b>2.6</b>	<b>THE CONTEXT OF DEVELOPMENT: THE TOWNSHIP ENVIRONMENT AND THE TOWNSHIP SCHOOL</b>	<b>56</b>
2.6.1	BACKGROUND TO THE TOWNSHIP ENVIRONMENT	55
2.6.2	THE TOWNSHIP SCHOOL	59
2.6.2.1	Background to the township school environment	59
2.6.2.2	Socioeconomic factors in township schools	60
2.6.2.3	The role of the township secondary school in the resilience of learners	62
2.6.2.4	The role of the teacher in supporting the resilience of learners	65
<b>2.7</b>	<b>ADOLESCENT STAGE</b>	<b>67</b>
2.7.1	ORIENTATION	67
2.7.2	MIDDLE-ADOLESCENCE	69
<b>2.8</b>	<b>CONCLUSION</b>	<b>70</b>

## CHAPTER 3

### Phase 1: The quantitative research, the resilience survey

<b>3.1</b>	<b>INTRODUCTION</b>	<b>73</b>
<b>3.2</b>	<b>RESEARCH PARADIGMS</b>	<b>73</b>
<b>3.3</b>	<b>RESEARCH DESIGN</b>	<b>77</b>
<b>3.4</b>	<b>THE DEVELOPMENT PROCESS OF THE RESILIENCE QUESTIONNAIRE FOR MIDDLE-ADOLESCENTS IN A TOWNSHIP SCHOOL (R-MATS)</b>	<b>80</b>
3.4.1	PRINCIPLES OF THE QUESTIONNAIRE CONSTRUCTION	80
3.4.2	UNDERSTANDING THE RESILIENCE PROCESS WITH A VIEW TO CONSTRUCTING THE QUESTIONNAIRE	82
3.4.3	OPERATIONALISING THE CONSTRUCT	83
3.4.4	RESILIENCE CHARACTERISTICS IN RELATION TO THE OPERATIONALISED DEFINITION	89
3.4.5	DEVELOPING THE R-MATS	93
3.4.5.1	Construction of the items	93
3.4.5.2	Pilot study 1, the items	94
3.4.5.3	Pilot study 2, the questionnaire	94
3.4.5.4	Item Analysis: The Pilot Questionnaires	96
<b>3.5</b>	<b>THE MAIN STUDY</b>	<b>103</b>
3.5.1	APPLICATION FOR RESEARCH AND ETHICAL CLEARANCE	103
3.5.2	THE RESPONDENTS	103
3.5.2.1	The schools	103
3.5.2.2	Middle-adolescent learners	104
3.5.3	DATA COLLECTION	105
3.5.4	DATA PREPARATION	106
3.5.5	ITEM ANALYSIS, SECTION A	107
3.5.6	ITEM ANALYSIS, SECTION B	109
3.5.6.1	Item Analysis, 28 items	109
3.5.6.2	Item Analysis, 24 items	112
3.5.7	THE R-MATS INTER-SECTION ANALYSIS	118
3.5.7.1	Correlation between the total scores of Section A and Section B	118
3.5.7.2	The effect of Section A-items on the total score of Section B	119

	Page
3.5.8	FACTOR ANALYSIS: SECTION B OF THE R-MATS ..... 121
3.5.8.1	Factor 1: Confidence and internal locus of control ..... 123
3.5.8.2	Factor 2: Social support ..... 124
3.5.8.3	Factor 3: Toughness and commitment ..... 125
3.5.8.4	Factor 4: Achievement orientation ..... 126
3.6	<b>CONCLUSION</b> ..... 126

