Resilience processes in adolescents with intellectual disability: A multiple case study

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It all starts here ™

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To God be all the glory!

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DEDICATION

I dedicate this study to all the loving and wonderful children with intellectual disabilities I was privileged to teach through the years - because you touched me with your ability to accept your disadvantages and live life to the fullest, changing my perception about quality of life.

PREFACE AND DECLARATION

The article format was chosen for the current study. The researcher Anna-Marié Hall, conducted the research and wrote the manuscripts. Prof. Linda Theron was the supervisor. Two manuscripts were written and will be submitted for publication in the following journals:

Manuscript 1: *Qualitative Health Research*

Manuscript 2: *South African Journal of Education*

I, **Anna-Marié Hall,** declare that

Resilience processes in adolescents with intellectual disability: A multiple case study.

is my own work and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references.

_____

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To whom it may concern

I hereby declare that I edited the master's dissertation entitled "Resilience processes in adolescents with intellectual disability: a multiple case study" written by Annemie Hall. I am an accredited editor with the South African Translators' Institute (SATI Member No.: 1000193).

Yours sincerely

Hendia Baker

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ABSTRACT

The purpose of this study was to examine the phenomenon of resilience by means of a literature review (to obtain a theoretical view) and empirical research, particularly to understand why some adolescents with Intellectual disability (ID) were resilient. Firstly, my motivation was curiosity (as teacher of many years of adolescents with ID) about why some youths coped better with the daily challenges that ID brought than some of their peers with ID. Secondly, there was a gap in the existing literature. Although there were studies that, among others, reported the rights of adolescents with ID to quality service provision, the risks that they and their parents/caregivers could expect daily, and challenges and coping skills for teachers/parents and caregivers who worked with these learners every day, I could not locate any South African studies, and only five international studies, that reported the protective resources/processes in adolescents with ID.

The purpose of the study was to hear the voices of the adolescents themselves regarding what they, from the reality/context of their life-world, viewed as that which supported them, intrinsically as well as extrinsically, towards resilience. I also asked the teachers (as secondary informants) who worked with the adolescents with ID every day to complete a questionnaire about what (risks as well as protective resources), in their opinion, had an influence on the resilience of these adolescents with ID. I did this qualitative case study with the help of 24 primary informants (that is, adolescents with ID) who all attended schools for the physically and severely intellectually disabled in Gauteng province, South Africa, and 18 of their teachers. On account of the limited literacy of the adolescents with ID, I used a visual participatory research method, namely, draw-and-talk. This involved the primary informants drawing what made them "strong" in life. This was followed by informal conversations where the adolescent informants explained what they had drawn and why.

The findings of this study were in agreement with existing literature that reported that resilience was a dynamic, socio-ecological, transactional process between the adolescent with ID (obtaining and using protective resources) and his/her surrounding environment (the ability of the community to supply these resources that could serve the adolescent with ID as buffer against daily risks). The findings included previously non-reported protective processes, namely a supportive social ecology that treated the adolescent as an agentic being (providing opportunities for socially appropriate choices and dreams for the future after

school life) and the importance of providing safe spaces for adolescents with ID to be nurtured (children's homes and/or school hostels). The study also considered what resilience processes there were in the currently existing schools for the physically and severely intellectually disabled. These considerations were aimed at teachers with the hope that they would support teachers and schools to support the adolescent with ID towards resilience. In summary, the study hoped to capacitate teachers, parents, and caregivers to better understand the adolescent with ID and to be aware of how they could support the youth to be resilient.

Keywords: Adolescent, resilience, protective processes, risks, formal services, intellectually disabled, inclusion, full-service schools, social ecology.

List of acronyms used in this dissertation

AAIDD	American Association of Intellectual and Developmental Disabilities
ADHD	Attention deficit disorder and hyperactivity
Aids	Acquired immune deficiency syndrome
AP	Advisory panel
APA	American Psychiatric Association
CP	Cerebral palsy
DBE	Department of Basic Education
DBST	District-based support team
DoE	Department of Education
DoH	South Africa. Department of Health
DS	Day scholar
DSD	Department of Social Development
DSM-5	The Diagnostic and Statistical Manual of Mental Disorders
DWCPD	Department of Women, Children, and People with Disabilities
EFA	Education for all
FSS	Full-service school
HIV	Human immune deficiency virus
HR	Hostel resident
ID	Intellectual disability
IQ	Intelligence Quotient
LD	Learning disability
PTSD	Post-traumatic stress disorder
PU	Peri-urban
SA	South Africa
SEN	Special education needs (United Kingdom)
SERT	Social ecology of resilience theory
SNE	Special needs education (South Africa)
SPSID	Schools for the physically and severely intellectually disabled

SSA	Statistics South Africa
TBI	Traumatic brain injury
TBM	Tubercular meningitis
U	Urban
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Table of Contents

Title:**Resilience processes in adolescents with intellectual disability: A multiple case study** ..... **Error! Bookmark not defined.**
ACKNOWLEDGMENTS 1
DEDICATION iii
PREFACE AND DECLARATION iv
DECLARATION OF LANGUAGE EDITOR v
ABSTRACT vi
LIST OF ACRONYMS USED IN THIS DISSERTATION viii

CHAPTER 1: OVERVIEW OF THE STUDY 1

1. INTRODUCTION AND RATIONALE FOR THIS STUDY 2
1.1 Introduction 2
1.2 Rationale for this study 3

2. PURPOSE STATEMENT 7

3. RESEARCH QUESTIONS 8

4. CONCEPTUAL AND THEORETICAL FRAMEWORK 8
4.1 Clarification of central concepts 9
4.1.1 Resilience 9
4.1.2 Adolescence 10
4.1.3 Intellectual disability 10
4.1.4 Barriers to learning 11
4.1.5 Special needs education (SNE) 11
4.1.6 A Social ecology 12
4.2 Theoretical overview 12
4.2.1 Resilience 12
4.2.1.1 Resilience: four decades of development – four waves 13
4.2.1.2 Protective processes of resilience 15
4.2.1.3 Resilience: formal service-oriented process 17
4.3 Resilience and ID 19
4.3.1 Causes of ID 20
4.3.1.1 Physical causes 20
4.3.1.2 Familial causes 25
4.3.1.3 Contextual causes 25
4.3.2 Risks inherent in ID 26
4.3.2.1 Discrimination and prejudice 26
4.3.2.2 Psychiatric disorders 27
4.3.2.3 Poor language development and lack of communication 27
4.3.2.4 Familial risks 28
4.3.2.5 Risks that contribute to poor academic progress 29
4.3.2.6 Social isolation 32

4.3.2.7 Physical and sexual abuse 32
4.3.3 Protective factors and processes contributing to resilience in adolescents with ID 33
4.4 Education as resilience-promoting formal service and ID 34
4.4.1 A glance at the international system of education 34
4.4.2 South African system of education and inclusion process 35
4.4.3 Problems in the South African inclusion process 37
4.4.4 Opportunity for support and knowledge 39
4.5 Summary of theoretical framework 40

5. RESEARCH DESIGN AND METHODOLOGY 41
5.1 Qualitative research design 41
5.2 Research paradigm 43
5.3 Strategy of inquiry 44
5.3.1 Case study defined 44
5.3.2 The strengths and limitations of the case study as research method 47
5.3.3 Case study designs 49
5.3.4 Instrumental multiple case study design as preference for my study 50
5.4 Case selection 51
5.4.1 Primary informants: role of the advisory panel 51
5.4.2 Primary informants: role of the gatekeepers 52
5.4.3 Secondary informants 55
5.4.4 Contextualisation 57
5.4.5 Research process 58
5.4.6 Data collection strategies 60
5.4.6.1 Drawing and talking 60
5.4.6.2 Open-ended questionnaires 63
5.4.6.3 Telephonic follow-up interviews 63
5.4.7 Data analysis 64
5.4.8 Ethical considerations 68
5.4.8.1 Authorisation 68
5.4.8.2 Autonomy 68
5.4.8.3 Informed consent 69
5.4.8.4 Confidentiality and anonymity 70
5.4.8.5 Non-maleficence 71
5.4.8.6 Beneficence 72
5.4.8.7 Fidelity 73
5.4.8.8 Artistic ownership and reporting of findings 73
5.4.9 Validating the accuracy of findings 74
5.4.9.1 Credibility 74
5.4.9.2 Transferability 75
5.4.9.3 Dependability 76
5.4.9.4 Confirmability 77
5.4.10 My role as researcher 77

6. DISSERTATION FORMAT 79

CHAPTER 2: MANUSCRIPTS 81

MANUSCRIPT 1 82
Resilience Processes in Adolescents with Intellectual Disability: A Multiple Case Study ..
A Review of the Literature: Resilience and ID 87
Problem statement 95
Method 95
Informants 96
Research Process 102
Data Analysis 105
Ethical Aspects 107
Trustworthiness 110
Findings 112
Supportive Social Ecology 113
Supportive social ecologies facilitated regulatory support. 113
Supportive social ecologies encouraged adolescents with ID toward mastery. 118
Supportive social ecologies treated adolescents with ID as agentic beings. 120
Supportive social ecologies offered safe spaces for adolescents with ID. 123
Positive Orientation of Adolescents with ID to Their Life-Worlds 126
Adolescents with ID demonstrated an appreciative stance. 126
Adolescents with ID appreciated their strengths and preferences 127
Discussion 128
Conclusion 132
Reference List
MANUSCRIPT 2 146
How school ecologies facilitate resilience among adolescents with Intellectual Disability: Guidelines for teachers 146
Introduction 147
Focus of the current article 150
Method 151
Case informants 152
Data generation 155
Secondary analyses 156
Ethics 156
Trustworthiness 157
Findings 157
SPSID provide space to be actively engaged in developmentally appropriate sporting activities *157*
SPSID's teachers provide differentiated academic activities and learning support *158*
SPSID provide space for constructive peer attachments *159*
Teachers from SPSID offer safe relational spaces where adolescents with ID can confide and learn about life *161*
Discussion 162
Provide opportunities for developmentally appropriate activity and success 163
Ensure that schools are safe spaces to form constructive peer relationships 163
Endorse differentiated academic activities and learning support 164
Expect teachers to be approachable life coaches 164
Conclusion 165
Reference List

CHAPTER 3: 173

CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS 173
1. INTRODUCTION 174
2. RESEARCH QUESTIONS RECONSIDERED 174
3. THE RESILIENCE PROCESSES IN ADOLESCENTS WITH ID: CONCLUSIONS EMANATING FROM THE STUDY 176
4. PERSONAL REFLECTIONS 182
5. LIMITATIONS OF THE STUDY 186
6. CONTRIBUTIONS MADE BY MY STUDY 187
7. RECOMMENDATIONS FOR FURTHER STUDIES 188
8. FINAL CONCLUSION 190

COMBINED REFERENCE LIST 192

ADDENDUM A 224
Letter of Approval: Gauteng Department of Education 224
ADDENDUM B 226
NWU Ethical clearance 226
ADDENDUM C 227
Information letters to learners and parents 227
ADDENDUM D 231
Voluntary Informed consent form 231
ADDENDUM E 232
Open ended questionnaire: Teachers of adolescents with ID 233
ADDENDUM F 235
Data segments (transcribed informal conversations) and drawing. 235
ADDENDUM G 238
Audit trail and inclusion / exclusion criteria 238
ADDENDUM H 240
Qualitative Health Research Guidelines 240
ADDENDUM I 248
South African Journal of Education (SAJE) guidelines 248

LIST OF FIGURES

Figure 1: Overview of Chapter 1 1
Figure 2: Nguni idiom 2
Figure 3: Primary and secondary research questions 8
Figure 4: The essence of inclusion – feeling valued 35
Figure 5: Education – a powerful weapon 40
Figure 6: Overview of Chapter 2 81
Figure 7: Summary of the resilience processes in adolescents with ID 113
Figure 8: Roxy's drawing of hope 114
Figure 9: Rambo's loving family 119
Figure 10: Spiderman's cherished dream to be a pilot 121
Figure 11: The Rock's detailed drawing of different sport fields with signs at gate-prohibiting drinking, guns, smoking and knives 122
Figure 12: Sokkerman's drawing illustrating the importance of good peer relationships 125
Figure 13: Terminator's detailed drawing -playing soccer and gardening 158
Figure 14: Pitbull's school friend who supported his resilience by accepting him as friend 160
Figure 15: Valentino's drawing of his teacher surrounded by things in nature that she cherished and shares with her students 161
Figure 16: Overview of Chapter 3 173
Figure 17: Schematic representation of the research processes that led to the answering of the secondary research questions 175
Figure 18: Summary of the resilience processes in adolescents with ID 178
Figure 19: Resilience promoting processes facilitated by the teachers as identified by the adolescents with ID 181
Figure 20: Skim's drawing of himself – because he felt cheerful 190
Figure 21: Translated letter by Valentino 191
Figure 22: Original letter by 17 year old Valentino 191

LIST OF TABLES

Table 1: Summary of South African studies: adolescents with ID/persons with ID (2005 to 2014) 6
Table 2: Shortlist of protective processes facilitating resilience 17
Table 3: Summary of the genetic factors related to ID based on Uys, (2009, p.410) 21
Table 4: Summary of the prenatal factors related to ID 22
Table 5: Summary of the perinatal factors related to ID 23
Table 6: Summary of the post-natal factors related to ID 25
Table 7: Comparison of the intellectual and adaptive functioning of adolescents with moderate and severe ID 30
Table 8: Shortcomings in the South African inclusive system of education: 39
Table 9: Summary of primary informant's demographics 54
Table 10: Summary of secondary informants 56
Table 11: Demographics of primary informants 98
Table 12: Summary of secondary informants 101
Table 13: Summary of primary informants' demographics 154

CHAPTER 1: OVERVIEW OF THE STUDY

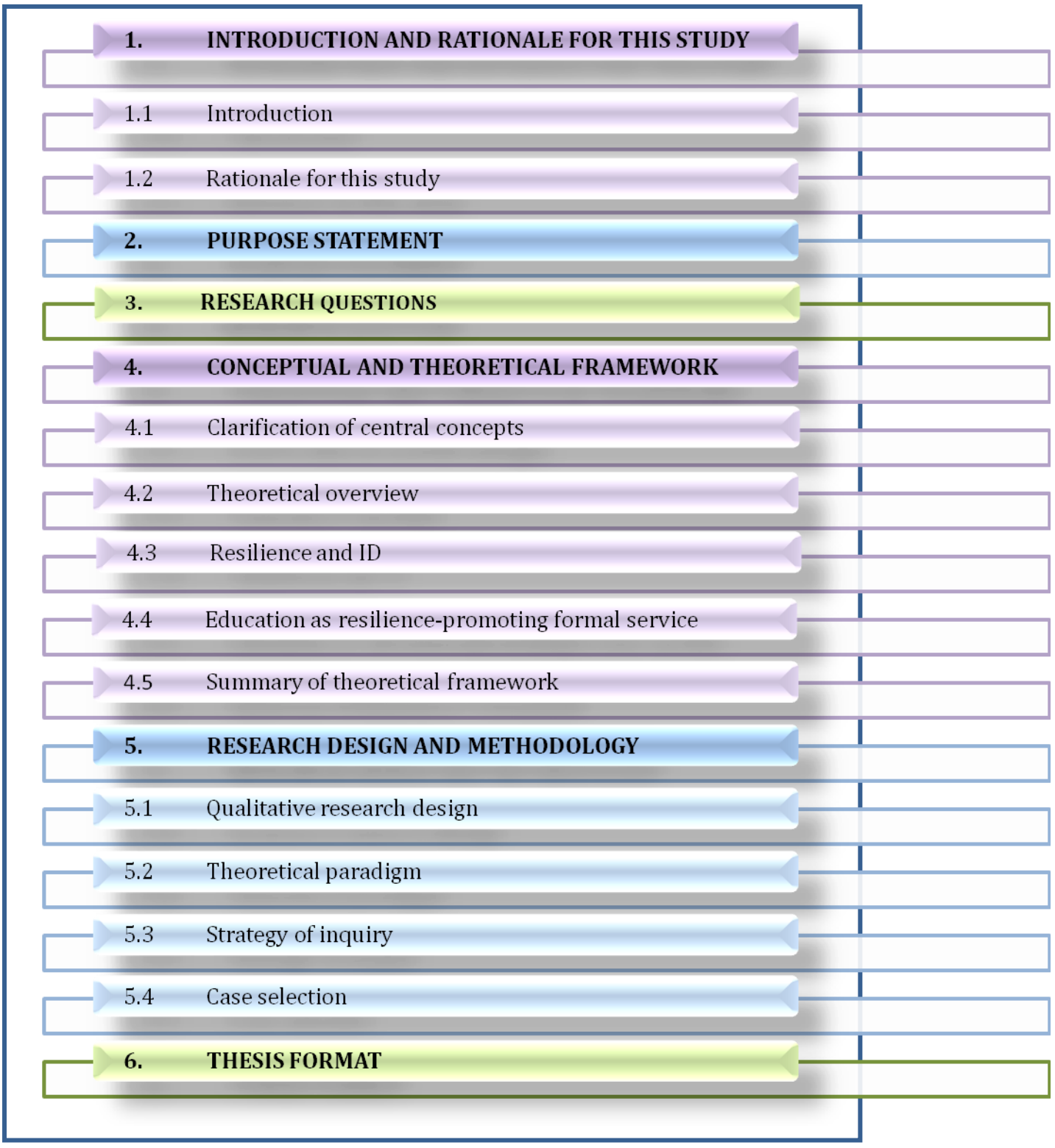

Figure 1: Overview of Chapter 1

1. INTRODUCTION AND RATIONALE FOR THIS STUDY

1.1 Introduction

The focus of my study is an exploration of what contributes to **resilience** in **adolescents** with **intellectual disability (ID)**. **Resilience** is defined as a process that facilitates positive outcomes in the face of severe threats to positive/normative development (Masten, 2014). **Adolescence** is a stage of development in which adolescents are faced with emotional, physical, cognitive, and relational changes (Kruger & Prinsloo, 2008).

When adolescents with ID are confronted with additional external risks (symbolised as sharp, pointed blades of grass in Figure 1 below) such as poverty, violence, tension (at home or school), poor peer relationships, and/or disabilities (such as ID), then this period of development becomes even more challenging and places adolescents at risk of negative life outcomes (Department of Health (DoH), 2002; Theron, 2006). If these adolescents can be supported to experience resilience-supporting processes, this risk can be diminished. The Nguni idiom "Umthente Uhlaba Usamila" (see Figure 1 below) draws attention to how important it is to change trajectories of risk during youth (DoH, 2002). One way of doing this is to understand resilience processes better. There are adolescents who, despite challenging adversities (such as those mentioned above), achieve positive outcomes; these adolescents are described as resilient (Masten & Reed, 2005). The same is true of adolescents with ID (Gilmore, Campbell, Shochet, & Roberts, 2013). Thus, their resilience processes are the focus of my study, in the hope that society can use an enhanced understanding of their resilience processes to facilitate positive outcomes for greater numbers of adolescents with ID.

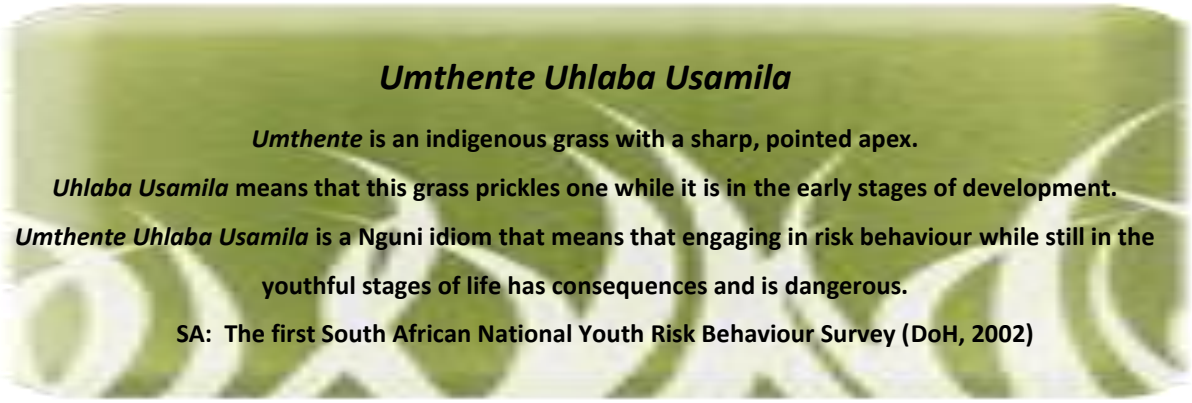

Figure 2: Nguni idiom

In this chapter, I explain the rationale for this master's study. This is followed by the purpose statement that informed my study and my research question. I explain the central concepts that informed my study, before providing a theoretical framework for my study (that is, the social ecology of resilience theory - Ungar, 2011). I also provide a summary of universally occurring resilience processes. After that, my theoretical overview shifts to ID, the causes and risks of ID, as well as the processes that contribute to the resilience of adolescents with ID. Schools are important for resilience, and so I include comments on the South African (SA) system of education and how it accommodates learners with ID, particularly the inclusion process and factors that contribute to the failure of this process in South Africa. This theoretical overview is followed by a summary of the methodology that I used to achieve the purpose of my study. I conclude the chapter with an overview of the two manuscripts that make up the body of my article-model dissertation.

1.2 Rationale for this study

My motivation for undertaking this study was modelled on the fact that I had been teaching at a South African school for the physically and severely intellectually disabled (SPSID) for 18 years. In this period, I often encountered adolescents with ID and worked with many of them in my own class who, despite their ID (and often also additional risks such as physical disability, emotional stress, poverty, etc.), still coped better than others with the daily challenges brought about by ID. My honours studies introduced me to the phenomenon of resilience, and so I was aware that these adolescents' constructive coping, in spite of the challenges of ID and other risks, implied that resilience processes were at play in their lives. My love for these adolescents with ID and passionate interest in their development eventually forced me to satisfy my curiosity by undertaking my master's degree studies in an attempt to find out:

- why some adolescents with ID displayed resilience; and
- what factors/processes would, in fact, contribute to the resilience of the adolescents with ID.

My primary and secondary research questions then also emerged from these questions (see section 3 on the research questions). In Manuscript 1, I discuss and answer these research questions in detail.

A second motivation for this study was that it was of great importance for me to look for answers from the perspective of the adolescents with ID themselves because they were the experts of their own life-world and might often experience, explain, and be able to describe things in their own way (differently from adolescents without ID or grown-ups). In this way, I also attempted to get a clearer picture of what, thus, contributed to their resilience, and I afforded them the right of making their voices heard, which had been largely suppressed up to now (Fundamental Rights & Citizenship Programme of the European Union, 2014). Throughout, I attempted to treat each of the adolescents with ID with respect and to listen attentively to what they were saying, so that they would realise that what they were sharing with me about their opinions, thoughts, and feelings regarding what was important to them for coping better with the challenges of ID was of great value and would be represented as the reality of their lives (Fundamental Rights & Citizenship Programme of the European Union, 2014; Perry & Dockett, 2011).

Given the fact that, during my research, I expected to find answers to the question of what factors/processes would be resilience-promoting for adolescents with ID, my curiosity led to further questions, namely:

- to what extent is inclusion currently applied in the system of education in South Africa;
- what are the implications of the inclusion process for the adolescents with ID (that is, to what extent, according to the adolescents with ID, do their schools and teachers specifically contribute to their resilience); and
- what are the implications of this knowledge for schools and teachers (that is, how can this knowledge, about school-related factors that contribute to resilience in adolescents with ID, empower schools and teachers to act as resilience-promoting agents)?

  I addressed these questions in Manuscript 2.

After the formulation of my research questions, the next step was to look at the existing literature. I had to make sure whether my curiosity could be satisfied by the prevailing literature. In a review of related literature on the resilience of South African youth, I searched for studies regarding what contributed to resilience in adolescents with ID. I did not find any. I, in fact, extended the search in titles, keywords, and abstracts of research articles to terminology that had also previously been used to describe ID, namely, “mentally

retarded", "mental retardation/impairment/disabilities", and "intellectual impairment". I still did not find any.

After that, I went to look at South African studies done during the past 10 years (2005 to 2014) dealing with adolescents with ID or persons with ID (including adolescents with ID) – that is, resilience excluded. Among others, I tracked down studies dealing with the risks that ID might involve (for example, increased occurrence of, among others, sexual abuse and behavioural and emotional problems), shortages in services (health, juvenile, and education) for adolescents with ID, and development of skills of parents, caregivers, and teachers to personally cope better with the adolescent with ID as well as skills to contribute to improvement of the quality of life of the adolescents with ID. See Table 1 for the references to these studies. Only one study, Gaede and Surujlal (2011), approached the adolescents with ID themselves to describe their experience from their personal life-world.

Theme	**Sources**
Shortage/lack of essential services and policies for adolescents with ID in SA/ rights of children with ID	Adnams (2010) Donohue, Bornman, Granlund, (2014). Kotzé (2012) Kromberg et al. (2008) Mckenzie, McConkey, and Adnams (2013a) Murungi (2011) Njenga (2009) Pillay (2012) Saloojee, Phohole, Saloojee, and Ijsselmuiden (2006)
Improvement of quality of life: participation of adolescents with ID in recreational activities provided at SA schools	Gaede and Surujlal (2011) Sooful, Surujlal, and Dhurup (2010) Surujlal and Dhurup (2009)
Caregivers/parents of adolescents with ID: training	Geiger and Geiger (2012) Surujlal and Dhurup (2009)

Challenges, resources, and coping skills for SA teachers educating adolescents with ID	Brown, Howcroft, and Jacobs (2009) Olivier and Williams (2005) Walton, Nel, Muller, and Lebeloane (2014)
Risks associated with ID	Calitz (2011) Calitz, Van Rensburg, De Jager, Olander, Thomas, Venter, Wessels & Joubert,. (2007). Kock, Molteno, Mfiki, Kidd, Ali, King, & Strydom, (2012) Donohue et al., (2014) Molteno, Adnams, and Njenga (2011) Njenga (2009) Phasha (2009) Phasha and Myaka (2014) Pillay and Siyothul (2011) Shabalala and Jasson (2011) Uys, (2009**)**. Wehmeyer (2013)

Table 1: Summary of South African studies: adolescents with ID/persons with ID (2005 to 2014)

I extended my review to international studies of resilient youth with ID and found a limited number[1]. Published studies of what supported resilience in adolescents with ID included studies by Gilmore et al. (2013), Hsieh and Donahue (2010), Migerode, Maes, Buysse, and Brondeel (2012), Murray (2003), and Ungar (2004). I will summarise the findings of these studies later in this chapter (compare 4.3.3).

Because there were limited studies of resilience in adolescents with ID, I also went to look at related resilience studies of adolescents diagnosed with other disabilities characterised, among other features, by intellectual disability. I could, to my knowledge, not find any

[1] As with South African studies, there were multiple international studies on ID, but these studies excluded a focus on adolescents with ID and/or resilience. For reviews of these studies, see Algood, Hong, Gourdine, and Williams (2011), Hutzler and Korsensky (2010), Koyama and Wang (2011), McKenzie and Megson (2012), Peer and Hillman (2014), Robertson, Roberts, Emerson, Turner, and Greig (2011), and Townsend-White, Pham, and Vassos (2012).

studies of protective processes involved in resilient adolescents with ID diagnosed with autism, Down syndrome, cerebral palsy (CP), Prader-Willi syndrome, and foetal alcohol syndrome. There was, indeed, one article about resilience in a girl with fragile X syndrome. In their study of a girl with fragile X syndrome, Fourie and Theron (2012) report that intrapersonal agency, unconditional positive acceptance and belonging, and support towards mastery supported her resilience. Although this study does not focus on the challenges of ID, it offers insight into possible protective processes. (See the summary of this and the above-mentioned studies in paragraph 4.3.3.)

A clear gap, therefore, exists in the South African and international literature on what contributes to the resilience processes in adolescents with ID. The significance of a study that explores the resilience processes in adolescents with ID would, therefore, be that it would provide a number of stakeholders with important knowledge: parents, teachers, service providers, and caretakers would benefit from understanding what contributes to resilience of adolescents with ID, as this would encourage optimal development and functioning of these adolescents.

2. PURPOSE STATEMENT

In summary, the presence of ID challenges optimal development (American Association on Intellectual and Developmental Disabilities, AAIDD, 2014). Nevertheless, published literature shows that some adolescents adjust well to the risks of ID (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003; Ungar, 2004). Although there is some understanding of what supports these adolescents' resilience, it is either quantitative (Gilmore et al., 2013; Migerode et al., 2012) or incidental to studies focused broadly on at-risk youths (Hsieh & Donahue, 2010; Murray, 2003; Ungar, 2004). Thus, if social ecologies are to be supported to accept their mandate of co-responsibility for adolescents' resilience (Ungar, 2011, 2013), a more detailed, purposeful investigation into the resilience processes in adolescents with ID is needed.

3. RESEARCH QUESTIONS

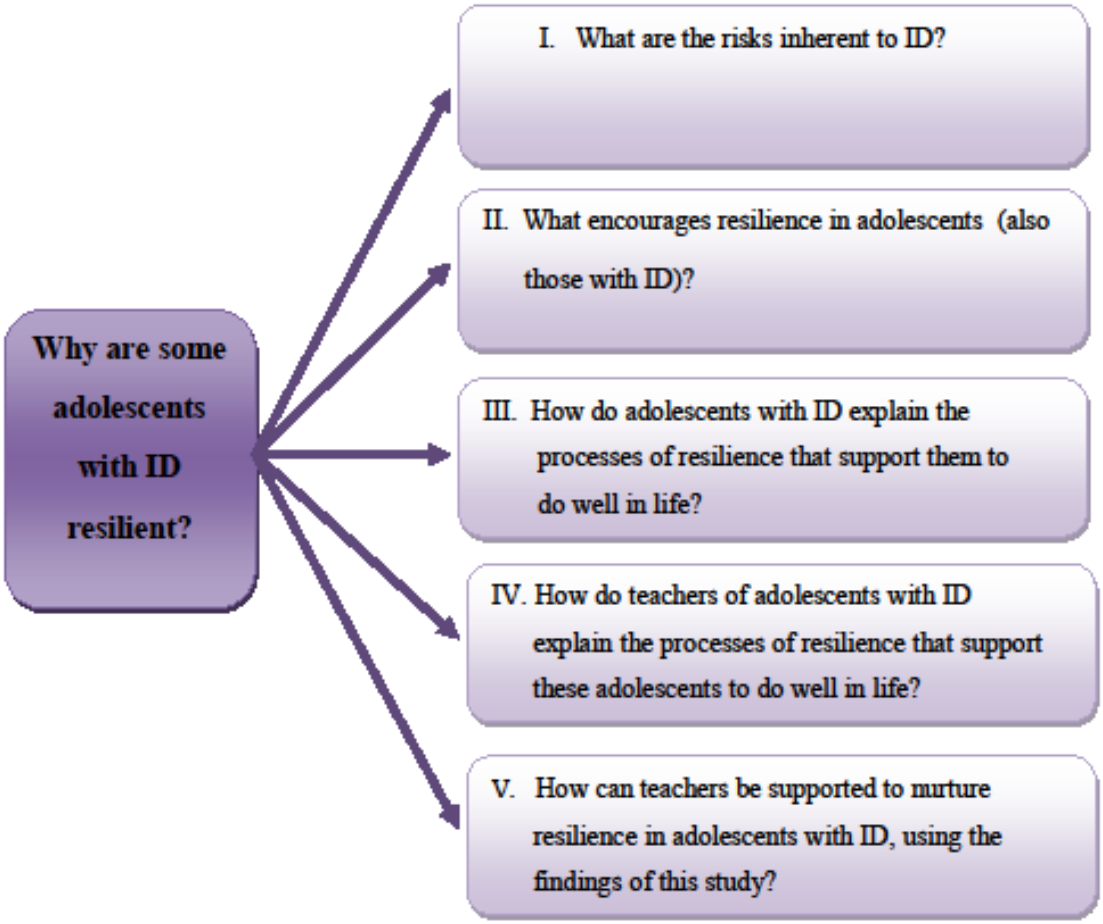

Figure 3: Primary and secondary research questions

4. CONCEPTUAL AND THEORETICAL FRAMEWORK

According to Theron (2011), South Africa is a culturally diverse nation that has a responsibility towards its youth to conduct research that is respectful of youths' cultural and contextual realities and to use the findings of such research to promote protective processes that facilitate positive outcomes for youths who are vulnerable. In order to be able to undertake such research, I had to, however, first research certain concepts by means of a

literature study to more clearly describe to myself the framework within which I would work. In the next part, I will, thus, set out this thought process by first clarifying certain concepts that I repeatedly used in my study (that is, resilience, adolescence, intellectual disability, barriers to learning, special needs education (SNE), and schools for the physically and severely intellectually disabled (SPSID)). Once I have clarified these key concepts, I will provide some theoretical understanding of resilience, with particular emphasis on resilience as a complex, social-ecologically facilitated, interactive process (Ungar, 2011, 2012). Because resilience is dependent on the presence of adversity (Masten, 2001), I then explain the causes of ID as well as the risks linked to ID. Given that all the adolescents with ID who participated in my study attended SPSID, I conclude this section with a brief synopsis of inclusion in South African schools. Resilience, ID, and the South African system of education (particularly, the process of inclusion) are also discussed in the different manuscripts that form part of this dissertation. To prevent repetition, I, thus, treated this discussion as supplementary to the manuscripts.

4.1 Clarification of central concepts

4.1.1 Resilience

Ungar (2011) defines **resilience** as a process of constructive interaction between an adolescent and his/her social ecology (for example, family, community, teachers). This interaction consists of adolescents' navigation (or moving towards) and negotiation (or asking for) towards resilience-promoting resources. This interaction also includes the ecology of the adolescent being prepared to provide the resources that are needed to improve the well-being of the adolescent in the face of adversities (Masten, 2001, 2014; Rutter, 2013). This reciprocal process is shaped by the context and culture of the adolescent and his/her environment (Ungar, Ghazinour, & Richter, 2013). The process of resilience is not possible in the absence of significant adversity (Masten, 2014). Such adversity includes physical/biological threats to well-being (including disabilities), psychosocial threats, and natural and human-caused disasters (Wright, Masten, & Narayan, 2013). There is a growing understanding that adversity that challenges youths' well-being is seldom singular and that this multiplicity of risks makes youths even more vulnerable (Wright & Masten, in press).

For example, adolescents who are challenged by ID often come from socio-economically deprived circumstances, and this makes their lives even more difficult (Heiman, 2002).

4.1.2 Adolescence

The WHO (2014) identifies **adolescence** as the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19. Theron and Dalzell (2006, p. 397) define adolescence as a period of heightened vulnerability because of difficulties and stress during physical, cognitive, social, and psychological development. However, some theorists (for example, Lerner, Bowers, Geldhof, Gestsdóttir, & Desouza, 2012) challenge the idea that adolescence is necessarily challenging and note that adolescence can be a time of great creativity and agency.

4.1.3 Intellectual disability

Intellectual disability (ID) is defined as a condition that starts before the age of 18 years (before adulthood commences) and involves significant limitation in both adaptability and intellectual abilities. Characteristic of it is the protracted influence that ID has on the development of a person, particularly permanent dependence or a degree of dependence on others (AAIDD, 2014; WHO, 2013a). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) describes ID in terms of the severity of non-adaptive functioning (conceptual, social, and practical domain) that eventually determines the degree of support that the individual with ID requires: mild, moderate, severe, and profound (APA, 2013).

Although the DSM-5 (APA, 2013) no longer advocates the use of IQ (intelligence quotient) scores to determine the intellectual ability of a person with ID, the WHO (2013b) defines four categories of cognitive limitation for ID: mild (IQ range 50 to 69), moderate (IQ range 35 to 49), severe (IQ range 20 to 34), and profound (IQ range < 20).

4.1.4 Barriers to learning

The stance in South Africa is to talk about **barriers to learning**, which include both intrinsic and extrinsic barriers to learning and development (Department of Education (DoE), 2001; Nel, 2013). ID constitutes a barrier to learning. For the purposes of this study, which also targets an international audience, I, however, also make use of the term "**disability**" or difficulty when reference is made to learners who are assimilated in special needs education (SNE).

4.1.5 Special needs education (SNE)

Special needs education (SNE) of learners with special educational needs (LSEN) is the general term that is used to describe the section of the South African Department of Basic Education (DBE) (previously the Department of Education – DoE) where adolescents with ID are currently mainly assimilated (DBE, 2014). SNE, thus, includes learners with specific barriers to learning, for example, learning disability (LD), intellectual disability (ID), or physical disability (for example, visual and hearing barriers, hemiplegics, paraplegics, etc.). In the United Kingdom, the term "**special education needs (SEN)**" is used (see Manuscript 2) (Gillie, 2012).

In South Africa, the DBE currently makes provision for adolescents with ID to attend full-service schools or special schools in the SNE track. These special schools are, again, divided into two groups with reference to the degree of the severity of adaptation that the adolescent with ID experiences (APA, 2013). The term "special schools" is used to identify schools that accommodate learners with mild ID, while learners with moderate to severe ID receive instruction in **schools for the physically and severely intellectually disabled (SPSID)**. This division between the severity of adaptation and, thus, also division between schools is not rigid and is influenced by various intrinsic and extrinsic factors, including the supportive system of the learners (DBE, 2014). The primary informants in my research were adolescents who attended SPSID and had, thus, been formally diagnosed with **moderate to severe ID**.

4.1.6 A social ecology

An ecology refers to a community of all animate and inanimate things/beingsin which an individual person exists (Russell, 2004). A social ecology places emphasis on the social community in which a person exists and includes the people/beings with whom/which the individual relates and the social structures that facilitate such inter-relationships. These could include family, peers, school community members, a neighbourhood, community services and service providers, government policies, and so forth (Ungar, 2012).

4.2 Theoretical overview

4.2.1 Resilience

There are many theoretical frameworks for resilience (see Masten, Cutuli, Herbers, & Reed, 2009 for a detailed review). For the purposes of my study, the social ecology of resilience theory (SERT), as proposed by Ungar (2011), was used as a theoretical foundation for understanding and explaining resilience and the data that emerged. The definition of resilience (see 4.1.1) reflects SERT. What is perhaps most important about SERT is how it moves the focus from a child-centred explanation of resilience to one that accentuates the role of a social ecology when youths adjust well. In fact, although Ungar (2013) does not negate that youths also contribute to processes of resilience, he does suggest that the contributions of social ecologies to processes of resilience have a greater influence on the eventual outcomes of youths. The importance of the social ecology is also supported by various international, authoritative resilience researchers (Masten, 2001, 2014; Panter-Brick (in press); Rutter, 2012, 2013); nevertheless, these authoritative researchers have not categorically suggested that social ecologies have the greatest responsibility for facilitating positive youth outcomes. In order to eventually arrive at the social-ecological approach to resilience from a person-focused construct, researchers have followed a particular route (as described below). Understanding the diversity of resilience has, however, not yet been exhausted. After a brief discussion of the process of the development of resilience, the newer focus on resilience, namely, the way in which respectful service delivery (as a form of social-ecological support) contributes to the resilience of at-risk individuals, will be discussed.

4.2.1.1 Resilience: four decades of development – four waves

To briefly summarise the extent of resilience and development in the study of resilience, I make use of Wright et al.'s (2013) description of the four waves of research. Wright et al. (2013) describe the first wave of research as one in which researchers primarily described and defined the phenomenon of resilience and focused on the individual and protective factors involved. This led to lists of intrinsic protective resources. For example, adolescents' intrinsic protective resources included:

- skills such as problem solving, planning, and good interpersonal skills, regulation of emotions and behaviour, assertiveness, internal locus of control, positive meaning-making, and social maturity (Ebersöhn, 2007; Germann, 2005; Malindi & Theron, 2010; Mampane & Bouwer, 2006; Theron, 2008);
- a positive temperament such as a sunny nature, positive attitude, good self-concept and future orientation, enthusiasm, achievement motivation, persistence, and a sense of humour (Ebersöhn, 2007; Germann, 2005; Theron, 2008; Phasha, 2010; Pillay & Nesengani, 2006); and
- genetic qualities such as birth order, average to above-average intelligence, attractiveness, special talents, and good health (Dass-Brailsford, 2005; Libório & Ungar; 2014; Rutter, 2012; Theron, 2007).

The protective factors described in the first wave resulted from two approaches: (i) a person-focused approach compared the adaptation of resilient individuals to non-resilient individuals facing similar risks, and (ii) a variable-focused approach linked the characteristics of the individual and his/her environment in the face of adversities (Wright et al., 2013). Although resilience changes across cultures and contexts (see the second wave) (Ungar, 2011), researchers agree, however, that there are, indeed, similarities in protective resources (Masten & Wright, 2010). The question, thus, originated how individual and environmental factors played a role to buffer hardship. This prompted the second wave.

