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
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. Bouwer 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.

---oOa---
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---
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
<td>Affinity Relationship Table</td>
</tr>
<tr>
<td>IRD</td>
<td>Interrelationship Diagram</td>
</tr>
<tr>
<td>IQA</td>
<td>Interactive Qualitative Analysis</td>
</tr>
<tr>
<td>LRG1</td>
<td>Less-resilient Group School 1</td>
</tr>
<tr>
<td>LRG2</td>
<td>Less-resilient Group School 2</td>
</tr>
<tr>
<td>PPCT</td>
<td>Process-Person-Context-Time Model</td>
</tr>
<tr>
<td>RG1</td>
<td>Resilient Group School 1</td>
</tr>
<tr>
<td>RG2</td>
<td>Resilient Group School 2</td>
</tr>
<tr>
<td>R-MATS</td>
<td>Resilience Questionnaire for Middle-adolescents in a Township School</td>
</tr>
<tr>
<td>SANPAD</td>
<td>The South African Netherlands Research Programme on Alternatives in Development</td>
</tr>
<tr>
<td>SID</td>
<td>System Influence Diagram</td>
</tr>
</tbody>
</table>
# Table of Contents

Chapter 1  
Introduction to the study

1.1 INTRODUCTION ................................................. 1  
1.2 RATIONALE OF THE STUDY .................................. 4  
1.3 THE PURPOSE OF THE STUDY .................................. 7  
1.4 RESEARCH QUESTIONS ......................................... 7  
1.5 DEFINITION OF KEY CONCEPTS ................................. 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  
1.6 THEORETICAL FRAMEWORK ................................. 10  
1.6.1 INTRODUCTION .............................................. 10  
1.6.2 THE RESILIENCY WHEEL FRAMEWORK ..................... 10  
1.6.3 THE BIOECOLOGICAL APPROACH ......................... 12  
1.7 PLAN OF ENQUIRY ............................................. 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  
1.8 RIGOUR OF RESEARCH ....................................... 20  
1.9 CONTRIBUTIONS AND STRENGTHS OF THE STUDY ............... 21  
1.10 PERCEIVED THREATS TO THE STUDY ......................... 22  
1.11 OUTLINE OF CHAPTERS ...................................... 22
CHAPTER 2
A theoretical background towards understanding a resilience supporting school environment

2.1 INTRODUCTION ........................................................................................................... 24

2.2 WHAT IS RESILIENCE? ................................................................................................. 25

2.3 THE DEVELOPMENT OF RESEARCH ON RESILIENCE ............................................. 28

2.4 WAVES OF RESEARCH ON RESILIENCE DEVELOPMENT ......................................... 30

2.5 THE THEORETICAL FRAMEWORKS: THE RESILIENCY WHEEL AND THE BIOECOLOGICAL FRAMEWORK ......................................................................................................................... 36

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

2.6 THE CONTEXT OF DEVELOPMENT: THE TOWNSHIP ENVIRONMENT AND THE TOWNSHIP SCHOOL ................................................................................................................................. 56

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

2.7 ADOLESCENT STAGE .................................................................................................. 67

2.7.1 ORIENTATION ......................................................................................................... 67

2.7.2 MIDDLE-adoLESCENCE ......................................................................................... 69

2.8 CONCLUSION .................................................................................................................. 70
CHAPTER 3
Phase 1: The quantitative research, the resilience survey

3.1 INTRODUCTION ................................................................. 73
3.2 RESEARCH PARADIGMS ................................................... 73
3.3 RESEARCH DESIGN .......................................................... 77
3.4 THE DEVELOPMENT PROCESS OF THE RESILIENCE QUESTIONNAIRE FOR MIDDLE-ADOLESCENTS IN A TOWNSHIP SCHOOL (R-MATS) ............................................. 80
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
3.5 THE MAIN STUDY ............................................................ 103
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
<table>
<thead>
<tr>
<th>3.5.8</th>
<th>FACTOR ANALYSIS: SECTION B OF THE R-MATS</th>
<th>121</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5.8.1</td>
<td>Factor 1: Confidence and internal locus of control</td>
<td>123</td>
</tr>
<tr>
<td>3.5.8.2</td>
<td>Factor 2: Social support</td>
<td>124</td>
</tr>
<tr>
<td>3.5.8.3</td>
<td>Factor 3: Toughness and commitment</td>
<td>125</td>
</tr>
<tr>
<td>3.5.8.4</td>
<td>Factor 4: Achievement orientation</td>
<td>126</td>
</tr>
</tbody>
</table>

| 3.6 | CONCLUSION | 126 |

---oOo---
CHAPTER 4
Phase 2: The interactive qualitative analysis

4.1 INTRODUCTION ........................................................................................................ 128

4.2 INTERACTIVE QUALITATIVE ANALYSIS .................................................................. 128

4.3 DESCRIPTION OF THE METHOD ............................................................................. 130

4.4 RESEARCH DESIGN .................................................................................................. 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

4.5 AFFINITY ANALYSIS RESILIENT GROUP SCHOOL 1 .............................................. 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

4.6 AFFINITY ANALYSIS: RG2 ....................................................................................... 153

4.7 REFLECTION ON THE RG1 AND RG2 SIDS ......................................................... 158

4.8 AFFINITY ANALYSIS: LRG1 .................................................................................... 159
4.9 AFFINITY ANALYSIS: LRG2 ................................................................. 164
4.9.1 ORIENTATION ............................................................................. 164
4.9.2 GENERATING THE SYSTEM INFLUENCE DIAGRAM (SID) LRG2 .... 167
4.10 REFLECTION ON THE LRG1 AND LRG2 SIDs ............................... 170
4.11 REFLECTION ON THE SIDs PER SCHOOL .................................... 170
4.12 IQA INDIVIDUAL INTERVIEWS .................................................... 173
4.13 CONCLUSION ................................................................................ 175

---oOo---
## List of Figures

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

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