---oOo---

**CHAPTER 4**

**Phase 2: The interactive qualitative analysis**

<b>4.1</b>	<b>INTRODUCTION</b>	128
<b>4.2</b>	<b>INTERACTIVE QUALITATIVE ANALYSIS</b>	128
<b>4.3</b>	<b>DESCRIPTION OF THE METHOD</b>	130
<b>4.4</b>	<b>RESEARCH DESIGN</b>	131
4.4.1	PARTICIPANTS OF THE STUDY	131
4.4.2	FOCUS GROUPS	132
4.4.3	FOCUS GROUPS ISSUE STATEMENT	133
4.4.4	IDENTIFICATION OF AFFINITIES	135
4.4.4.1	Affinity Generation: Silent nominal process	135
4.4.4.2	Affinity Grouping: Coding of affinities into groups	135
4.4.4.3	Axial Coding: Affinity naming	135
4.4.4.4	Affinity Name Table	142
4.4.4.5	Theoretical coding: Identifying relationships between affinities	143
<b>4.5</b>	<b>AFFINITY ANALYSIS RESILIENT GROUP SCHOOL 1</b>	144
4.5.1	AFFINITY RELATIONSHIP TABLES: RG1	144
4.5.2	PARETO ANALYSIS: RG1	145
4.5.3	AMBIGUOUS RELATIONSHIPS	146
4.5.4	CREATING A GROUP COMPOSITE: THE INTERRELATIONSHIP DIAGRAM (IRD), RG1	147
4.5.5	GENERATING THE SYSTEM INFLUENCE DIAGRAM (SID): RG1	149
<b>4.6</b>	<b>AFFINITY ANALYSIS: RG2</b>	153
<b>4.7</b>	<b>REFLECTION ON THE RG1 AND RG2 SIDS</b>	158
<b>4.8</b>	<b>AFFINITY ANALYSIS: LRG1</b>	159

	Page
<b>4.9 AFFINITY ANALYSIS: LRG2</b> .....	164
4.9.1 ORIENTATION .....	164
4.9.2 GENERATING THE SYSTEM INFLUENCE DIAGRAM (SID) LRG2 .....	167
<b>4.10 REFLECTION ON THE LRG1 AND LRG2 SIDs</b> .....	170
<b>4.11 REFLECTION ON THE SIDs PER SCHOOL</b> .....	170
<b>4.12 IQA INDIVIDUAL INTERVIEWS</b> .....	173
<b>4.13 CONCLUSION</b> .....	175

---oOo---

**CHAPTER 5**  
**Summary, discussion, limitations,**  
**recommendations and conclusion**

---

<b>5.1</b>	<b>SUMMARY</b> .....	<b>177</b>
<b>5.2</b>	<b>DISCUSSION OF PHASE 1 AND 2 RESULTS USING THE BIOECOLOGICAL MODEL</b> .....	<b>178</b>
5.2.1	ORIENTATION .....	178
5.2.2	DISCUSSION OF PHASE 1 RESULTS USING THE BIOECOLOGICAL MODEL .....	180
5.2.3	DISCUSSION OF PHASE 2 RESULTS USING THE BIOECOLOGICAL MODEL .....	185
<b>5.3</b>	<b>DISCUSSION OF PHASE 1 AND 2 RESULTS USING THE RESILIENCY WHEEL</b> .....	<b>189</b>
<b>5.4</b>	<b>FINALLY ANSWERING MY RESEARCH QUESTIONS</b> .....	<b>194</b>
<b>5.5</b>	<b>LIMITATIONS OF THE STUDY</b> .....	<b>196</b>
5.5.1	PHASE 1 .....	196
5.5.2	PHASE 2 .....	196
<b>5.6</b>	<b>RECOMMENDATIONS OF THE STUDY</b> .....	<b>197</b>
<b>5.7</b>	<b>A FINAL REMARK</b> .....	<b>198</b>