The second wave of research described resilience as embedded in a diverse developmental and ecological system. It still focused on individual protective processes, but expanded these to include familial and environmental resources/processes as well (Wright et al., 2013). For example:

- familial resources included small families, positive attachments (especially to the primary caregiver), supportive grandparents and siblings, competent mothers, harmony between parents, an ordered home, educated and interested parents, a sense of security, and belonging (Dass-Brailsford, 2005; Phasha, 2010; Theron, 2007; Ungar et al., 2013);
- community resources included competent and supportive peers, helpful teachers and mentors, efficient schools (a positive school experience), public health and social service, safe communities, and pro-social organisations (for example, youth and sport clubs) (Libório & Ungar, 2014; Theron & Dunn, 2010; Theron & Theron, 2010; Ward, Martin, Theron, & Distiller, 2007); and
- cultural resources included cultural belonging, constructive religious/spiritual practices, and positive belief systems (Masten et al., 2009; Phasha, 2010; Theron & Dunn, 2010; Werner, 2006).

Emerson (2013) and Masten and Wright (2010) argue that overcoming adversities relies on the healthy development and accessibility of such intrinsic and extrinsic protective systems.

Wright et al. (2013) explain the third wave of research as being focused on applying the knowledge of the previous waves to compile interventions that could be used to promote resilience. This included reducing risks of exposure to adversity, enhancing of resources, nurturing of relationships, or mobilising of other protective systems (Masten & Reed, 2005). This phase brought hope that resilience research could actually lead to positive changes in the lives of people who were at risk of negative outcomes (Cicchetti, 2013).

The fourth wave in resilience research focused on multiple systems levels, including epigenetic and neurobiological processes (Wright et al., 2013). Although the previous three research waves were dominated by a psychosocial approach, Rutter (2013), Cicchetti (2013), and Karatoreos and McEwen (2013) argue for a multilevel analysis of processes promoting resilience in individuals. These researchers explain that the brain is viewed as the key organ in determining the extent to which an individual is capable of adjusting to the environment or injury and, thus, towards resilience in the individual. The plasticity of the brain might also enable the individual to mitigate negative outcomes, even later in life. Such a gene-environmental process in the resilient individual is still contextually and culturally shaped (Rutter, 2013; Karatoreos & McEwen, 2013).

4.2.1.2 Protective processes of resilience

The "shortlist" of protective processes (Masten & Wright, 2010, p. 222) involves the processes that occur repeatedly across the four waves in resilience studies; it implies that they are core protective processes, even if how these processes are expressed will differ across cultures and contexts. Cicchetti (2010) and Masten and Wright (2010) present the next six universal processes, as summarised in Table 2, as the shortlist:

Protective process	**Defining the process**	**Example from literature**
Attachment relationships	This term refers to a constructive supportive relationship with a person, for example, immediate/extended family, caregivers, peers, teachers, mentors, and romantic partners (Masten & Wright, 2010).	According to Owens and Shaw (2003), the quality mother-child (maternal) attachment essentially contributes to the resilience of chronically impoverished white and black American boys. In comparison, South African studies of resilience also draw attention to the importance of grandmother-youth attachments among, particularly, black youth (Theron & Theron, 2010).
Agency and mastery	To support positive life outcomes, agency and mastery go hand in hand. Agency can be described as the ability to make own choices (to have a goal), to plan, and to exercise control to execute these choices. Achievement of goals and taking charge of situations are part of the mastery system (Masten & Wright, 2010).	Poor Brazilian youths worked to contribute to the financial upkeep of their families. The youths' choice to work gave them a sense of accomplishment, mastery, and agency because it supported their families (Libório & Ungar, 2010).

Meaning-making	This is the cognitive process of interpreting negative life events or adversities in a hopeful way (instead of denial or passive yielding), which, thus, leads to positive adjustments (Rutter, 2013; Tavernier & Willoughby, 2012).	In an account of two black South Africans, from poverty-restricted backgrounds, they tell how they were stimulated by their social ecology to constructive meaning-making processes. For example, they set themselves the goal of rising above their adversities (poverty, being orphaned, and unmarried motherhood) and going to study (purposeful direction) to ensure a better future for themselves in this way (Theron & Theron, 2014b).
Problem solving	Rutter (2013) also calls this process intelligence or "mental features". This process can be described as the ability to recognise adversities, to know what to expect is going to happen, and to display the intelligence to suggest effective ways of overcoming the adversity (Masten & Wright, 2010).	By making use of an advisory panel consisting of adults who know the resilient Basotho adolescents, Theron, Theron, and Malindi (2013) report that, as a result of an effective support system (teacher, social worker, and police), a black girl (orphan) was taken from the care of her uncle who was abusing her sexually. She was placed in the care of another family and decided (problem-solving skill) not to let her problems get her down. She quickly showed good academic progress (intelligence) – and planned (part of problem-solving) and eventually pursued postgraduate studies.
Self-regulation	The ability to apply attention and concentration skills and exercise self-control over both emotions and behaviour –	American youth, from low- to middle-income families who participated in the Project Competence Longitudinal Study showed that some resilient youths' self-

	particularly under high-risk conditions (Masten & Wright, 2010).	regulation was most probably encouraged by their strong and supportive relationship with their parents and other mentors. In contrast to this, the youths who could not handle the adverse challenges well exhibited poor self-regulation (e.g., impulsivity, low tolerance), which often led to conflict with others and the law (Masten & Tellegen, 2012).
Religion and culture	Religion and culture help with the establishment and maintenance of beliefs, values, and practices that support individuals towards hope and spirituality during life's adversities (Masten & Wright, 2010). These beliefs and values guide the individual towards meaning-making (Theron & Theron, 2010).	South American youth, in jeopardy as a result of a culture of drugs, violence, and poverty, reported that their positive adjustment to these threats was strengthened by their belief in, and attachment to, God (Kliewer & Murrelle, 2007).

Table 2: Shortlist of protective processes facilitating resilience

4.2.1.3 Resilience: formal service-oriented process

Very recent social-ecological research into resilience indicates that the reciprocal process (which draws on the "shortlisted" processes tabulated above) between the individual and his/her ecology is heavily informed by the provision of formal services. These services include juvenile, health, and education services, from which I then, for the purposes of this research, focused on services provided by schools (Liebenberg & Ungar, 2014; Sanders,

Munford, Liebenberg, & Ungar, 2014; Van Rensburg, Theron, Rothmann, & Kitching, 2013). This choice was informed by the fact that my primary informants were all school-attending and that none of them referred to juvenile or health services in their accounts of what supported them to do well in life.

Liebenberg and Ungar (2014) describe formal services – thus, also including educational services – as protective resources for vulnerable youth. Although multiple services can complement one another to support resilience of vulnerable youth, the effectiveness of these services depends on the consistency and quality of services (also the quality of educational services) (Sanders et al., 2014; Theron, Liebenberg, & Malindi, 2014; Theron & Theron, 2014a; Ungar, Liebenberg, Dudding, Armstrong, & Van de Vijver, 2013). Sanders et al. (2014), Theron et al. (2014), Ungar et al. (2013), and Van Rensburg et al. (2013) agree that these formal services will only contribute to resilience in challenged adolescents if these services are provided to the youth in an empowering and respectful way and the youth are encouraged to exercise agency (that is, that the adolescents are given the opportunity to make appropriate choices about how they want to react to these services that are being provided). To improve the quality of the service, it is also important that these services must take into account every individual's circumstances and needs, as well as the rights of every individual, when services are provided. In this way, it increases the probability of the formal service being resilience-promoting (Sanders et al., 2014; Theron et al., 2014; Ungar et al., 2013).

Van Rensburg et al. (2013) point out that the school as provider of resilience-promoting resources, skills, and other opportunities is often underestimated in resilience studies among South African youth. Theron and Theron (2014a) reported the voices of 16 resilient South Africans who foregrounded school-based supports in their accounts of their resilience. Theron and Theron used this to conclude that schools were often the only form of formal support in the lives of disadvantaged youths. It is, thus, clear that we will never really know how **services** promote children's resilience if we do not self-capture their own voices. Because I could, however, not find any studies of how the school (inclusive and exclusive schools) as service provider contributed to the resilience of adolescents with ID in South Africa, I, thus, for the purposes of Manuscript 2, returned to the data set with a new question: "What do adolescents with ID's accounts reveal about how their school ecologies matter for resilience, and how might these insights support teachers and school ecologies towards optimal inclusion of learners with ID?"

In order to understand resilience of adolescents with ID (and the role of education as formal service to facilitate resilience in adolescents with ID) better, it is, however, necessary to first look at the concept of ID and the risks that this barrier to learning and development involves daily for the adolescent with ID.

4.3 Resilience and ID

According to Statistics South Africa (SSA, 2013a), about 5.1% (2 701 980 persons aged five years and older) of the total South African population of 52.98 million (SSA, 2013b) is reported as having a disability that prevents them from fully participating in daily activities. The Department of Social Development (DSD), the Department of Women, Children, and People with Disabilities (DWCPD), and the United Nations Children's Fund (UNICEF) (2012) report that, during a general household survey (2009), 164 569 South African youths, aged 10 to 17, were described as disabled. These figures included youths with intellectual disability, which is the focus of this study. In South Africa, the number of adolescents with a primary disability of severe to mild ID (which is the focus of this study) is estimated at about 52 517 (DBE, 2014). This figure excludes adolescents with other disabilities such as, among others, autism, cerebral palsy, and Down syndrome, which often also include ID as part of their barriers to learning. With this large number of adolescents with disabilities in mind and, particularly, adolescents with ID, I as researcher was dumbfounded about the limited research available about this group of adolescents. Mckenzie, McConkey, and Adnams (2013b) also express their concern about the limited research currently in South Africa and about individuals with ID and urge researchers to do more research.

4.3.1 Causes of ID

The most general causes of ID can be divided into three categories, namely, physical causes, familial causes, and contextual causes. These three groups of causes, however, do not function separately from one another, but are interrelated (Donald, Lazarus, & Lolwana, 2010).

4.3.1.1 Physical causes

Physical causes include injuries or underdevelopment of the brain as a result of genetic deviations or pre-, peri-, and post-natal causes (Donald et al., 2010; Maulik, Mascarenhas, Mathers, Dua, & Saxena, 2011; Schalock, 2011).

- Genetic abnormalities are determined by that which is transferred by the parents' genes to the child (Donald et al., 2010). Although there are various genetic and metabolic causes of ID, chromosomal errors largely lead to ID. See Table 3.
  for a summary of genetic abnormalities related to ID based on Uys, 2009, p. 410.
- Prenatal factors refer to damage that occurs during pregnancy (Botha, 1989). See Table 4 for a summary of prenatal factors related to ID.
- Perinatal factors refer to damage that occurs during or at birth (Botha, 1989). See Table 5 for a summary of perinatal factors related to ID.
- Post-natal factors refer to damage that occurs after birth (Botha, 1989). See Table 6 for a summary of post-natal factors related to ID as well as paragraph 4.3.1.2 and 4.3.1.3

Genetic factors correlated with ID					
Most common chromosomal errors		**Other genetic factors**		**Metabolic errors**	
	Other associated complications		**Other associated complications**		**Other associated complications**
Fragile X syndrome(weak site on the X chromo-some)	Moderate to profound ID. Autistic tendencies. Speech and visual impairment. Very short attention and memory span.	**Usher syndrome**	Hearing loss. Systematic loss of sight. Balance problems.	**Sickle-cell anaemia** (irregular-shaped red blood cells that cause clogging of the blood vessels)	Shortage of oxygen to tissues and organs. Painful joints. Damage to organs or a stroke. Reduced vision.
Down syndrome(extra chromo-some 21)	Mild to severe ID. Dysfunctional heart structure. Uncontrolled movements of the eyes. Facial dysmorphism.	**De Toni-Fanconi syndrome** (mutilation in the proximal tubular function)	Retarded growth. Deposit of too many minerals in the bones.	**Galacto-semia** (increasing galactose content in the blood)	Liver and sight (cataracts) problems. ID.
Prader-Willi syndrome (genetic abnormal-lity of chromo-some 15)	Hypotonia (poor tendency in skeletal muscle). ID. Obsession with food. Hypergonadism (sexual underdevelopment).	**CHARGE syndrome**	**C**oloboma (eye defects). **H**eart defects. **R**etarded growth. **G**enital abnormality. **E**ar malformations (hearing loss).	**Phenyl-ketonuria** (PKU) (abnormal metabolism causing too much phenylala-nine)	ID. Seizures. Restlessness. Mouldy body odour.
Angel-man's syndrome(genetic deformity of chromosome 15)	Ataxia (uncontrolled muscular movement). Speech impairment. Seizures. Uninhibited laughter.	**Rett syndrome** (neurodegenerative disorder exclusive to females)	ID. Delayed growth from the age of six to 18 months.		

Table 3: Summary of the genetic factors related to ID based on Uys, (2009, p.410)

Prenatal factors	
	Other associated complications
Rubella (German measles) (mothers infected with rubella virus within first 20 weeks of pregnancy) (Uys, 2009)	Visual and hearing impairment Intellectual disability (DSD, DWCPD, & UNICEF, 2012)
Foetal alcohol syndrome (damage to a developing foetus due to the consumption of alcohol/drugs by the mother)	Intellectual disability Facial abnormalities Growth retardation Central nervous system dysfunction (Paley & O'Conner, 2009)
Cerebral palsy (CP) (caused by factors that affect the not fully grown brain before birth)	Paralysis Poor coordination Functional deviation of the motor system Intellectual disability (Botha & Krüger, 2009)
Rhesus (Rh) factor incompatibility (incompatibility of mother's and father's Rh factors)	Anaemia that causes brain damage, resulting in neurological impairment such as intellectual disability (Uys, 2009)

Table 4: Summary of the prenatal factors related to ID

Perinatal factors	
	Other associated complications
Cerebrovascular accident (obstruction of the blood vessels to the brain at birth; cells die due to lack of oxygen)	Necrosis (necrosis of cells) and ischaemia (shortage of blood supply to the brain), resulting in serious brain damage (that is, intellectual disability)
Breech birth (buttocks of the baby appear first)	Respiratory problems that cause a shortage of essential oxygen to the brain, thus leading to brain damage (and, therefore, intellectual disability)
Prolonged labour and mechanical intervention (can cause trauma or damage to the brain or blood vessels in the brain)	Brain tissue is torn and bruised, leading to brain damage (and, thus, intellectual disability)
Excessive administration of anaesthetics to the mother and suffocation by the infant (depressed respiratory centre)	Poor respiratory system functioning, leading to a lack of oxygen to the brain that can cause permanent brain damage (and, thus, intellectual disability)

Table 5: Summary of the perinatal factors related to ID

Postnatal factors	
	Other associated complications
Untreated HIV (human immunodeficiency virus)/Aids (acquired immune deficiency syndrome) infection through transmission by the mother to the child (breakdown of the cellular immune system)	Developmental delays Psychological and neurological impairments such as intellectual disability (Uys, 2009)
Malnutrition (inadequate intake of proteins)	Decrease in energy level/underweight Delayed development Cognitive impairment/intellectual disability (DSD et al., 2012)
Micronutrient deficiencies (deficiency in minerals and vitamins)	Anaemia (iron deficiency) Attention deficit hyperactivity disorder (ADHD) Intellectual disability Behaviour disability (aggressiveness) Learning disabilities (DSD et al., 2012)
Traumatic brain injury (TBI) (injury to the brain by external force)	Cognitive impairment/intellectual disability Physical impairment Aggressiveness (DSD et al., 2012)

Autism spectrum disorder (ASD)	Reduced language and communication skills Impaired sensor and motor development Peculiar movements Sleeping and eating disturbances Mood swings Secondary impairments most frequently associated with ASD: intellectual disability and epilepsy (Koudstaal, 2009)

Table 6: Summary of the post-natal factors related to ID

4.3.1.2 Familial causes

According to Donald et al. (2010), the chances for children who are born into a family where the parents themselves are intellectually disabled to also inherit ID (particularly genetic deviations) is very great. These children's chances for effective stimulation are limited, and in this way, the potential of these children is not developed optimally (Donald et al., 2010). Another danger is the heredity of HIV/Aids virus from the mother. Without early effective treatment, this virus can lead to cognitive disability (Adnams, 2010; Njenga, 2009) (compare Table 6).

4.3.1.3 Contextual causes

The occurrence of ID in low- and middle-income countries is virtually double that of high-income countries (Maulik et al., 2011). Adnams (2010), Donald et al. (2010), and Maulik et al. (2011) ascribe this increased occurrence of ID to the shortage of effective health services, which, thus, leads to limited prenatal tests and examinations. In this way, the possibility of birth-related infections and injuries is increased, as well as poor post-natal care of the mother and baby, which, thus, increases the possibility of cognitive, physical, neurological, and sensory impairment (compare Table 6). Poverty may not only lead to health risks, but also

safety risks, which increase the chance of injuries, illnesses, malnutrition, and diseases (among others, tubercular meningitis (TBM) and HIV/Aids), and may, thus, cause ID (Adnams, 2010).

Adnams (2010) reports that nutritional deficiencies in the early stage of child development lead to multiple biological and psychosocial risks, including mild ID, a reduction in motor skills, and behaviour deficits (compare Table 6). Adnams, furthermore, explains that traumatic brain injury (TBI) plays a big role in the occurrence of ID in South Africa. This is, however, one of the more easily preventable causes of ID, but is a problem in South Africa as a result of the high rate of road accident (and volving pedestrians) and violence (physical assaults on children), of which TBI is often the after-effect (Adnams, 2010; Lalloo & Van As, 2004). Also compare Table 6.

4.3.2 Risks inherent in ID

Adolescents with ID have mild, moderate, or severe to profound intellectual impairment. Other multiple disabilities that can be found in concurrence with intellectual impairment are epilepsy, fragile X syndrome, Down syndrome, Prader-Willi syndrome, cerebral palsy, sensory impairments, and autism; this comorbidity makes learning and life, in general, much more difficult (Jooste & Jooste, 2009). The physical, behavioural, emotional, language, and cognitive challenges that are implicit in ID and/or disabilities associated with ID are discussed below. Although they are discussed individually, it is important to remember that these multiple risks interact and heighten the vulnerability of adolescents with ID (Emerson, 2013).

4.3.2.1 Discrimination and prejudice

Discrimination and prejudice by the adolescent with ID's community (peers, family, teachers) is the most significant risk that adolescents with ID must face and occurs worldwide (Ali, Hassiotis, Strydom, & King, 2012; Gross & Hahn, 2004; Scior, 2011). Poor communication skills/speech, annoying personal habits, and appearance (for example, drooling mouth or deformed head/face) of adolescents with ID all contribute to social non-acceptance by peers, family, and teachers (Uys, 2009). Social injustice does as well

(Emerson, 2013). Such prejudice and discrimination often lead to poor self-esteem, depression, anxiety, and behavioural problems (Ali et al., 2012; Chen & Shu, 2012; Faust & Scior, 2008; Kock et al., 2012). A further consequence of this discrimination is that adolescents with ID, particularly when they are also physically disabled (that is, are physically weaker, for example, CP), are often bullied (Lindsay & McPherson, 2012). Chen and Shu (2012) report that adolescents with ID reacted in three ways to this prejudice, namely, through avoidance of situations where they might be discriminated against, by isolating themselves and keeping out of the way of the non-ID, and by promoting themselves to improve their self-image (even if it was often not reality), so that others could think more of them. None of these "coping" mechanisms diminishes the reality of being rejected by their social ecology.

4.3.2.2 Psychiatric disorders

ID is often linked to concomitant psychiatric disorders and/or dysfunctional behaviours such as anxiety disorder, post-traumatic stress disorder (PTSD), aggression, depression, psychosis (insanity), personality disorder, self-harm, autism spectrum disorder, conduct/behaviour disorder, and hyperkinesis (ADHD) (Bernard, 2009; Emerson & Hatton, 2007; Faust & Scior, 2008). Resilience literature reports that the occurrence of these psychiatric disorders in youth not only has a negative influence on the health and well-being of the adolescents with ID, thus reducing their own potential to resilience, but also has a great impact on the well-being of their families (particularly the mother) and that the family's capacity for resilience declines (Emerson & Hatton, 2007).

4.3.2.3 Poor language development and lack of communication

Language development in the adolescent with ID is often very poor and sometimes even absent. This deficit may, thus, cause the adolescent with ID to struggle to be able to communicate effectively, for example, to ask for help, to provide information or ask a person for information, to comment, and to air his/her own opinion (Calculator, 2009; Hartley & Sikora, 2010; Kurani, Nerurka, Miranda, Jawadwala, & Prabhulkar, 2009). The adolescent with ID, thus, experiences that his/her poor communication ability may be a huge obstacle in

bringing about normal social interaction with non-disabled individuals in his/her immediate family, his/her school, and his/her social environment (Calculator, 2009).

4.3.2.4 Familial risks

The family, particularly the primary caregiver (mostly the mother), can be one of the strongest protective factors for the adolescent with ID, who can have the biggest influence on the adolescent with ID's quality of life. By contrast, the disability of the adolescent can, however, have a negative impact on the resilience of the family. These impacts include emotional tension, isolation, financial pressure, etc. (Bernard, 2009; Emerson & Hatton, 2007; Faust & Scior, 2008; Greeff, & Nolting, 2013). Each is discussed further below, but the crucial point is that ID has the potential to undermine the functionality of a family, which, in turn, places the adolescent with ID at greater risk.

Grant et al. (2013) and Taggart, Taylor, and McCrum-Gardner (2010) report that children with ID are often born into dysfunctional families. For example, they are born to parents with poor mental health or to parents who are substance abusers. Such parents do not provide good care, and so the risks that adolescents with ID face are heightened. Similarly, when the parents themselves have ID, their capacity to care and to provide financially is limited.

Financial pressure on the family

When there is physical, visual, hearing, or speech disability in the adolescent with ID, it is often necessary for therapeutic sessions, private teachers, extra reading classes, or specialist appointments to support the adolescent with ID to progress optimally and, in this way, to bring about maximum quality of life. Supporting apparatus such as wheelchairs, hearing aids, etc., along with the consultations, involves extra financial expenses that often cause financial tension (Heiman, 2002). The adolescent with ID also generally experiences problems finding (and keeping) a job and, thus, often remains the lifelong responsibility of the parents or extended family to provide care (Gross & Hahn, 2004; Heiman, 2002). Emerson (2013) and Taggart et al. (2010) also report the familial risks of single parenting and the pressure that it places on the immediate family where one parent alone is responsible for the care of the child with ID.

Emotional tension and isolation of the family

Most youths with ID cannot be left without supervision, which means that the immediate family's freedom is restricted. Immediate family members must, thus, take turns to provide supervision, which can lead to tension and emotional exhaustion (Catherall & Iphofen, 2006; Kurani et al., 2009). Ali et al. (2012) and Grant et al. (2013) report that adolescents with ID, as well as their immediate families, experience prejudice and discrimination, which lead to the parents, siblings, and also the adolescent with ID experiencing isolation. To protect the adolescent with ID against the prejudice of the community, the parents and siblings do not like to take the adolescent along when they go out, they themselves go to social events less often, and the siblings have poor social lives because they avoid inviting friends home. All of these factors may lead to frustrations and depression in the adolescent and the immediate family members (Ali et al., 2012; Grant et al., 2013). The disadvantage is that the immediate family, through this exclusion of social interaction (overprotection), denies the adolescent his/her right to acquire socially acceptable behaviour and independence (Uys, 2009).

4.3.2.5 Risks that contribute to poor academic progress

There are various levels of ID. The different levels of ID, as coded on the basis of the full-scale IQ score, are mild or IQ range 50 to 70, moderate or IQ range 35 to 49, severe or IQ range 20 to 34, and profound or IQ below 20 (Schalock, 2011). The DSM-5 (APA, 2013) extends this in terms of limited adaptive functioning associated with conceptual, social, and practical challenges. Because this study focuses on adolescents with moderate and severe ID, I will only briefly describe the challenges pertaining to these two (see Table 7).

Moderate ID	Severe ID
• **Conceptual domain:** the adolescent's conceptual skills are very far behind those of his/her peers. Progress in reading, writing, and mathematics and the concept of time and money is very slow and limited. A degree of support in problem-solving throughout life is required.	• **Conceptual domain:** limited achievement in cognitive skills. Adolescents display little concept of reading, writing, or any mathematical concepts. The support of caregivers is necessary in problem solving all the time.

• **Social domain:** social and communication behaviour of adolescents with ID is very different from their peers. Language (less complex than peers) is used primarily as means of communication. Although the ability of social judgement and decision-making is limited, the person can build good relationships with family and friends and even form romantic relationships during adulthood.	• **Social domain:** communication is very limited. Vocabulary is extremely limited and often limited to single words or phrases. Adolescents may use augmentative devices necessary to support communication. Language and communication are used to make needs known and so socialising is typically poor. Adolescents understand simple language, and relationships with family and other familiar people are aimed at support.
• **Practical domain:** over a long time of repetition and practice, the adolescent with ID may eventually be capable of independently carrying out basic personal-care functions as well as household chores (reminders may sometimes be necessary). He/she is capable of independently performing simple work that involves limited cognitive and communication skills with a degree of supervision and support.	• **Practical domain:** the adolescent needs support in virtually all daily activities. The development of skills in all areas takes place over a long time and then still needs constant support and supervision for the performance of tasks. Maladaptive behaviour, for example, self-injury, sometimes occurs.

Table 7: Comparison of the intellectual and adaptive functioning of adolescents with moderate and severe ID

The higher the level of ID, the lower the intellectual capacity is. The lower the intellectual ability of the adolescent with ID, the higher his/her vulnerability to risks, including academic risks, is (Emerson, 2013; Emerson & Hatton, 2007; Murray, 2003). Adolescents with ID are associated with poor academic records and exposure to failure, which lead to a negative self-image in the adolescent with ID. This inability of the adolescent with ID to do well

academically often increases the extent of prejudice and discrimination by non-ID peers and even teachers and accumulates to anxiety and behavioural problems in the adolescents with ID (Chen & Shu, 2012; Uys, 2009). Poor academic achievements of adolescents with ID lead to their not being able to follow/complete the formal curriculum (grade 1 to grade 12); thus, no academic qualification can be obtained, and eventually, this causes tension in the family and the adolescent with ID as a result of limited availability of job opportunities for the illiterate (Kurani et al., 2009).

Internationally, there is a call for inclusion of learners with disabilities and, thus, also adolescents with ID, in mainstream classes/schools (UNESCO, 1994). Donohue and Bornman (2014), Geldenhuys and Wevers (2013), Ngcobo and Muthukrishna (2011), and Obiakor, Harris, Mutua, Rotatori, and Algozzine (2012) explain that the adolescent with ID is often looked down on by teachers and bullied by his/her peers as a result of his/her inability to master academic work. This leads to the adolescent with ID developing a poor self-image, being uncertain of where he/she belongs, and later leaving school at an early age after long periods of absence from school, once again contributing to financial dependence on family and limited ability to get and keep a job.

The occurrence of attention deficit disorder and hyperactivity (ADHD) in children with ID is particularly high (7% to 21%) (Dykens, 2000). The presence of ADHD means a drastic decrease in the ability to concentrate and increased diversion of attention in these children who are already struggling to understand and remember new concepts (Dykens, 2000; Knopf, Park, & Mulye, 2008). In addition, Algood et al.,(2011) describe ADHD as a disruptive behavioural deviation that can contribute, to a large extent, to poor relationships (social isolation) and as a risk to the general well-being and health of the adolescent with ID.

Academic progress, as well as the ability to cope daily, largely also depends on the individual's skill in problem solving. The lowered cognitive skill in the adolescent with ID, however, leads to the problem-solving skill not being optimally developed, and thus, the adolescent with ID struggles to cope with the challenges of daily life, which often leads to tension and behavioural problems (Dykens, 2000).

4.3.2.6 Social isolation

Social interaction and participation in activities in society lead to the development of friendships and good social adaptability and, thus, improvement in the health and quality of life of the individual with ID (Gross & Hahn, 2004; Kleinert, Miracle, & Sheppard-Jones, 2007; WHO and World Bank, 2011). Gaede and Surujlal (2011) and Sooful et al. (2010) also report that activities such as dancing and music are excellent media for bringing about the adolescent with ID's integration in the social community. Adolescents with ID, however, take part much less in extramural activities or unorganised recreational activities in their environment. Poor communication and social interaction skills, maladjusted behaviour, and fear of discrimination and rejection due to their disability are part of the reason for their isolation. However, environmental risks such as poverty (for example, that there is often not money for extra expenses for activities and transport) and disinterested caregivers (for example, parents who do not feel up to, or are not interested in, carting the adolescent to activities) are often advanced as reasons for this social isolation of the adolescent with ID (Abells, Burbridge, & Minnes, 2008; Kleinert et al., 2007).

4.3.2.7 Physical and sexual abuse

Njenga (2009), Phasha (2009), Phasha and Myaka (2014), Reiter, Bryen, and Shachar (2007), and Shabalala and Jasson (2011) report that rape, violence, and physical and sexual abuse occur more often in adolescents with ID than in peers without ID. Reiter et al. (2007) link these high rates to the fact that, as a result of limited cognitive abilities of the adolescents with ID, they do not always realise that what is happening to them is not acceptable behaviour and is, thus, also against the law. In this way, this vulnerable group of individuals is exploited by the offenders. Phasha (2009) reports that caregivers and/or professionals heighten the environmental risk of abuse. For example, some black parents are simply not interested in reporting the sexual abuse of their children with ID (according to them, it is a family matter, and they often handle it in the traditional way through payment of a number of goats/cattle by the guilty party), or the police treat the case with little seriousness because they shrug it off as simply a misunderstanding by the adolescent with ID. Phasha (2009), furthermore, reports that when the guilty party is a family member, it is kept secret and often shrugged off as the disabled person not knowing what he/she is talking about.

4.3.3 Protective factors and processes contributing to resilience in adolescents with ID

Emerson (2013) emphasises the shortage, but also the importance, of research with regard to the factors/processes that facilitate resilience among children with ID, particularly when these children are exposed to environmental adversities (for example, abuse, discrimination, domestic and community violence, and so forth). As noted earlier, Ungar (2008, p. 225) describes resilience as a reciprocal process between the individual and his/her social ecology to ensure the health and well-being of the individual. While the physical and social ecology of the individual is tasked with making meaningful physical, emotional, social, and cultural resources available to sustain the well-being of the individual, it is the responsibility of the individual to steer towards, and make use of, these offered resources.

Although we know that adolescents with ID are at great risk of negative life outcomes, there are, in fact, a few studies that show that the opposite can be true as well (that is, Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003; Ungar, 2004). These studies that document the resilience processes in adolescents with ID state that adolescents with ID do better than expected because their social ecology offers them support and opportunity to take part in religious activities, to engage in hobbies, and to learn life skills that they apply successfully in their daily life (Fourie & Theron, 2012; Hsieh & Donahue, 2010; Murray, 2003).

Furthermore, adolescents with ID who are accommodated in a special school are spurred on to resilience when they are encouraged to make the most of their special instruction and experience unconditional acceptance (Fourie & Theron, 2012; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003; Ungar, 2004). The provision of safe spaces for adolescents with ID where they can live, such as routine-respecting homes, and schools where they can learn, work, and participate in activities, also facilitates resilience (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003). In line with Ungar's understanding of resilience being a bidirectional process, resilient adolescents with ID support the resilience process when they display appreciation for their life and life-world, understand their own preferences (Fourie & Theron, 2012), and

demonstrate a positive temperament (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003).

4.4 Education as resilience-promoting formal service and ID

As mentioned above, education is a formal service that has the potential to make a difference to the outcomes adolescents with ID reach. To understand the possible value of education for adolescents with ID, I comment briefly on what the education system looks like internationally as well as in South Africa, especially with regard to the implementation of the inclusive policy. Although I briefly touch on the trend in international systems of education (also see Manuscript 2 for further detail), I elaborate further on inclusion in the South African system of education, which is also the focus of Manuscript 2.

4.4.1 A glance at the international system of education

Reformation of education, that is, inclusion, has been taken seriously internationally since 1994 with the release of the Salamanca Statement and Framework for Action (UNESCO, 1994). UNESCO (1994) has made a call on all countries for implementation of inclusive education, which can be described as equal, but effective, differentiated education for all children, regardless of disability (physical or intellectual) or ability, linguistic ability, class, culture, ethnicity, or any disadvantaged or marginalised areas or groups. This implies inclusion of all children, regardless of their differences or difficulties, in mainstream schools, but, in essence, it is about providing education to all children in a learning environment that will suit the needs of all children and where child-centred pedagogies are implemented (Nel, 2013).

Essentially, as highlighted in Figure 4, inclusive schools are regarded as forming the cornerstone of a society (Sapon-Shevin, 2008) where respect and dignity are shown towards the diversity of all individuals and their families (Sapon-Shevin, 2007; Sapon-Shevin, 2008; UNESCO, 1994).

Inclusion is about creating a society in which all children and their families feel welcomed and valued (Sapon-Shevin, 2008).

Figure 4: The essence of inclusion – feeling valued

The international feedback on the success of inclusion is variable. In a study of 10 European countries, the only countries where all special schools (separate schools for learners with barriers to learning and development) have been replaced and there are currently only inclusive schools are Scotland, Spain, and Italy. On a seven-point scale, it is, however, only Scotland that is evaluated as 6 on the basis of effectiveness of inclusion. The effectiveness of Italy and Spain is indicated as 4, and their early school-leaver rate is the highest, with that of Spain being 31% (Muskens, 2013). Too-high expectations set in the inclusive school system for the at-risk learners largely contribute to these learners already leaving school early to escape from the pressure that they experience (Muskens, 2013). In the other countries where there are still both inclusive and special education needs (SEN) schools, the effectiveness of inclusion in Germany is evaluated as low as 2 out of 7, but England, Sweden, Slovenia, and Poland have achieved a score of 5 out of 7. In an attempt at addressing the high school-leaver rate, the United Kingdom (UK) is again busy moving back to the provision of exclusive schools for learners who are not capable of meeting the high standards of mainstream schools as well as learners with behavioural problems who are not coping in ordinary classes (Gillie, 2012; Tomlinson, 2012).

4.4.2 South African system of education and inclusion process

In South Africa, the inclusion of, specifically, learners with barriers to learning and development was delayed by the attempts of the DoE, after the establishment of a democratic dispensation (1994), to first focus on making provision for equal education available to all population groups (inclusion), particularly disadvantaged communities (Engelbrecht, 2006). After that, attention could be paid to the inclusion of other previously disadvantaged groups as well, among others, learners with barriers to learning and development, as set out in the

well-known Education White Paper 6 on Special Needs Education: Building an Inclusive Education and Training System (DoE, 2001). In principle, inclusion, thus, deals with the responsibility of the government and system of education to acknowledge the right of every individual, particularly the individual with disabilities, to education in the environment of his/her own society (DBE, 2010; Nel, 2013). The DoE envisages that this will be facilitated by mainstream (that is, regular), special (schools for learners with barriers to learning and development, that is, SPSID), and full-service schools (FSSs).

In South Africa, the DBE is in the process of establishing full-service schools (FSSs) and colleges at full force. Education White Paper 6 (DoE, 2001, p. 22) defines FSSs as "schools and colleges that will be equipped and supported to provide for the full range of learning needs among all our learners". At these schools, particular attention is given to adaptability in teaching strategies and the establishment of additional education support programmes and resources (physical, human, and material resources) for the teachers and the learners (DBE, 2010). These FSSs are supported by district-based support teams (DBSTs) and the closest special school that has been appointed as resource centre. This support includes the mutual sharing of expertise and providing of guidance and guidelines in the handling of individuals with barriers to learning and development.

In South Africa, in SNE, there are about 423 special schools (of which 120 have been converted as special school resource centres) (DSD et al., 2012), with about 111 598 learners (DBE, 2014). Of these, 52 517 learners have been formally diagnosed with a primary disability of mild to severe ID (this number excludes learners with other primary barriers to learning and development, among others, hearing, visual, and physical impairments, where ID may be part of their disability). According to the DSD et al. (2012), there are already about 513 FSSs (no numbers for learners assimilated in them are available), but about 110 273 learners with barriers to learning and development (including ID) have already been assimilated in ordinary public schools.

With such a large number of learners with ID already assimilated in mainstream schools, it is important to look at how successful this inclusion process has been thus far and at the extent to which adjustments have been made for learners with disabilities, particularly adolescents with ID, to also make the instruction process adequate for them. The number of successes in inclusion (Gous, Eloff, & Moen, 2013) is, however, low when compared to the failures that

have been reported up to now (Donohue & Bornman, 2014; Geldenhuys & Wevers, 2013; Ngcobo & Muthukrishna, 2011). In the next section, I report on what I found when I looked at the most recent South African literature to determine what the cause of the problem in the system of education, particularly the inclusion process, was.

4.4.3 Problems in the South African inclusion process

It is a worrying fact that the early dropout rate for disabled South African youth (16 to 18 years) is 37% compared to the 14% of youth without disability (16 to 18 years) (DSD et al., 2012). The *Education for all (EFA) 2013 country progress report: South Africa*., (DBE, 2013), furthermore, reports that, in South Africa, 8% of seven- to 15-year-olds with a disability and 33% of 16- to 18-year-olds with a handicap currently attend no educational institution. By definition (compare paragraph 4.4.1), inclusion means quality provision of education to all children. The above-mentioned statistics indicate that there are still a large number of adolescents with ID who are currently leaving school at an early age and other children and adolescents with ID who have not been assimilated in the school system and, thus, do not receive any instruction. By definition, inclusion means instruction for all learners; these numbers may, thus, indicate that the inclusion process in South Africa has not been implemented completely successfully to date. The question, thus, arises where South African education as service provider has fallen short in keeping learners with ID engaged in the school system and then also in being able to meet the needs for instruction of the learners with ID who are outside the school system. In an attempt at answering this question, I looked at the existing literature. See Table 8.

Factors that impede the practical implementation of inclusion and reduce the quality of the education service by the DBE	**Sources**
Certain geographical areas that labour under poverty as a result of unemployment	Geldenhuys and Wevers (2013); Motitswe (2014)

Illiteracy of many parents – cannot offer much academic support to learners	Geldenhuys and Wevers (2013); Motitswe (2014)
Diversity in home languages – hampers communication in the inclusive classroom (English Second Language as language of instruction)	Motitswe (2014)
Inadequately trained teachers – inability to provide adequate learner support to learners with specific barriers to learning	Donohue and Bornman (2014); Engelbrecht, Savolainen, Nel, and Malinen (2013); Geldenhuys and Wevers (2013); Kalenga, Fourie, and Maphosa (2014); Motitswe (2014); Ngcobo and Muthukrishna (2011)
Poor parental involvement – poor support of the learner with barriers to learning and development, and parent-teacher as team for the support of the learner with barriers is limited	Geldenhuys and Wevers (2013); Motitswe (2014)
Class size exceeds 40 learners. The DBE (2010) promised a ratio of 1:35 for FSSs and class assistants for FSSs who had more than 500 learners – not implemented – stressful for teachers who have to handle big classes and numbers of learners with a variety of barriers to learning and development	Geldenhuys and Wevers (2013); Motitswe (2014)
Differentiation in learning programmes and assessment not effectively applied. Too high standards, far above the ability of many of the disabled, particularly the child with ID, are, thus, set – learners become discouraged, are absent for long periods, and eventually leave school at an early age	Donohue and Bornman (2014); Geldenhuys and Wevers (2013); Kalenga et al. (2014); Motitswe (2014); Ngcobo and Muthukrishna (2011)

Shortage of, or misapplication of, funds to, for example, provide resources such as assistive devices and establish essential changes in the school environment to facilitate access for the disabled	Donohue and Bornman (2014); Geldenhuys and Wevers (2013); Wolhuter (2014)
Input of teachers: short school hours are worked and regular absences	Wolhuter (2014)
Policies (theoretical) on inclusion are in place, but clarity on the practical implementation falls far short	Donohue and Bornman (2014); Geldenhuys and Wevers (2013)

Table 8: Shortcomings in the South African inclusive system of education: literature review

In summary, inclusion is not *per se* about disability, but about making fair, equal, accessible instruction available (Nel, 2013). Gous et al. (2013) refer to the limited amount of research into the inclusion system in South Africa and are of the opinion that, if we in South Africa want to implement inclusion viably in the next 20 years, it is essential to develop relevant research programmes that investigate realistic changes to address the diversity of learners (according to their needs) in the inclusive system.

In South Africa, the viewpoint is that adolescents with ID must eventually be assimilated in special schools (SPSID) or FSSs (DBE, 2010). In Manuscript 2, I, thus, looked at how exclusive SPSID, as service providers, promoted the resilience of these adolescents with ID. With this, I am not saying that inclusive schools/FSSs must be done away with, but that it is important to look at what works in the exclusive SPSID, so that it can be applied practically in the inclusive system.

4.4.4 Opportunity for support and knowledge

After I could not find any South African studies about how the education service facilitated the resilience processes in adolescents with ID, I looked at the extent to which inclusive and

exclusive schools, and their staff, could support the resilience of adolescents with ID as vulnerable youth. What were the implications of the knowledge concerning the resilience processes in adolescents with ID, particularly as facilitated by their school ecologies, for teachers and schools? How could this knowledge be applied by schools and teachers to promote personal empowerment and a feeling of self-value in the adolescent with ID (that is, quality service provision)? This, thus, became the motivation for Manuscript 2.

Discrimination and prejudice are two of the most significant adversities that the adolescent with ID has to overcome (Scior, 2011). If we can, thus, succeed in establishing a tool through education, particularly inclusion, that will facilitate the creation of a society where the adolescent with ID (and his/her immediate family) will also feel at home and respected (Sapon-Shevin, 2008), we will have "changed the world" (Mandela, 2003; see Figure 5).

"Education is the most powerful weapon which you can use to change the world" – Nelson Mandela (Mandela, 2003).

Figure 5: Education – a powerful weapon

4.5 Summary of theoretical framework

In summary, I approached the study of what contributed to resilience in adolescents with ID from the theoretical perspective of a social ecology of resilience. This perspective emphasises that constructive adjustment to the multiple risks of ID requires social-ecological supports (including those of the education system). However, despite this framework, limited empirical evidence exists to explain why/how adolescents with ID are resilient and how school ecologies can use this knowledge to support resilience processes. To remedy this, I used the research design described below.

5. RESEARCH DESIGN AND METHODOLOGY

In the following part, I will discuss, and elaborate on, my choice of research design used for the study as well as the three components involved in my choice of research design, namely, my philosophical world view, strategy of inquiry, and research method (Creswell, 2009). I will, thus, describe my choice to use a qualitative research design and explain to what extent my data generation and interpretation were influenced by the lens of my chosen social constructivist paradigm. Thereafter, a discussion of case studies follows, in particular the multiple case study, which I have chosen as my strategy of inquiry, as well as research methods. I then conclude with the ethical considerations, ways of ensuring the rigour of my findings, and my role as researcher during my studies.

5.1 Qualitative research design

In my study, I made use of a **qualitative research** design because I viewed qualitative research methods as the best way of obtaining data to answer my research question. In explanation, I briefly describe the distinguishing typical characteristics of a qualitative design and how I implemented it during my research. At the end of this section, I motivate why a qualitative research design suited my research question.

One of the most important characteristics of qualitative research and, thus, also the most important activity during my research process was to investigate and describe the **lived experience** of individuals in their own familiar **environment** (Creswell, 2009). It, thus, meant that, during my study, I focused on the personal real-life experience of resilient adolescents with ID and their explanation of what, according to them, contributed to their resilience. I planned these meetings in such a way that they occurred in the familiar environment of the school that each adolescent with ID attended (in other words, a **naturalistic** investigation) (Creswell, 2014; Stake, 2010).

I also did not use questionnaires or instruments compiled by other researchers or external observers that might possibly have wanted to give a more objective image of the life-world of the adolescents with ID. Peculiar to qualitative research methodology, I as researcher acted as **key instrument** during data generation and data analysis. This process ensured that I could observe the life-world of the informants at first hand (Creswell, 2009; Stake, 2010).

As qualitative researcher, I attempted to obtain **multiple sources** of data. Firstly, this meant that I, thus, interacted with 24 primary informants (that is, resilient adolescents with ID), as well as approached their teachers as secondary informants, to further describe these cases. Secondly, I made use of **different data generation methods**, namely, draw-and-talk, open-ended questionnaires, and telephonic conversations (Creswell, 2009; Denzin & Lincoln, 2013). Denzin and Lincoln (2013) are of the opinion that no informant is able to fully explain or describe how he or she feels or how he or she experienced a particular situation. Therefore, the use of multiple sources is very important to obtain deeper and richer data.

Further characteristics of qualitative research design include that I made use of **inductive data analysis**. During the analytical process, which was grounded in the data, a bigger, more complex picture of resilience processes in adolescents with ID developed from the original simple data. This process involved the establishment of themes or categories and the constant comparison between different themes and my database in an attempt to establish the best represented working hypothesis/hypotheses as described and approved by the adolescents with ID as their lived experiences. During the entire process, it was my duty as researcher to ensure that the focus remained on what the **adolescents with ID's opinion** was regarding what helped them towards resilience and not the sense that I personally as researcher or other writers on resilience attached to it (Creswell, 2009; Flick, 2009; Silverman, 2010).

As qualitative researcher, I was aware throughout that the research process was not rigid and could, thus, change as new data was collected and as change in any phase of the process might be necessary (**emergent design**). During my research, it was of the utmost importance to be particularly prepared for the needs of this group of adolescents known for their vulnerability due to ID and, for example, to make changes to questions as necessary during unstructured interviews (draw-and-talk) (compare 5.4.6.1). For example, I often had to repeat questions or describe them a bit more easily to make them comprehensible to the informants. When informants appeared tense, I first calmly chatted to them to put them at ease before we could start with the draw-and-talk session (Creswell, 2009; Denzin & Lincoln, 2013; Stake, 2010).

Qualitative research is associated with **interpretive inquiry** where I as researcher must, thus, interpret everything I see, hear, and understand. Throughout, I was thoroughly aware of the

fact that my personal background as teacher (18 years' experience) of adolescents with ID and prior understanding of resilience in adolescents with ID (literature study) would have a definite influence on the way in which I interpreted the data. My interpretation as researcher, the way in which the adolescents with ID interpreted resilience resources, and the interpretation of the teachers were of great importance during data generation and reporting because these contributed to ensuring meaning and validity (Altheide & Johnson, 2013; Creswell, 2014) (compare 5.4.9).

Earlier, the necessity or my study was made clear because of the lack of studies and/or theory to explain resilience in adolescents with ID. The necessity for my study to focus on the lived experiences of the adolescents with ID also, however, measured up to the call for resilience studies to make the voices of the youth heard (Didkowsky, Ungar, & Liebenberg, 2010; Wright et al, 2013). One way of representing youth voices is to use a qualitative design. When these youth voices belong to youths who are typically marginalised because of their disability, a qualitative design is probably preferable because it facilitates their contribution. A quantitative design would not have facilitated it in the same way because it would have demanded literacy skills that would have been beyond the primary informants.

5.2 Research paradigm

I was constantly aware that **the social constructivist paradigm** was the lens through which I as researcher observed everything around me and that these convictions guided and led all my actions during the research process. The term "social constructivist" describes the most important point of departure of this paradigm, namely, that all knowledge and reality are socially constructed by the individuals (informants) actively involved in the research. Thus, as researcher I had the responsibility to make sense of (or to interpret) the complexity of the lived experiences (social experience) as described and interpreted by the adolescents with ID regarding what helped them towards resilience (Creswell, 2009; Mertens, 2010).

Because the main purpose of a qualitative study is to rely on informants' interpretation (Creswell, 2009; Mertens, 2010), their interpretations were the focus of my inquiry. It was, however, important for me, during the interpretation process, to take into account that the views of the adolescents with ID were variable because they were being influenced by their **interaction** with other individuals (thus, social constructivism) as well as the **historical** and

cultural background of the informants. I made sure that I had knowledge of the background and context of all adolescents by personally visiting them individually in their own school environment during the research process, talking to them about their background, personally doing the data generation, as well as through information provided by their teachers (Stake, 2010).

I was constantly aware that my personal historical and cultural background played a big role during the interpretation of my informants' lived experiences and observations (see section 5.4.10). During data generation, I, thus, attempted to focus on how the adolescents with ID described and interpreted their life-world with regard to factors that, according to them, promoted resilience rather than relying on my own assumptions (Creswell, 2009; Mertens, 2010; Richards, 2009).

5.3 Strategy of inquiry

In this part, I explain my choice to do an instrumental multiple case study as strategy of inquiry. In order to understand the process of a case study, it was, however, important to first consider what a case study is, the strengths and limitations of case studies, and the different types of case studies. Hereafter I explain how I applied the intrinsic multiple case study design (Creswell, 2012) during my research, and particularly why it suited my study (compare 5.3.4).

5.3.1 Case study defined

Various disciplines make use of case studies as research method, namely, psychology, sociology, anthropology, political science, education, nursing, etc. (Creswell, 2007; Yin, 2009). Yin (2014) defines a case study, firstly, as a qualitative empirical research process that is used to perform an in-depth investigation into an existing **phenomenon** (the case) within its real-life **context**, in particular when one cannot clearly distinguish between the boundaries of the phenomenon and the context. A case study is particularly relevant to my study, given the social ecology of resilience theory that suggests that resilience processes are facilitated by and interwoven with the context of the adolescent. In other words, in reality, it is very difficult to identify where resilience processes and the context are differentiated.

Using Stake's (1995) approach, Creswell (2007) reports that case studies typically have the following phases:

I. The researcher must, firstly, determine whether a case study as research design answers the research question the best (Creswell, 2007). In case studies, the questions "how" and "why" are used as basis for the research question (Simons, 2009; Yin, 2014). A case study as research design is a good choice for investigating a research problem where a bounded system (one case) or several bounded systems (multiple cases) can be identified that can answer how/why questions.

II. Secondly, the researcher must identify the **bounded system** (single case study) or bounded systems (multiple case study) (Creswell, 2007; Stake, 1995; Swanborn, 2010). Merriam (2009) identifies this as the **particularistic** feature of the case study. The systems can entail an individual, various individuals, an event, an activity, or a programme that will give an in-depth knowledge of the research problem that is being investigated (Creswell, 2007; Yin, 2014). These systems are typically bounded by time (beginning and end), place, and context (Creswell, 2007; Merriam, 2009; Mertens, 2009; Yin, 2014) as well as events and processes (Creswell, 2007). Stake (2008) is of the opinion that the primary criterion during the choice of a case(s) is to determine which case(s) offer(s) the best opportunity to learn something.

   Once the research question and system(s) of the case study have been defined, the **unit of analysis** can be described (Merriam, 2009; Yin, 2014). The unit of analysis will differ according to the case and the type of case study that must be described; for example, when the "case" of a single case study is an individual, the individual will constitute the primary unit of analysis, with various sources of data generation that provide a richer and deeper meaning to the data of the primary unit of analysis. In the case of a multiple case study, there will be various "cases" and, thus, more primary units of analysis (for example, multiple individuals) (Creswell, 2012; Mertens, 2010; Yin, 2009).

III. Data generation within a case study is characteristically very diverse and is collected from **multiple sources** (Creswell, 2007; Stake, 1995; Swanborn, 2010). According to Creswell (2007) and Yin (2009), the following sources of evidence are used the most in case studies, namely, documentation, archival records, interviews, direct observations, informant observation, and physical artefacts. Yin (2009) emphasises that no source

stands out above the others as more complete, but that various sources must be used to supplement one another to achieve deeper and richer data. The advantage of using multiple sources in a case study for data generation and obtaining data that is then later made to converge through a process of triangulation is that the finding is viewed as credible and more accurate (Flick, 2009; Yin, 2014).

IV. Data analysis of a case study is, firstly, characterised by an emerging detailed description of the case from the data that was collected (Creswell, 2007; Stake, 1995), when all the collected data is brought together and organised to form a case study database (Merriam, 2009). In the case of the single case study, the data is now analysed according to themes to better understand the intricacy of the case. In multiple case studies, there are two stages of data analysis. The first phase is the **within-case analysis**, where each case (as in the single case study) is analysed as a separate unit and themes are identified for better understanding of each case. Once all the cases have been analysed, the analysis proceeds to the **cross-case analysis**, where corresponding themes are identified to affirm the meaning of the case (Creswell, 2007; Merriam, 2009).

V. During the last interpretive phase, the researcher now reports the significance and value of the case. The significance and value of the case study can be to:

- be able to find out more about the particularities of a specific and sometimes extraordinary case (**intrinsic case study**);
- obtain better insight regarding a particular phenomenon so that the knowledge can lead to facilitation of a better understanding of the phenomenon of interest/research focus through the generation of theories (**instrumental case study**) (Creswell, 2012; Stake, 1995, 2008); and
- understand a phenomenon, population, or general situation in a wider context by making use of various cases that can be compared with one another (**collective/multiple case study**) (Creswell, 2012; Merriam, 2009; Mertens, 2010; Simons, 2009; Stake, 1995, 2008).

Merriam (2009) describes this last step as **descriptive** because the reporting in the case of a case study is characterised by rich and in-depth description of the phenomenon being studied. The fact that so much more insight has been gathered regarding the phenomenon on

completion of the case study is viewed by Merriam (2009) as the **heuristic** special feature peculiar to case studies. This means that, during reporting, the advantage of a case study can be found in how it "illuminates" the phenomenon (Merriam, 2009, p. 44). Such illumination relates to the case study providing information with regard to the phenomenon that confirms what is already known, involves expansion of knowledge, or signals that new meaning has been obtained (Creswell, 2007; Merriam, 2009).

Yin (2009) defines the above-mentioned five steps as the theoretical framework for a case study because they guide and lead the whole study. In section 5.3.4, I comment on how a case study design was apposite to my study.

5.3.2 The strengths and limitations of the case study as research method

During the choice of which research method to use, it is of importance to know what the general criticism against the case study as research method is and how the problems can be overcome. This criticism and, thus, the limitations include the following.

In their application of case study designs, some researchers show lack of rigour. For example, there have been criticisms of a lack of systematic research procedure or that the biased views of the researcher have too much influence on the findings and conclusion of the study (Merriam, 2009; Mertens, 2009; Simons, 2009; Swanborn, 2010; Yin, 2009). Better availability of textbooks for defining case studies and clear guidelines on how to effectively carry out the case studies are busy minimising the problems (Swanborn, 2010; Yin, 2009). It is the duty of each researcher to see to it that he or she clearly makes the reader of his or her report and himself or herself aware to what extent his or her biases may have an influence on the final report (Merriam, 2009). In my study, I addressed this criticism by immersing myself in the existing case study literature. In this way, I made sure that I approached my study with a plan and could work systematically as suggested by the experts in the field of case studies (see the description of data collection and data analysis). I had also already acquainted myself with my biases and spelt these out in my report (see section 5.4.10).

Particularly during earlier studies, the criticism was that case studies took too long and ended up with masses of data (Merriam, 2009; Yin, 2009) and that researchers just did not have time or sufficient money to undertake this research (Merriam, 2009). Currently, case studies

are described as a bounded system (study boundaries are determined beforehand across time, place, and context (Creswell, 2007; Merriam, 2009; Mertens, 2009)), and the data generation and manipulation process is improved through the good systematic systems and improved technology that are employed (Yin, 2009). In my study, I addressed this criticism: after identifying my bounded system (resilience processes), I limited my primary informants to 24 and secondary informants to 18. As data saturation was reached at this point, I did not involve more informants to avoid an unnecessary mass of data. I also only used the draw-and-talk method with primary informants and an open-ended questionnaire and a telephonic interview with secondary informants to collect data and did not add additional methods for use with my informants. I, furthermore, made use of an inductive analysis process, where I reduced the large amount of raw data to only the essential themes by means of open-ended questions and, thereafter, axial coding.

Further criticism is that case studies do not explain causal relationships as in the case of experiments (for example, whether a certain treatment works and its effect). Experiments, in contrast, can again not always explain the questions "how" and "why" (Yin, 2009). A case study can, however, provide this important information to supplement the experiment (Merriam, 2009; Torrance, 2013; Yin, 2009). Case studies are particularly ideal to investigate certain phenomena/processes from different perspectives. Anchored in the real-life experience of the individual, results that are obtained are described as a rich and holistic approach to the phenomena. This information, thus, provides the researcher with a deeper insight into the phenomenon, so that a working hypothesis can be compiled for structuring new studies (Flyvbjerg, 2011; Merriam, 2009).

According to the critics, case studies do not have strong grounds (for example, particularly a single case study) to be scientifically generalisable. The purpose of case studies is, however, to investigate and confirm theories and to generalise them to theoretical proportions and not to bring about generalisation across populations and universes (Merriam, 2009; Simons, 2009; Yin, 2009). Merriam (2009) and Mertens (2009), furthermore, maintain that particularly because one is working with one unit or programme, the generalisability is sometimes indeed better than with some other research methods on the basis of the deep insight obtained into it during research. The context of the study and particulars of the case will determine the extent to which the results of a case study can be applied to a similar situation (Flyvbjerg, 2011).

A myth related to the previous criticism is that case studies are too subjective and that it is, thus, not possible to generate theories during case studies (Flyvbjerg, 2011; Simons, 2009). Case studies offer a prime opportunity to theorise (Eisenhardt & Graebner, 2007). Characteristic of case studies is that preliminary theories already develop during the design phase of the research, independently of whether the case study deals with the establishment of a new theory or proof of an existing theory (Yin, 2009). According to Eisenhardt (1989) and Yin (2014), replication logic is central during theory building in case studies. In my study this means that I studied each case study as analytical unit. As soon as I could determine after analysis that this case had answered my research question, I studied the following case study. As soon as this case (and also each following case) had also answered my research question (literal replication) in the same or a similar way, it suggested a reliable answer, and these reliable answers could be used to support the theory. If I had, however, analysed a case whose findings differed from the previous ones (negative case), but could have been interpreted meaningfully as to my theorising, for example, a finding that differed because there was a difference in context (theoretical replication), it would have given me a deeper understanding of the phenomenon (Yin, 2014). In my study, there was, however, no such case.

The focus of case studies is on obtaining rich, context-specific, real-life insight into a given phenomenon by means of detailed investigation of a unit(s) of analysis. The data of each case is processed, compared with one another (cross-case analysis), and eventually represented as theory as a complex, meaningful explanation of the phenomenon in question. The theory development of a multiple case could, thus, occur during the cross-case analysis, and single-case theorising takes place during the interpretative process of data analysis (Simons, 2009). This theory can be represented by means of words, numbers, or diagrammatic representation (Stiles, 2009).

5.3.3 Case study designs

Researchers make use of two case study designs in their attempt to answer the research question, namely, single case study design and multiple case study design (Creswell, 2012; Mertens, 2010; Yin, 2009). For the sake of completeness, I will briefly discuss single case study design here, after which I will then, under the following point, proceed to an in-depth

discussion of why and how I applied instrumental multiple case study design during my research.

Single case study design is defined as in-depth and detailed investigation of one bounded system (Creswell, 2007; Stake, 2008; Yin, 2009). In the process, one can proceed holistically with a single unit of analysis (Yin, 2009). Yin (2014) identifies five specific cases where use is made of single case study design, namely:

- when a critical case is being investigated, that is, in an attempt to confirm, confront, or elaborate on a well-formulated theory;
- when the single case investigates an extreme or particularly unique case. This case study design is used especially in clinical psychology where, for example, a particular disorder occurs so rarely that the research into a single case is of great value to analyse and document;
- when the single case is representative or represents a typical case, for example, for capturing the circumstances and occurrence of an everyday or very general situation (informative study);
- when the single case gathers new knowledge, for example, the opportunity is available to research and analyse a phenomenon that was perhaps previously inaccessible to, for instance, social science; and
- longitudinal case studies: when the same single case study is studied simultaneously at two or more points in time to be able to compare changes over a particular time period.

5.3.4 Instrumental multiple case study design as preference for my study

Stake (2008, p. 119) summarises the description of a case study in a nutshell when he remarks: "Case study is not a methodological choice but a choice of what is to be studied." Thus, as researcher I also specifically chose a case study design because it best answered my research question, namely: "Why are some adolescents with ID resilient?" My interest in this research question increased when, after my literature study, I realised that there were few theories available regarding why adolescents with ID adjusted well to the risks and limitations of ID (Wright et al., 2013). In order to better understand the phenomenon of resilience among adolescents with ID, I relied on cases of resilient adolescents with ID as my bounded units of analysis. In order to understand even better, I made use of multiple cases,

so that I could first study each of these cases separately and, thereafter, compare them with one another to ensure an even deeper and richer understanding (Creswell, 2007; Merriam, 2009; Stake: 2006).

Because there is very limited literature explaining why adolescents with ID adjust well despite the risks they face, I chose an instrumental multiple case study design. An instrumental case study can be defined as a case study that sheds light on, or increases understanding of, the phenomenon under investigation. Because there is so little information on adolescents with ID, it was necessary to use an instrumental case study, as we need to understand why some adolescents with ID do well in life (Creswell, 2012; Merriam, 2009; Mertens, 2010; Simons, 2009; Stake, 2008).

5.4 Case selection

Informants: in order to comply with the single most significant characteristic of case studies, I had to, firstly, make sure that my cases were intrinsically bounded (Flyvbjerg, 2011). Therefore, I made use of purposeful sampling (Creswell, 2007; Merriam, 2009; Stake, 2008) to identify the 24 bounded systems. The criteria were as follows:

- Adolescents between the ages of 10 and 19 years (WHO, 2014)
- Formally diagnosed with ID
- Residing in South Africa, Gauteng province
- The adolescent had to have been identified as being resilient as defined by an advisory panel (AP). These criteria (compare 5.4.1) were used by an AP or gatekeepers to recommend adolescents to the study.

5.4.1 Primary informants: role of the advisory panel

I made use of an advisory panel (AP) to identify the first cases, as used by Fourie and Theron (2012) and Theron et al., (2013) in South African studies, as well as in international studies by, for example, Ungar and Liebenberg (2011). The AP was chosen on the basis of their interest in, and knowledge of, adolescents with ID to help me as researcher to define the indicators of resilience in adolescents with ID and to identify primary informants (Theron et al., 2013). The AP consisted of staff members of a SPSID who were within easy reach for

me as researcher. The nine members, who all worked directly with these children daily, consisted of the school principal, two school therapists, and six teachers.

Like Fourie and Theron (2012) and Theron et al. (2013), I met with the AP and explained the purpose of the study and the definition of resilience as set out in the literature to them. After discussion, the AP reached consensus that resilience in the adolescent with ID was visible in his or her ability to do well ("do well" is an acceptable synonym for resilience – Ungar, 2010, p. 14) in life in spite of the challenges and limitations that ID bring about. The characteristics/indicators on which agreement was reached for identifying the resilient adolescent with ID included not quitting school, the capacity to acquire life skills, appropriate social behaviour, acceptance by peers, stable friendships, general emotional stability, and participation in school-based extramural activities. With these criteria in mind, the first 15 informants who could participate in the study were nominated by the AP. Thirteen of the informants accepted the invitation.

5.4.2 Primary informants: role of the gatekeepers

I later provided this definition and suggested criteria to four gatekeepers (one teacher, one vice-principal, and two therapists) at four different SPSID in Gauteng province. The gatekeepers identified further cases at the school where they were involved. Eventually, another 11 informants were identified, all of whom accepted the invitation. At that stage, I reached data saturation; that is, no new information was still being generated that described the resilience processes, and thus, no further informants were invited (Creswell, 2007; Greeff, 2011; Mertens, 2009). Probably because the AP and the gatekeepers were school-based, this resulted in all 24 adolescents being learners at SPSIDs. I also asked the gatekeepers to obtain further information for me regarding individual additional risks that might influence the development of the informants, for example, additional formally diagnosed disabilities and psychological difficulties.

In summary, the 24 primary informants displayed good diversity which supported deeper investigation of resilience. This diversity included an age range of 12 to 19, differences in race, culture, home language, and schools, and differences in additional risks above and beyond the ID. The primary informants' details concerning diversity are summarised in Table 9.

Self-selected pseudonym	School situated in peri-urban (PU) or urban (U)	Age	Sex	Race / Home Language	Hostel resident (HR)/ Day schoar (DS)	Risks	Living arrangements
Chrissie	C (U)	16	Female	Black[a] English	DS	Formal ID diagnosis; Deformed feet- wheelchair bound; Delayed schooling.	Orphanage
Christiano	D (U)	15	Male	Coloured English	DS	Formal ID diagnosis; Deformed ears; Orphan.	Grand-Parents
Flora	A (PU)	17	Female	Black Sesotho	HR	Formal ID diagnosis; Down's syndrome; Cerebral Palsy - Hemiplegic; Epilepsy; Expressive speech difficulties.	Aunt and Uncle
Lady	A (PU)	15	Female	Black Sesotho	HR	Formal ID diagnosis; Orphan.	Guardian
Mako	A (PU)	18	Male	Black Sesotho	HR	Formal ID diagnosis; Poverty; Maternal alcoholism.	Parents/ Grandmother
Natalie	D (U)	17	Female	White Afrikaans	DS	Formal ID diagnosis; Molested, formal removal from parental care.	Orphanage
Nicky	D (U)	12	Female	Black SiTwana	DS	Formal ID diagnoses; Limited mobility from head injuries sustained in car accident.	Grand-mother
Nike	A (PU)	17	Male	White Afrikaans	DS	Formal ID diagnosis; Financial disadvantage (Mother unemployed and diagnosed with ID); father absent.	Orphanage
Pitbull	E (U)	17	Male	White Afrikaans	DS	Formal ID diagnosis; PTSD; ADHD; Poverty; Both parents diagnosed with ID.	Parents
Princess	A (PU)	18	Female	Black Sesotho	HR	Formal ID diagnosis.	Parents
Queen	A (PU)	18	Female	Black Sesotho	HR	Formal ID diagnosis; Cerebral Palsy-Hemiplegic; High impulsivity.	Father (Mother deceased)

Rambo	C (U)	17	Male	White Afrikaans	DS	Formal ID diagnosis.	Parents
Retabele	A (PU)	13	Female	Black Sesotho	HR	Formal ID diagnosis; Visual impairment.	Parents
Roxy	B (U)	13	Female	White Afrikaans	DS	Formal ID diagnosis; Orphan; Poverty; Disrupted schooling (absent for two years)	Orphanage
Samantha	B (U)	16	Female	White Afrikaans	DS	Formal ID diagnosis; Parental rejection.	Orphanage
Skim	C (U)	18	Male	Coloured Afrikaans	DS	Formal ID diagnosis.	Parents
Sokkerman	A (PU)	13	Male	White Afrikaans	DS	Formal ID diagnosis; Auditory impairment (uses hearing aid); Paternal rejection; Poverty.	Guardian
Spiderman	E (U)	15	Male	White Afrikaans	DS	Formal ID diagnosis.	Parents
Superhot- boy	B (U)	15	Male	Coloured Afrikaans	DS	Formal ID diagnosis; Poverty; Peer pressure..	Parents
Superman	A (PU)	13	Male	Black Sesotho	HR	Formal ID diagnosis.	Parents
Terminator	A (PU)	19	Male	Black Sesotho	HR	Formal ID diagnosis; Auditory impairment (uses hearing aid); Poverty.	Mother
The Rock	A (PU)	17	Male	Black Sesotho	DS	Formal ID diagnosis; Local (not school based) peer discrimination.	Parents
Tsabalala	A (PU)	14	Male	Black Sesotho	HR	Formal ID diagnosis.	Parents
Valentino	A (PU)	17	Male	Black Sesotho	HR	Formal ID diagnosis; Hydrocephalus with shunt	Grand-parents

* This is the way that South Africans still classify race.

Table 9: Summary of primary informant's demographics

5.4.3 Secondary informants

Characteristic of a multiple case study, I approached secondary informants to provide more information and, thus, multiple data sources to, in this way, bring about a more in-depth knowledge regarding the processes that may have an influence on the resilience of adolescents with ID (primary informants) (Creswell, 2007; Swanborn, 2010). I approached 18 class teachers, who taught the adolescents with ID daily and were experts on the adolescents with ID, to participate in the research. All the informants accepted the invitation. My choice to approach teachers and not parents as informants was founded on the fact that as many as 11 adolescents with ID were in a children's home or foster care – see Table 9. I also asked the teachers to point out the adolescents with ID's financial disadvantages, indicated by exemption from school fees. See summary of secondary informants in Table 10.

	Participants reported by teacher	**Years of experience**	**School**
Teacher1	Nike Terminator Mako The Rock	17	A
Teacher 2	Flora Princess Queen	33	A
Teacher 3	Retabele	34	A
Teacher 4	Lady Valentino	35	A
Teacher 5	Superman	3	A
Teacher 6	Sokkerman	26	A
Teacher 7	Tsabalala	9	A
Teacher 8	Roxy	35	B
Teacher 9	Samantha	4	B
Teacher 10	Superhot Boy	27	B
Teacher 11	Chrissie	6	C
Teacher 12	Rambo	37	C
Teacher 13	Skim	11	C
Teacher 14	Christiano	38	D
Teacher 15	Natalie	28	D
Teacher 16	Nicky	22	D
Teacher 17	Pitbull	26	E
Teacher 18	Spiderman	16	E

Table 10: Summary of secondary informants

5.4.4 Contextualisation

It was important to me as researcher to take cognisance of the context of each individual case (primary informant) beforehand because the context is interactive with the real-life/lived experience of the informant that must be investigated (Stake, 2008). Stake (2008) describes this characteristic of case studies as being contextually bounded. In this study, cases shared the context of government SPSID. Much of what I write below draws on my 18 years of experience in SPSID contexts.

After formal diagnosis of ID, South African children are currently mainly referred to a SPSID. These schools cater for the special needs of these children by providing special services for the benefit of the children with ID (SA Department of Education, 2001). These advantages include fewer pupils per class (12 to 18) to try to give individual attention to each learner and differentiation in presentation of lessons as well as in the assessment of academic progress. The support team at schools, consisting of the teachers, therapists (occupational, physio-, and speech therapists), and psychologists, is available to identify additional behavioural, psychological, motor, and speech problems and to help overcome these problems or minimise the effect of the problems during individual and/or group therapy.

The special schools offer a variety of organised extracurricular activities at a level where it is possible for the adolescent with ID to also achieve success. These activities include sports, for example, soccer, netball, softball, athletics, cross-country running, and swimming. South Africa's SPSID meet twice a year to compete against one another. In the area of culture, the adolescents with ID can be part of the choir, percussion band, or dances (for example, gumboot, revue, and line dancing). The schools participate in the special section of the eisteddfod and other performances annually. Senior learners participate in the school-to-work programme, where they go to work at participating companies in the work environment up to three days a week to, in this way, introduce the adolescent with ID to the work environment outside the nurturing environment of the school.

5.4.5 Research process

In this part, I will briefly give a summary of my research process. My process started with my curiosity as teacher at a SPSID (18 years) regarding the question why certain adolescents, in spite of ID, did so much better than others. During my study of available literature regarding processes that promoted resilience in adolescents with ID and, specifically, research with adolescents who themselves had ID, I determined that research into this was extremely limited, possibly largely due to these adolescents' vulnerability as a result of their ID (Prosser, 2013). As researcher, I, thus, had to constantly remind myself of the strict ethical requirements with which I had to comply during my research process. My master's degree would be an expansion of my research project, which I had already started doing during my honours degree. During my honours degree, I worked with adolescents with ID who were at the same school where I was involved. The experience and knowledge that I had, however, already acquired during my honours degree project appeared to be of great value as foundation for my master's degree research project.

I obtained the necessary permission everywhere to do my research, as discussed in detail under ethical processes (compare 5.4.8) and, thereafter, approached the school principals to obtain permission to do my research at the schools themselves and with certain of their adolescents, as later identified as resilient adolescents with ID by the AP and gatekeepers. The first 13 primary informants were identified after my meetings with the AP. The gatekeepers were pointed out by the school principals, and after telephonic as well as email contact sessions with the gatekeepers, the second group of 11 resilient adolescents with ID were identified. I visited each primary informant twice at their respective schools and 13 of the informants as control group a third time to make sure that I had understood their drawings and explanations correctly (member checking). During my first visit to each school, I got all of the chosen informants together and discussed the simplified letter of information and consent form with the adolescents with ID (compare 5.4.8.3) – a letter of information had also been sent to the parents/legal caregivers to obtain their permission. I conducted these conversations in English as well as Afrikaans. I made sure that each adolescent with ID knew exactly what would be expected of him or her during the research session and talked to each adolescent with ID to get to know him or her better. Through this, I wanted to ensure

that none of the adolescents with ID would harbour incorrect expectations and that they could be at ease and calm during the research session itself.

I made an appointment with each of the first 13 adolescents and met them individually in my class for a second contact session of about an hour after school for our draw-and-talk activity. The informants preferred the classroom because it was part of their familiar school environment. I met the second group of informants at their respective schools, as arranged by appointment, in a room assigned by the gatekeeper. During this contact session, I, once again, first calmly talked to each informant and highlighted important points of the consent form, answered questions, and made sure that he or she understood everything. After the adolescent with ID had chosen an own pseudonym that he or she wanted to be called during the unstructured inquiry session, I gave him or her drawing paper and writing materials and asked the adolescent: "What has helped you to do well in life? Draw what helped you to do well at times when you felt that life was so difficult." (As mentioned before, "do well" is an acceptable synonym for resilience – Ungar, 2010, p. 14.) I encouraged them to draw what they felt in their heart that they wanted to draw, as each individual's own interpretation of the focal research issue (namely, resilience) is of importance during case study design.

As researcher, I wanted to understand the phenomenon of resilience as lived by the adolescents with ID, as is the focus in qualitative studies. In order to, thus, make sure that I obtained the personal interpretation of each informant himself or herself, I asked each adolescent with ID to explain to me what he or she had drawn. All of these unstructured inquiries were conducted in the language of preference (Afrikaans or English) as requested by the informant, recorded (with the explicit consent of informants), and typed verbatim. For the purpose of the articles that have been written, certain parts of the Afrikaans transcriptions were also translated into English. In order to ensure that the translations were reliable, these translations were, furthermore, back-translated by a native Afrikaans speaker who had a formal qualification. On completion of each session, informants were rewarded with a snack to thank them for the time that they had given up to participate.

After all the research sessions with the primary informants had been completed, I sent their class teachers (as secondary informants) information via email regarding the purpose of the research project, together with an open-ended questionnaire, to obtain more data on each primary informant. These questions were mainly related to factors that, according to them,

contributed to resilience in the adolescents with ID as well as risks that influenced their wellbeing negatively. I also had email as well as telephonic conversations with the teachers and, in some cases, the gatekeepers to obtain more data on the context of each informant, for example, financial situation at home and other psychological disorders.

5.4.6 Data collection strategies

As qualitative researcher who had chosen a case study design with which to conduct the research, it was important to comply with the requirements laid down with regard to data collection. I, thus, had to attempt to gather data that described the personal "lived" experience of the adolescents with ID regarding what helped them towards resilience in their specific context (Stake, 2010, p. 88; Yin, 2014, p. 17). In order to obtain a rich and deeper insight into the personal experiences of the adolescents with ID, as case study researcher, I made use of a variety of data generation techniques, namely, drawing and talking, open-ended questionnaires, and telephonic interviews (Creswell, 2007; Swanborn, 2010; Yin, 2014). Because no single source stood out as having a complete advantage over the other sources, I, thus, in my choice of multiple sources of evidence, attempted to make sure that these sources would supplement one another towards deeper and richer data (Yin, 2009). In the following part, I explain my choice of data generation techniques.

5.4.6.1 Drawing and talking

With the primary informants (adolescents with ID), I used the participatory research approach of the draw-and-talk method (Guillemin, 2004; Mitchell, Theron, Stuart, Smith, & Campbell, 2011). This method can be defined as asking a person to draw his or her outlook, understanding, or reflection on a phenomenon and then explain the drawing in his or her own words (Guillemin, 2004; Mitchell et al., 2011). During the session of drawing and talking, the adolescents with ID had an opportunity to give their personal interpretation with regard to what contributed to their resilience. Drawing and talking were particularly suitable for use with the adolescents with ID, as the ability of adolescents with ID to read and write is extremely limited. Tatlow-Golden and Guerin (2010) refer to the draw-and-talk and draw-and-write method as a child-centred method because it can be used very effectively to involve particularly younger individuals in research. Although the age of the adolescents with ID was 13 to 19 years, their mental age was that of a younger child, and the child-centred method, as described by Tatlow-Golden and Guerin (2010), suited these informants very

well. This same technique is equally well-suited to support younger participants to explain political convictions or social issues (Guillemin & Drew, 2010; Mair & Kierans, 2007; Mitchell et al., 2011). Because meaning-making of the drawing by the adolescents with ID was, to a great extent, influenced by both the place and time of data generation, I met each informant in the familiar environment of his or her respective school at agreed-on times as arranged beforehand with the school as well as adolescents with ID (Guillemin, 2004; Mitchell et al., 2011).

Visual representation can take on various forms, for example, drawing on paper, cement, soil, etc., and the use of various media, for example, pencil/pen sketch, stick, and coloured picture with, for example, crayons, paint, etc., as determined by each situation and context (Mitchell et al., 2011). I decided to use a white A4 sheet of paper, grey pencil, and retractable crayons during the draw-and-talk sessions of my research. From my experience with adolescents with ID, I realised that, except for the convenience of paper for drawings, any sheet of paper bigger than A4 was just too overwhelming and left the adolescents with ID "despondent". The A4-size paper suited most of the informants, except Flora, who immediately felt intimidated by the large sheet of paper and asked whether she might fold it, to which I agreed, and I assisted her, as she was hemiplegic and had limited use of her left hand. Christiano, who dreamt of being an artist, asked for a second piece of paper and drew two pictures. The grey pencil was necessary for drawing with, and the retractable crayons did not need to constantly be sharpened – an action that is frustrating and difficult for some adolescents with ID.

During the drawing process, as well as unstructured inquiry, the adolescents with ID were, thus, constantly actively involved in the data generation process in an attempt to represent their personal interpretation with regard to resilience. As qualitative researcher, I acted as key instrument to generate data, but had to constantly focus on not forcing my interpretations onto the informants too much, but to shift the power imbalance in such a way that that which the informants did and said remained the most important. This knowledge that they were personally in control of what they represented led to excitement in the adolescents with ID at being able to participate and had a great influence on their being able to draw their own interpretation of their lived experience largely without inhibitions and being able to talk about it during the data generation process. Because it was often difficult for the adolescents with ID to express themselves, I as researcher experienced that drawing the picture stimulated

them to talk more easily about what they experienced as factors that had a positive influence on their resilience (Didkowsky et al., 2010; Mitchell et al., 2011). The fact that I as researcher could repeatedly take out the drawings to look at during my interpretation and analysis process helped me a lot to improve effectivity during analysis (Mitchell et al., 2011). Although the drawings appeared simple, I, however, experienced that the analysis of the drawings and conversations provided rich evidence to answer the research problem.

The second step of the draw-and-talk process involved the adolescents with ID giving meaning to the drawing and voice to their realities directly after completion of the drawing by means of an unstructured inquiry (Guillemin & Drew, 2010; Mair & Kierans, 2007; Mitchell et al., 2011). This unstructured inquiry differed in duration from about five to 15 minutes. For some adolescents with ID, it was difficult to speak as a result of language problems (poor understanding of, for example, English as second language), a speech defect, or their ID (poor/slow comprehension), and therefore, an in-depth, structured interview would have led to poor data generation. With the drawing and talking (drawing and unstructured inquiry), I could, thus, largely obviate this problem (Guillemin & Drew, 2010; Mitchell et al., 2011; Prosser, 2013). Although the format of the conversations was roughly the same, as researcher I could change the questions and conversation with reference to each situation/drawing and interpretation as necessary to obtain the richest data. A technique of which I often very successfully made use was probing. By means of probing, I could ask for more in-depth detail (clarify) or ask that the informant expand on what was meant (elaborate) (Creswell, 2012; Merriam, 2009).

During the informants' interpretation of the drawings, as qualitative researcher I was constantly aware that the process was very subjective and differed from person to person, but that precisely this broadened my interpretations regarding how resilience processes were described and experienced by the adolescents with ID (Guillemin, 2004). A further problem for which I as researcher had to look out carefully during the conversations was that my facial expressions, body language, and remarks did not reveal my own preconceived ideas by appearing negative/overly positive while the adolescents with ID represented their interpretations and that they would then no longer feel free to carry on talking (Creswell, 2012). In order to make sure that I maintained good eye contact with the informants and to prevent data loss during the unstructured inquiry process, I recorded each conversation and as

researcher personally transcribed the text to ensure that certain nuances, for example, laughing shyly, were not lost (Creswell, 2012; Merriam, 2009).