---oOo---

<b>REFERENCES</b> .....	<b>199</b>
-------------------------	------------

---oOo---

**APPENDICES**

---ooOoo---

	Page
Figure 1.1: The Resiliency Wheel (adapted from Henderson & Milstein 2003:12)	11
Figure 1.2: The Eco-Systemic Framework (adapted from Donald, Lazarus & Lolwana (1997:65)	13
Figure 1.3: Research Paradigms	15
Figure 1.4: The Research Design process (adapted from Babbie & Mouton 2002:73-74)	17
Figure 1.5: Mixed method design matrix (adapted from Johnson & Onwuegbuzie 2004:22)	17
Figure 2.1: Mitigating risk factors in the environment	42
Figure 2.2: Building resilience in the environment	45
Figure 2.3: PPCT Model (Bronfenbrenner adapted from Tudge 2008:69)	48
Figure 3.1: Resilience Questionnaire for Middle-adolescent Learners: Development process	78
Figure 3.2: Research design	79
Figure 3.3: Research process	80
Figure 3.4: Resilience characteristics	93
Figure 3.5: Factor 1: Confidence and internal locus of control	123
Figure 3.6: Factor 2: Social support	124
Figure 3.7: Factor 3: Toughness and commitment	125
Figure 3.8: Factor 4: Achievement orientation	126
Figure 4.1: Data Collection Flow Chart (focus groups) (adapted from Northcutt & McCoy 2004:45)	130
Figure 4.2: Description of focus groups affinities	142
Figure 4.3: Affinity Name Table (adapted from Northcutt & McCoy 2004:151)	144
Figure 4.4: Affinity Relationship Table (adapted from Northcutt & McCoy 2004:151)	143
Figure 4.5: Tentative SID Assignment, RG1	149
Figure 4.6: Cluttered System Influence Diagram, RG1	150
Figure 4.7: The Clean SID, RG1	151
Figure 4.8: Rules, environment and developmental stage	152
Figure 4.9: Cluttered System Influence Diagram, RG2	155
Figure 4.10: Uncluttered System Influence Diagram, RG2	156

	Page
Figure 4.11: The Cluttered SID, LRG1 .....	162
Figure 4.12: The Clean SID, LRG1 .....	162
Figure 4.13: Cluttered SID, LRG2 .....	167
Figure 4.14: Clean SID, LRG2 .....	167
Figure 4.15: Knowing Who I Am .....	169
Figure 5.1: R-MATS Section A risk and protective factors .....	181
Figure 5.2: Perceived Proximal Processes in the microsystems .....	183
Figure 5.3: The four resilience factors identified in the R-MATS .....	184
Figure 5.4: Focus group affinities .....	185
Figure 5.5: Mapping R-MATS Section A risk factors with Resiliency Wheel components .....	191
Figure 5.6: Mapping less-resilience factors and the Resiliency Wheel components .....	192
Figure 5.7: Mapping RG1 affinities with Resiliency Wheel segments .....	193

---oOo---



	Page
Table 3.1: Pilot Questionnaires 1 and 2, Grade 8 and 9 learners	95
Table 3.2: Item Analysis, Section A Questionnaire 1	97
Table 3.3: Item Analysis, Section A Questionnaire 2	97
Table 3.4: Item Analysis, Section B Questionnaire 1	98
Table 3.5: Item Analysis, Section B Questionnaire 2	99
Table 3.6: Age-breakdown and selection of respondents	104
Table 3.7: Item Analysis, the R-MATS Section A	107
Table 3.8: Risk and Protective factors derived from R-MATS Section A	108
Table 3.9: Item Analysis, the R-MATS Section B (28 items)	110
Table 3.10: Comparison between research schools	112
Table 3.11: Comparison between genders	112
Table 3.12: Item analysis: The R-MATS Section B (24 items)	113
Table 3.13: Resilience characteristics and characteristics placing resilience at risk derived from Section B (24 items)	115
Table 3.14: Correlation between the total scores of Section A and Section B	119
Table 3.15: The significance of a risk factor on the resilience of respondents	120
Table 3.16: Four Factor Analysis of Section B of the R-MATS	122
Table 4.1: Focus Group Participants	131
Table 4.2: Focus Group Participants	133
Table 4.3: Affinity Relationship Table: RG1	144
Table 4.4: RG1: Pareto Protocol: RG1	145
Table 4.5: Interrelationship Diagram: RG1	148
Table 4.6: IRD Sorted in descending order of Delta: RG1	148
Table 4.7: The Pareto Protocol: RG2	153
Table 4.8: Interrelationship diagram: RG2	154
Table 4.9: IRD sorted in descending order of delta with tentative SID Assignment: RG2	155
Table 4.10: The Pareto Protocol: LRG1	160
Table 4.11: Interrelationship diagram: LRG1	161

	Page
Table 4.12: IRD sorted in descending Order of delta with tentative SID Assignment: LRG1 .....	161
Table 4.13: The Pareto Protocol: LRG2 .....	164
Table 4.14: Conflicting relationships: LRG2 .....	165
Table 4.15: Interrelationship diagram: LRG2 .....	166
Table 4.16: IRD sorted in descending order of delta with tentative SID Assignment: LRG2 .....	166

---ooOoo---