5.4.6.2 Open-ended questionnaires

In order to comply with the requirement of a case study to generate data from multiple sources, I approached the resilient adolescents with ID's teachers as secondary informants to answer open-ended questionnaires on what, according to them, contributed to resilience in the adolescent with ID who was in their class (see Addendum E). An open-ended questionnaire is defined as an easy way of quickly collecting a fair amount of data through completing a pre-compiled questionnaire (Mertens, 2010). The term "open-ended questionnaire" refers to the fact that the informant can answer the questions in any way that he or she sees fit (McBride, 2013, p. 49). In my study, out of respect for teachers' limited time (Jackson, Rothmann, & van de Vijfer, 2006), the questions were limited to two, namely: "1. Please describe the circumstances that put this adolescent at risk. 2. In your opinion, what is helping this adolescent to do well in life?"

The disadvantage of the open-ended questionnaires was that I got various responses – some short and some long – to analyse. The detail was, thus, not in all cases as complete as I had expected. Although the data collected with this type of questionnaire is viewed as less rich in detail by some researchers, I could, however, in many cases effectively employ the data during my data analysis. It meant that I could elaborate on that which the resilient adolescents with ID mentioned as factors that, according to them, contributed to their resilience, on the basis of the data obtained from the open-ended questionnaires and also because I could follow up on these questionnaires with telephonic interviews. Although the data generation by means of open-ended questionnaires is criticised as detached from its context, I was able to learn more about the context of the primary informants in order to obtain more complete and richer data in this way (Creswell, 2012).

5.4.6.3 Telephonic follow-up interviews

During my research, I made use of telephonic follow-up interviews and recorded these with permission. Telephonic interviews can be defined as short telephonic conversations where a few questions are posed to the interviewee (Creswell, 2012). Peculiar to this data generation technique, I wanted to obtain more information regarding the view of the secondary

informants on what, according to them, would exert an influence over the resilience of the adolescents with ID (Creswell, 2009). Although Creswell (2012) views telephonic interviews as an expensive medium, the advantage of telephonic interviews for me was that they were the most cost-effective and easiest way of obtaining information from the group of teachers who lived fairly spread out and who would, thus, be difficult for me to get to each one personally. A further disadvantage was that I could not observe the body language of the secondary informants. The fact that this data generation method also did not reveal the contextual surroundings of informants to me as researcher was not of critical importance because the focus of the research was on the context of the primary informants (Mertens, 2010).

5.4.7 Data analysis

Data analysis is the ongoing process of creating order, structure, and, in the end, meaning out of gathered data (Creswell, 2009; Rubin & Babbie, 2007). In this study, the data analysis had two distinct phases. Characteristic of multiple case studies, I analysed the data of each case separately (**within-case analysis**) and, thereafter, by means of **cross-case analysis** to obtain deeper meaning during interpretation (Merriam, 2009; Yin, 2014). In what follows below, I first describe the within-case analysis.

Within-case analysis: Data analysis was done simultaneously with the gathering of the data to be able to identify the point of data saturation (Creswell, 2012; Greeff, 2011). This meant that I interacted with a primary informant and then analysed the data before interacting with the next informant and analysing the data resulting from that interaction. To do so, I myself transcribed the audio-recorded verbal remarks made by the adolescents with ID about their drawings. I also familiarised myself with the contents of the drawing (that is, I studied what each primary informant had drawn). This was an active process of **immersing myself in the data** by scrutinising every drawing individually and reading and re-reading the comments of each primary informant about his or her drawing as well comments from secondary informants related to the primary informant. In this way, I determined the general factor(s) that could be identified as contributing to resilience in these adolescents with ID (Creswell, 2012; Mertens, 2010). Then, I moved on to analysing the data.

I used **content analysis** to analyse the contents of each drawing and the transcripts of each conversation with the primary informant as well as comments of secondary informants. Content analysis is defined as a systematic making of meaning of the visual and narrative content of data (Merriam, 2009; Nieuwenhuis, 2007). The content analysis process enabled me, the researcher, to look at the data from various angles, identify key elements in the text that helped to answer my research question – why adolescents with ID adapted well to risks – and get meaning from the raw data (Nieuwenhuis, 2007). Content analysis includes multiple steps, starting with assigning open codes to visual and narrative data (Merriam, 2009). Essentially, to open-code is to label such relevant data (data that answer the research question) in a way that provides a preliminary answer to the research question. The label is the open code. I started **open-coding** by dividing the explanation of the drawing into meaningful segments (of what I understood the primary informant had drawn and said about what contributed to being resilient) and labelling these with a code. I used similar coding on the visual data or contents of the drawing as well as comments from secondary informants. For example, I labelled a bold drawing of Nicky's smiling friend: "The bold drawing emphasises the importance of the friend as supporting this informant's resilience." Likewise, I labelled a segment of text in her explanation of this drawing as follows: "Nicky: I draw my friend .... She gives me lots of advice. And she's with me all the time .... And sometimes when I'm sad she can comfort me." The open code was "Friend offers consistent comfort and support".

The emerging of codes from the data collected from the primary and secondary informants made it an inductive approach because the codes were informed by the data and not by current literature (Creswell, 2012; Merriam, 2009; Mertens, 2010). I was, however, also very aware of the adaptive systems or short-list as discussed by Masten and Wright (2010) during in-case analysis, which is described by Merriam (2009) and Nieuwenhuis (2007) as a deductive approach. In other words, my open coding was mostly inductive, but also had deductive elements. (See Addendum F and G for an example of an audit trail of my open coding.)

Next, I scrutinised all the open codes I had assigned to each primary informant's drawing and explanation as well as to secondary informants' comments. The purpose of my qualitative data analysis was to reduce the large amount of open-coded raw data to a smaller amount of more manageable data (Creswell, 2014). I retyped the open codes of each primary informant in table format and marked similar codes with the same colour. I clustered these similar

codes of each participant to form axial codes (Creswell, 2012) and then recorded what the inclusion and exclusion criteria for each axial code were. For example, I grouped the following open codes of Superhot Boy –

- diverting of focus: focuses on what God expects from him – to forgive instead of staying angry
- diverting of focus: focuses on dancing to take his anger away and
- diverting of focus: school provides a safe space to focus on work (happiness) instead of anger

to form an axial code: *constructive diversion*. The inclusion criteria for this code were "any positive actions by adolescents that support self-regulation or a focus away from difficulty", and the exclusion criteria were "any actions that reinforced poor coping or any negative actions (like self-harm) that diverted attention from difficulty" (Creswell, 2014). (See Addendum F and G for an example of an audit trail of my axial coding.)

It was important for me as researcher to interpret the axial codes that I got in such a way that I obtained preliminary answers to my research question; for example, *constructive diversion* facilitates adolescents with ID adjusting well to the risks and limitations of ID (Creswell, 2012; Flick, 2009; Neuman, 2006). In an attempt to increase the internal validity of the analysis process, I constantly returned to the primary informant's drawing and transcript to make sure that no further open or axial codes emerged from the data (iterative process) (Creswell, 2014). To further heighten the trustworthiness of the open and axial coding, my supervisor coded the data independently. We compared the coding and revisited open and axial codes, where necessary, until consensus was reached.

Cross-case analysis: after the in-case analysis of the first three primary informants' data, I began to compare the axial codes across the cases with one another. With each additional case, I grouped open codes that agreed with one another together as axial codes, then compared these with the existing axial codes, and reviewed the naming of the axial codes on the basis of new information that emerged from the open codes. After all the primary informants' in-case analysis had been completed and sorted in the above-mentioned way, I could begin to earnestly compare the axial codes with one another across the cases. I constantly went back to refine and revise the patterns that emerged from the axial codes and, therefore, clustered them under themes and sub-themes as new insight and understanding

emerged from the data. Peculiar to the qualitative analytical process, this process was still mostly inductive in nature because I worked from the detailed data segments (codes) to form (general) themes (Merriam, 2009). When it came to using the cross-case analysis to determine themes, I was very aware of the theory of the social ecology of resilience, so I looked for themes that would explain resilience in adolescents with ID that was facilitated by the environment (Ungar, 2008). Because I used existing theory (the general) during this analytical phase to determine and test particular themes (the particular), the process became increasingly deductive in nature as I approached the end of the analysis process (Merriam, 2009).

I, subsequently, compared the different themes and sub-themes that emerged during cross-case analysis with one another. In this way, I could determine which themes could be put together, which themes occurred less, but were more clearly and strongly supported, and which detached themes showed little agreement with the themes of other cases (which could, thus, be taken out) (Stake, 2006). Stake (2006) emphasises that fewer themes are often better to work with, so that these themes can be investigated and interpreted in depth. In this way, as researcher I ensured richer and internally stronger findings. During the compilation and identification of the themes and sub-themes, as well as the naming of themes, it was important to constantly repeat my research question to myself and to measure each step against it, namely: "Why are some adolescents with ID resilient?" My first theme, for example, was [because of] a supportive social ecology, with, among others, the following sub-themes: supportive social ecologies facilitated regulatory support, and supportive social ecologies encouraged adolescents with ID towards mastery. During this whole analysis and interpretation process, I attempted, by means of peer briefing (with my supervisor and a peer, who is also currently busy with postgraduate studies in the resilience field and, thus, has sufficient background knowledge to critically look at gaps during data analysis and interpretation), to ensure the credibility of the findings throughout.

By means of triangulation, I compared the different interpretations flowing from different data sources of what contributed to the resilience of the primary informants with one another (cross-case analysis). By making use of secondary informants' insights, I further reinforced the emerging findings (Stake, 2008). (See the section on credibility for details.) **Interpretation, or finding meaning in data, was constructed**. This was supported by bringing the themes and sub-themes into context with the theory of the social ecology of

resilience, the 'short-list', and the few studies of resilience in adolescents with ID. This process showed how my findings confirmed existing knowledge of what contributed to resilience in adolescents with ID or brought new understanding to this phenomenon, so that this information could be passed on to educators and caregivers who deal with adolescents with ID every day (Anderson, Crabtree, Steele, & McDaniel, 2005; Mertens, 2010).

5.4.8 Ethical considerations

Ethical research reflects on my integrity and values as researcher (Neuman, 2006); therefore, my focus was entirely on protecting the primary informants, who were made vulnerable by their disabilities, against any physical or psychological harm (Creswell, 2012). My primary focus as qualitative researcher was, thus, based on the foundation of treating each informant with respect and also respecting his or her rights, dignity, and welfare (Flick, 2009; Kitchener & Kitchener, 2009). The ethical principles with which I, thus, attempted to comply included permission by authorities, autonomy, informed consent, confidentiality and anonymity, non-maleficence, beneficence, fidelity, artistic ownership, and ethical reporting of the findings. In the following part, I will describe these ethical principles and explain how I applied them during my research.

5.4.8.1 Authorisation

My study falls into an existing research project, headed by Professor Linda Theron, entitled Pathways to Resilience (see www.Lindatheron.org). This project received ethical clearance from North-West University: number NWU-003-08-A2 (see Addendum B). Additionally, I obtained agreement from the Department or Education (see Addendum A) and the school principal of each school involved to conduct the study (Creswell, 2012).

5.4.8.2 Autonomy

Respect for autonomy refers to the right of each person to be viewed as sovereign, that is, to be able to make his or her own choices concerning his or her life (Theron, Stuart, & Mitchell, 2011). In order to comply with the ethical principle of autonomy, all informants were informed that their participation in the study would be entirely **voluntary**. I also only started with the research process after I had received the informed consent form, signed by the primary informant as well as his or her parent/legal caregiver. I explained to the adolescents with ID that I respected their right of free choice to change their minds and withdraw at any

time if they wished to do so, even if they and their parents/legal caregivers had already signed the forms as proof of permission to participate (Creswell, 2012; Leedy & Ormrod, 2010; Silverman, 2010; Theron et al., 2011). During each contact session with the adolescents with ID, I also made sure made that they understood that if they were to decide to withdraw during any phase of research, they would in no way be punished or penalised. After the first information session, two of the learners indicated that they were not interested in participating. I thanked them for their honesty and time and gave them a chocolate as a token of my appreciation for this. No further learner indicated that he or she no longer wanted to participate at any stage. On the contrary, many of them expressed their excitement and that they felt important to be able to participate in the research. These factors were sufficient proof to me as researcher that they were participating voluntarily and that the power imbalance had been addressed positively.

The power relationship is a problem that often occurs in qualitative research (Lincoln, 2009). The first 13 participants were learners at the school where I personally taught. I realised that it was, thus, a power relationship and that the primary informants could, thus, feel that they did not see how they could refuse to participate. To make sure that I avoided this situation, I did not include learners from my own class. One of the advantages of the draw-and-talk research method is that participants – more so adolescents with ID – feel that, despite their limited ability to read and write, they can still actively participate in the research process to give their perception of what has helped them towards resilience (Mitchell, et al., 2011). Draw-and-talk, thus, helps to reduce the power imbalance and to make participants feel that they are considered important enough to express their opinion.

5.4.8.3 Informed consent

The adolescents with ID and their parents/legal caregivers were treated with respect, which entailed that I included a letter of informed consent. The information letter (which was written in simple language- see Addendum C) was sent home with the primary informants so that the adolescents with ID, in partnership with their parents/legal caregivers, could make an informed decision whether they wanted to participate. The consent form was sent to the parents/legal caregivers to be explained, read and signed by the adolescents (as far as they were capable) and their parents/legal caregivers (Creswell, 2012; Leedy & Ormrod, 2010; Mertens, 2010; Silverman, 2010)- see Addendum D.

I also read and explained the information, as well as the consent form, in detail to the adolescents during my first visit to each school. In order to make sure that the primary informants understood, I explained the information very simply, repeated important parts (for example, that they could withdraw at any time, even if their parents had given permission), and asked the adolescents with ID a few questions to ensure that they understood correctly. Although the form had been compiled in English, I constantly explained all information in English as well as Afrikaans at each school, as the groups were mixed with regard to their language of preference. In the case of the Sesotho- and Setswana-speaking adolescents, I checked with them that they understood Afrikaans or English well. I did give the adolescents the choice of calling in a Sesotho- or Setswana-speaking interpreter. Nobody, however, made use of this. I explained that approximately one hour might be required from each adolescent to draw and explain the drawing. I explained to the adolescents with ID in a simplified way why they had been chosen for the study, the purpose of the research, when I would again be visiting them a second time, exactly what I as researcher would be expecting them to do during the second contact session, and what would happen to the data. In this way, I wanted to ensure that each adolescent with ID was properly informed to make a valid choice whether he or she wanted to participate in the research.

The secondary participants were also thoroughly informed in writing, and if they consented, they completed the questionnaire and sent it back.

5.4.8.4 Confidentiality and anonymity

I assured the primary informants (during the explanation of the consent form), as well as the secondary informants (in writing), that all the information would be handled with the utmost **confidentiality** and that I would respect their right to **anonymity** by not using their names during the research (each primary informant chose a pseudonym to be addressed by); nor would I reveal any personal information without their consent, unless I was aware/became aware that they were being harmed (Creswell, 2012; Leedy & Ormrod, 2010; Mertens, 2010; Silverman, 2010). I did make them aware, though, that some school staff and other participating learners would know they had participated. Still this knowledge would not mean that these people would know what which adolescent drew/explained. Because I as researcher was a key instrument during data generation, analysis of data, and reporting of

findings, I constantly reminded myself and did my best to fulfil my responsibility to protect the privacy of my informants.

5.4.8.5 Non-maleficence

Kitchener and Kitchener (2009) and Leedy and Ormrod (2010) describe non-maleficence as the responsibility of the researcher to not harm or subject anybody to unusual discomfort, embarrassment, or stress or to engage them in any activities that threaten to harm them during any stage of the research process. As researcher, I was, thus, constantly very sensitive to protecting the adolescents with ID against either physical or psychological harm. From experience, I knew that these adolescents did not cope readily (they showed frustration and anger) with discomfort and out-of-the-ordinary situations. Although the adolescents with ID were very excited about taking part, it was important that I constantly had to act with empathy towards the informants, as the adolescents with ID found themselves in a new and strange situation during the research (Stake, 2010). To protect the adolescents against harm, I made sure that they were relaxed (for example, playing baroque music) and felt safe in the familiar environment where we met. From experience, I also knew that these adolescents' understanding was limited; therefore, complex language easily confused them. I ensured that explanations and instructions were given in simple language.

Mitchell et al. (2011) recommend ethical use of drawings. I will now describe these ethical principles and the way in which they were implemented in my study to prevent the adolescents with ID experiencing discomfort or harm.

Encouraging invitation to draw: the primary informants were reassured prior to each drawing activity that they still had a choice to draw (or not) and that *how* they would draw was not important – there was no right or wrong way – but we would focus on *what* they were drawing. **Choice of drawing utensils:** I provided familiar writing materials to informants, namely, A4 paper, a pencil, and retractable crayons that did not need sharpening, so that nobody needed to be tense because the equipment was unfamiliar to them or they did not know how to use it. **A leisurely tempo:** as I was familiar to all the primary informants (because of my teaching at their school and/or visiting them prior to the drawing session), they were able to relax during my second visit. Playing baroque music while they were drawing also encouraged them to relax, and I assured them that they could take their time to

reflect on what they wanted to draw and draw what was in their hearts (again reassuring them that there was no right or wrong way of drawing or expressing themselves).

As mentioned before, from experience, I knew that these vulnerable children did not cope readily with discomfort and out-of-the-ordinary situations. This also made me careful about audio-recording. Learners agreed and gave permission, after negotiation, to record the comments on their drawings and use them for further research purposes (Theron et al., 2011). Where it appeared to be necessary, I put the participants at ease regarding the recorder by showing them what it looked like and how it worked and by also sometimes recording a piece of informal conversation and first playing it back to them, so that they could hear what their voices would sound like.

It was not necessary for me as researcher to make disclosures at any stage of the research or to do debriefing because the conversation warned of harm or recalled uncomfortable or sad memories in any adolescent with ID. I provided the primary informants with something to eat and organised transport, where necessary. This was part of showing sensitivity to their needs (Theron et al., 2011) and, as form of reciprocity, thanking them for their participation (Creswell, 2012).

5.4.8.6 Beneficence

Beneficence means doing good, for example, by gathering improved knowledge by means of research that could possibly contribute to better health and well-being of other people (Kitchener & Kitchener, 2009; Theron et al., 2011). During my first visit to each school, I explained to the primary informants that the benefit of this study was their help to gain a better understanding of what contributed to resilience in adolescents with ID. I explained to them that, although this study might not benefit them directly, it would probably help teachers and other adults to better understand how to be of real help to other young adolescents with ID, who were often not able to speak up for themselves and who faced difficulties. I explained to the secondary informants that this study could be used by teachers to encourage optimal development of these adolescents who were made vulnerable by their disability. A disadvantage that I emphasised to the adolescents with ID was that they would not be able to experience any immediate improvement in bad circumstances because of involvement in the study. There were no remarks or questions regarding this information.

5.4.8.7 Fidelity

Fidelity is described as the crucial relationship of trust (honesty and keeping promises) between the researcher and the informants (Kitchener & Kitchener, 2009). My relationship had to be trustworthy throughout so that the informants could trust me to protect their privacy, to provide honest information, and to correctly retype what was said during the unstructured inquiry and that I as researcher would do honest data reporting and would not change information to, for example, better suit interest groups (Creswell, 2012; Mertens, 2010; Simons, 2009). My relationship with the secondary informants (teachers) differed from that with the primary informants. I had a better relationship with the adolescents with ID because, for a short time, I was individually directly in contact with each of them, but mostly made contact with the gatekeepers and teachers via email and telephonically. I did, however, still treat each of the gatekeepers and teachers with respect to be worthy of their trust in this way.

5.4.8.8 Artistic ownership and reporting of findings

As researcher, I had to constantly be prepared not only to treat the adolescent with ID with the necessary respect, but also to show respect for the data (drawing and informal inquiry). I consulted respectfully with the primary informants and negotiated with the primary informants that they could keep their drawings and that I would then just take a photo of them, or that I could keep the drawings. All of the primary informants agreed that I could keep their drawings. I did, however, scan the drawings and return copies of the drawings to each informant. I also consulted with the primary informants and received their approval (verbally as well as asking explicit permission in the informed consent form) to use the drawings publically or for further research purposes. I realised that I had an obligation as researcher to make sure that these drawings would not be misused or abused (Theron et al., 2011). During the member-checking session, the adolescents with ID were very excited to see their drawings in the "book" (a bound version of my findings).

The primary informants also agreed and gave permission, after negotiation, to let me record the comments on their drawings and use them for further research purposes (Theron et al., 2011). I personally transcribed these recordings verbatim. I did my utmost best to eventually

report my findings honestly and accurately. In this way, as researcher I respected not only the informants and the data obtained during my study, but also the audience who would be interested in this study and who would be reading it and might even use it as basis for further research. Except for the significance of this study, which I clearly set out, I also reviewed the personal biases that could have an influence during my research process, but particularly during my interpretation of data (Creswell, 2012; Stake, 2006).

5.4.9 Validating the accuracy of findings

During qualitative studies done from the constructivist paradigm, the terms "credibility", "transferability", "dependability", and "confirmability" are used to describe the rigour and reliability of the study (Denzin & Lincoln, 2013, p. 27). Each of these standards and the way in which I applied them during my study will now briefly be discussed.

5.4.9.1 Credibility

During my research, I attempted to increase the credibility of the study throughout by making use of various strategies, namely, triangulation, peer debriefing, and member checking (Flick, 2009). **Triangulation** can be described as the confirmation and sometimes expansion of evidence by comparing and cross-checking this information from different starting points, for example, by making use of the perspective of a variety of informants, sources, and data generation methods during research (Creswell, 2012; Farmer, Robinson, Elliott, & Eyles, 2006; Merriam, 2009; Stake, 2010). During my data generation, I made use of multiple individuals (24 primary and 18 secondary informants) and multiple data generation processes and types of data (drawings, unstructured inquiry, open-ended questionnaires, and telephonic interviews). I could, thus, analyse multiple data from different points of departure, compare similarities with one another, and in this way ensure that the eventual findings regarding processes that contributed to resilience in adolescents with ID were evidence of deeper and richer meaning, internal validity, and credibility.

I made use of **peer debriefing** to confirm that I was on the right track during data generation, data analysis, and interpretation of my study – this included my supervisor and peer students pointing out and discussing strengths, mistakes and shortcomings. During the coding of the data, I asked a peer to code the data independently as well, and my supervisor also acted in the capacity of a peer debriefer. We compared the two sets of coded data with each another

and talked about the differences until consensus was reached. During the whole time period of the research project, I regularly met with my supervisor regarding each step of data generation, data analysis, and interpretation, where we compared information with each other, identified problems, and argued about these until consensus could be reached. Sometimes, my supervisor and I, however, differed in opinion, which helped in realising the complexity of the process of data analysis and interpretation and, thus, eventually led to the formation of a better, clearer complete view (Flick, 2009; Mertens, 2010; Stake, 2010).

After the analysis and reporting of the first 13 units of analysis, during a meeting of all the staff of the school (35 teachers who worked with the adolescents with ID daily), I reported my findings to them. No teacher differed from me on any point. Some remarked that it was enlightening to them and that most of the processes that promoted resilience were known to them, but that the study gave them a wider perspective and might be of great value to every person who was involved with the adolescents with ID in some way or another. These positive remarks, thus, confirmed the accuracy and credibility of my study.

I realised that it was important to me as qualitative researcher to not impose my own interpretation of drawings and remarks by adolescents with ID regarding what they described as resources that promoted their resilience during data analysis. This would mean that I was acting insensitively, was possibly being inaccurate, and was even doing incomplete reporting. In order to make sure that I interpreted and reported the data correctly, I met with the first 13 primary informants (**member checking**). After I had asked permission to show the other informants' drawings, I discussed the reporting with the adolescents with ID, at a very simple level, and asked whether/how they agreed with me. Although they asked many questions about, for example, what would happen to the information further on (as during explanation of informed consent, I again explained the purpose of the study to them), we reached consensus that the information was valid and was represented correctly (Creswell, 2014; Flick, 2009; Mertens, 2010; Stake, 2010).

5.4.9.2 Transferability

As instrumental case study researcher, I focused on interpreting and understanding the meaning that adolescents with ID gave regarding their lived experiences in the context of this study. Transferability can be defined as parallel to external validity of findings when I as

researcher describe the findings and context so clearly that a next researcher is able to clearly determine to what extent these findings agree with, and differ from, the new research. Flyvbjerg (2011) and Stake (2010) are of the opinion that case studies can, indeed, be undertaken with the exclusive purpose of transferability and not generalisation and that transferability in case studies ensures external validity. The processes that contribute towards resilience in adolescents with ID as reported by me in my study may be of importance (for example, may lead to better insight) to other researchers during their research. In order to bring about this transferability, I made sure that I very thoroughly described the complexity of my informants and their context during my reporting (compare Table 9). Other researchers are now responsible for judging to what extent the informants and context of their study show similarity to my study and the extent to which transferability of knowledge is, thus, possible (Creswell, 2014; Mertens, 2010).

5.4.9.3 Dependability

As social constructivist researcher, I was aware that change could be expected, as qualitative research is known for being emerging. I expected that my primary informants would, thus, also differ from one another as far as background and behaviour during research were concerned. In this way, I, thus, did not attempt to achieve reliability (and, thus, stability), but indeed dependability in my findings. Dependability can be described as reliable description of my whole research process and findings so that when a similar study, with similar informants, occurs in similar circumstances, the same findings will appear to be obtained (Babbie & Mouton, 2007). I, thus, made sure that, during my inquiry, I went to work systematically and always kept the answering of my research question in mind to ensure rich data and findings in this way.

Although I could not increase the dependability and credibility of the data through structured interviews due to most of the informants' inability to communicate their deeper feelings (risk of ID), I took care to transcribe the interviews verbatim (Kidd, Miller, Boyd, & Cardeña, 2009). In this way, I ensured that nothing was added to, or changed in, the data, and I also constantly filed and stored all other data so that it would, thus, be available on enquiry. An independent peer, as well as my supervisor, helped to code and analyse the drawings, transcriptions, and open-ended questionnaires. In this way, the peer/supervisor and I could compare whether the same themes emerged and/or whether there were perhaps new themes.

Differences were discussed and reviewed constantly until consensus was reached (Farmer et al., 2006; Grover, 2010). During data analysis, I compiled a code book in which I wrote down the inclusion and exclusion criteria for each axial code (see example in audit trail in Addendum F and G). This, thus, meant that the replication of my study by other researchers would be facilitated (Creswell, 2014).

A further step to ensure dependability is the fact that I as researcher did self-reflection and, thus, clearly spelled out the biases that I brought to the study (see section 5.4.10). In this way, readers of my report can trust me to also give honest feedback on findings (Creswell, 2014). The fact that I have already been working with adolescents with ID for 18 years and, thus, know the adolescents and their context (school and activities in which they participate) well could contribute to more accurate and valid findings (Creswell, 2014). I believe that these factors contributed to the dependability of my study (Mertens, 2010).

5.4.9.4 Confirmability

In order to bring about the confirmability of my findings, it meant that the data generation and interpretation had to be done honestly so that the findings would eventually be reliable in such a way that they would also be described as reliable by others who were to read and reassess them (Babbie & Mouton, 2007; Mertens, 2010). Yin (2014, p. 127) refers to the "chain of evidence" that must be available. To prove this chain, examples of an audit trail and axial coding are included as addenda. Furthermore, I greatly relied on member checking and peer debriefing to confirm that the data that I collected was, indeed, sufficient to confirm the eventual findings of my study.

5.4.10 My role as researcher

As qualitative researcher, I accepted my role as subjective primary instrument during data collection, analysis, and interpretation of findings. The advantage of acting as key instrument was that I could immediately respond and adapt to any eventuality during these processes. I, thus, had to gear myself to being sensitive and flexible towards any change, but also accurate and focused, to obtain rich data as specific to a case study. As human instrument, I acknowledged my situatedness and the way in which it fanned biases/assumptions, and it was, thus, important that I did this reflexive identification to, in this way, determine to what

extent this situatedness might have an influence during the different steps of my research (Creswell, 2014; Merriam, 2009).

My perceptions of adolescents with ID who display resilience in spite of difficulties have been shaped by my close personal experiences with them in class. I have been teaching at a SPSID for adolescents diagnosed with ID for 18 years. I believe that these adolescents with ID do have the ability to be resilient, primarily because I have witnessed these young people coping well with their lives, even though they are intellectually and sometimes also physically disabled. My observations (during the course of my teaching) of their resilience have led me to believe that they have adapted positively because they have had support systems that have helped them to develop their inner strength and to cope with adversity (ID) (Masten, 2001). On the one hand, I sincerely believe that my personal experience with these adolescents with ID and knowledge of how they react in certain situations have helped me to treat them in an ethically correct manner to ensure that they have suffered no emotional harm. On the other hand, my experience of many years with the adolescents may possibly even in certain respects have blinded me to being able to identify certain interpretations. Therefore, I was conscious that my previous experience and assumptions might bias me, and so I reflected critically on the meanings I was making and often discussed them with my supervisor.

The assumptions and bias that I brought to this research were coloured by my life experience. I am a white, middle-aged Afrikaans-speaking woman, who is actively involved in my local community and in less privileged communities. I also work at a non-governmental organisation drop-in-centre, where food is served daily and help is available for people in need, and I have seen some of these adolescents with ID attending this centre. Do community resources such as these or other cultural organisations such as the Voortrekkers for development of Afrikaans-speaking children, where I am also involved, contribute to their resilience? The assumptions that I bring make me inclined to answer yes. As a devoted Christian, I believe that Christianity and faith in God Almighty will play a definite role in helping adolescents with ID to gain inner strength to cope with adversity (as also reported in other studies, see Malindi & Theron, 2010).

All of these factors may have influenced the way I viewed and understood the data that I collected as well as the way in which I interpreted the data. I did, however, make an effort (as described throughout 5.4.9) not to allow my assumptions and my story to dictate how I made meaning (Creswell, 2009).

6. DISSSERTATION FORMAT

This dissertation follows the article model. For this reason, it is comprised of two articles (Chapter 2), followed by a concluding chapter (Chapter 3).

Chapter 2: Manuscripts

- **Manuscript 1**

The research questions that directed this manuscript are as follows:

- How do adolescents with ID explain the processes of resilience that support them to do well in life?
- How do teachers of adolescents with ID explain the processes of resilience that support these adolescents to do well in life?

The manuscript was prepared for *Qualitative Health Research*. This journal only accepts health-focused (that is, physical health and well-being, including resilience, coping, and so on), qualitative studies written in APA 6 style. There is no word limit. The full guidelines for authors are included in Addendum H.

- **Manuscript 2**

The research question that directed this manuscript is the following:

- How can teachers be supported to nurture resilience in adolescents with ID, using the findings of this study?

The manuscript was prepared for the *South African Journal of Education.* This journal only accepts education-focused studies with citing written in Harvard style. The word limit is 5 500. The full guidelines for authors are included in Addendum I.

Chapter 3: Conclusions, limitations, and recommendations

The concluding chapter provides me with space to wrap up my study. To do so, it includes reflection on how well my research questions were answered, a summary of the findings that

my study contributed to the resilience literature, personal reflections on these findings, the methodology that led to them, comment on the study's limitations, and some recommendations for future study.

Combined reference list

Appendices

CHAPTER 2: MANUSCRIPTS

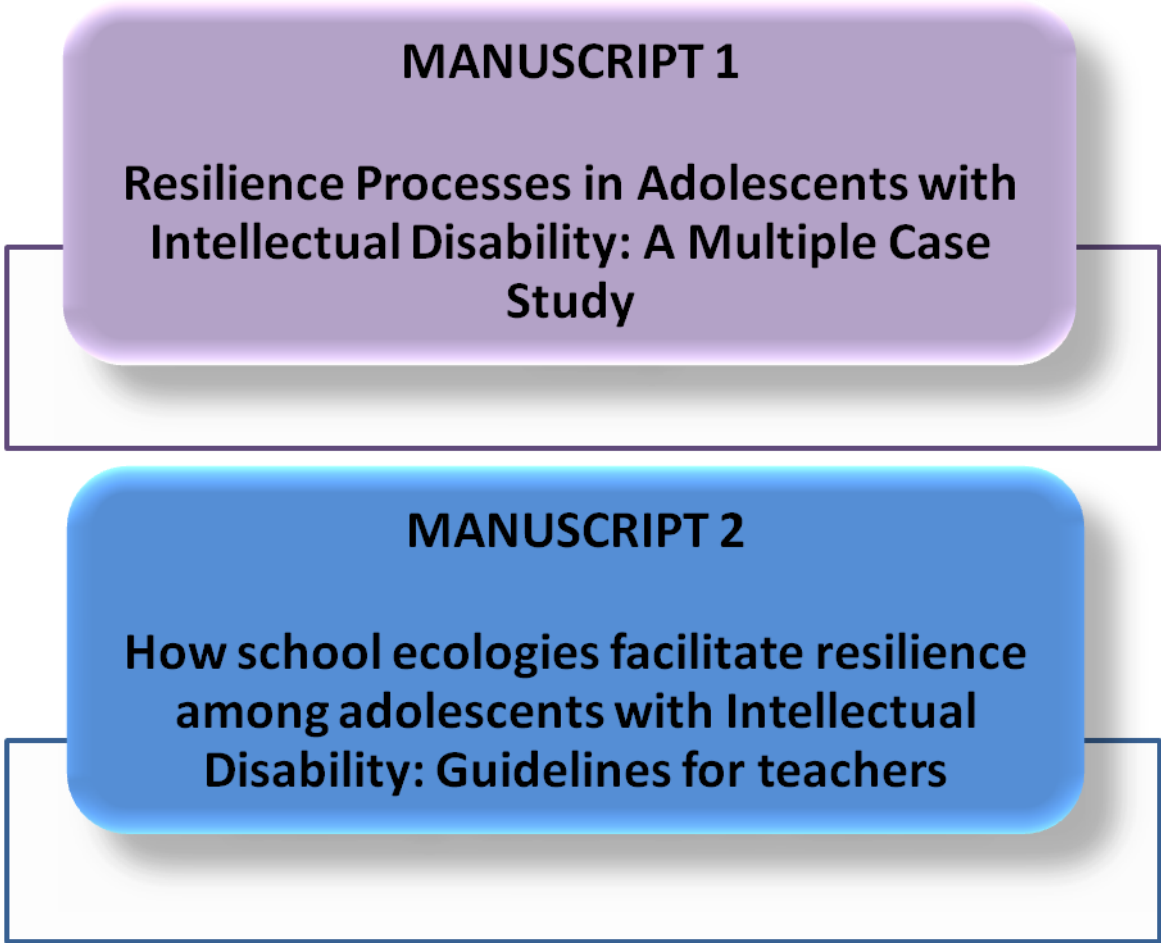

Figure 6: Overview of Chapter 2

MANUSCRIPT 1

Resilience Processes in Adolescents with Intellectual Disability: A Multiple Case Study

Prepared for submission to the journal

Qualitative Health Research.

(Guidelines for authors are included in Addendum H)

The research questions that directed this manuscript are as follows (compare Figure 3):

- How do adolescents with ID explain the processes of resilience that support them to do well in life?
- How do teachers of adolescents with ID explain the processes of resilience that support these adolescents to do well in life?

Resilience Processes in Adolescents with Intellectual Disability: A Multiple Case Study

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Declaration of Conflicting Interests

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Abstract

Resilience, or the process of adjusting well to risk (such as that of an intellectual disability), relies on constructive collaboration between youths and their social ecologies. Although the literature details the risks of an intellectual disability to youths' health and wellbeing, there is little literature that explains why some youth cope well despite these risks. This article reports a multiple case study that affords insight into the resilience of 24 adolescents who are intellectually disabled. Using a draw-and-talk methodology, these youths explained their resilience as facilitated primarily by supportive social ecologies (which helped them regulate their behavior and emotions, encouraged them toward mastery, treated them as agentic beings, and offered them safe learning and relaxing spaces), but also by their own positive orientation to their life-worlds. The understanding that social ecologies are pivotal to the functional outcomes of adolescents who are intellectually disabled has implications for the enablement of health and wellbeing of these adolescents.

Keywords:

adolescents / youth, at-risk; case studies; coping and adaptation; disability / disabled persons; health and well-being; families, caregiving; environment; qualitative analysis; research, qualitative; resilience; stigma; social support; visual methods; vulnerable populations

The World Health Organization (WHO) and the World Bank (2011) estimate that more than a billion (that is, about 15%) of the world's population live with some kind of disability. Their disability places them at risk of poor health and well-being (Emerson, 2013). Of these people, around 94 055 000 people (that is, 1.3% of the world's population) are challenged by intellectual disability (WHO, 2013b). In South Africa, the context of the study being reported on, the intellectually disabled constitute 2.3% of South Africans with disability, equaling around 62 146 individuals in South Africa (SSA, 2013a). These figures include 24 601 South African adolescents (primary impairment ID and exclude other impairments for instance physical-, emotional-, hearing or visual impairment which may include ID), the focus of this article (The Department of Social Development (DSD), the Department of Women, Children, and People with Disabilities (DWCPD), and the United Nations Children's Fund (UNICEF), 2012).

Intellectual disability (ID) is a condition that commences before the age of 18 with a lasting effect on development (AAIDD, 2014). Varying physical, familial, and/or contextual factors cause ID (Donald, Lazarus, & Lolwana, 2010). Regardless of the cause, ID is characterized by significantly limited intellectual ability, adaptability, and capacity to acquire or apply new skills (AAIDD, 2014; WHO, 2013a). This results in a reduced ability to function independently and optimally. Inadequate social skills and various disorders (e.g., emotional, behavioral disorders, attention deficit) are associated with ID (Emerson, Baines, Allerton, & Welch, 2011). Moreover, ID often co-occurs with physical disabilities (for example, in instances of cerebral palsy or Fragile X syndrome) (Fourie & Theron, 2012; WHO & World Bank, 2011). Thus, living with ID challenges the capacity to cope well with daily living for more reasons that just intellectual deficit. In short, people with ID know compound risks, and the multifaceted, chronic nature of these risks challenges their capacity to do well in life.

However, despite the multiple challenges associated with ID, some individuals with ID do cope well in life and are considered resilient (Murray, 2003). Resilience, or the capacity to do well despite compound or chronic risk, has been described as "ordinary magic" (Masten, 2001, p. 228) because it is reported to be rooted in everyday protective processes. These processes are found in personal capacities as well as in social ecological capacities (Masten, 2014; Masten & Wright, 2010; Ungar, 2011).

Given my 18 years of experience of teaching adolescents with ID, I was interested in better understanding Murray's (2003) assertion. Although there is much research on resilience processes in general – see, for example, the syntheses by Werner (2013) or Masten (2014) – I could source only six published studies reporting resilience in adolescents with ID. As detailed below, these studies offered limited deep insight into the resilience processes in adolescents with ID because they were either not exclusively focused on adolescents with ID (Hsieh & Donahue, 2010; Murray, 2003; Fourie & Theron, 2012; Ungar, 2004), or reported quantitative investigations into specific aspects of these adolescents' resilience (Gilmore et al. 2013; Migerode, Maes, Buysse, & Brondeel, 2012). I was, therefore, curious to find out what the protective processes were that capacitated some adolescents with ID to do well in life, despite the compound, chronic adversities of ID. This brought me to the following research question: why do some adolescents with ID adjust well to the risks and limitations of ID?

Emerson (2013) emphasizes the lack, but also the importance, of research explaining the resilience processes of children and adolescents with ID. Equally important, would be foregrounding the voices of such adolescents - Liebenberg and Ungar (2009), Liebenberg and Theron (in press) and Wright, Masten, and Narayan (2013) all urge resilience-focused research that prioritizes youths' understandings of their resilience processes. The latter implies a qualitative study of the resilience processes in adolescents with ID. Although I am aware of the limitations with regard to the generalization of the findings of qualitative studies

(Flyvbjerg, 2011), I am, however, convinced that such findings will provide insights that should enable parents/caregivers, teachers, service providers, and health professionals to better facilitate the optimal development and functioning of these adolescents.

A Review of the Literature: Resilience and ID

I commence this section with a summary of how ID challenges optimal development and functioning. Rutter (2013) describes resilience as a dynamic process that occurs in spite of adversities. In any study of resilience, it is, thus, important to detail the adversity/adversities that predict the maladjustment of the participants in the study. Next, I define Ungar's (2011, 2012, 2013, in press) social ecological approach to resilience because this is the theoretical framework within which the findings reported in this article are interpreted. Although Ungar coined the term 'social ecology of resilience' (see Ungar, 2011), a social ecological approach is implied by other authoritative resilience researchers, including Masten (2001, 2014), Panter-Brick (in press) and Rutter (2012, 2013). Last, I synthesize what is currently understood about the resilience processes in adolescents with ID.

The risks of ID

To understand the risks associated with ID, it is important to understand a disability as an interaction between the person with impaired intelligence, and impaired social adaptation, and the ability of this person's context to support the person towards full inclusion and contribution in society (Solli & Da Silva, 2012; WHO 2013a). Contextual factors comprise environmental and personal elements (Mpofu, Oakland, Herbert, & O'Donnell, 2010). Environmental factors refer to aspects such as the physical, social, and attitudinal features of the adolescent with ID's environment, including his/her home, school, workplace, and community where he/she lives. Personal factors refer to demographics that might impact the adolescent's functioning and include age, gender, race, and social class (Emerson, 2013;

Lightfoot, Hill, & LaLiberte, 2011; Maulik, Mascarenhas, Mathers, Dua, & Saxena, 2011). It is the interaction of these personal and environmental factors, and the given health condition (i.e., the intellectual disability) that challenges optimal development and functioning (Adnams 2010; Emerson, 2013; Kishore, 2011; Mpofu et al., 2010). In other words, no single risk threatens the well-being of adolescents with ID. Moreover, the different levels of functioning associated with ID (i.e., mild or IQ range 50 to 70; moderate or IQ range 35 to 49; severe or IQ range 20 to 34; profound or IQ below 20 - Schalock, 2011) imply increased risk.

In the sections below, I categorise the risks that challenges adolescents with ID as individual and environmental. However, this is a false dichotomy as each feeds the other.

Individual risks. ID is characterized by various limitations in adolescents' intellectual, mental (e.g., anxiety disorders), physical (e.g., auditory/visual problems, epilepsy, asthma, atypical physical appearance), social (e.g., inadequate communication skills/language, annoying personal habits) and emotional abilities (Abells, Burbridge, & Minnes, 2008; Emerson, 2013; Emerson & Hatton, 2007; Oeseburg, Dijkstra, Groothoff, Reijneveld, & Jansen, 2011; Uys, 2009). These individual risks are typically compound and heighten environmental risks. For example, intellectual impairment is accompanied by poor scholastic progress and often leads to, amongst others, negative teacher and peer feedback, low self-esteem, anxiety, stress, and impaired employment opportunities (Kurani, Nerurkar, Miranda, Jawadwala, & Prabhulkar, 2009; Ofiesh & Mather, 2013). Similarly poor health and psychiatric disorders have a negative impact on the well-being, social inclusion, and life opportunities of adolescents with ID (Emerson & Hatton, 2007). For example, Algood, Hong, Gourdine, and Williams (2011), Dykens (2000), and Knopf, Park, and Mulye (2008) report that 7% to 21% of children with an intellectual disability are diagnosed with ADHD. They describe ADHD as a disruptive behavioral disorder that can be a risk to relationships and

individual well-being. Resilience literature reports that when youths have psychiatric problems, the potential for resilience declines (Emerson & Hatton, 2007). Their tendency to behave in socially inappropriate ways contributes to the risk of social rejection and prejudice (Abells et al., 2008; Uys, 2009).

External risks. Emerson (2013) reports that individuals with ID have a greater chance of being exposed to a variety of environmental adversities, particularly during childhood. Children and adolescents with ID are often exposed to domestic and community discrimination, violence, and abuse. Understandably, these risks are associated with negative impacts on these youths' physical condition and well-being (Emerson, 2013).

Many of the external risks that challenge adolescents with ID occur in their family of origin. This includes experiences of single parenting, parental mental health issues, parental ID, and/or parental substance abuse, as well as familial poverty (Emerson, 2013; Taggart, Taylor, & McCrum-Gardner, 2010). Compared to children without ID, Emerson and Einfeld (2010) report higher rates of emotional and behavioral difficulties among individuals diagnosed with ID and ascribe this to the increased exposure of individuals with ID to adverse socio-economic circumstances.

If the family of origin is functional and does not place the adolescent with ID at risk, the reality of the adolescent's ID can alter this safe space. Catherall and Iphofen (2006) and Heiman (2002) identify that most youths with ID cannot be left alone, which results in a lack of freedom for family members and emotional fatigue. Moreover, parents and siblings experience social isolation if there is prejudice toward adolescents with ID in the local community.

ID is also associated with financial stress to families. The adolescent with ID's financial care often remains the lifelong responsibility of the parents or extended families. For example, adolescents with ID have limited opportunities for future work and, therefore,

poor goal orientation and limited financial and individual independence (Gross & Hahn, 2004). Families of adolescents with ID, therefore, often experience a socio-economic disadvantage. The latter is associated with parents/caregivers not owning any means of transport or not being able to afford other transport for the adolescent with ID to participate in extramural activities (Abells et al., 2008). This compounds these adolescents' isolation and poorer social interaction. When parents themselves are intellectually disabled, the need for support by extended family is heightened (Dykens, 2000). Another external risk to youths with ID is their experience of widespread prejudice, rejection, and discrimination from the community, all of which constrain development of social skills and friendships, and quality of life (Gross & Hahn, 2004; WHO & World Bank, 2011). Compared with adolescents who are not disabled, adolescents with ID's participation in extramural activities, and other unorganized activities in their communities, is limited. The reasons for this are, among others, the adolescent's disability, which is often accompanied by limited ability to communicate and maladaptive behavior. However, these lower rates of participation are also associated with parents'/caregivers' lack of support for their adolescents' inclusion and community discrimination (Abells et al., 2008). Adolescents with ID are more often victims of rape and physical, emotional, or sexual abuse than their non-ID counterparts (Reiter, Bryen, & Shachar, 2007; Shabalala & Jasson, 2011). Reiter et al. (2007) link this increased abuse of adolescents with ID to their not always realizing what is happening to them and not knowing that sexual abuse is legally prohibited. Experiences of sexual trauma and of abuse are associated with diagnoses of PTSD in adolescents with ID (Shabalala & Jasson, 2011).

Social Ecological Transactions Toward Resilience

A social ecological explanation of resilience processes focuses on person-ecology transactions, or collaborations between youths and their social ecologies, that support positive adjustment to adversity (Ungar, 2011). This includes the ability of individuals to navigate

toward resources (for example, emotional, societal, cultural, and physical resources) to improve their well-being under threat, and the ability of their physical and social ecologies to provide resilience-supporting resources and assist in negotiation for other such resources (Ungar, 2008). In other words, unlike earlier, youth-centered definitions of resilience, a social ecological understanding of resilience considers that youths and their environment work together to support positive adjustment (Masten, 2001, 2014). To support positive adjustment, it is important that this reciprocal process occurs in a culturally acceptable way (Ungar, Ghazinour, & Richter, 2013). These processes will then vary across cultural contexts, but also across developmental phases, and so person-ecology interactions that support resilience are typically considered complex (Ungar, 2011).

Although resilience changes over time and across cultures and contexts (Ungar, 2011), researchers agree that there are similarities among protective resources and systems that inform resilience-supporting person-ecology transactions (Masten & Wright, 2010; Ungar et al., 2013). Most typically, youths are supported to be resilient by the protective systems of social attachments, problem-solving skills, self-regulation skills, agency and mastery, meaning-making, and cultural traditions and religion (Masten & Wright, 2010). These systems underpin both preventive and intervention processes that ameliorate the effect of profound adversities on development and life trajectories (Cicchetti, 2013).

Protective Processes and Resources for Adolescents with ID

I now turn to summarising what is known about why youths with ID adjust well. This is difficult because, as Gilmore, Campbell, Shochet, and Roberts (2013) report, research about youths with disabilities, especially youths with ID, and their positive adjustment is very scarce. The literature does include many published studies about the coping/well-being of adolescents with ID (e.g., Abbott & McConkey, 2006; Chen & Shu, 2012; Hutzler & Korsensky, 2010; Makharadze, Kitiashvili, & Bricout, 2010). However, because coping/well-

being is not synonymous with resilience (Rutter, 2007; Ungar, 2012), I excluded these from the review of protective processes and resources for adolescents with ID. This left only five published studies reporting the protective resources in resilient adolescents with ID. Three of these (i.e., Hsieh & Donahue, 2010; Murray, 2003; Ungar, 2004) were not solely focused on the resilience of adolescents with ID – ID was included as one of various risks/disabilities challenging the study populations. Ungar's (2004) study was of high-risk youth (for example, youth marginalized by low socio-economic status, social stigma, personal and physical features, a problematic way of life, and meager social or academic performance, as well as ID). Hsieh and Donahue's (2010) and Murray's (2003) studies included youth with a range of high-incidence disabilities (for example, learning disabilities, mild intellectual disabilities, speech/language disabilities, or emotional/behavioral disorders).

The other two studies – Gilmore et al. (2013), and Migerode et al. (2012) – focused specifically on protective resources of youths with ID. However, both these studies offered quantitative profiles of the protective resources that support the positive adjustment of youths with ID, rather than a detailed explanation of their resilience processes.

By expanding the literature review to include published studies that focused on resilience in youths with disabilities characterized additionally by ID (for example, autism, Down syndrome, and fragile X syndrome), one additional study could be added, namely a study of the resilience processes of a girl with fragile X syndrome (Fourie & Theron, 2012).

In the sections below, I synthesize the findings of these six studies in two categories: intrinsic and extrinsic processes and resources. As with my summary of the risks, this is a false dichotomy as the intrinsic and extrinsic interact. From a social ecological perspective, social ecologies have a duty to provide the extrinsic resources (detailed below) so that adolescents with ID can be supported towards positive adjustment (Ungar, 2013). Although their positive adjustment will include these adolescents drawing on their intrinsic resources

and processes, their contribution to the resilience process cannot, and should not, be prioritised above that of their social ecology (Ungar, 2011).

Intrinsic processes and resources. The process of intrapersonal agency, that is, an inner motivation and determination toward success, draws on intrinsic resources to support the positive adjustment of adolescents challenged by ID (Fourie & Theron, 2012). These resources include a positive temperament (optimism), determination to set and accomplish goals, an intrinsic locus of control, self-efficacy, and the capacity to have fun (Fourie & Theron; 2012, Gilmore et al., 2013; Hsieh & Donahue, 2010; Murray, 2003). A positive temperament (optimism) is a key intrinsic resource. It motivates adolescents with ID to set challenges and to tackle these determinedly (Fourie & Theron, 2012; Hsieh & Donahue, 2010). It influences caring people surrounding them to be more positive and to perceive them as more socially acceptable (Fourie & Theron, 2012; Hsieh & Donahue, 2010). It also often has a positive influence on the degree of success that resilient adolescents with ID experience as adults (Hsieh & Donahue, 2010; Murray, 2003).

An intrinsic locus of control and self-efficacy are interwoven with optimism. These resources support adolescents with ID to steer toward resources and skills that support resilience (Fourie & Theron, 2012; Hsieh & Donahue, 2010; Murray, 2003). A willingness to engage in meaningful pastimes, such as singing and dancing, provides opportunities for the adolescent with ID to experience healthy escape and enjoyment that generate psychic energy and propel agency (Fourie & Theron, 2012).

Extrinsic processes and resources. The social network that surrounds the adolescent with ID facilitates two processes that support resilience. These include unconditional positive acceptance or belonging, and support toward mastery (Fourie & Theron, 2012). Three major network-based resources appear to facilitate these two processes. The resources are family, school (including peers), and the community (including the religious community).

With regard to family resources, youths with ID experience belonging and enhanced self-esteem, and adjust better when in authoritative, but loving and supportive, relationships with parents and other adult caregivers (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003; Ungar, 2004). These relationships are typically supported by a structured home environment, constructive activities with parents, and parents who role model appropriate social skills (Fourie & Theron, 2012; Hsieh & Donahue, 2010; Murray, 2003).

In the school context supportive student-teacher relationships are key (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Murray, 2003). Supportive student-teacher relationships lie in teacher acknowledgement of even small accomplishments and provision of individualized education. Furthermore, meaningful school-home involvement (for example, good communication and a good relationship between the parent and teacher make the child feel secure) nurtures positive adjustment (Fourie & Theron, 2012; Murray, 2003), as do teachers' role-modelling of appropriate social and behavioral skills (Fourie & Theron, 2012), and well-designed school-to-work transition planning toward employment opportunities (Murray, 2003). Participation in school activities and supportive peer relationships contribute to improved social skills that promote resilience in adolescents with ID (Fourie & Theron, 2012; Gilmore et al., 2013). This also allows the adolescent with ID to be practically supported by peers (for example, when friends help the adolescent with ID to overcome fears; see Fourie & Theron, 2012).

Community-based resources include access to supportive adult as well as peer relationships, often by virtue of participation in sports teams, church groups, and other community organizations (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Murray, 2003). Such participation boosts life skills, (especially acceptance of rules and even sometimes leadership roles) and social skills (Fourie & Theron, 2012).

Problem statement

In summary, the presence of ID challenges optimal development (Emerson, 2013; Masten & Wright, 2010). Nevertheless, published literature shows that some adolescents adjust well to the risks of ID (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003; Ungar, 2004). Although there is some understanding of what supports these adolescents' resilience, it is either quantitative (Gilmore et al. 2013; Migerode etal, 2012) or incidental to studies focused on at-risk youths (Fourie & Theron, 2012; Hsieh & Donahue, 2010; Murray, 2003; Ungar, 2004). Thus, if social ecologies are to be supported to accept their mandate of co-responsibility for adolescents' resilience (Ungar, 2011, 2013), a more detailed, purposeful investigation into the resilience processes in adolescents with ID is needed.

Method

To address the above problem, I followed an instrumental multiple case study research design (Yin, 2014). An instrumental case study offered a suitable method to facilitate a deeper understanding of resilience processes in adolescents with ID, particularly because it afforded inclusion of multiple youth voices that would ordinarily be marginalized, given their youth and disability (Creswell, 2012; Masten, 2014). This qualitative study was interpretive and embedded in a social constructivist paradigm. This meant that, as researcher, I had the responsibility to make meaning (or interpret) the complexity of the lived experiences (social experiences) as described and interpreted by the adolescents with ID and their teachers about what contributed toward the adolescents with ID's resilience (Mertens, 2010). Likewise, I interpreted their experiences through the theoretical lens of a social ecological understanding of resilience (Ungar, 2011, 2013). Thus, my meaning-making was informed by informants' meaning-making and my chosen theoretical stance.

Informants

Recruitment of primary informants. A case study should be intrinsically bounded. This meant informants needed to fit in with the boundaries of the case, i.e., resilient adolescents with ID (Flyvbjerg, 2011). For that reason, purposeful sampling was used to recruit the primary informants (Stake, 2008). To be eligible, informants needed to be adolescents, aged 10 to 19 (WHO, 2014), formally diagnosed with ID, and considered resilient as defined by an advisory panel (AP).

To identify resilient adolescents with ID, I relied on an advisory panel (AP), as used in Fourie and Theron (2012), Theron, Theron, and Malindi (2013), and Ungar and Liebenberg (2011). The AP consisted of staff members of a school for the intellectually disabled who were accessible to me, namely, three management staff, two school therapists, and four teachers. As done by Fourie and Theron (2012) and Theron et al. (2013), I interacted with the AP to reach a working definition of resilience in adolescents with ID. The AP's consensus was that resilience lay in the ability of the adolescent with ID to do well ("do well" is an acceptable synonym for resilience – Ungar, 2010) in life and sometimes better than expected, in spite of the limitations imposed by ID. The agreed-on indicators of such doing well included not quitting school, the capacity to acquire life skills, appropriate social behavior, acceptance by peers, stable friendships, general emotional stability, and participation in extramural activities. Using these criteria, the AP nominated 15 adolescent (i.e., aged 10-19, WHO 2014) informants to be included in the study. Of these, 13 accepted the invitation.

Later, I provided the above definition and criteria to four gatekeepers (that is, teachers/therapists) at four other schools for the intellectually disabled in Gauteng province to nominate additional informants. This led to the inclusion of 11 additional informants. At that point, data saturation was reached (Leedy & Ormrod, 2010).

In summary, I included 24 primary informants. Probably because all the gatekeepers were school-based, all 24 attended government-funded schools for the intellectually disabled in the Gauteng province (South Africa). These schools were dedicated to learners with moderate to severe ID. Nevertheless, the included cases of resilience despite ID were diverse (which supported a richer understanding of resilience in adolescents with ID). They included adolescents from different races, who spoke varying mother tongues. The adolescents ranged in age from 12 to 19 and were challenged by varying risks additional to the risk of ID. Table 11 summarizes the primary informants' details.

Table 11: Demographics of primary informants

Pseudonym	School situated in peri-urban (PU) or urban (U)	Age	Sex	Race / Home Language	Hostel resident (HR)/ Day scholar (DS)	Risks	Living arrangements
Chrissie	C (U)	16	Female	Black[a] English	DS	Formal ID diagnosis Deformed feet- wheelchair bound Delayed schooling	Orphanage
Christiano	D (U)	15	Male	Coloured English	DS	Formal ID diagnosis Deformed ears Orphan	Grand-parents
Flora	A (PU)	17	Female	Black Sesotho	HR	Formal ID diagnosis Down's syndrome Cerebral Palsy - Hemiplegic Epilepsy Expressive speech difficulties	Aunt and Uncle
Lady	A (PU)	15	Female	Black Sesotho	HR	Formal ID diagnosis Orphan	Guardian
Mako	A (PU)	18	Male	Black Sesotho	HR	Formal ID diagnosis Poverty Maternal alcoholic Maternal alcoholism	Parents/ Grandmother
Natalie	D (U)	17	Female	White Afrikaans	DS	Formal ID diagnosis Molested, formal removal from parental care.	Orphanage
Nicky	D (U)	12	Female	Black SiTwana	DS	Formal ID diagnoses Limited mobility from head injuries sustained in car accident	Grand-mother
Nike	A (PU)	17	Male	White Afrikaans	DS	Formal ID diagnosis Financial disadvantage (Mother unemployed and diagnosed with ID) Father absent	Orphanage

Pitbull	E (U)	17	Male	White Afrikaans	DS	Formal ID diagnosis PTSD ADHD Poverty Both parents diagnosed with ID	Parents
Princess	A (PU)	18	Female	Black Sesotho	HR	Formal ID diagnosis	Parents
Queen	A (PU)	18	Female	Black Sesotho	HR	Formal ID diagnosis Cerebral Palsy-Hemiplegic High impulsivity	Father (Mother deceased)
Rambo	C (U)	17	Male	White Afrikaans	DS	Formal ID diagnosis	Parents
Retabele	A (PU)	13	Female	Black Sesotho	HR	Formal ID diagnosis Visual impairment	Parents
Roxy	B (U)	13	Female	White Afrikaans	DS	Formal ID diagnosis Orphan Poverty Disruptive schooling (absent for two years)	Orphanage
Samantha	B (U)	16	Female	White Afrikaans	DS	Formal ID diagnosis Parental rejection	Orphanage
Skim	C (U)	18	Male	Coloured Afrikaans	DS	Formal ID diagnosis	Parents
Sokkerman	A (PU)	13	Male	White Afrikaans	DS	Formal ID diagnosis Auditory impairment (using hearing aid) Paternal rejection Poverty	Guardian
Spiderman	E (U)	15	Male	White Afrikaans	DS	Formal ID diagnosis	Parents
Superhot- boy	B (U)	15	Male	Coloured Afrikaans	DS	Formal ID diagnosis Poverty Peer pressure	Parents
Superman	A (PU)	13	Male	Black Sesotho	HR	Formal ID diagnosis	Parents

Terminator	A (PU)	19	Male	Black Sesotho	HR	Formal ID diagnosis Auditory impairment (using hearing aid) Poverty	Mother
The Rock	A (PU)	17	Male	Black Sesotho	DS	Formal ID diagnosis Local (not school based) peer discrimination	Parents
Tsabalala	A (PU)	14	Male	Black Sesotho	HR	Formal ID diagnosis	Parents
Valentino	A (PU)	17	Male	Black Sesotho	HR	Formal ID diagnosis Hydrocephalus with shunt	Grand-parents

[a] This is the way that South Africans still classify race.

Secondary informants. As is typical in a multiple case study, I needed multiple sources of data to obtain rich insight into those factors contributing to resilience in adolescents with ID (Swanborn, 2010). Therefore, I invited 18 teachers, who interacted with the primary informants daily, as secondary informants. All invited secondary informants accepted the invitation (see Table 12). I requested these secondary informants to identify the additional risks challenging the primary informants' development (for example, additional, formally diagnosed disabilities, psychological difficulties, and financial disadvantage, as indicated by exemption from school fees) using school documents, for example, case files and class records. I chose to invite teachers above parents, given parents/caregivers being spread over a wide area, and the fact that 11 primary informants had been orphaned or were in care (see Table 11).

Table 12: Summary of secondary informants

	Participants reported by teacher	Years of experience	School
Teacher1	Nike Terminator Mako The Rock	17	A
Teacher 2	Flora Princess Queen	33	A
Teacher 3	Retabele	34	A
Teacher 4	Lady Valentino	35	A
Teacher 5	Superman	3	A
Teacher 6	Sokkerman	26	A
Teacher 7	Tsabalala	9	A
Teacher 8	Roxy	35	B
Teacher 9	Samantha	4	B
Teacher 10	Superhot Boy	27	B
Teacher 11	Chrissie	6	C
Teacher 12	Rambo	37	C
Teacher 13	Skim	11	C
Teacher 14	Christiano	38	D
Teacher 15	Natalie	28	D
Teacher 16	Nicky	22	D
Teacher 17	Pitbull	26	E
Teacher 18	Spiderman	16	E

Contextualization. Following a diagnosis of ID by a registered psychologist, South African children are placed in a government-funded school for the intellectually disabled that caters for their learning needs (that is, not a mainstream school). In general, these schools offer special services to learners with ID that are considered to their advantage (SA Department of Education (DoE), 2008). These include a smaller number of learners per class (12 to 18) to promote the individual development of each learner, differentiation during lesson presentation, as well as differentiation during progress assessment. Each school has a support team that caters for the needs of its pupils. The support team, consisting of teachers, occupational therapists, speech therapists, and psychologists, is available to identify psychological, speech, motor, and behavioral problems individually as well as in groups and to apply therapy (Landsberg, 2009). These schools offer a variety of organized extramural activities (sport and cultural) at a level that makes it possible for adolescents with ID to also achieve success. In the field of sports, for example, activities include soccer, netball, swimming, athletics, softball, and cross-country running, with annual opportunities for adolescents to compete against other schools for the intellectually disabled. Cultural activities include dancing (for example, gumboot dancing, line dancing, and musicals), choir singing, and a percussion band, with opportunities to participate in the eisteddfod in a special section for the disabled, as well as school concerts. Senior students are part of the school-to-work program, where they are exposed to the work environment at participating local businesses for up to three days a week.

Research Process

The research process began by obtaining the necessary permissions to do research (see "Ethical aspects" for more detail). Then, I engaged with all the primary informants twice. I engaged with 13 of the primary informants a third time to make sure that the drawings and

informal inquiries had been understood and interpreted correctly (in other words, to do member checking - Creswell, 2014).

The aim of the first interaction was to introduce myself to the informants, to get to know each informant better, and to explain the consent letters.

At the time of the second contact, I met with each of the initial 13 informants individually in my classroom for approximately one hour after school. The informants preferred this because my classroom was part of their familiar school environment. The 11 primary informants who were subsequently recruited met me in the familiar environment of their own schools in a room indicated by the gatekeeper. I again confirmed informants' language of preference and the availability of a translator (no one asked to make use of her) and again explained to the informants what their participation in the study would entail. All informants were invited to choose pseudonyms. Then I provided each informant with a blank piece of paper, a grey pencil, and coloring crayons and asked the following: "What has helped you to do well in life? Please draw what helped you to do well at times when you felt that life was difficult."

After the data collection from the primary informants, the secondary informants also received the letter of information and open-ended questionnaire by hand or via email. The return of the completed questionnaire was viewed as agreement to take part in the research project.

Data collection strategies. With the primary informants, I used a visual primary participatory method: draw-and-talk. This method can be defined as the collection of rich data by asking the individual to give his/her personal experience of a particular phenomenon by representing it through a drawing and then, afterwards, explaining the drawing in his/her own words (Mitchell, Theron, Stuart, Smith, & Campbell, 2011).

For social research on contentious issues (e.g., HIV&Aids), human behavior, and/or abstract phenomena (e.g., resilience), draw-and-talk offers valuable resources of information without prioritizing literacy skills (Guillemin &Westall, 2008; Theron, Stuart, & Mitchell, 2011). Draw-and-talk was, therefore, a particularly effective method to obtain the personal experiences of adolescents with ID because the ability of adolescent learners with ID to read and write is extremely limited. Tatlow-Golden and Guerin (2010) refer to the draw-and-talk and draw-and write method as a child-centered method because it can be used very effectively to involve particularly younger individuals in research. In the case of the primary informants, their physical age might well be 13 to 19 years, but their mental ability is considerably lower, and they, therefore, fall into the age group for whom the draw-and-talk method is particularly suitable. Further advantages of draw-and-talk are that the power imbalance between the researcher and informant is decreased because the informant himself/herself is actively involved when he/she gets the opportunity to visually represent social issues, in this case, that which the adolescent with ID experiences as factors contributing to his/her resilience (Theron et al., 2011).

A disadvantage of draw-and-talk is that recent events and experiences could influence the resources identified and explained (Guillemin, 2004; Mitchell et al., 2011). Therefore, I met each informant, as agreed on, in the familiar environment of his/her own school, in the hope that this familiar environment would prevent such distraction. Because adolescents with ID often struggle to express themselves and tend to get anxious when they do not understand something, the drawing was followed by a simple, informal conversation (Mertens, 2010). To obtain deeper and richer data, I frequently made use of probing during the conversation to get the informants to expand on what they meant (Creswell, 2012). The aim of the informal conversation was also to ensure that I attached the right meaning to the drawing (Guillemin & Drew, 2010). The adolescents with ID's versions of their explanations of their drawings often

surprised me. For me, as qualitative researcher, this diversity meant that I could represent a richer and deeper interpretation of what the adolescents with ID experienced as helping them toward resilience (Guillemin, 2004). All conversations were recorded (with the explicit consent of informants) and transcribed.

The secondary informants completed an open-ended questionnaire. This questionnaire contained two open questions, namely: "(1) Please describe circumstances that put this adolescent at risk?" and "(2) In your opinion, what is helping this adolescent to do well in life?" Generally, open-ended questionnaires have the advantage of facilitating the collection of a reasonable amount of data in an easy and quick way (Mertens, 2010). A disadvantage of this type of inquiry is that the feedback differs in length, might not be as complete as expected, and might be detached from the context (Creswell, 2012). I could, however, use most of the data from the open-ended questionnaires effectively to confirm or expand on that which the adolescents with ID mentioned as contributing to their resilience.

I also made use of telephonic follow-up interviews to obtain further information from the secondary informants. Telephonic interviews can be described as short telephonic conversations where a few questions are asked of the interviewee (Creswell, 2012). I contacted the secondary informants particularly to obtain more background knowledge. Although the high cost is viewed as a disadvantage of telephonic interviews (Creswell, 2012), it was, in fact, particularly time-efficient and cost-effective to make contact in this way because the secondary informants were located over a wide area and were, therefore, difficult to visit for personal interviews.

Data Analysis

Within-case analyses. Data generation and data analyses occurred concurrently. In other words, once an informant had generated a drawing and explanation, these were first analyzed before I proceeded to the next drawing and explanation (Greeff, 2011). I transcribed the

audio-recorded verbal remarks made by the adolescents with ID about their drawings word for word. To become familiar with the information and make general sense of that which contributed to resilience in adolescents with ID, I immersed myself in the data by scrutinizing a drawing and reading and rereading the primary informant's comments about this drawing (Creswell, 2012). I used content analysis to systematically make meaning of the visual and narrative content of the primary informants (Merriam, 2009). I started by open-coding the visual and narrative data. This open-coding was constantly directed by the research question: "Why do adolescents with ID adjust well to the risks and limitations of ID?" (Merriam, 2009). This meant that I labelled the drawn content; for example, Rambo's drawing of his family, all laughing with crosses above them to indicate kisses, was labelled "positive attitude to family". I did the same with the narrative data. For example, Rambo's explanation "And nature that is always so quiet and the rain and everything that God does for me . . . I like going to church. And to praise the Lord and to play the band. And I just like everything." was labelled "positive attitude, as he liked everything". Because the codes were developed from the data and not from existing literature, an inductive approach was prioritized (Creswell, 2012; Mertens, 2010).

I arranged the emerged open codes of the primary informants in table format and grouped codes that were in agreement to form a new axial code (Creswell, 2012). For example, I grouped Christiano's following two open codes, namely, he knows that his sister loves him (passionate child) and he knows that his aunt loves him, together under the axial code "experience of positive regard". The inclusion and exclusion criteria for each axial code were recorded (Creswell, 2014). During axial coding, I made sure that, with this process, I got preliminary answers to the research question; for example, the experience of positive regard facilitated adolescents with ID adjusting well to the risks and limitations of ID (Creswell, 2012). In an attempt to increase the credibility of the process of analysis, during

the coding process, I constantly returned to the primary informants' drawings and transcripts to make sure that no other codes emerged from the data (interactive process). After determining the axial codes of the primary informants, I did the coding and triangulation of the secondary informants' narratives. My study leader, as well as a peer, open and axial coded separately. We compared these, and where we differed, we went back to the data until consensus was reached. In this way, we increased the trustworthiness of the process of analysis (Creswell, 2014).

Cross-case analysis. After the first three in-case analyses had been completed, I started comparing the axial codes among the cases with one another. I grouped similar axial codes together. When new cases were added, I constantly went back to refine and revise the patterns that were emerging from combining similar axial codes. In this way, I began to determine themes and subthemes emerging from the clustering (Merriam, 2009). As I approached the end of the cross-case analysis process, the process became increasingly more deductive. This meant that I began consulting the existing literature on resilience in adolescents with ID and literature regarding the social ecology of resilience to make sense of the emerging themes that explained how resilience in adolescents with ID was co-facilitated by their environment and themselves (Merriam, 2009). The cross-case analyses were reviewed by my study leader and where our interpretations differed, we revised the analyses until consensus was reached.

Ethical Aspects

The study received ethical clearance from my institution, participating schools, and the relevant Department of Education. In addition, I was very sensitive to the vulnerability of the informants, and so committed myself to protecting informants against physical and psychological harm (Ginsberg & Mertens, 2009). Informed consent was obtained from the parents/legal caregivers. I sent a letter with a simplified explanation of the aim and process of

the research to each parent/legal caregiver, to be read and discussed by the parent/legal caregiver, as well as the adolescent with ID, before both signed the consent form. From professional experience, I knew that the adolescents with ID's understanding was limited and that complex language confused them easily; therefore, I ensured that the letter of information and instructions during the draw-and-talk were in simple language. To make sure that the adolescents understood what participation in the study entailed, I used part of the first interaction to read the letter of information, as well as consent form, with them. I then gave a simple paraphrased explanation (in both Afrikaans and English) about the aim, method, duration, and potential benefits of the study.

I respected the autonomy, that is, the right, of each informant to be allowed to make a choice whether to participate or not. The adolescents with ID were, therefore, ensured that their participation was voluntary and that they were free to withdraw if they were to decide that they no longer wanted to participate at any time before or during the research (Creswell, 2012; Leedy & Ormrod, 2010). Two adolescents with ID decided to withdraw after the first meeting and were each rewarded with a chocolate for their time.

The secondary informants also received the information letter by hand or via email. Their choice of voluntary participation was emphasized. All of the secondary informants who had been approached agreed to participate.

Power imbalances are an important factor to keep in mind in qualitative research (Lincoln, 2009). My lengthy service as teacher at the school attended by the first group of 13 adolescents with ID could have placed them in a position where they felt that they could not refuse participation. For this reason, I excluded any adolescents identified by the AP who were being taught by me at the time of the study. The fact that the adolescents with ID could actively participate in the research process by means of draw-and-talk and have the experience that their voice (that is, their opinion) was important also contributed to reducing

the imbalance. The enthusiasm with which the adolescent informants greeted me during the second contact session and their keenness to complete the drawing and inquiry suggested that they experienced their participation as voluntary and that the power imbalance had been addressed positively.

All personal information, as promised in the informed consent forms, was handled confidentially. I respected the primary and secondary informants' right to anonymity in that no informant's identity was revealed at any stage of the research (Leedy & Ormrod, 2010). The primary informants were, for example, identified by their chosen pseudonyms throughout.

I was constantly particularly aware of complying with the principle of non-maleficence, in other words, doing no harm and not causing any unusual stress or discomfort or subjecting the adolescents with ID to any form of embarrassment (Leedy & Ormrod, 2010). From experience with adolescents with ID, I knew that they do not cope easily with new/strange situations, as in the case of the research session. It was, therefore, important for me to treat the adolescents with ID with great empathy throughout (Stake, 2010) and to visit them personally beforehand (first contact session), so that they would be more comfortable before the research session started. I also encouraged a relaxing atmosphere by chatting to them calmly beforehand and reassuring them that they still had a choice whether to draw (or not) and that how they drew was not important, but rather what they drew. Each primary informant was provided with a sheet of A4 paper (not too big to discourage him or her), a grey pencil, and twistable crayons (that did not need sharpening) – all writing tools with which the adolescent with ID would already be familiar. To let the primary informants relax further, I reassured them that they were welcome to take their time to first think about what they wanted to draw and complete their drawing without rushing (Mitchell et al., 2011). I also played soothing baroque music while the primary informants did their drawing

To show respect, also for the data generated, and to acknowledge the primary informants' artistic ownership, I requested their permission verbally as well as in writing (informed consent form), to record the conversations about their drawings and to use the original drawings, as well as transcriptions of the conversations, for further research purposes, for example, publications and/or exhibits (Theron et al., 2011). I again explained and confirmed this agreement during each second contact session. When requested, I showed the primary informants how the recorder worked beforehand, recorded a short conversation, and played it back to satisfy the informants' curiosity. Each primary informant received something to eat and a soft drink, money for transport (if necessary), and a color photocopy of their drawing at a later stage. The primary informants were very excited about seeing their drawings in the "book" (that is, my research report) during member checking.

Trustworthiness

I confirmed the findings with 13 of the adolescent informants, that is, I conducted member checking (Creswell, 2012). The findings were explained to them in very simple language, and they were asked whether they agreed; for example, "Some of you said that your dads/moms, or brothers/sisters helped you to do your best at school. What do you think about that?"(Creswell, 2014; Stake, 2010). This process indicated participant consensus that the information had been interpreted and represented correctly. Because of this consensus, the remaining 11 participants were not included in member checking.

The credibility of the study was further reinforced by making use of various processes of peer debriefing (Stake, 2010). For example, during the data analysis process, I asked a peer (who was also busy with research in resilience) to code the data independently. Differences in coding/themes were discussed, and we went back to the data and made changes until consensus was reached. My study leader also acted as peer debriefer: we met frequently during the process of data generation, data analysis, and interpretation. Differences in opinion

made me aware of the complexity of the process of data processing and often led to revised coding and themes. I also arranged peer debriefing sessions, in which very experienced educators of adolescents with ID were invited to review the findings. They considered the findings to be credible and accurate, as well as helpful to their interaction with adolescents with ID.

Triangulation was done by comparing the perspectives of the multiple informants, across the various sources of data. Similar perspectives reinforced the answer that was emerging to my research question. This meant that, by triangulating the findings, I contributed toward a rich and in-depth exploration that facilitated the credibility of the findings (Farmer, Robinson, Elliott, & Eyles, 2006). I was careful, though, to search for perspectives that contradicted this emerging answer. This meant I did a negative case analysis (Yin, 2014). I did not find contradicting opinions, but this could be because I did not engage the secondary informants in more detailed, face-to-face interviews or focus groups.

All of the above supported my being able to evaluate the extent to which the emerging answer corroborated social ecological understandings of resilience. It helped me understand what was similar and different from the few studies explaining resilience in adolescents with ID. This allowed me to gauge the need to generate additional knowledge to better understand the phenomenon, and so to make recommendations for follow-up studies (Anderson, Crabtree, Steele, & McDaniel, 2005).

As qualitative researcher, I focused on transferability rather than generalization (Flyvbjerg, 2011; Stake, 2010). To this end I detailed the demographics and school context of the primary informants. My prolonged engagement with adolescents with ID in South Africa (i.e., 18 years' teaching experience) allowed a comprehensive description of the school context of the adolescents with ID. All of this was aimed at making it possible for other

researchers to decide whether the findings would be applicable to their research, in other words, to facilitate transferability (Creswell, 2014).

Although I could not increase the dependability and credibility of the data through structured interviews, because of most of the informants' difficulty in communicating, I took care to converse with them to understand the meaning of their drawings and to transcribe this verbatim (Kidd, Miller, Boyd, & Cardeña, 2009). I ensured that nothing was added to, or changed in, the transcribed data. By describing the research process in detail and keeping careful notes of the the data analysis process (for example, detailing inclusion and exclusion criteria for axial codes), I attempted to heighten dependability. When new research with similar informants from similar circumstances is done, the aforementioned descriptions should facilitate the replication process, so that findings can agree (Babbie & Mouton, 2007).

Findings

An analysis of the informants' lived experiences suggested that adolescents with ID adjusted well when they were embedded in a supportive social ecology as cooperative members of this ecology (see figure 7). This means that the social ecology supported adolescents with ID to regulate their behavior and emotions, encouraged them toward mastery, treated them as agentic beings, and offered safe spaces. Simultaneously, adolescents with ID cooperated and showed positive orientation to their life-worlds. Such positive orientation included an appreciative stance and a cheerful disposition. We detail these themes and subthemes below. The following guidelines were used to indicate the number of participants who generated a theme or sub-theme:

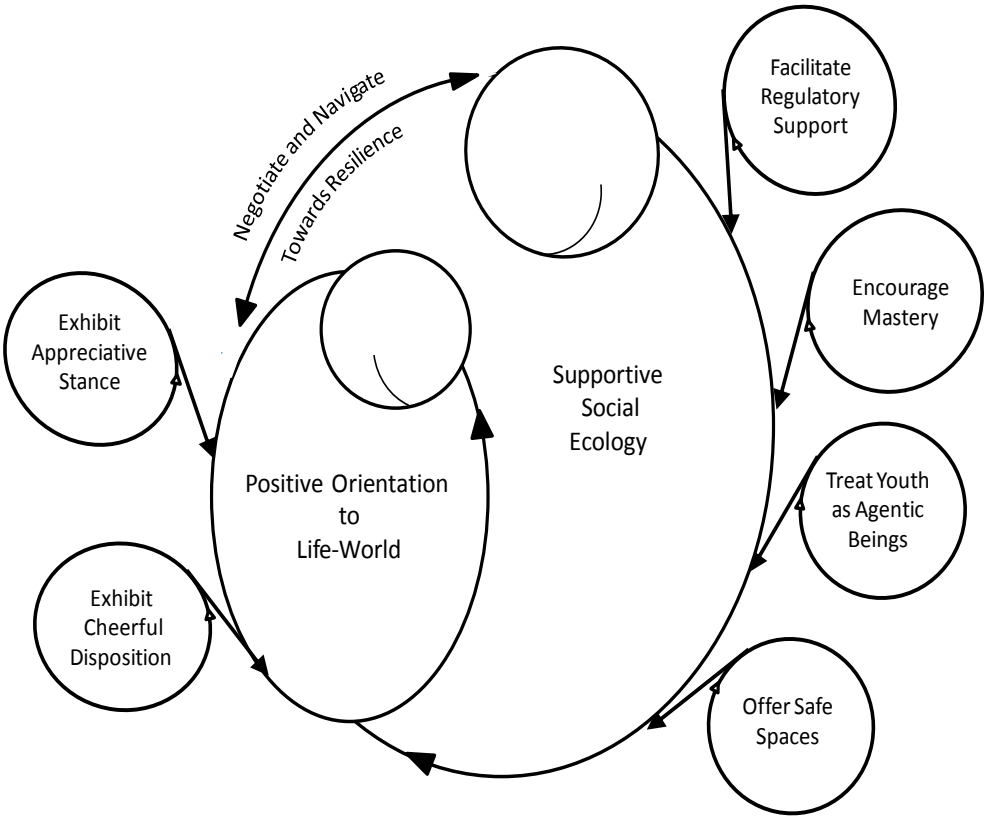
All the informants = all the informants

More than fifteen but less than twenty-four informants = most informants

Between five and fifteen informants = some of the informants

Five informants or fewer = a few informants

Figure 7: Summary of the resilience processes in adolescents with ID



Supportive Social Ecology

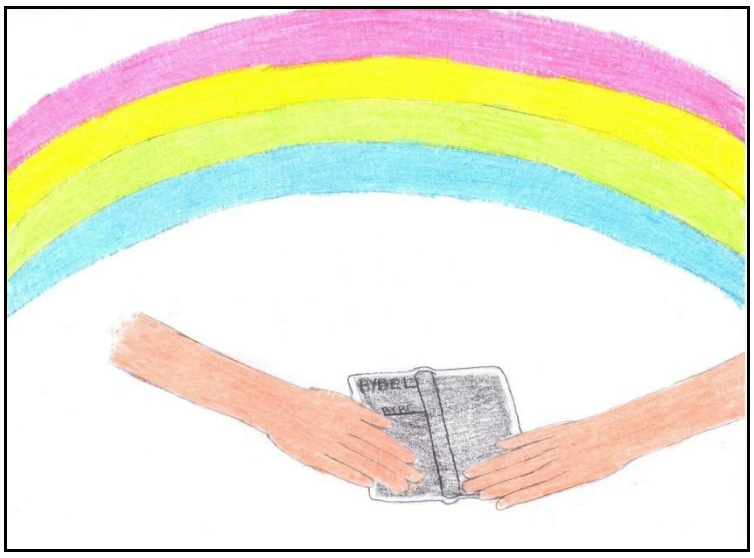
Supportive social ecologies facilitated regulatory support. Social ecologies supported adolescents with ID to regulate their behavior and emotions via specific opportunities that they made available to adolescents with ID. Three specific opportunities were emphasized:

Opportunity to engage in religious activities. Religious activities contributed to resilience processes when these activities taught adolescents with ID values that helped them to regulate behavior and emotions. For some, as learnt at church, these values included respect for parents/caregivers, choosing right above wrong, and forgiveness. Rambo, for instance, explained how his behavior was guided by what he learnt during religious activities:

“Do not let other things disturb you, just throw them out of your life and start from scratch and pray to the Lord that He helps you. Just throw away the bad things. Do not be involved in bad things.”

Resilient adolescents with ID reported that their observing religious activities (such as praying and reading the Bible) regulated their anxieties about all they could not cope with. Most adolescents with ID, for example, said that when they read the Bible, it gave them hope. Roxy portrayed this hope in her drawing of a bible in her hands, against a backdrop of the universal symbol of a hope: a brightly colored rainbow (see Figure 8). In response to a question about how the contents of her drawing supported her resilience, Roxy explained: “That God tells me every day I don’t have to worry about what will happen in my life.”

Figure 8: Roxy's drawing of hope



Others mentioned that reading the Bible and praying supported them in converting negative emotion into positive emotion. In Chrissie’s words: “I have the paper when we come together that say which Bible chapter we must read, then I just read it to them. It makes me happy again when I’m sad.”

Attending church was associated with happiness and satisfaction. Natalie said: "I go to church to believe in the Lord. . . . How He cares about you . . . It makes me feel good." Similar happiness was experienced by Retabele when she participated in praise and worship at church: "I go to church. . . . I feel to sing. . . . I feel better." and Tshabalala who said: "I feel so happy because I can talk to God."

In addition to the regulation of emotion, church attendance shaped behavior. The Rock explained how his behavior was regulated by lessons he learnt while attending church:

> You are running away from drugs. . . . You are running away from alcohol . . . In the church they tell me you must do your best. You must not do the bad stuff. . . . You must always listen to your mother and your father. . . . You must also respect them because things you want to go well.

Throughout, The Rock used the term "you" in referring to himself. Here he is, thus, implying that he, for example, stayed away from drugs and alcohol (bad stuff) and respected his parents (as learnt at church) because this positive regulation of his behavior helped him to cope with his life more easily.

Opportunity to constructively divert attention. Primary informants reported that positive interactions with friends, or time spent in nature, or engaged in religious, musical, or dance activity facilitated adjustment to hardship. Such opportunities supported them to regulate negative emotions and thoughts because they helped them forget about their hardship, calmed and comforted them, and shifted their focus to happier thoughts. Informants indicated, by means of words as well as drawings, that negative emotions, were changed into positive emotions as a result of such opportunities. For example, Superhot Boy explained: "Like I, you know, also dance for the church, yes. Then I will just dance that I forget. Because dancing also takes away the angriness."

Some adolescents with ID indicated that they were able to reduce and even avoid the influence of negative peer pressure by means of activities that occupied their attention at home (e.g., crafts, drawing, cleaning house, and watching TV) and so kept them away from the realm of negative neighborhood peers. Lady, for example, explained:

> I don't like the friends at home because they are going to . . . tell me something else that I do not want. Like if they are going there to their boyfriends, let's go and party. . . . I don't want to do things like that. . . . Mm, I stay at home. I have the knitting needles, I knit there at home.

Opportunity to learn values and skills via attachments to parents, caregivers, siblings, and teachers. The behavior and emotions of adolescents with ID were regulated positively through attachments to parents, caregivers, siblings, and teachers when these attachments offered informal opportunities to learn life lessons. These opportunities included relaxed conversations about, amongst others, faithfully attending school and being diligent, household chores, right and wrong behavior, and how to overcome problems. Collaborative activities, such as attending church or shopping together, also provided opportunities to learn from parents, caregivers, and siblings.

Parents, family, and siblings were described by some of the adolescents with ID as role models who conveyed values and life skills, including perseverance, respect, and reciprocity. Princess told how she had learnt the life skill of forgiveness from her mother and applied it: "Sometimes, my sister and I fight with together with each other, then my mother says we must not fight. Then we must always forgive each other. . . . Then we forgive each other."

In the case of teachers, the opportunities were more formal and occurred during classroom contact time. The life skills and values mentioned most frequently were a strong

work ethic ('working hard'), optimism, and forgiving each other. For Valentino, his teacher and what he learnt from her played such an important role that he made a large drawing of her, before explaining how her advice and interest helped regulate his behaviour, and explained:

> Even when something bothered us, then we can talk to her . . . She can give us good advice, what to do and what not to do. . . . It feels very good because she is actually a person with whom I can also share personal stuff. It's not just things that are going on at school, but things that are happening at home as well. . . . If she sees that you're uncomfortable, then she asks what is going on. . . . Then I tell her some things. . . . She's actually also like a mother to me.

Nicky explained how her teacher regulated her behavior by encouraging her to work hard and not to despair: "And she makes sure that I do my best. . . . Sometimes she tells me that . . . when I do something, I should try again all the time and then I'll get it right." Parents, caregivers, and teachers also provided important lessons about peer relationships, particularly the choice of friends. There were even accounts of parents who punished adolescents when they ignored these lessons. For instance, Spiderman explained his mother punished him "because I did wrong things, played with the wrong friends." Superhot Boy chose to implement his parents' lessons, but admitted that, for him, accepting his parents' advice to walk away from troubled relationships was a complex process:

> Suppose if I got the wrong buddies. Then my mother and father will say those are the wrong buddies, leave them. Then I say, I don't want to leave them because I like my buddies [laughs slightly]. Yes, but then I leave them. Then I listen to what my mother and father are saying because I know what they are saying is the right stuff that they

are saying. Because they have already come through the things that have been happening. What buddies do to you.

Adolescents with ID self-reported that their resilience was reinforced when lessons learnt via attachments nurtured a collaborative approach to life that fostered understanding of the self as a collective being with a responsibility to others. They expressed gratitude and a desire to be help others. Essentially, this allowed adolescents with ID to experience themselves as having something worthwhile to contribute and to feel good about themselves, but also ensured that their social ecology would continue to support them. Skim said:

> I care about people. . . . I like helping people, and if people struggle, then I can help them . . . if you help someone, isn't it, then that person will help you back, isn't it. . . . God gave me this talent to help people.

Supportive social ecologies encouraged adolescents with ID toward mastery. The social ecology in which the adolescents with ID resided demonstrated two ways, in particular, in which it provided support to make it easier for the adolescents with ID to master their daily challenges, particularly challenges that they experienced as a result of their ID.

Support to accept special schooling and to do their best at it. Encouragement from parents/caregivers, siblings, and friends helped the adolescents to accept that they had to attend a special school and be committed to this schooling, in order to master their many daily challenges. Such support was ongoing, with parents and siblings, for example, enquiring regularly about how adolescents with ID were progressing at school.

Queen, for instance, explained how scared she was that her friends would be prejudiced and that she would be labelled when she learned that she had to attend a school for children with disabilities. Her social ecology helped her master this fear:

When I, they said I must come to this school . . . I didn't want to come here. Then my father said, this school is right for me, I must come here because I am going to learn many things here. . . . Now, when I got here, then I saw, he's right. Then, he asked me every day, every Friday . . . how are things at school? I told him well yes. I thought the friends of mine they would laugh at me. I thought this school was the mad school. Then my father he said, no it's not the mad school, it's the school of the "slow learner". . . . When I came, then I saw the stuff was right. . . . they [friends] did not say anything. They said no it's right, is right school that. They said I mustn't be ashamed of my school.

Unconditional acceptance and experiences of positive regard. Adolescents' mastery of daily challenges was strengthened when they knew that their parents/caregivers, siblings, and friends accepted them unconditionally and they experienced mutual love. For example, Rambo's drawing of his smiling family, the word "lief" (meaning love) written next to each of them, and the crosses above their heads (symbols of kisses) depicted the belonging and love that he experienced with his family (see figure 9).

Figure 9: Rambo's loving family

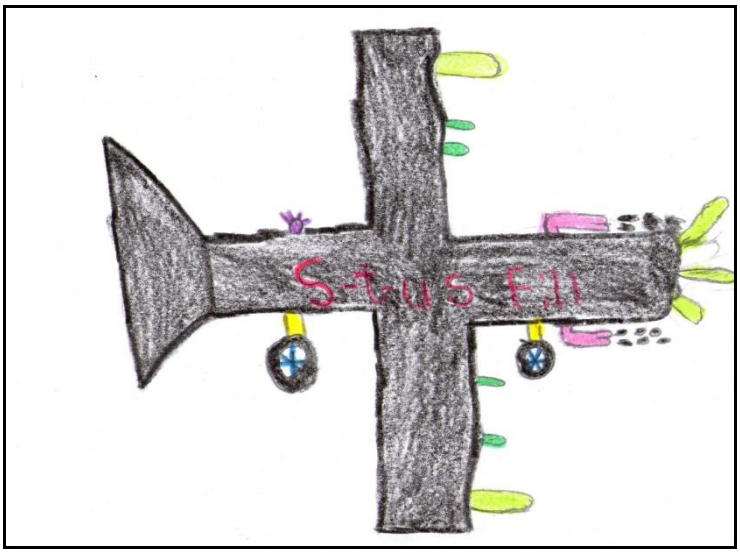
Rambo explained: “My family. My mother and my father. I love them very much. They love me very, very much. They are very strong for me.” Rambo’s teacher described his parents as “very closely involved in his school and extramural activities. . . . Tight-knit family life”. She also mentioned that Rambo had a “very wide field of interest”. This field of interest included being part of the church band – an activity that she believed could be mastered by Rambo because his family accepted him unconditionally, looked past his disability, believed he could master a musical instrument, and then supported his being part of the church band.

Similarly, Christiano described his experience of positive regard from his sister: “And give me all the love. And then she say: “I love you.” – and aunt, she hugs me. . . . Because she loves me.” His teacher confirmed that he was capable of mastering challenges (“He behaves well, does not steal or barter anymore.”), probably because of their unconditional love.

Supportive social ecologies treated adolescents with ID as agentic beings. Resilient adolescents with ID reported two processes that supported their agency, namely, that their social ecology encouraged them to dream and cherish immediate and future goals, and to exercise choice.

Social ecologies encouraged adolescents with ID to cherish dreams. For the adolescents with ID, it was important to be allowed to dream about a future as sports star, artist, and even pilot in the army, even though their chances of realizing these dreams were probably slim. This earnestness about their dreams was apparent in the pictures that they drew as well as in the conversations about their drawings. For Spiderman, for example, his dream of the future was such a great heart’s desire that he drew a picture of the airplane that he hoped to be able to fly one day when he joined the army (see figure 10).

Figure 10: Spiderman's cherished dream to be a pilot

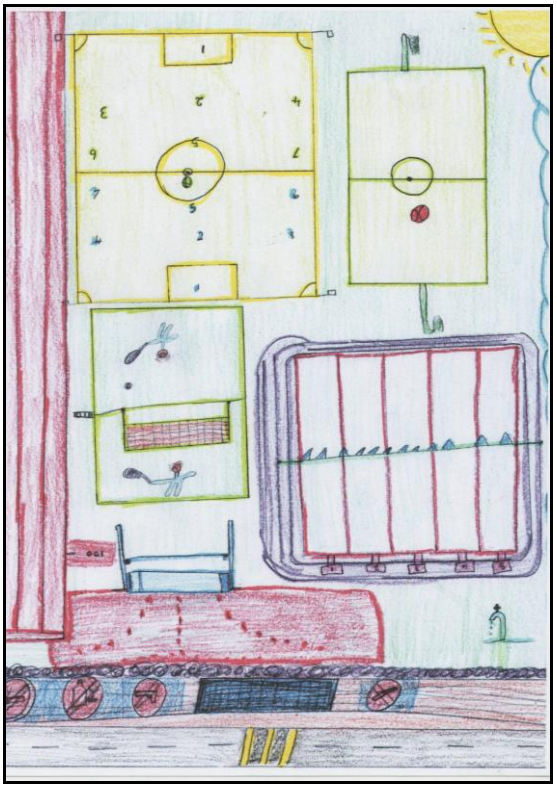


Some of these dreams were more immediate, like doing well at athletics events, soccer matches, swimming galas, and eisteddfods. The social ecology mostly supported these dreams by making resources available. Nevertheless, some adolescents with ID were sometimes supported poorly by their immediate family. Spiderman, for example, wanted to dance in the school concert and eisteddfod. His teacher reported: "He also exhibits perseverance, because although his bothers laughed at him, he still danced for the revue and took part in the eisteddfod." Notwithstanding his brothers' mockery of him, Spiderman still fulfilled his dream of taking part in the revue and eisteddfod. His teachers supported him wholeheartedly in this.

Social ecologies encouraged opportunities for adolescents with ID to make socially appropriate choices. In their drawings and explanations, it became apparent that the social ecologies of participating adolescents created opportunities for them to exercise choice. This included being able to choose between extra-mural activities and the extent of

their involvement in these activities. Implicit in this, however, was the opportunity to choose to be involved in pro-social activities that would allow avoidance of anti-social activities. The Rock, for example, chose to actively participate in sport and in so doing to stay away from harmful activities such as drinking, smoking, and crime. In The Rock's case, his school made this possible. His drawing depicted the different types of sports from which he could choose (see Figure 11). He said: "Because my whole must be fit. And must be strong. . . . I like sports." In the drawing, he also indicated, with boards next to the gate, what he believed it was wrong to engage in, namely, substance abuse and violence. He explained: "If you are playing sports you must not smoke and drink and hold the gun and knife."

Figure 11: The Rock's detailed drawing of different sport fields with signs at gate-prohibiting drinking, guns, smoking and knives



In The Rock's social ecology, his father, as well as the church, reinforced his pro-social choices. The Rock, for example, said: "In the church they tell me you must do your

best. You must not do the bad stuff." His father confirmed this doctrine: "You must control yourself. . . . Because my father he always tell me like that." The Rock's teacher confirmed how his social ecology supported his choices: "The Rock performs well in sports. . . . He can set himself a goal and works hard to realize it. He is motivated, and he can rely on his parents' support, particularly his father is involved in his life."

Supportive social ecologies offered safe spaces for adolescents with ID. Because they were so vulnerable, adolescents with ID needed places specially equipped according to their needs where they could feel safe to live, to learn and work, and to take part in organized activities, and where they could feel secure in their relationship with others. These spaces included children's homes, hostels, and routine-respecting homes and schools.

Children's homes as safe space to live and be nurtured. Children's homes were described by the adolescents with ID as places where they felt safe and where they got support from their attachment to their housemothers. These adolescents with ID included learners whose parents had both died (for example, Roxy) or whose parents or single parent could not look after them properly (for example, Nike, Samantha, and Natalie). The latter was sometimes associated with physical disability, which required extra precautionary measures and equipment (for example, Chrissie). In her conversation about her drawing of her smiling grandmother, Natalie, for example, mentioned that the 'aunties' at the children's home helped her be strong in life. She was, however, not able to explain this further. Her teacher explained Natalie's circumstances as follows:

> Natalie is in the children's home due to the fact that she and her younger brother were molested by their stepfather. They were removed from their mother and stepfather and were put in a place of safety. . . . The fact that she was removed from her molester helped Natalie to do well in life. . . . She receives a lot of support both from the teachers at school and her housemothers at the children's home.

For Roxy too, her residence in the children's home gave her the opportunity to enjoy the support of her housemother. She described this supportive relationship: "Auntie [name] from [name] Children's Home. . . . always helps me to get things right, and when I do something wrong, she tells me no it's wrong to do that, because she is training me and . . . preparing the road ahead for me."

School hostels as safe space to live and be nurtured. For five adolescents with ID, the school hostel was the place where they could stay safely with staff who cared about them and provided for their daily needs. Tsabalala, for example, said that he was happy in the hostel because he was always looked after: "I feel so happy . . . and I'm always clean, because they look after me." Superman enjoyed life in the school hostel and appreciated the good relationship with the housemothers he experienced: "I enjoy it. It's so nice. . . . Some of the housemothers are so kind."

Routine-respecting homes as safe space to live and order their lives. For seven resilient adolescents with ID who did have the privilege to be cared for at home, the maintenance of routine at home helped order their lives and give them structure. Christiano, for example, said that his grandmother was the person who made him strong in life. She taught him to respect routine and this helped him feel safe:

> My Granny. . . . She makes me eat every day there. . . . Then she make me sleep. . . . And then I go play. . . . She help me to sweep and things like that. . . . And pick up this mess in the house. . . . And under the beds we sweep. . . . And the sitting room.

School as safe space to to develop good friendships. Some of the adolescents with ID indicated that their attachments to peers played an important role in their ability to do well in life, but that that they did not really have friends at home for fear of prejudice as a

result of their disability and wrong influences that the friends might have. Therefore, their schools were the place where they felt safe to experience good relationships with their peers. Sokkerman, for example, emphasized the importance of school friends: "Like friends who like me". In his drawing, he depicted where he and his friend made peace on the netball court after a quarrel (see figure 12).

Figure 12: Sokkerman's drawing illustrating the importance of good peer relationships

In response to a question about whether he had any friends at home, Sokkerman replied: "Just my brother and I" Sokkerman was not able to explain further. Sokkerman's teacher, however, remarked: "He experiences disappointment . . . because he does not have friends at home – have noticed that the children mock him because he is deaf and is at [name] school. . . . Very popular at school though – enjoys his friends."

Lady also clearly indicated that she had friends at school, but not at home: "Yes, I have many friends. Here [school]. At home, I don't have friends." She explained that she was scared of the wrong influences from friends at home. The Rock described his choice not to have friends at home as follows: "No. I don't want friends. . . . You know what? Friends they

can put you by bad stuff and then you can go to be in big troubles. . . . In school . . . I have friends. . . . It's better by the school."

Positive Orientation of Adolescents with ID to Their Life-Worlds

Although the social ecology was prioritised in the informants' responses, their positive attitude was very noticeable.

Adolescents with ID demonstrated an appreciative stance. The adolescents with ID radiated gratitude in their drawings and their verbal explanations. They were appreciative of the people and things that played an important role in their lives as well as their own strengths and preferences, as discussed below.

Adolescents with ID valued their life-world. The primary informants appreciated their reliable support networks (families, religious communities, schools), friendships that were without fear, and a safe environment in which to reside, learn, and participate in organized activities. In their explanations of their drawings about the aforementioned, the adolescents made appreciative statements. Roxy, for instance, told that her mother had left them when she was eight years old. A year before she participated in this research, her father, who had been looking after them passed away after a long illness. Because her father could no longer look after them, she was put in the children's home. Notwithstanding these difficult circumstances, she explained her gratitude toward her supportive society as follows:

> Even when there is dark tunnel . . . and difficult things in your life, there's always a hand or two that will help you with those problems and things. So that's what makes me strong to know there's somebody on whom I can rely on.

Roxy's teacher confirmed how her positive attitude and good cooperation had eventually led to improvement in her circumstances. Roxy valued the input of her teacher and honored the lessons she learnt in class, and with self-discipline and hard work, she progressed

surprisingly well academically. Her progress was such that she would be transferred out to a school for learners with mild intellectual disability – a remarkable achievement for this learner who had initially been diagnosed with moderate to severe ID. "She was motivated and praised a lot, and she cooperated daily, and with great amazement and self-discipline, caught up the deficit. She is currently the strongest in her group and is being transferred out to [name] school."

Adolescents with ID appreciated their strengths and preferences. It was clear that the resilient adolescents with ID, in general, had good self-knowledge - they were aware of their strengths (e.g., persevering, being respectful) and were able to name their preferences (e.g., being busy at home) and dislikes (e.g., negative peers). Rambo for, example, preferred his own company: "Because I haven't yet . . . felt that I want friends. I like being quiet and sitting on my own, watching the children and what they are doing and chilling. And that's all."

One of the preferences in Flora's life was that she loved flowers; she then also chose the specific pseudonym, meaning "flower". Flora was, furthermore, very specific in her enthusiastic explanation that she liked hearts and flowers and, therefore, also drew them. "I like plantings. . . . I draw . . . some flowers. . . . There's some hearts. . . . I love it. . . . It's beautiful." Flora then explained that she valued the hearts because they reminded her of her older brother who currently lived far away, but had raised her by himself for a long time. Flora's teacher described her as "Very friendly . . . very happy" – characteristics that described her positive attitude toward her life-world.

Adolescents with ID demonstrated a bright stance. "Happy", "like", "love", and "nice" were words that were often used by the adolescents with ID. The drawings of the adolescents with ID also attested to their optimistic view, namely, the use of bright colors, smiling faces of people, flowers, butterflies, and hearts. These words and drawings reflected their

cheerfulness. For instance, Skim's positive, joyful disposition was expressed in his caring about people: "This picture I drew. I was very joyful, and I care about people." His teacher confirmed Skim's positive attitude when she described the characteristics that she believed contributed to his resilience: "Determination, well-spoken, inner motivation, very well-mannered, good self-esteem, very helpful, reliable, and eager to work."

Chrissie was intellectually as well as physically disabled; her teacher described Chrissie's character traits contributing to her resilience as follows: "She's a highly motivated child. She tries her best in everything she does. She has strong leadership qualities and is self-assured. She is not afraid of physical challenges." Chrissie, thus, seemed to live life to the full thanks to her optimistic disposition. This positive, cheerful disposition was also verbalized by Chrissie when she told about the pleasure and happiness she felt when she experienced the small everyday things in nature with all her senses:

> I just smells the flower and then it smells nice. Then I just think about God's creation, how He makes it smell so nice. . . . When you just look up, then you see them [butterflies] fly – because they're happy. And it makes me happy to see that they're happy.

Discussion

In answer to the question why some adolescents with ID adjusted well to the risks and limitations of ID, the reciprocal transaction process between the individuals (in this case, the adolescents with ID) and their social ecology was central. Specifically, the social ecology facilitated emotional and behavioral regulation in adolescents with ID, encouraged them toward mastery, treated them as agentic beings, and offered them safe spaces. At the same time, the adolescents with ID displayed a positive orientation to their life-worlds by means of their appreciative attitude and cheerful disposition.

Of importance is recognition of the fact that the above processes are interwoven, and probably reinforcing. Being resilient in the presence of ID, with all of its associated challenges, requires the existence of a social ecology that supports the adolescent absolutely and, at the same time, that the adolescent is positively inclined toward this supportive community (as illustrated in Figure 7). In the current study, participating adolescents displayed gratitude toward their supportive community and the developmental opportunities they were offered. It is possible that this positive orientation prompted the adolescents with ID to reach out to resources in their social ecology that would buffer them against the risks and limitations of ID. It is also possible that membership of a supportive social ecology encouraged this orientation in the first place. It is, however, equally possible that their positive orientation stimulated the social ecology to reach out to them and supportive resources.

Within this interplay, it is nevertheless important to emphasize the critical role played by the social ecology. In the current study, the "preponderance of the data" (Taylor & Bogdan, 1984, as cited in Merriam, 1989, p. 763) pointed to a supportive social ecology as instrumental to the resilience of the adolescents with ID. Much less data pointed to the adolescents as facilitators of their resilience. Ungar (2013) is unequivocal in this regard. He maintains that social ecologies are more responsible for the facilitation of resilience processes, than youths themselves. In instances of disability, adolescents are probably more reliant on a supportive social ecology, and so it places an even greater responsibility on the social ecology.

The detail of the above reported social ecological and individual processes overlaps, to some extent, with prior understandings of what supports resilience in adolescents with ID: Fourie and Theron (2012), Hsieh and Donahue (2010), as well as Murray (2003), reported the resilience-supporting value of varied opportunities to develop self-regulation. Social

ecological facilitation of mastery in the form of championing special education opportunities and/or accepting adolescents with ID unconditionally was also previously noted (Fourie & Theron, 2012; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003; Ungar, 2004). Safe spaces too are not new to accounts of resilience in adolescents with ID (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003). The same applies to the resilience-supporting value of adolescents with ID being positively oriented to their life-worlds (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003). These overlaps are important because they indicate that despite probable differences in the majority-world social, cultural, and physical ecologies of adolescents with ID who participated in the current study, and those who participated in the previous minority-world studies, the resources that support resilience remain applicable. This is reminiscent of Masten's (Masten, 2001) 'ordinary magic' explanation. The similarities also reinforce the centrality of social ecologies – across contexts – to the resilience of adolescents with ID. Accordingly, social ecologies might well want to champion the processes of facilitating regulatory support, supporting mastery, offering safe spaces, and supporting adolescents with ID in their appreciative stance and cheerfulness as starting points for promoting positive adjustment in adolescents with ID.

The results also introduce previously unreported pathways of resilience for adolescents with ID. The resilience literature does not explicitly associate agency (via opportunities for socially appropriate choices or dreams for the future) with resilience in adolescents with ID . Murray (2003) recommends that social ecologies should promote agency in youths with disability by encouraging these youths to plan toward a constructive post-school life, but there is no evidence (as in the current study) of agency being intertwined with opportunities to dream of a meaningful future. Likewise, stereotypical understandings of adolescents with ID imply that they are disinclined to make socially appropriate choices

(Harper, Webb, & Rayner, 2013). In the resilience literature, there is also no reference to children's homes and/or school hostels constituting safe spaces for adolescents with ID. The literature is more likely to report the latter as putting youths with ID at increased risk (Kozma, Mansell, & Beadle-Brown, 2009). The value of these novel pathways lies in how they challenge stereotypical bias against the agency of youths with ID, as well as categorical understandings of which social ecological services benefit youths with ID (for example, children's homes facilitating protection for some adolescents with ID).

Significantly, the findings prompt questions about the increasing emphasis on inclusive education for youths with disabilities, including ID, when inclusion is understood as being synonymous with mainstreaming (Rogers, 2013). Participating adolescents with ID flagged their everyday social ecology, including their special school and the supportive attachments to peers and teachers in that exclusive world, as supportive of their resilience. If these adolescents with ID are, therefore, that happy in their exclusive environment, is the idea of pushing these adolescents with ID into a mainstream environment really the best for them? What influence would the removal of adolescents with ID from their school environment, where they experience supportive attachments to their peers and teachers, to an inclusive school environment have on the adolescent with ID's health and well-being?

It is important to point out that, with the exception of their special schools, children's homes, and school-based residence facility, the adolescents with ID emphasized the informally supportive nature of their social ecology. There is an increasing tendency in the resilience literature to report formal services (for example, mental health services and health care) as a significant social ecological support of youths' resilience processes (see, for example, Liebenberg & Ungar, 2014; Ungar, Liebenberg, Dudding, Armstrong, & Van de Vijver, 2013), also when youths are challenged by ID and other disabilities (Fourie & Theron, 2012; Haddock & Jones, 2006). The emphasis on informal social ecological supports

(that is, supportive relationships with caregivers, siblings, and peers, as well as religious activities) cautions against assumptions of the universal utility of formal services as a pathway to resilience for adolescents with ID. This caution should be heightened in contexts (such as South Africa) where there is acute disparity in access to services, particularly in marginalized groups (such as people with disabilities) and historically disadvantaged groups (for example, black South Africans) (Patel, 2012).

Conclusion

The focus of this study (that is, the resilience process of adolescents with ID) inadvertently presented challenges that imposed limitations on the study and how its results are transferred. The cognitive and expressive-language-related limitations associated with ID made it difficult for these adolescents to explain/verbalize their lived experiences of what supports their resilience. The fact that I compensated for this through a visual method did facilitate rich data, but I am aware that the narrative parts are limited. The data are also biased toward adolescents with ID who are in an exclusive school setting, that is, a special school for learners with ID. Thus, further studies are needed to explore whether or not the understanding of resilience that flows from this study also applies to adolescents who are in mainstream schools or (as in the South African situation) to children with ID who are not included in education systems (DSD et al., 2012).

Despite these limitations, the findings that emerged from this study provide important clues about how best to promote the health and wellbeing of adolescents challenged by ID. Most salient, perhaps, is that in the interests of championing resilience, social ecologies have a duty to provide both formal and informal supports to adolescents with ID. In the course of doing so, they would do well to remember that resilient adolescents with ID have the capacity for agency and dreams.

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MANUSCRIPT 2

How school ecologies facilitate resilience among adolescents with Intellectual Disability: Guidelines for teachers

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(Guidelines for authors are included in Addendum I.)

The research question that directed this manuscript is the following:

- How can teachers be supported to nurture resilience in adolescents with ID, using the findings of this study?

How school ecologies facilitate resilience among adolescents with Intellectual Disability: Guidelines for teachers

Abstract

The question guiding this article is how teachers and schools can be guided to facilitate the resilience of adolescents with intellectual disability (ID). To answer this question, I re-analysed data from a qualitative multiple case study to determine what, according to 24 resilient adolescents with ID, and their teachers, facilitates resilience. I specifically focused on their accounts of resilience-supporting factors associated with schools for the physically and severely intellectually disabled (SPSID). With the reality of the inclusion process in South African schools in mind, and the centrality of school ecologies to the everyday lives of South African adolescents (also those with ID), knowledge of resilience processes is integral to teachers' and schools' potential to be resilience-promoting agents.

Keywords:

Adolescents; youth, at-risk; adaptation; intellectual disability; health and well-being;; environment; qualitative research; resilience; stigma; formal services; full-service schools; SPSID; teachers; inclusion.

Introduction

Adolescents with intellectual disability (ID) are a worldwide phenomenon. The overall incidence of ID, according to a meta-analysis of 52 studies, was determined as 10.37 per 1 000 of the world's population (Maulik, Mascarenhas, Mathers, Dua, & Saxena, 2011). With a world population of around 7.2 billion (Worldometers, 2014), the number of persons with ID comes to 74 664 000, on average. The South African Department of Basic Education (DBE) (2014) reports that, in South Africa (SA), learners with primary disability – severe to mild ID (the focus of this article) – constitute 52 517. This number excludes learners with other primary disabilities such as cerebral palsy, autistic spectrum disorder, physical disability, behaviour

disorder, and epilepsy, where ID may be part of the barriers to learning. These numbers urge understanding of, and attention to, learners with ID.

Learners with ID are typically described as vulnerable and must overcome various challenges daily due to their ID (Elegbeleye, 2013), including how they are treated by their social ecologies, e.g., being discriminated against (Kock, Molteno, Mfiki, Kidd, Ali, King, & Strydom, 2012) or abused (Reiter, Bryen, & Shachar, 2007). They are also challenged by risks associated with ID, e.g., poor social skills mainly because of poor development of language and communication (Hartley & Sikora, 2010) and psychiatric disorders, including conduct, anxiety, and emotional disorders and ADHD (Emerson & Hatton, 2007). Because of their diminished cognitive skills, people with ID experience repeated failure and poor academic performance, possibly leading to poor self-image and self-worth (Uys, 2009). Because they need ongoing, often lifelong, support (particularly when they also have physical barriers), it can cause familial, financial, and emotional stress for those responsible for them (Nolting, 2010), heightening their vulnerability.

The international education system is convinced that the fairest way of supporting individuals with ID is to accommodate them in mainstream, inclusive education (Sapon-Shevin, 2007; UNESCO, 1994). The SA view is that adolescents with ID must be admitted to full-service schools (FSS) or special schools (DBE, 2010). The reality is these adolescents are currently mainly in special schools, known as schools for the physically and severely intellectually disabled (SPSID). These also serve as resource centres for the FSS where a few adolescents with ID have already been admitted (DBE, 2010; Motitswe, 2014). According to the SA Department of Basic Education (DBE) (2014), in 2012, there were around 111 598 SA learners in special needs education (SNE) (including learners primarily diagnosed with ID and other barriers to learning, e.g., visual, hearing, physical, and other impairments). Gauteng (where the current study occurred) accommodates the largest percentage of the nine provinces: 36.9% of learners with disabilities.

Internationally, reports of successful implementation of inclusive tuition are divergent. According to Muskens's (2013) comparison of 10 European countries, only Scotland, Spain, and Italy currently exclusively had inclusive schools. Only Scotland was

evaluated as 6 on a seven-point scale based on effectivity of inclusive education. For the other European countries, the effectivity of inclusive education was evaluated between 2 and 5. Unsuccessful implementation of inclusion sometimes leads to a large number of early school leavers, which Muskens (2013) ascribes to pressure associated with too high achievement expected of these pupils at (high) risk. The United Kingdom (UK) recently reviewed its special education needs (SEN) policy to make provision in exclusive schools for learners unable to comply with the high standards prescribed for them in mainstream schools, or who were disruptive in traditional classes (Gillie, 2012; Tomlinson, 2012).

In Africa, Kenya is struggling with implementing inclusion; only 1% of all the disabled (including youth with ID) currently have access to higher education, and their success rate is very limited (Kochung, 2011). Sulaiman (2010) ascribes the failure of inclusion in Lagos, Nigeria, to prevailing poverty which hampers provision of necessary apparatus and services. In SA, the picture is no brighter. Following the establishment of a democracy in 1994, there was a need to first concentrate on establishing equal rights for all population groups in the education system (Engelbrecht, 2006). With the release of Education White Paper 6: Special Needs Education, Department of Education (DoE, 2001), the government supported education transformation to bring about inclusion of previously marginalised groups, including individuals with disabilities, in ordinary education. This process is slow and currently exhibits more failures and problems (Donohue & Bornman, 2014; Geldenhuys & Wevers, 2013; Ngcobo & Muthukrishna, 2011) than successes (Gous, Eloff, & Moen, 2013).

The ineffective application of inclusive education may contribute to making adolescents with ID vulnerable or even more vulnerable (Geldenhuys & Wevers, 2013; Muskens, 2013). There are various reasons for this failure. International and national research shows that disabled children (including children with ID) are often expected to adjust to the school and class environment created for them, instead of all children being allowed a space, adapted to their individual needs, where they can develop to their full potential (Donohue & Bornman, 2014; Geldenhuys & Wevers, 2013; Ngcobo & Muthukrishna, 2011; Obiakor, Harris, Mutua, Rotatori, & Algozzine, 2012). Inadequate teacher skills and knowledge to accommodate the disabled,

including adolescents with ID, are partly to blame. Teachers must be able to adapt school and classroom environments to these learners' needs and tailor lessons, assignments, and assessment to suit every child's abilities (Donohue & Bornman, 2014; Geldenhuys & Wevers, 2013; Kalenga, Fourie, & Maphosa, 2014; Motitswe, 2014; Ngcobo & Muthukrishna, 2011).

Disabled children are often labelled by teachers and fellow-learners and experience bullying at school. Unachievably high expectations and uncertainties of where they fit in cause despondence and prompt long absences and/or attrition at a very young age (Donohue & Bornman, 2014; Geldenhuys & Wevers, 2013; Ngcobo & Muthukrishna, 2011; Obiakor et al., 2012). Their leaving school early contributes to the disturbing SA statistics that 8% of seven- to 15-year-olds and 33% of 16- to 18-year-olds with a disability currently attend no educational institution (DBE, 2013).

Focus of the current article

Because teachers in mainstream schools, particularly FSS, often have insufficient skills and knowledge to support disabled individuals, there is an urgent call for teachers to be capacitated to do so (Donohue & Bornman, 2014; Geldenhuys & Wevers, 2013; Motitswe, 2014; Ngcobo & Muthukrishna, 2011). Moreover, there is a growing understanding that school ecologies are key to facilitating resilience in learners made vulnerable by risks (including ID) (Theron, Liebenberg, & Malindi, 2014). Ungar (2008:225) defines resilience, or the positive adjustment to risks (such as ID), as a reciprocal process between the individual and his or her social ecology. While the individual's physical and social ecology is tasked with making meaningful resources available to promote/sustain the individual's well-being, it is the individual's responsibility to steer towards, and make good use of, these resources. Recent resilience literature emphasises the role of formal services in facilitating youth resilience, including services provided by schools (Liebenberg & Ungar, 2014; Sanders, Munford, Liebenberg, & Ungar, 2014; Van Rensburg, Theron, Rothmann, & Kitching, 2013).

However, published studies of what supports resilience in adolescents with ID (Fourie & Theron, 2012; Gilmore, Campbell, Shochet, & Roberts, 2013; Hsieh & Donahue, 2010; Migerode, Maes, Buysse, & Brondeel, 2012; Murray, 2003; Ungar, 2004) do not foreground school ecologies or ways in which schools make resources available to adolescents with ID. There is passing mention of special schools affording them the opportunity to experience belonging and participate in extra-curricular activities (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Murray, 2003), but there are no detailed explanations of how mainstream school ecologies, SPSID, or teachers champion resilience among these adolescents. There are no published studies of how SA school ecologies support resilience in adolescents with ID. Without this knowledge, teachers and school ecologies cannot be capacitated to include adolescents with ID in ways that support their optimal development. Thus, the question in the current article is: "What do adolescents with ID's accounts reveal about how their school ecologies matter for resilience, and how might these insights support teachers and school ecologies towards optimal inclusion of learners with ID?"

Method

To truly understand how school ecologies can support youth resilience, youth voices need to be foregrounded (Liebenberg & Ungar, 2009). Thus, I returned to an existing saturated set of data generated by resilient adolescents with ID. Previous analyses of this data set (Author, under review) did not explicitly consider how adolescents with ID's accounts of their resilience might offer insight into how school ecologies (i.e., school staff, other school-attending youth, the modus operandi of schools) facilitated resilience in these adolescents and how such insights could support mainstream (especially FSS) and SPSID to facilitate resilience among these adolescents.

The data set consisted of an instrumental multiple case study (Stake, 2008) of 24 resilient adolescents with ID. These case studies offered opportunity to examine resilience from the perspective of various adolescents with ID within their real-life context (social experiences) and make sense of it (Yin, 2014). The guiding

theoretical lens was the social ecological theory of resilience (Ungar, 2011). Accordingly, I did not focus on the strengths of adolescents with ID, but on how the social ecology partnered with the adolescents in ways that facilitated youths' access to meaningful resources/experiences that supported them to cope well with the challenges of ID (Ungar, 2011, 2013).

Case informants

Each case comprised an adolescent with ID, between 10 and 19 years, formally diagnosed with ID, attending a public SPSID in Gauteng (SA), and identified as resilient by an advisory panel (AP) or gatekeeper. The primary informants were the adolescents. Their class teachers were included as sources of secondary information (Given, 2008).

An advisory panel (AP) facilitated the recruitment of the first 13 primary informants. It consisted of four teachers, two therapists, and three management staff who interacted with adolescents with ID daily and whose training and/or professional experience had provided them with insight into resilience. As already reported (Author, under review), the author and AP reached consensus about what indicated resilience in these adolescents. This included that they attended school, could master basic life skills, exhibited good social behaviour, were accepted by peers, built up stable friendships (of six months and longer), experienced general emotional well-being, and actively participated in school activities. Based on these criteria, the AP identified the first 13 primary informants. Then, using these same criteria, another 11 primary informants were recruited at four other SPSID in Gauteng through gatekeepers (one teacher, one deputy principal, and two therapists). The primary informants exhibited diversity in race, age (12 to 19 years), gender, home language, schools, and additional risks besides ID. See the summary in Table 13.

Self-selected pseudonym	School situated in peri-urban (PU) or urban (U)	Age	Sex	Race / Home Language	Hostel resident (HR)/ Day schoar (DS)	Risks	Living arrangements
Chrissie	C (U)	16	Female	Black[a] English	DS	Formal ID diagnosis; Deformed feet- wheelchair bound; Delayed schooling.	Orphanage
Christiano	D (U)	15	Male	Coloured English	DS	Formal ID diagnosis; Deformed ears; Orphan.	Grand-Parents
Flora	A (PU)	17	Female	Black Sesotho	HR	Formal ID diagnosis; Down's syndrome; Cerebral Palsy - Hemiplegic; Epilepsy; Expressive speech difficulties.	Aunt and Uncle
Lady	A (PU)	15	Female	Black Sesotho	HR	Formal ID diagnosis; Orphan.	Guardian
Mako	A (PU)	18	Male	Black Sesotho	HR	Formal ID diagnosis; Poverty; Maternal alcoholism.	Parents/ Grandmother
Natalie	D (U)	17	Female	White Afrikaans	DS	Formal ID diagnosis; Molested, formal removal from parental care.	Orphanage
Nicky	D (U)	12	Female	Black SiTwana	DS	Formal ID diagnoses; Limited mobility from head injuries sustained in car accident.	Grand-mother
Nike	A (PU)	17	Male	White Afrikaans	DS	Formal ID diagnosis; Financial disadvantage (Mother unemployed and diagnosed with ID); father absent.	Orphanage
Pitbull	E (U)	17	Male	White Afrikaans	DS	Formal ID diagnosis; PTSD; ADHD; Poverty; Both parents diagnosed with ID.	Parents
Princess	A (PU)	18	Female	Black Sesotho	HR	Formal ID diagnosis.	Parents
Queen	A (PU)	18	Female	Black Sesotho	HR	Formal ID diagnosis; Cerebral Palsy-Hemiplegic; High impulsivity.	Father (Mother deceased)

Rambo	C (U)	17	Male	White Afrikaans	DS	Formal ID diagnosis.	Parents
Retabele	A (PU)	13	Female	Black Sesotho	HR	Formal ID diagnosis; Visual impairment.	Parents
Roxy	B (U)	13	Female	White Afrikaans	DS	Formal ID diagnosis; Orphan; Poverty; Disrupted schooling (absent for two years)	Orphanage
Samantha	B (U)	16	Female	White Afrikaans	DS	Formal ID diagnosis; Parental rejection.	Orphanage
Skim	C (U)	18	Male	Coloured Afrikaans	DS	Formal ID diagnosis.	Parents
Sokkerman	A (PU)	13	Male	White Afrikaans	DS	Formal ID diagnosis; Auditory impairment (uses hearing aid); Paternal rejection; Poverty.	Guardian
Spiderman	E (U)	15	Male	White Afrikaans	DS	Formal ID diagnosis.	Parents
Superhot- boy	B (U)	15	Male	Coloured Afrikaans	DS	Formal ID diagnosis; Poverty; Peer pressure..	Parents
Superman	A (PU)	13	Male	Black Sesotho	HR	Formal ID diagnosis.	Parents
Terminator	A (PU)	19	Male	Black Sesotho	HR	Formal ID diagnosis; Auditory impairment (uses hearing aid); Poverty.	Mother
The Rock	A (PU)	17	Male	Black Sesotho	DS	Formal ID diagnosis; Local (not school based) peer discrimination.	Parents
Tsabalala	A (PU)	14	Male	Black Sesotho	HR	Formal ID diagnosis.	Parents
Valentino	A (PU)	17	Male	Black Sesotho	HR	Formal ID diagnosis; Hydrocephalus with shunt	Grand-parents

* This is the way that South Africans still classify race.

Table 13: Summary of primary informants' demographics

Context of exclusive schools for the physically and severely intellectually disabled *(SPSID)*

In the SA DBE's policy documents, the schools where learners with learning barriers are accommodated are called special needs education (SNE) (DBE, 2013). These special schools are divided into special schools (learners with mild ID where the national curriculum up to grade 12 is followed) and SPSID (where a simplified national curriculum is followed to the extent to which every learner is capable of progressing). The number of learners per class in the SPSID is fairly low (on average, 12 to 20 learners) to ensure that every learner receives individual attention, according to need. Academic work is presented according to the intellectual ability and pace that the learners are capable of mastering. The acquisition of life skills (hygienic care, good manners, etc.) is one of the main aims to support learners with ID to be socially acceptable in their community. Sporting activities offered include soccer, softball, athletics, netball, cross-country running, and swimming. The learners of the different SPSID compete against one another during the year, allowing competition against opponents with similar barriers and, thus, opportunity for success. For instance, learners with Down syndrome compete against others with Down syndrome in athletics items that they are physically capable of doing, e.g., 80 m sprint, shot put, and long jump (high jump and longer distances are excluded).

Data generation

I used a draw-and-talk visual participatory method (Mitchell, Theron, Stuart, Smith, & Campbell, 2011), because it is a relatively simple means of data generation that is not overly reliant on participants' verbal capacity or literacy skills. Accordingly, primary informants were asked to represent their experience of what contributed to their resilience by drawing it and then explaining what they had drawn in their own words. Every primary informant was approached individually and, after he/she had been given a piece of paper, grey pencil, and colouring crayons, asked: "What has helped you to do well in life? Please draw what helped you to do well at times when you felt that life was difficult." This drawing session was immediately followed by unstructured inquiry, where they could explain their drawing (reality) in their own

words (Guillemin & Drew, 2010). Teachers added to this information by completing an open-ended questionnaire about the primary informants' risks and how they coped well with these.

Secondary analyses

Within-case a priori analyses were done; i.e., I proceeded deductively (Creswell, 2009). This means I scrutinised the visual and narrative data for instances where *schools* and *teachers* were mentioned as facilitating youths' resilience processes. Then, I inductively analysed these segments to understand how SPSID and teachers facilitated resilience processes. I used an open code to paraphrase what these segments explained about how SPSID and teachers facilitated resilience processes. This was followed by grouping together similar codes to form axial codes (Creswell, 2012). The axial codes of all the informants were then compared. During this cross-case analysis, axial codes were revised to accommodate similarities (Merriam, 2009), before being grouped to form themes and sub-themes to shed light on how SPSID facilitate resilience.

I met with my study leader throughout this process. She was familiar with the data. We occasionally disagreed on the codes and then held lengthy consensus discussions (Flick, 2009). During these discussions we also refined the emerging themes and sub-themes.

Ethics

Informed consent was obtained from the Gauteng Education Department, the management of the respective schools, parents/legal caregivers of the informants, and the informants (Creswell, 2012). Out of respect for the primary informants' vulnerability, I added a very simple verbal explanation to ensure that informants understood what the study was about, that their identity would be protected (they chose pseudonyms themselves), that their participation was voluntary, and that they could terminate participation at any time without any penalisation (Creswell, 2012). Research was done in every informant's familiar environment to ensure that they

would experience no tension or physical or psychological harm during the research (Stake, 2010).

Trustworthiness

Credibility was increased by triangulating the multiple sources of data, consensus discussions (explained above), and checking preliminary themes with 13 of the primary informants (Flick, 2009). In addition, by detailing primary informant demographics and their SPSID context, transferability and dependability were supported (Creswell, 2014).

Findings

In answer to what adolescents with ID's accounts revealed about how their school ecologies mattered for resilience and how these insights might support teachers and school ecologies towards optimal inclusion of learners with ID, four themes emerged, indicating that school ecologies enabled resilience or mattered in positive ways. Participants never once suggested that their school ecologies constrained their resilience. Each theme is discussed below.

SPSID provide space to be actively engaged in developmentally appropriate sporting activities

Various adolescents with ID remarked that the sport in which they participated at school (SPSID) was important to them and enjoyable. The sports mentioned by the adolescents and their teachers included soccer, athletics, rugby, swimming, and netball. For Terminator, playing soccer at the SPSID that he attended was so important that he drew it as part of his picture indicating what facilitated his resilience processes. See Figure 13.

Figure 13: Terminator's detailed drawing -playing soccer and gardening

Terminator explained his success on the soccer field: "Last time I play for school .... Say teacher drop and pass. .... They throw for me, catch the ball, I throw the goal." Natalie (she chose this pseudonym due to her admiration for the Springbok swimmer Natalie du Toit) described how her self-esteem improved when she experienced success during the inter-schools for the SPSID meet: "Personally, I am also a swimmer, when I swim against the other children [from SPSID] I always come first, then I feel good about myself." Chrissie is physically disabled with deformed feet. Chrissie's teacher described her as a "highly motivated child" who used opportunity in the SPSID to participate in sport: "She is not afraid of a physical challenge, she takes part in swimming, plays cricket, enjoys rope skipping, does handstands, etc."

SPSID's teachers provide differentiated academic activities and learning support

SPSID teachers reported that they engaged learners in activities that stimulated them in ways commensurate with their ability. During class time, learners are kept actively busy doing life skills, home and additional language learning, practical

subjects, and mathematics. The curriculum is, however, greatly simplified and differentiated according to every individual's intellectual ability. Natalie's teacher described the benefits of this as: "She is in a school where she can do what she does best and enjoys – handwork and baking. She receives a lot of support from the teachers at school."

A few of the adolescents with ID indicated that they enjoyed doing their school work. Lady remarked: "We learn. I really like it." Their positive attitude towards school work was probably because the activities were offered at their level. Superhot Boy's positive experience of school work led to his using school work to divert his attention when he was angry: "I like work [school work], yes. If I know I am angry, I will just go and work, yes. Then I will forget for what I was angry or something."

Because adolescents with ID are not very academically focused, unsurprisingly, only five specifically mentioned teachers' academic support as important to resilience. Chrissie noted her teacher's help to master school work: "Because they [teacher and helper] help you nice in the classes and when you struggle in class you just ask the teacher for help." An extension of such support is the school-to-work programme that SPSID use to facilitate older learners' adjustment to formal work situations. The program offers a protected environment in which to monitor/support learner coping in the labour market. As older learner, Pitbull's programme participation was an important part of his happiness in life: "Even at work, at the workers' programme …. I am also happy." For Pitbull, this inner happiness was a personal factor making him "strong" in life.

SPSID provide space for constructive peer attachments

The adolescents with ID indicated that they appreciated the safe environment of the SPSID system because, at school, they were able to make good friends with peers who experienced the same barriers to learning and daily challenges.

Figure 14: Pitbull's school friend who supported his resilience by accepting him as friend

During the conversation with Pitbull, it became clear that he had quite a few friends, all at his school: “All my friends at school. That’s the one that was here [points at the drawing] ... and there are others as well, many.” (see Figure 14). Similarly, for Sokkerman, “having pals and making friends” is what makes him happy at school.

The adolescents with ID appreciated the positive influence of their SPSID friends. Superhot Boy described this as: “Yes, my buddies often keep me out of fights. They also keep me strong to say, you mustn’t do that, you mustn’t do that. Yes, we just talk all the time so that we can’t get into trouble at school. The importance of SPSID as a safe place to make friends who would be a positive influence is increased by the understanding that seven participating adolescents had few or no such friends at home. Lady noted: “At home, only my grandmother is my friend .... Because the other – I’m a slow learner – that one she can think more than me .... She is going to say let’s go to the tavern. Let go drink. Let go smoke. Then you are in the big trouble, and I am not looking for that.”

Teachers from SPSID offer safe relational spaces where adolescents with ID can confide and learn about life

Adolescents with ID valued their teachers primarily because these adults built trustworthy, respectful relationships with them. Teachers used these relationships to support life skills acquisition, among others, problem solving and acceptable social behaviour, as well as to offer advice that supported self-regulation. Nicky suffered severe brain damage during a car accident. Her teacher described the importance of safe relational spaces in which teachers could support her to cope: "At school she learns how to be able to help herself and to be more independent."

Valentino drew his teacher (see Figure 15) and explained: "... it is my teacher who makes me feel strong. She regularly talks to us about [points at his picture] about nature and things like that. She is actually a very nice person .... We can feel comfortable about some things .... Even if something has been bothering us, then we can talk to her. She can give us good advice – what to do and what not to do."

Figure 15: Valentino's drawing of his teacher surrounded by things in nature that she cherished and shares with her students

Roxy described her emotionally supportive attachment to her teacher: “She is training me. She is teaching me things .... She’s the most wonderful teacher. She makes me strong. She’s there when I need her. When I have a problem, I can go and talk to her.” Natalie also experienced her teacher as the person she could approach when she experienced problems: “Let’s say somebody fights with me, then she talks to me, then I feel stronger.” Pitbull’s teacher confirmed that the encouragement and support he got from teachers at the SPSID helped him to build his self-image. Pitbull described this acquisition of life skills through teachers beautifully in typical simple language as “she [my teacher] teaches me [how] to be alive”.

Discussion

The purpose of this article was to consider what adolescents with ID’s accounts, and those of their teachers, revealed about how their school ecologies mattered for resilience and how these insights might support teachers and school ecologies towards optimal inclusion of these learners. Their accounts emphasised that SPSID and teachers mattered positively. SPSID provided adolescents with a safe space where they could actively participate in developmentally-commensurate sporting activities and build constructive peer attachments. This alleviated the limited social interaction that characterises the lives of adolescents with ID (Ali, Hassiotis, Strydom, & King, 2012). The understanding in the scant, existing literature on resilience and ID that supportive student-teacher relationships are important (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Murray, 2003), is reflected in accounts of teachers supporting the adolescents with ID to achieve success using differentiated academic activities and warm relationships. The above aligns broadly with Ungar’s (2011, 2012) social ecological explanation of resilience which emphasises the contributions of a social ecology to resilience, and more specifically with recent literature emphasising how formal services (including educational services), as social ecological support, facilitate resilience processes (Liebenberg & Ungar, 2014; Sanders et al., 2014; Van Rensburg et al., 2013).

Implicit in the four themes that emerged is a sense of deep respect for the vulnerabilities and strengths of adolescents with ID (with meaningful responses in the form of SPSID-facilitated programs and opportunities), and of quality relationships. Literature that advocates for formal services (such as education) as a resilience pathway accentuates that resilience-promoting formal services depend on service providers (such as teachers) forming meaningful, quality relationships with, and respecting, youths (Sanders et al., 2014; Theron et al., 2014; Ungar, Liebenberg, Dudding, Armstrong, & Van de Vijver, 2013). This has important implications for teachers and school ecologies that include adolescents with ID, as outlined below.

Provide opportunities for developmentally appropriate activity and success

Participating in sporting activities at their SPSID allowed adolescents with ID to experience success among equals, and nurtured their self-esteem. Self-esteem is resilience-promoting (Gilmore et al., 2013). SPSID's purposeful facilitation of opportunities to interact actively and informally with equals, and to achieve, implies deep respect for learners' barriers and strengths, and need for success. The call, therefore, is for mainstream schools, and FSS, to be sensitive to the resilience-supporting potential of participation in developmentally-appropriate activities with peers who have similar developmental levels, and of accomplishment, and to actively facilitate such opportunities.

Ensure that schools are safe spaces to form constructive peer relationships

Because societal discrimination is a reality and leads to great tension and sadness for adolescents with ID (Ali et al., 2012), the safe environment of the SPSID that facilitates constructive peer relationships is very important. These constructive, unconditional peer relationships contribute to self-worth and self-regulation, both of which support resilience (Gilmore et al., 2013). Teachers and management staff of mainstream/FSS schools are in an ideal position to sensitively handle stigma concerning adolescents with ID. It is imperative that they address prejudice, and actively encourage healthy relationships between adolescents with and without ID.

How this is done (e.g., adopting a 'buddy' system) will differ across school contexts and is not as important as ensuring that adolescents with ID (like other adolescents) continue to perceive school as a place where peers can be trusted.

Endorse differentiated academic activities and learning support

Teachers need to form constructive relationships and act as learning mediators and designers of special learning programs (DoE, 2000) to make a positive difference in the lives of adolescents with ID. This will probably require additional training or support (Engelbrecht, 2006), but is crucial so that adolescents with ID can develop to the best of their ability. In the absence of such differentiation, and possibly even school-to-work support programs, mainstream schools and FSS will struggle to champion resilience among adolescents with ID. Some teachers might experience this as burdensome, but the resilience literature is clear that teachers often need to go the extra mile to facilitate resilience (Theron & Theron, 2014).

Expect teachers to be approachable life coaches

Teachers have the potential to limit/alleviate children's vulnerability (Ebersöhn & Ferreira, 2011; Malindi & Machenjedze, 2012). The adolescents with ID were grateful that they could trust teachers to alleviate some of their vulnerability and support them in developing life skills – a resilience-promoting resource (Theron & Theron, 2014). Teachers, thus, have an enormous responsibility to provide a supportive, empowering environment in their pastoral task of empowering adolescents (also those with ID) to develop optimally as members of their socio-cultural community (DoE, 2000). This responsibility could even be heightened in the case of adolescents with ID, given how often adolescents with ID are members of dysfunctional families, or born to parents who are similarly disabled (Taggart, Taylor & McCrum-Gardner, 2010). In particular, teachers need to remember that the relational quality of these interactions is pivotal to adolescents with ID's resilience processes.

Conclusion

A limitation of this study was that I only worked with informants from SPSID. It is plausible that adolescents with ID included in mainstream/FSS could have provided different insights into how school ecologies mattered for resilience. A further limitation was that there were no accounts of school ecologies constraining resilience (possibly because of how the drawing prompt was phrased); such negative cases would have provided rich insight, too. Nevertheless, it was heartening that the 24 study participants considered their school ecologies constructive spaces.

Inclusion is a reality in SA (DBE, 2013). With this article, I wanted to sensitize teachers in mainstream/FSS as well as teachers in SPSID (given that adolescents with ID are still mainly accommodated there) to their potential, and duty, to champion the resilience of vulnerable learners, including those with ID. The number of adolescents with ID admitted to mainstream/FSS will increase during the next few years according to planning (DBE, 2010). To enhance the success of such inclusion, teachers and school ecologies would do well to heed the voices of adolescents with ID, including those made audible in this article.

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CHAPTER 3:

CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

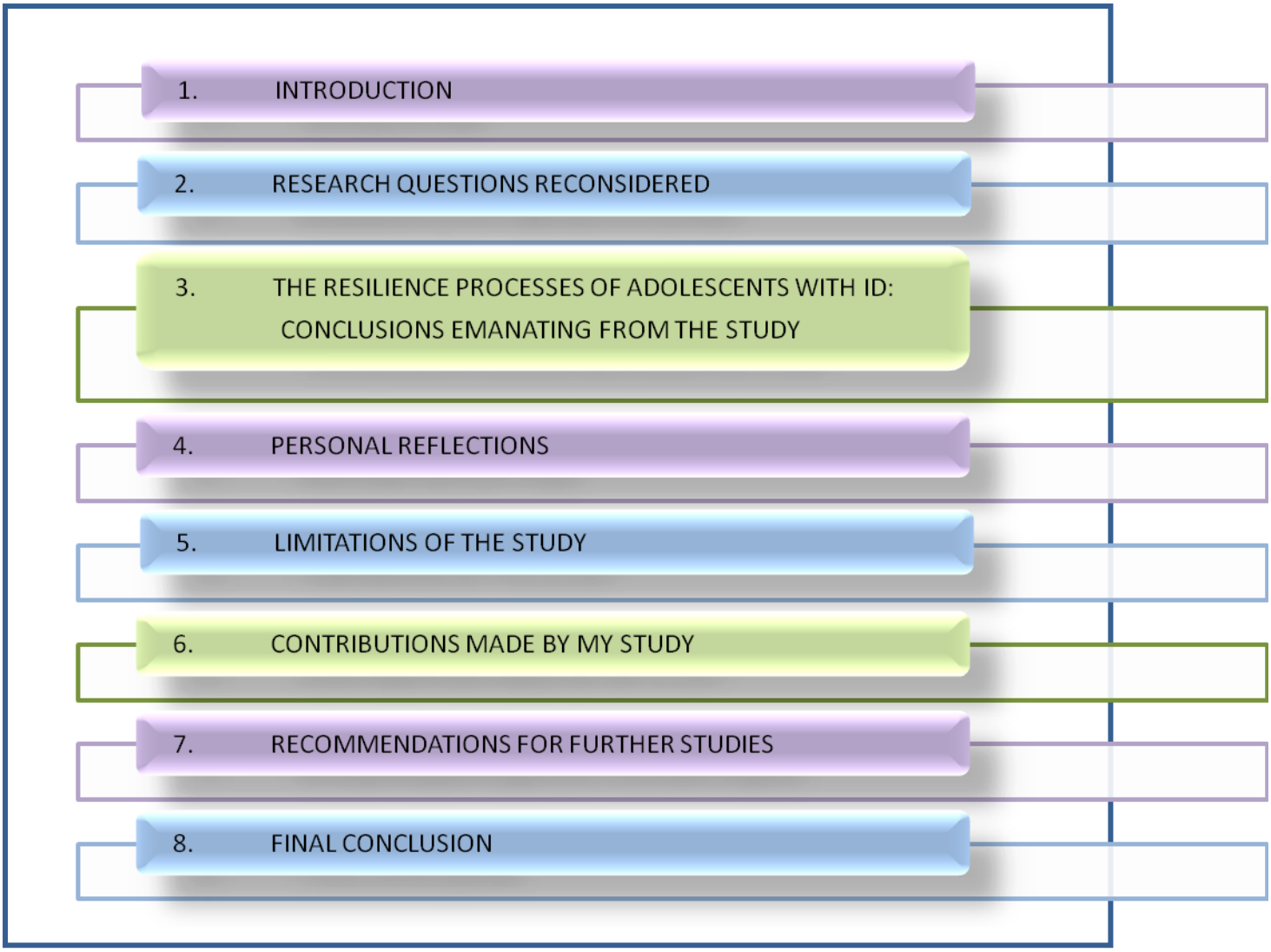


Figure 16: Overview of Chapter 3

1. INTRODUCTION

The purpose of this qualitative multiple case study, conducted from a social constructive paradigm, was to investigate the protective processes that contributed to the resilience of adolescents with ID. Typically, we think of adolescents with ID as disadvantaged, vulnerable, and struggling, and this contributes to their often being bounded by society in their ability to taste success. In spite of the risks that could potentially sink them, the current study focused on the systemically supported resilience processes that protected these adolescents and supported them to do well in life. This focus challenges stereotypes of adolescents with ID as predominantly vulnerable beings.

In this chapter, I will, thus, look at my research questions and retrospectively determine to what extent I have achieved the purpose of this study. After that, I summarise the conclusions of my study with regard to resilience processes in adolescents with ID. My personal reflection on this study is followed by the limitations that I believe this study has involved, after which I conclude with possible contributions that this study has made regarding what contributed to adolescents with ID's resilience and the way in which this information may contribute to improvement of services in South African schools.

2. RESEARCH QUESTIONS RECONSIDERED

This study was directed by one primary and five secondary research questions. See figure 17 for a schematic representation of these research questions and the steps that were taken during this research to answer these secondary research questions. All questions were framed by the Social Ecology of Resilience theory (Ungar, 2011), and for this reason, the questions did not enquire specifically or only about how adolescents with ID contributed to their resilience processes. As explained at the outset of this dissertation and in Manuscripts 1 and 2, a social-ecological understanding of resilience calls attention to how social ecologies and adolescents collaborate towards positive youth outcomes.

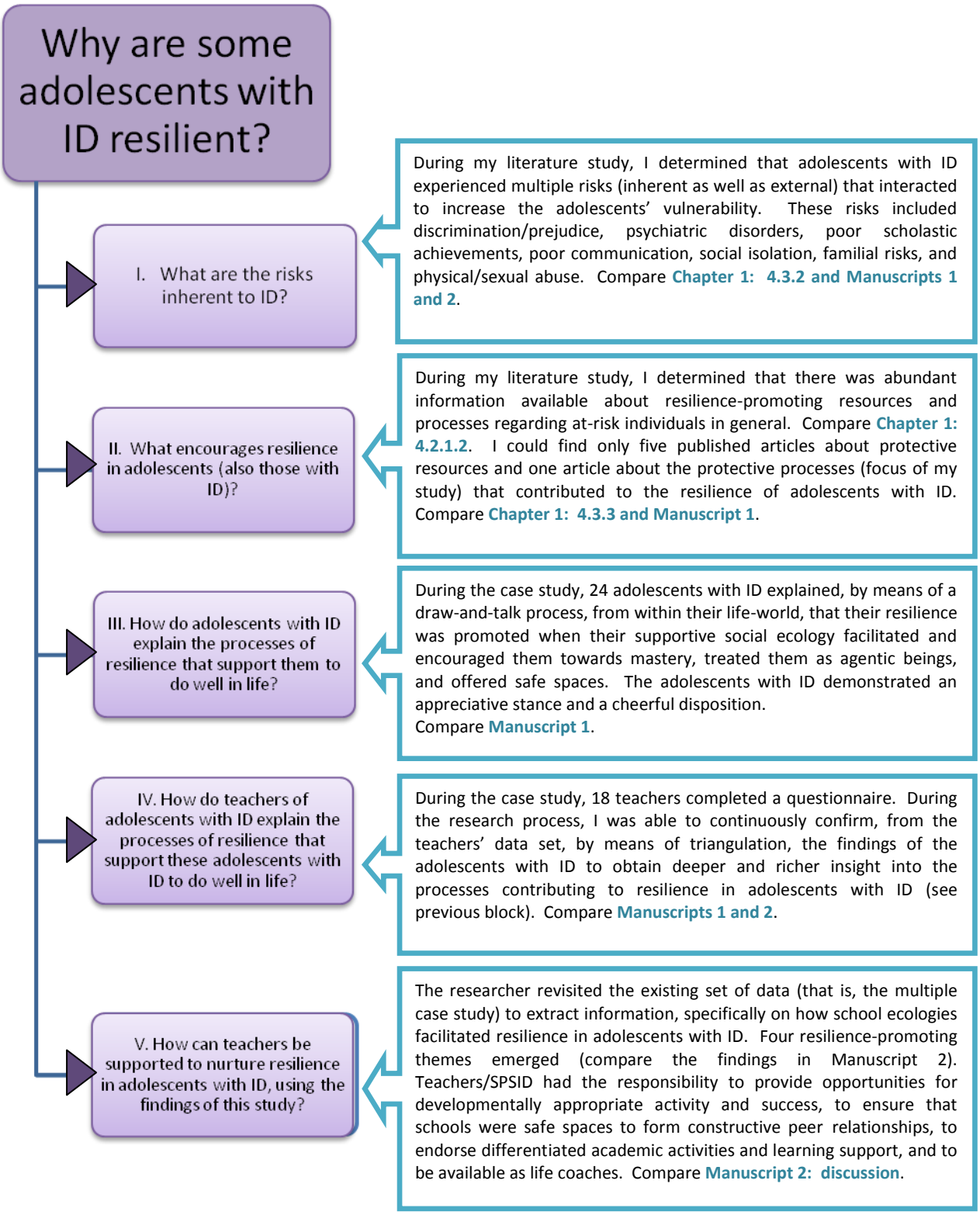


Figure 17: Schematic representation of the research processes that led to the answering of the secondary research questions

As all my sub-questions were answered (see Figure 17), my primary question was answered. From the sub-questions, it emerged that, despite multiple personal (age, gender, race, and social class) and environmental (physical, social, and attitudinal) risks, some adolescents with ID were resilient because their supportive social ecologies facilitated regulatory support, encouraged adolescents with ID towards mastery, treated them as agentic beings, and offered safe spaces for adolescents with ID. Possibly because the social ecology provided support to the adolescents with ID, the adolescents with ID responded reciprocally with a positive orientation of their life-worlds by demonstrating an appreciative stance and a cheerful disposition (compare Manuscript 1: findings and discussion). SPSID and teachers could, in turn, contributed to the resilience in adolescents with ID when they provided opportunities for developmentally appropriate activity and success, ensured that schools were safe spaces to form constructive peer relationships, endorsed differentiated academic activities and learning support, and were available as approachable life coaches.

3. THE RESILIENCE PROCESSES IN ADOLESCENTS WITH ID: CONCLUSIONS EMANATING FROM THE STUDY

My study yielded the following conclusions:

Conclusion from my literature study

During my literature study, I determined that, over and above the challenges that ID involved daily, adolescents with ID, just like their non-disabled peers, also experienced multiple personal and external risks. They did, however, experience some of these risks to a greater extent as a result of limited cognitive abilities. Compare Chapter 1: 4.3.2; Manuscript 1: see the review of the literature; and Manuscript 2: Introduction. Notwithstanding their vulnerability, there were, however, adolescents with ID who still displayed resilience. However, the current published literature provided limited insight into the protective factors and resilience processes of such adolescents with ID. These included the process of inner motivation and will power to achieve success and resources such as optimism, an intrinsic

locus of control, and self-efficacy. These intrinsic resources motivated the adolescents with ID to set and realise new challenges. The positive temperament of the adolescents with ID helped to improve their social acceptability and caused caregivers and families to exhibit a more positive attitude towards them. They also exercised a choice to, for example, actively keep busy with meaningful pastimes such as singing and dancing, which improved the health and well-being of the adolescents with ID. These factors, thus, promoted resilience in the adolescents with ID (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Murray, 2003). The extrinsic factors that contributed to the resilience of the adolescents with ID were when they experienced unconditional acceptance and were supported to mastery. The resources were familial (supportive relationships, structured homes, and authority), school (academic success – mastery and security that the adolescents experienced when parents and teachers had a good relationship), and community (good social relationships that improved social skills and social acceptance by, for example, taking part in sports, church, and other organisations, role models, and job opportunities – for example, school-to-work programmes) (Fourie & Theron, 2012; Gilmore et al., 2013; Hsieh & Donahue, 2010; Migerode et al., 2012; Murray, 2003; Ungar, 2004). In Manuscript 1 (see findings and discussion) and Manuscript 2 (see findings and discussion), I confirmed and extended this literature.

Conclusion from my empirical work

Before I did this study, there were six studies that described the resilience-promoting resources/processes in adolescents with ID. These six studies were, however, either quantitative studies or did not provide rich insight into the protective resources of resilience in adolescents with ID because the studies were not focused on adolescents with ID (they included individuals with various disabilities/challenges). As a result of the current qualitative study, I determined the following detailed processes, as summarised in Figure 18 from the supportive social ecology and the individual himself/herself from the life-world of the adolescent with ID. Compare Manuscript 1 (see findings and discussion).

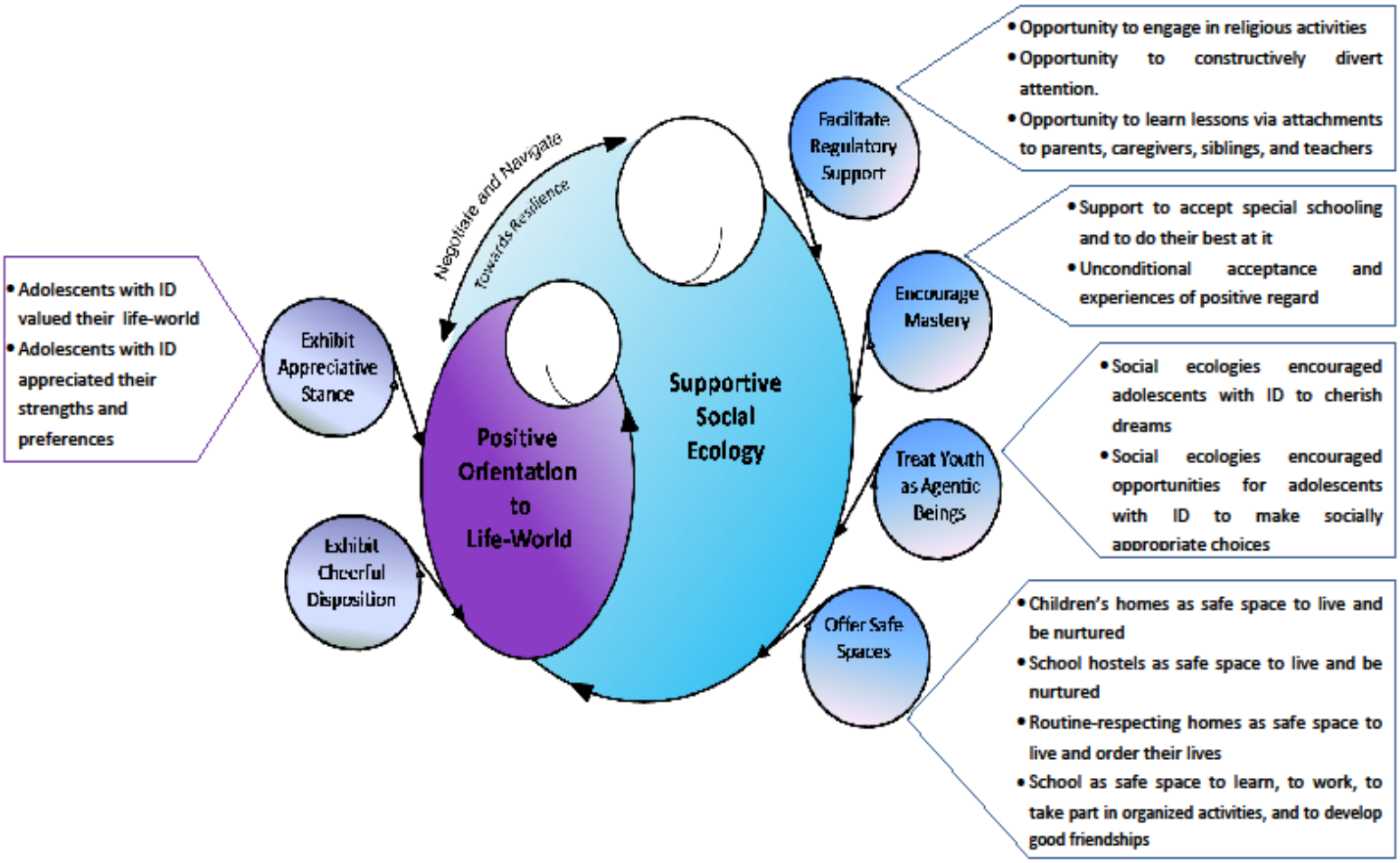


Figure 18: Summary of the resilience processes in adolescents with ID

The adolescents with ID indicated that when they were confronted with daily risks (as indicated in the literature study), they were supported/strengthened by their supportive social ecology and their positive orientation towards their life-worlds, which, thus, enabled them to rise above their circumstances (to do well and sometimes even better than expected). Compare Chapter 3, Paragraph 2 (see conclusion), and Manuscript 1 (findings and discussion) for the detail of these resilience-promoting processes. What is, however, of importance to emphasise is that none of these processes (as summarised in Figure 18 took place in isolation, but that there was always an interactive process of navigating and negotiating, between the adolescent with ID and his/her social ecology. In other words, the empirical conclusions illustrate reciprocal social-ecological transactions (Ungar, 2008). In this case, interesting questions arises:

When the supportive social ecology acted to facilitate regulatory support, encourage adolescents with ID towards mastery, treat them as agentic beings, and offer safe spaces, was it the cause of the adolescents with ID engaging in a reciprocal process (navigating towards these resources) and demonstrating an appreciative stance and a cheerful disposition (that is, a positive orientation to their life-worlds)?

or

Was it perhaps precisely as a result of the particular positive orientation to their life-worlds that was noticeable in these resilient adolescents with ID that the social ecology, indeed, actively offered supportive processes that could buffer these adolescents' suffering?

or

Was it a combination of the above?

I believe that, with further research, these questions and also many others about the adolescents with ID can be answered.

Conclusions specific to school ecologies

I used the existing data set to determine to what extent, specifically, the SPSID and their teachers contributed to the resilience of adolescents with ID. This focused re-analysis of my data set showed that teachers and schools supported resilience when they:

- provided space to be actively engaged in developmentally appropriate sporting activities;
- offered differentiated academic activities and learning support;
- facilitated space for constructive peer attachments; and
- offered safe relational space where adolescents with ID could confide and learn about life.

Figure 19 is a summary of the protective processes that teachers and schools need to be aware of, and apply, in order to facilitate the resilience processes of school-attending adolescents with ID. Compare Manuscript 2: findings and discussion.

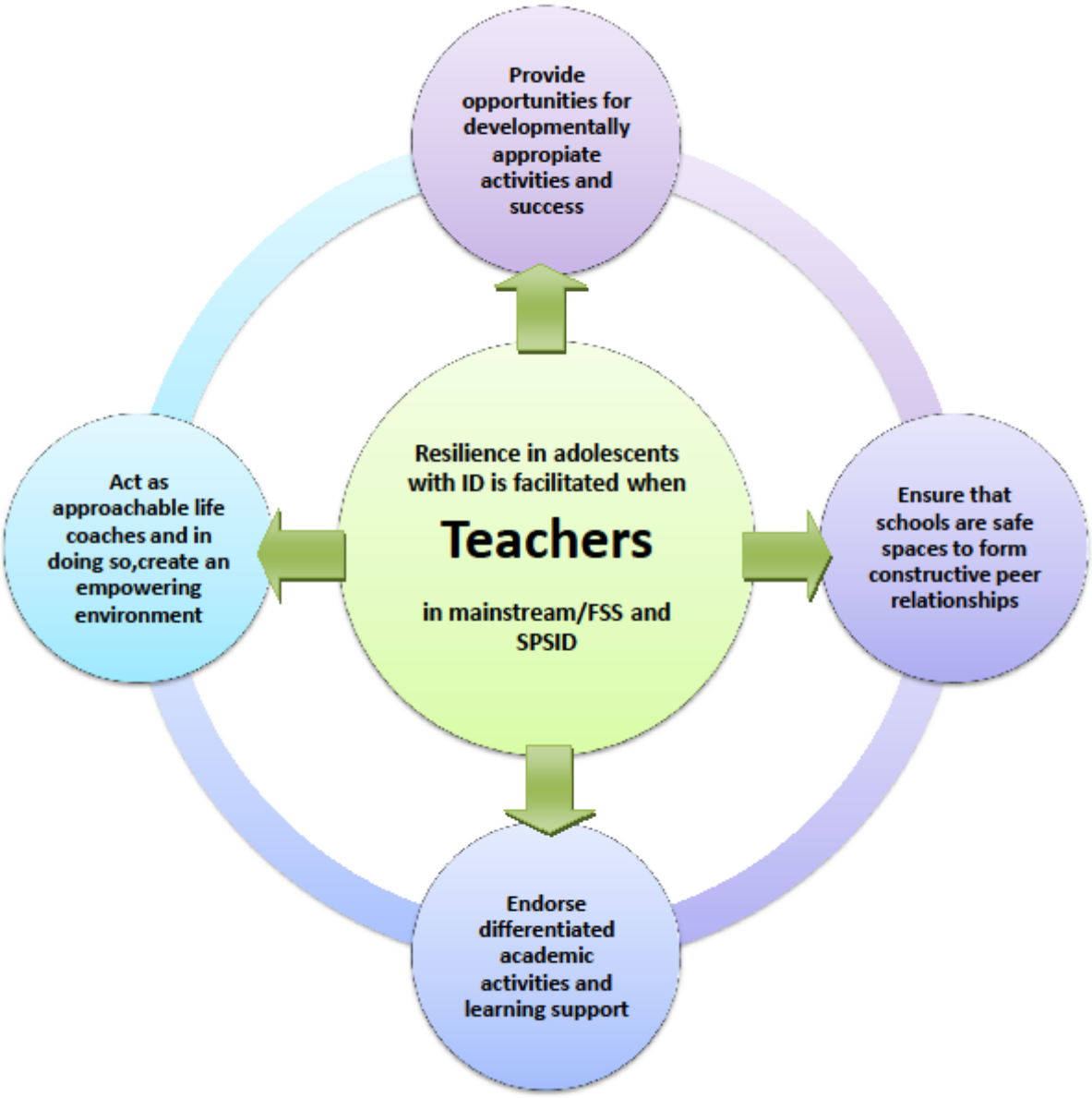


Figure 19: Resilience promoting processes facilitated by the teachers as identified by the adolescents with ID

4. PERSONAL REFLECTIONS

After 25 years in a teaching career, of which 18 years involved adolescents with ID in an SPSID, my deciding to find out more about why some of these learners coped better than others was a sign of caring a lot about these learners, and of great curiosity. My involvement and daily experiences with adolescents with ID ensured that I expected some findings and that I was surprised by a few others. In the next part, I will reflect on these aspects.

4.1 My experience had taught me that these adolescents with ID experienced many frustrations, which sometimes led to outbursts of anger and aggression. I was, thus, able to predict that specific risks such as discrimination and prejudice, familial risks (poverty and parents who had themselves been formally diagnosed with ID), etc. would have a particularly great influence on the adolescent with ID's well-being; these risks were confirmed during my literature review.

4.2 When I happened to struggle with a learner who was aggressive or frustrated and when I was on the brink of dejection, my colleague would often remark: "But that is precisely why he/she is here (SPSID) and why you are here, Teacher." I realised how true her remark was, after my literature study across international borders, when I learnt that the personal and environmental risks that these adolescents with ID had to face daily were universally enormous, although the occurrence and intensity of these risks were culturally and context-specific. These adversities (worldwide) led to adolescents with ID being frustrated, and their expression of this was through outbursts of anger – and that was why we as special teaching staff were there to give them the support and tools to facilitate their resilience and, hopefully, reduce the frustrations.

4.3 Reflecting on this, I then, however, realised that teachers worldwide had to deal with the behavioural problems, frustrations, aggression, and outbursts of anger of the adolescents with ID, which, thus, meant that the call for more research on adolescents with ID and how we could support them to handle the adversities around them more easily made so much more sense. Why has research about these learners been so limited up to now, particularly in South Africa?

4.4 The next question that I often asked myself was why so little research had been done where the adolescents with ID themselves, from their life-world/reality, could make their voices heard. I realised that the vulnerability of these learners certainly had an influence on this choice and, possibly, also society's prejudices. We assume, given their cognitive limitations, that these youths (like others who are challenged) cannot support our understanding of their life-worlds. I must admit, in all honesty, that originally I myself had doubts about whether these adolescents with ID would even understand the concept of resilience and would comprehend what I expected them to draw. After very simple explanations (like replacing resilience with being strong/ doing well in life) and answering of the questions that they might possibly have, the learners surprised me, not just with the enthusiasm with which they all started drawing, but also with what they were drawing (which showed that, although perhaps limited, they understood what the research was about). These adolescents with ID were, thus, against (all?) expectations, capable of being "knowledge producers" (Porter, Townsend, & Hampshire, 2012).

4.5 A further surprise for me was the excitement and enthusiasm of the adolescents with ID at having their voices heard. The first 13 learners were from the school where I was personally involved. Because their understanding of time was limited, they repeatedly stopped me in the corridor to make sure exactly what day their appointment with me was, and they were very excited that specifically they had been chosen to be part of the project. The excitement, also of the learners of the other schools in Gauteng, was also clearly visible in their enthusiasm to share the information with their parents (during my first information session at each school) and their excitement (about a month later) at seeing me again when I returned for the research session. During my second visit to his SPSID, Pitbull said to me: "I thought ma'am is no longer going to come. I am so happy today." At that moment, I realised how important these sessions really were to them and how special it was for them that they had been selected as being resilient (adolescents with ID). From this, I learnt that these adolescents with ID also had the right to make their voices heard. (I also learnt that follow-up studies should provide adolescents with ID with a concrete reminder, e.g., a marked calendar of when the researcher would return.)

4.6 I expected to possibly get negative/sluggish feedback from the teachers as secondary informants because their workload was already great, and they now still had to fill in an extra questionnaire about the learner(s) in their class who was/were participating. I received all the forms quickly, however, and was pleasantly astounded by the teachers' positive attitude during my follow-up telephone calls. In retrospect, I wonder whether my choice of data collection was perhaps eventually the right choice after all, namely, a short questionnaire that was quick to complete and, thus, respected the teachers' heavy workload and limited available time (Jackson et al., 2006).

4.7 Because I, as SPSID teacher, knew how closely we were involved in the education task of the learners in our class (six hours of every day), I expected quite a few of the adolescents with ID to draw their teachers as the primary resource towards their resilience. Great was my surprise (and disillusionment?) when only one learner drew his teacher. Later, I realised that academic matters (and, thus, teachers) often had a negative connotation for the adolescents with ID due to their previous bad experiences of academic failure and that that might possibly have been a reason. In this way it made sense that there was also little data where the teacher was linked to academic matters and how this was resilience-promoting, but the supporting relationship between the adolescent with ID and his/her teacher in mastering life skills was often mentioned. Through this, I realised what an important task teachers performed in their role as counsellor.

4.8 I was surprised at the dreams for the future that were important to a few adolescents with ID. In this sense I was guilty of stereotypical assumptions. This also made me realise how our communities still fell short in making provision in the work environment for accommodating individuals with ID, so that they could know that there would be job opportunities available to them once they had completed their schooling and in this way nurture dreams for the future.

4.9 Throughout the years, I had dealt with numerous adolescents and their sadness about the social isolation that they experienced outside school. I, thus, predicted that this risk would also feature in the research. This fact was, indeed, confirmed in the findings (supportive social ecologies offered safe spaces for adolescents with ID to develop good friendships – Manuscript 1 findings).

4.10 I regret that I did not have the opportunity to be able to have a further follow-up visit and interview with the adolescents with ID (who were not at my school), their teachers, and also their parents. Because I myself am a teacher and have a class with learners, it was difficult to desert my own class of learners to get to the other learners in Gauteng. I realised that this study and field of study were my own choice and that I made my choices knowing that I could not be away from my own class, but I also realised that further conversations and more resources would have given richer and more in-depth data (see limitations).

4.11 The joy involved in this study was definitely experiencing the excitement of the adolescents with ID to be able to participate – the pride that radiated from them when they handed me their drawings and could talk about them and the appreciative stance that they constantly exhibited towards the social ecology that supported them.

4.12 A further delight that I experienced during this study was to think that the possibility perhaps existed that this information could empower teachers and other stakeholders to help the adolescents with ID to improve their health and well-being.

4.13 From this study, I learnt that the adolescents with ID were not capable of overcoming the adversities in their lives on their own. They made it clear that they expected their social ecology to put certain things in place for them to support them towards resilience, and in this process, they relied on their family, friends, and teachers to support them.

4.14 During peer debriefing, I formally discussed the findings of Manuscript 1 with my school colleagues. They were very positive about the study, and I realised that it was important that there had to be more of these applications of findings for professional people who worked with adolescents with ID daily. This knowledge triggered the development of the second article in this study, namely, how we could empower teachers to act in a resilience-promotive way.

4.15 My biggest worry, when I thought about my study's findings, was the realisation that adolescents with ID could be included in mainstream schools (FSSs). Were these

schools ready, among others, to provide safe spaces for these adolescents with ID to form good friendships and to be able to experience success in the world of sport by, for example, establishing opportunities to compete against other learners with similar barriers to learning? Would these adolescents with ID be empowered towards resilience, or would they just disappear among the masses? My call, then, is simply that we hear their voices and listen to them.

5. LIMITATIONS OF THE STUDY

The findings of my study must be read against a number of limitations. I list these below, and then, in the section on recommendations, I suggest follow-up studies that could address these limitations.

5.1 This study was limited to one province in South Africa (Gauteng) and urban/peri-urban schools. No SPSID in the rural areas were approached, mostly because of logistical obstacles (such as my not being able to make lengthy trips that would have meant absence from my own class). As researcher, I was aware that the context in the rural areas might differ from urban/semi-urban areas and that the protective resources and processes might differ. There were, in fact, many learners from the rural areas who attended these SPSID daily who participated in the research, but this was not the same as getting the insights of adolescents with ID who attended rural schools. Phasha and Myaka's (2014) study of sexual abuse of children with ID living in a rural area highlights the importance of context.

5.2 All the informants came from SPSID. It was, thus, a biased sample (Creswell, 2012). This, therefore, meant that when these adolescents with ID remarked that their resilience was promoted by their school environment or teachers, it meant that this was in the context of their SPSID.

5.3 The informants were, furthermore, also a biased sample because all the informants were school-going. With approximately 8% of seven- to 15-year-old and 33% of 16- to 18-year-old (DBE, 2013) disabled individuals (including ID) currently being outside the South African school system and, thus, not receiving any training, the

resilience-promoting resources and processes among these non-school-going individuals would probably look very different.

5.4 To respect teachers' time constraints, I simply asked them to complete a brief questionnaire and supplemented this with short telephonic interviews. I could have had much richer data if I had used focus groups, for example.

5.5 What was good about my study was that it included two sets of voices: teachers and adolescents with ID. However, my exclusion of the voices of parents/caregivers was limiting.

5.6 This study was a snapshot in time. It allowed insight into how, at a given moment in time, these youths explained their resilience. This meant that there was no understanding of how this explanation would change over time (Masten, 2014).

6. CONTRIBUTIONS MADE BY MY STUDY

When I reflect on my study, I consider the following to be contributions:

6.1 As previously mentioned, there was a clear gap in South African resilience studies documenting what contributed to resilience in adolescents with ID. My study started to fill that gap. It offered understanding that adolescents with ID did well in life when their social ecologies were supportive in specific ways and when adolescents themselves used these supports constructively (compare Figure 18). These findings were also potentially practically important because they provided a number of stakeholders (for example, parents, teachers, service providers, and caregivers) with knowledge of what contributed to resilience of adolescents with ID. Application of this knowledge should support optimal development and functioning of adolescents with ID.

6.2 Published South African studies, using draw-and-talk, did not include application of the method with adolescents with ID. My study contributed methodological proof that draw-and-talk was a viable method for supporting adolescents with ID to be

knowledge producers (Porter, et al, 2012). As in other studies (Theron, 2012), the joy that the adolescents with ID experienced as a result of their participation added to the understanding that draw-and-talk was a positive, possibly even therapeutic, way of doing research.

6.3 This study was proof that the individuals with ID were capable of being knowledge producers (Porter et al., 2012). It meant that they could make their needs and insights heard in their own voices from within their own life-worlds. As researchers, we, thus, have the responsibility, precisely in the area of the adolescent with ID, where there is such a large gap in information, to make their voices heard clearly in such a way that social ecologies will listen to what they know and respect it.

6.4 The precise procedure of the inclusion process in South Africa is under speculation. Currently, it appears that the majority of adolescents with ID will still be accommodated in the SPSID (Nel, 2013). Some adolescents with ID have, however, been included in mainstream schools and FSSs (DBE, 2010). With the continuous call for better training to be able to support these learners with different barriers to learning and development, the findings of Manuscript 2 can be of great value. With these, we can empower teachers of the mainstream schools/FSSs and SPSID to be able to act as agents in the empowerment of the adolescent with ID's resilience.

7. RECOMMENDATIONS FOR FURTHER STUDIES

7.1 Similar research should be done right across South Africa in rural, urban, and peri-urban areas, so that we will be able to determine similarities, but also differences in protective resources/processes and the influence of different contexts and cultures. This information will be of great importance in the planning of the course of the inclusion programme.

7.2 If other studies were to follow the same research process among adolescents with ID in a mainstream school/FSS, there will possibly be other resources in their school that they may mention as resilience-promoting. This information may be of great help to teachers in FSSs.

7.3 Research is necessary to determine why some adolescents with ID leave school early and how the resilience factors of adolescents with ID outside the school system differ from those within the school system.

7.4 During follow-up studies, teachers can be involved in the studies to a greater degree to provide more and richer data. During my study, the teachers were secondary informants. Given the fact that so many of these teachers have experience of many years with adolescents with ID (see Chapter 1:Table 10), it would be interesting to do a phenomenological study regarding what the teachers' understanding is why these adolescents with ID are resilient and to then compare these reasons with the findings of this study.

7.5 Although there were valid reasons for not having included parental voices in my study (that is, that many of the parents themselves displayed a low literacy level and that 11 of the primary informants were in children's homes or foster care), subsequent studies need to find ways of including parents. This would mean that more sets of sources of data would be available during the case study that would provide richer data and deeper meaning to the findings of the study.

7.6 Prospective and/or longitudinal studies need to be designed to facilitate researchers following adolescents with ID over a number of years to see how their accounts of resilience change/remain the same.

8. FINAL CONCLUSION

When I page through the drawings that the adolescents with ID made during the research, it is noticeable that all of the figures are smiling, and many of the drawings are filled with flowers, hearts, and birds (compare Figure 20). These adolescents with ID who, notwithstanding ID, also have to overcome many other adversities daily, are willing to push the suffering into the background and to come out and say: "I cope better than you expect because (compare Figure 18) ..."

Figure 20: Skim's drawing of himself – because he felt cheerful

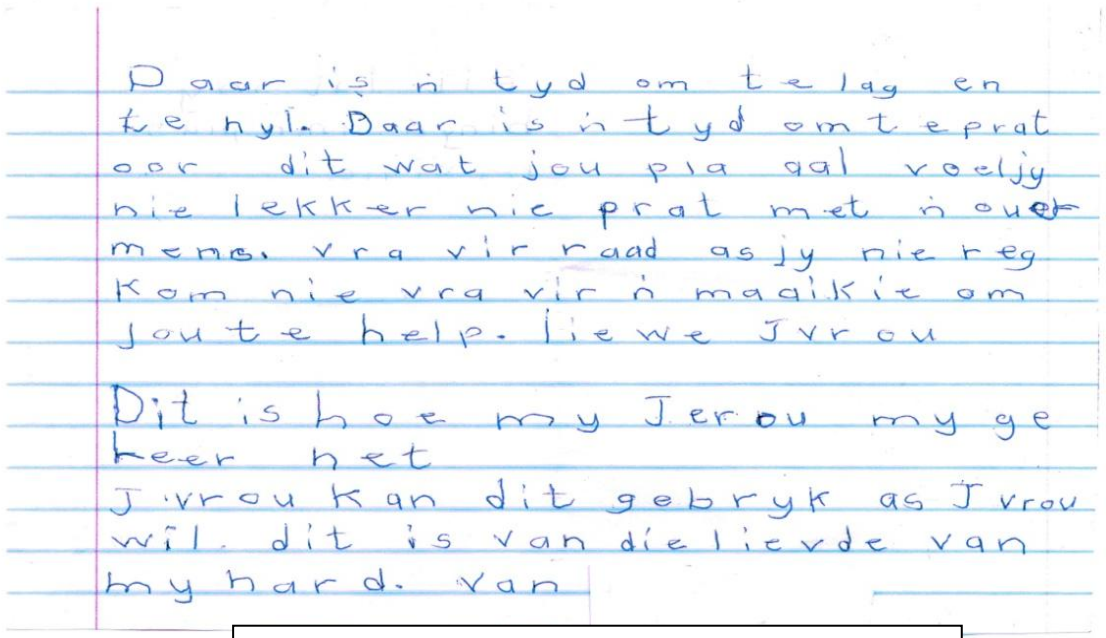
In this way, during this research, they opened their life-worlds to us and asked that we would hear their voices and listen. Nelson Mandela said that education was a powerful weapon to use (compare Figure 5).

At the end of this research, the question is, ultimately, not what can (South African) teachers (and other stakeholders) learn from South African adolescents with ID's accounts of what supported them to be resilient, but what **should** they learn, and how **should** they use this learning to nurture resilience in adolescents with ID? Only by following the adolescents with ID's advice can we keep the smiles on these youths' faces – or to use Valentino's words (see Figure 21 and 22 below): – "It is from the love of my [our] heart"

There is a time to laugh and to cry. There is a time to talk about what is bothering you. When you feel unhappy, talk to an older person. Ask for advice if you can't manage. Ask a friend to help you. Dear teacher, this is what my teacher taught me. Miss, you can use it if you want to. It is from the love of my heart. From: Valentino.

Figure 21: Translated letter by Valentino

A day after my draw-and-talk session with Valentino, he slipped this letter (see Figure 21 for translated letter by Valentino) under my classroom door.


Daar is 'n tyd om te lag en te huil. Daar is 'n tyd om te praat oor dit wat jou pla aal voel jy nie lekker nie praat met 'n ouer mens. vra vir raad as jy nie reg kom nie vra vir 'n maatjie om jou te help. liewe Juffrou

Dit is hoe my Juffrou my geleer het
Juffrou kan dit gebruik as Juffrou wil. dit is van die liefde van my hart. van

Figure 22: Original letter by 17 year old Valentino

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ADDENDUM A

Letter of Approval: Gauteng Department of Education

education
Department: Education
GAUTENG PROVINCE

Enquiries: Nomvula Ubisi (011)3550488

Date:	02 May 2012
Name of Researcher:	Hall Anna-Marié
Address of Researcher:	Van Eedenlaan 4
	Risiville
	Vereeniging 1929
Telephone Number:	0164548336/0824948305
Fax Number:	0865435423
Research Topic:	An Exploration of the Roots of Resilience among Young Adolescents with Severe Intellectual Disabilities
Number and type of schools:	5 LSEN Schools
District/s/HO	Johannesburg South, West, Gauteng East and Tshwane South

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

Permission has been granted to proceed with the above study subject to the conditions listed below being met, and may be withdrawn should any of these conditions be flouted:

1. ***The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.***
2. ***The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.***
3. ***A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.***

Office of the Chief Director: Information and Knowledge Management
Room 501, 111 Commissioner Street, Johannesburg, 2000 P.O.Box 7710, Johannesburg, 2000
Tel: (011) 355-0809 Fax: (011) 355-0734

4. ***A letter / document that outlines the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.***
5. ***The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.***
6. ***Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.***
7. ***Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year.***
8. ***Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.***
9. ***It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.***
10. ***The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.***
11. ***The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.***
12. ***On completion of the study the researcher must supply the Director: Knowledge Management & Research with one Hard Cover bound and one Ring bound copy of the final, approved research report. The researcher would also provide the said manager with an electronic copy of the research abstract/summary and/or annotation.***
13. ***The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.***
14. ***Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.***

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

Nomvula Ubisi
DEPUTY CHIEF EDUCATION SPECIALIST: RESEARCH

The contents of this letter has been read and understood by the researcher.	
Signature of Researcher:	
Date:	2012-05-12

ADDENDUM B

NWU Ethical clearance

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

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Ethics Committee
Tel +27 18 299 4850
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Email Ethics@nwu.ac.za

Prof Linda Theron

31 March 2009

ETHICS APPROVAL OF PROJECT

The North-West University Ethics Committee (NWU-EC) hereby approves your project as indicated below. This implies that the NWU-EC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project title:	Pathways to Resilience
Ethics number:	NWU-00006-09-A2
Approval date: 12 March 2009	**Expiry date:** 11 March 2014

Special conditions of the approval (if any): None

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- *The project leader (principle investigator) must report in the prescribed format to the NWU-EC:*
  - *annually (or as otherwise requested) on the progress of the project,*
  - *without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.*
- *The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the NWU-EC. Would there be deviated from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.*
- *The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-EC and new approval received before or on the expiry date.*
- *In the interest of ethical responsibility the NWU-EC retains the right to:*
  - *request access to any information or data at any time during the course or after completion of the project;*
  - *withdraw or postpone approval if:*
    - *any unethical principles or practices of the project are revealed or suspected,*
    - *it becomes apparent that any relevant information was withheld from the NWU-EC or that information has been false or misrepresented,*
    - *the required annual report and reporting of adverse events was not done timely and accurately,*
    - *new institutional rules, national legislation or international conventions deem it necessary.*

The Ethics Committee would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the Ethics Committee for any further enquiries or requests for assistance.

Yours sincerely

Prof MMJ Lowes
(chair NWU Ethics Committee)

Prof M. Monteith
(Chairman: NWU Ethics Committee: Teaching and Learning)

ADDENDUM C

Information letters to learners and parents

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

PO Box 1174, Vanderbijlpark
South Africa, 1900

STUDY ON THE EXPLORATION OF THE ROOTS OF RESILIENCE AMONG ADOLESCENTS WITH INTELLECTUAL DISABILITY (ID)
Consent form for adolescents: Qualitative study, drawings and explanations

Hello!
I am learning about people who have hard lives, but who do well in life anyway. Some of your teachers think that you do well in life, even though your life is hard. Part of what makes your life hard is how hard it is for you to learn. But, your teachers think this does not stop you from doing well in life. That's why I want to ask you to please help me understand why you do well in life. You can choose to say yes, or you can choose to say no. Nobody will be angry with you if you say yes or no. If you say yes and later you want to say no, that will be OK too.

What will I ask you to do if you say yes?
I will meet with you after school. I will meet you at your school. I will ask you to draw for me.
I will ask you to draw what YOU think has helped you to do well in life. I will not hurry you while you draw. Then, when you have finished your drawing, I will ask you to tell me about what you have drawn. I will ask you questions about your drawing so that I can learn what you know. While you explain, I will use a little recorder (a machine that copies what you say) to remember what you say.
To do this will take some time – about as long as two classes at school (45 – 60 minutes). When we are finished I will ask you if I can keep your drawing or if you want to keep it. If you want to keep it, I will ask you if I can take a photograph of it. I will give you a cold-drink and something small to eat to say thank you for spending so much time helping me to learn.
I will use your drawing (or the photo of your drawing) to teach other people about what makes young people like you do well in life, even when it is hard for these young people to learn. Maybe this will mean that other people see your drawing and know what you said about your drawing. I promise that I will not tell them your real name though. When we are together I will ask you to choose a play-play name that you like and I will use this play-play name when I tell other people about your drawing.

Will anything hurt me if I say yes?
I am going to ask you to draw and to talk to me about your drawing, so I don't think anything we do will hurt you or make you feel bad. But, if while we talk about your drawing

you do feel bad or sad, please tell me so I can help you talk to somebody who will try to make you feel better.

Who am I?

My name is Mrs. Annemie Hall. I teach children who find it hard to learn. I am also learning at a very big school, called a university. Its name is North-West University. At this university, I also have a teacher. Her name is Linda Theron. She will help me to write about what I learn from you. She will see your drawings and know what you said, but she will also not know your real name.

Who will know that I said yes and helped you learn?

Some of your teachers will know that you said yes because I will also ask your teachers to help me learn about why you do well in life. Some of the other kids at school might also know, because I will ask you to meet with me once as a group so I can make sure you want to say yes and that you understand what I will ask you to do.

If I learn that someone is doing bad things to you or that you are maybe going to do something bad, then I will need to find adults who can help you and keep you safe. This will mean that I must tell these adults that you said yes and helped me learn.

Questions, problems or concerns

If you or your parents/caregivers have any questions, please phone me. My number is 016 421 1064 / 0824948305. I am available Monday to Friday between 7:30 and 15:00.

Or you can phone my teacher, Linda Theron, during the day. Her number is 082 783 1728 / 016 910 3076.

Thank you!

Annemie Hall

The person who wants to learn about why some young people do well in life when their life is hard

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

PO Box 1174, Vanderbijlpark
South Africa, 1900

STUDY ON THE EXPLORATION OF THE ROOTS OF RESILIENCE AMONG YOUNG ADOLESCENTS WITH INTELLECTUAL DISABILITY (ID)

Consent form for parents: Qualitative study, drawings and explanations

I would like to invite your child to take part in the research study mentioned above. I hope to work with youth like your child in their school environment who were identified to show resilience. Resilience can be defined as the ability to cope well (and even better than expected) in spite of difficult circumstances. So, your child was identified as a young person who is doing well in life, despite difficulties like intellectual disability.
Your child's participation is voluntary and he/she can stop taking part in this study at any time. Although this study may not benefit your child directly, it will probably help us to better understand how to be of real help to other young adolescents who face difficulties.

Purpose of this study

As researcher I hope to better understand what resources and who contributes to young adolescents with ID, doing well in life.

Study design

I will meet with your child as participant individually after school at his/her school . As participant your child will be asked to generate hand drawings of what has helped him/her to do well in your child's life and then asked to talk about what he/she have drawn, in your child's mother tongue should he/she wish. If necessary a translator from the school will help to translate these explanations. For deeper understanding questions might be asked. This session will last between 45 to 60 minutes. I will use your child's drawing and what your child said about what helps him/her cope with life, even when life is hard, to explain resilience in adolescents with ID. I will not use your child's name or reveal his/her identity or specific details of where your child lives when I do this report.
Once I have finished the study I will discuss with your child what I have written and learned from this research.

Who will be conducting the research?

Mrs. Annemie Hall, currently a teacher at Eureka school (LSEN school) will conduct the research under the supervision of Prof. Linda Theron, her study leader, at NWU.

Possible risks and discomforts

Your child is welcome to indicate any discomfort during the process of drawing and talking, and is also welcome to answer only questions that he/she feels comfortable with. I do not, however, anticipate risks/discomforts.

Compensation/Reimbursement

Your child will be offered some refreshments after the drawing and talking activities as way of thanking your child. Should public transport be necessary it will be reimbursed.

Confidentiality and anonymity

Although your child's participation in the study may not be entirely anonymous, (i.e. I will be asking his/her teachers about their opinion of his/her resilience. His/her peers and other participants could know that he/she has participated). I will protect your child's privacy by not divulging any personal information like his/her name in any written or verbal conversation.

During the meeting your child's drawing and notes on the talk will be labeled with a unique number or pseudonym so that I can keep track of the information that belongs to your child, but no one else can identify your child.

The only situation that would make it necessary to reveal your child's identity is if your child tells me that he/she or any of your child siblings are in serious danger of being hurt – then I have a professional and legal obligation to share it with others to get help. If your child indicates that he/she is going to hurt him-/herself or someone else, I must legally tell someone who can help keep your child and others safe.

Questions, problems or concerns

If you or your child has any questions you are welcome to contact me:

Annemie Hall at Eureka School: 016 421 1064 / 0824948305. I am available Monday to Friday between 7:30 and 15:00. Or you can contact Prof Linda Theron between 08h00 and 17h00 at 082 783 1728 / 016 910 3076.

Thank you for your participation

Annemie Hall

Researcher

ADDENDUM D

Voluntary Informed consent form

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

VOLUNTARY Informed consent form

Study on the exploration of the roots of resilience among young adolescents with intellectual disability.

If you agree, please place an "X" in the 'yes' boxes to show that you understand and agree with each statement:

1. I understand the information about the study in the Information letter. Mrs Hall also explained this information to me. Any questions I had were answered.	**Yes, I understand** ☐
2. I realize that participation is my choice and that I can stop taking part in the study at any time. If I am uncomfortable answering any question or making a drawing , I may choose not to answer draw.	**Yes, I understand** ☐
3. Because I will be drawing and talking about my pictures only with Mrs Hall, other people will not know my name. Therefore, I understand that my full name will not be used, nor will specific details of where I live be shared, when information from this study is used by researchers.	**Yes, I understand** ☐
4. I understand that what I say may be quoted (repeated, using my words) in publications (like books), presentations (like speeches) and the final report (the research book). I understand that my drawings may be shown to other people or published in articles or books or other publications. If I become worried with anything I said / drew, I can ask for parts, or all, of what I said /drew not to be repeated / used.	**Yes, I understand** ☐
5. I understand that even if my parent or guardian says it is OK for me to take part in the study, it is my choice whether I want to talk and draw, or not. If I do not want to draw and talk about my drawing to Mrs Hall, or want to stop being part of the study at any time, this will be OK. My parent's or guardian's saying yes does not make me have to participate.	**Yes, I understand** ☐
6. I understand that if something troubles/worries me while participating, Mrs Hall will help me to find someone to talk to about not feeling OK	**Yes, I understand** ☐

I agree to take part in this study.

_____ _____

(Research Participant's Signature) *(Date)*

I agree to allow my child / ward to participate

_____ _____

(Parent or Guardian's Signature) *(Date)*

The study has been explained to the young person and this form signed voluntarily

_____ _____

(Researcher's Signature) (Date)

ADDENDUM E

Open ended questionnaire: Teachers of adolescents with ID

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

PO Box 1174, Vanderbijlpark
South Africa, 1900

Teacher's name: _____

Years of experience: _____

Current School: _____

Learner information:

Name +surname		**Current educational phase:**	
Race		**Home Language**	
Age		**Sex: Male/ Female**	
Living arrangement e.g. guardian		**Hostel Resident/ Day scholar**	

Please describe circumstances that put this adolescent at risk:

_____

_____

_____

_____

_____

_____

In your opinion what is helping this adolescent to do well in life?

_____

_____

_____

_____

_____

May I contact you again to clarify any of this information? _____

Contact no. _____

Annemie Hall
0824948305

ADDENDUM F

Data segments (transcribed informal conversations) and drawing.

Compare line numbers to list of **open codes** in audit trail (addendum G)

Interview: Chrissie

Researcher: Chrissie, tell me about your drawing. What makes you do well in life?

Chrissie: When I'm reading the Bible and looking at the flowers and the butterflies and myself. When I 'm sad then I just make myself happy when I smile then I start being happy again.

Researcher: You make yourself happy?

Chrissie: Yes.

Researcher: Explain to me how ?

Chrissie: When I'm sad I just going to the outside to sit by myself, and play games. When I smile I just make myself happy.

Researcher: So that helps you to do well in life?

Chrissie: Yes.

Researcher: Good. You've said you draw the Bible. What did you think about helping to make you do well in life when you draw the Bible?

Chrissie: I have the paper when we come together that say the readings which Bible, which chapter we must read, then I just read it to them. It makes me happy again when I'm sad.

Researcher: So you read the Bible when you're sad?

Chrissie: Yes.

Researcher: How does that help you?

Chrissie: I find a nice chapter that tells God wants us always be happy and to help other people. Ye, that's right.

Researcher: Ok. And you've said you draw a flower. When you draw the flower, what did you think about that help you to do well in life?

Chrissie: I just smells the flower and then it smells nice. Then I just think about God's creation, how He makes it smell so nice.

Researcher: And the butterfly that you draw? How will you say that help you to do well in life?

Chrissie: When you just look up, then you see them fly- because they're happy. And it makes me

happy to see that they're happy.

Researcher: You like it to be happy.

Chrissie: Yes Ma'm.

Researcher: Chrissie, you've said that in yourself you find that you can do well, and that God helps you to do well. Is there somebody in your family that help you to do well in life?

Chrissie: My mother, but I don't live with her.

Researcher: Why do you feel that she helps you to do well in life?

Chrissie: She phones me and then she makes me stronger for she encourage me to keep on going to school.

Researcher: Wonderful. And is there somebody else in your family?

Chrissie: My brother also.

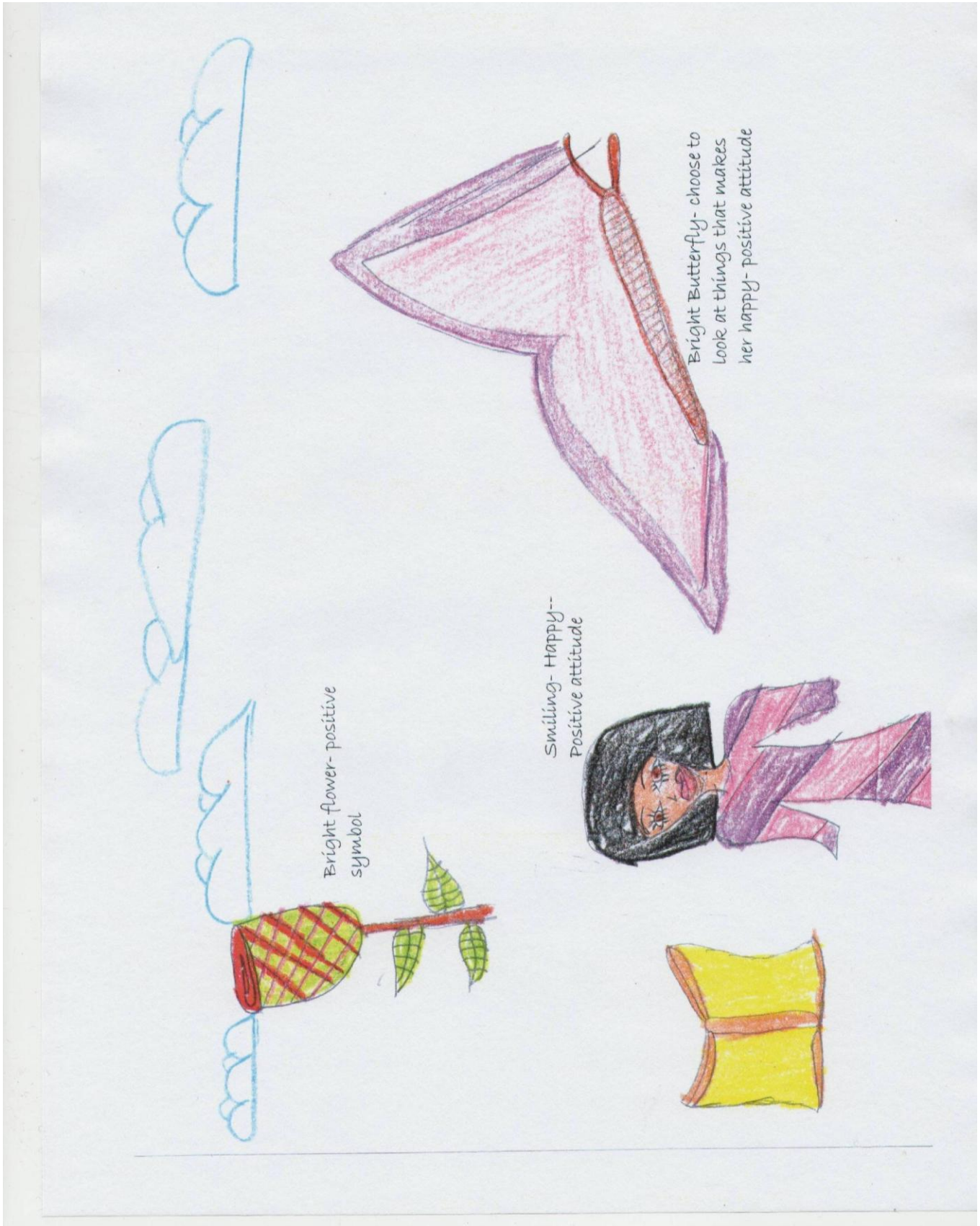
Researcher: Why do you think he help you to do well in life?

Chrissie: Because he lives where I live and then al the times he comes he ask me how was school and then he makes me happy. He say I must keep on going to school.

.....

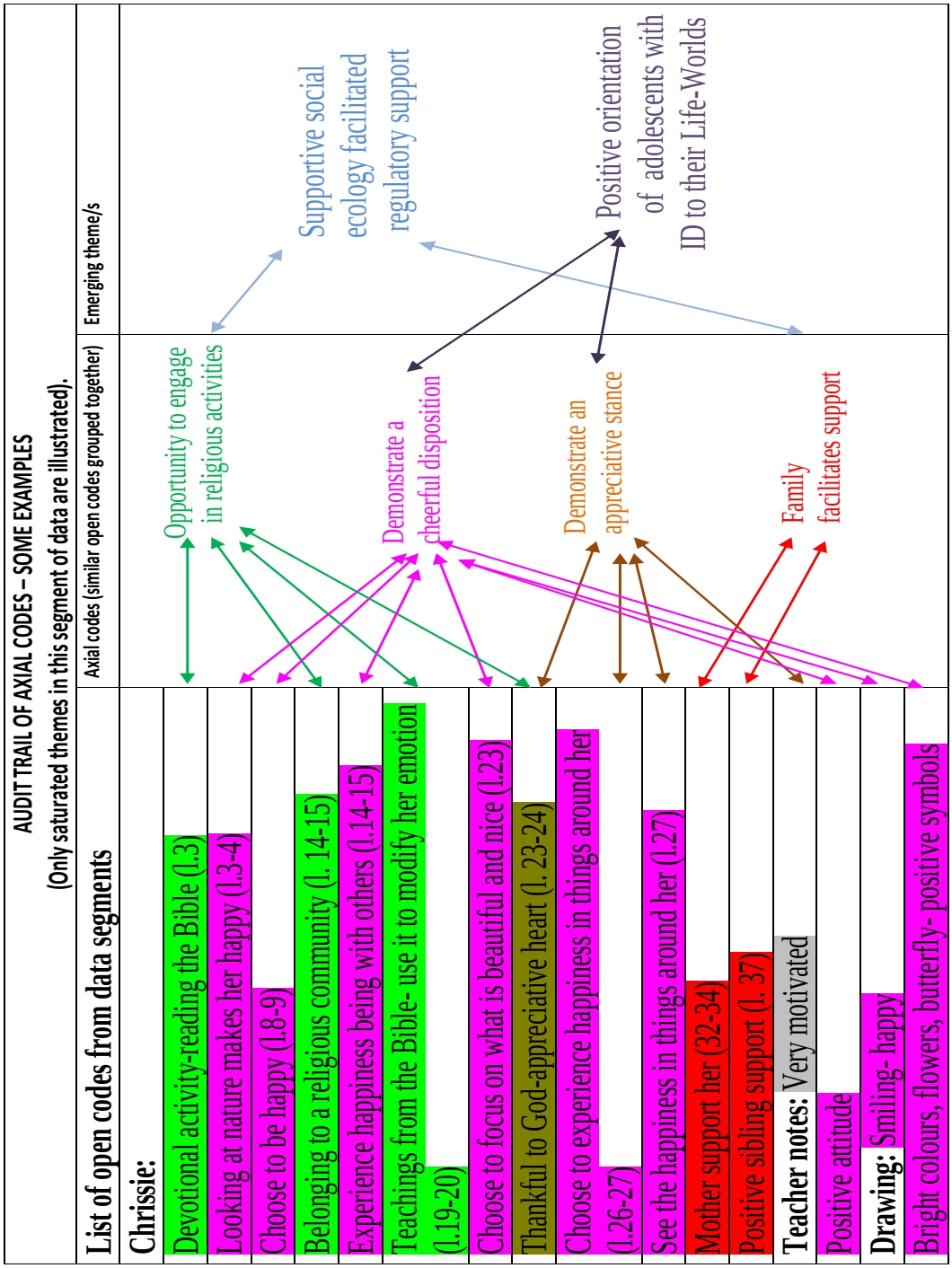
Rest of transcript can be obtained from researcher.

Crissie's drawing: coded



ADDENDUM G

Audit trail and inclusion / exclusion criteria

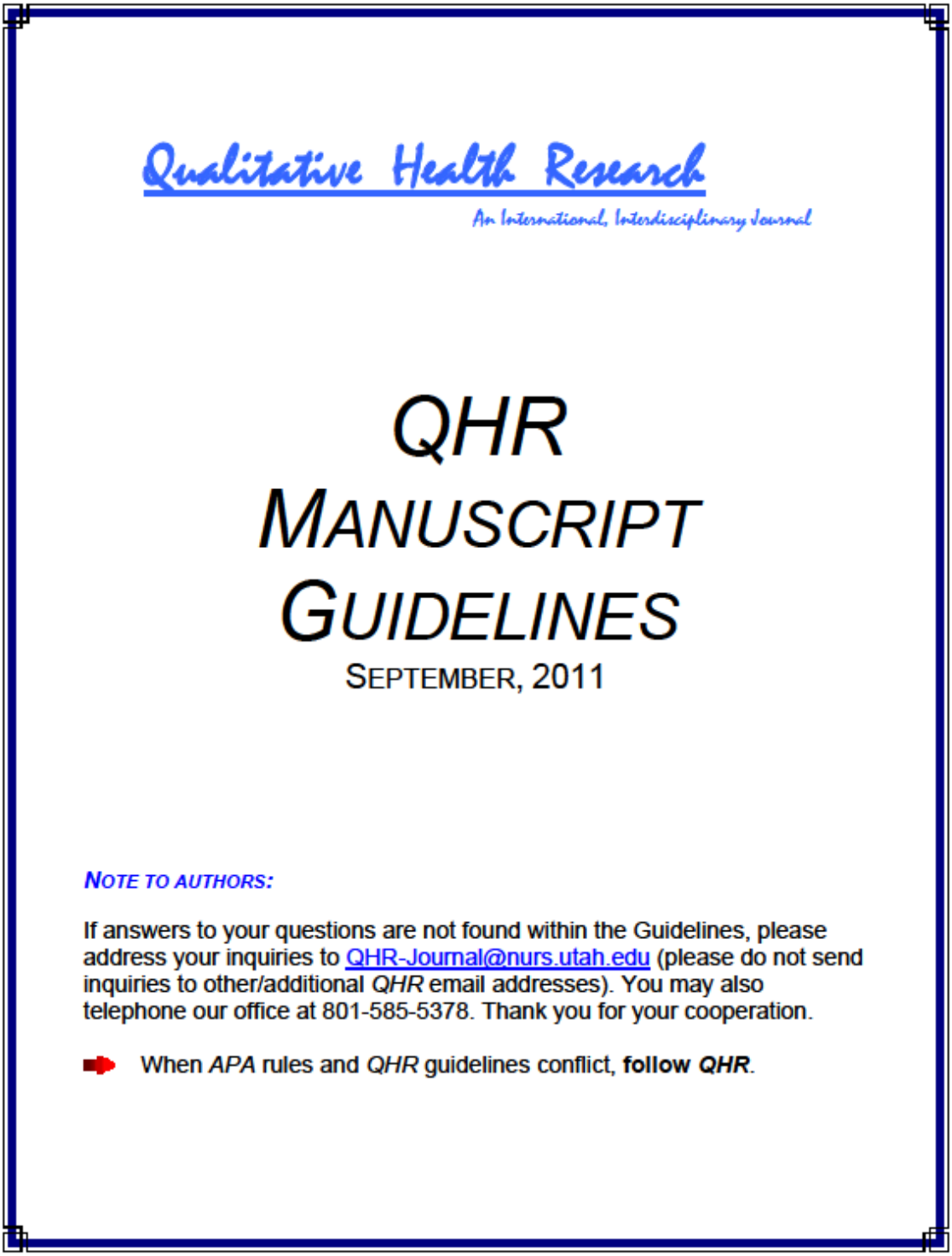


Audit trail: Focus: Why do some adolescents with ID show resilience?	
Axial code	**Inclusion/exclusion criteria**
Opportunity to engage in regulating religious activities	Includes all opportunities/activities associated with religion and mention that these activities supported regulation of emotion/behaviour Excludes any non-religious activities offered by the community (e.g., sport) or religious activities that are not linked to regulating behaviour/emotion
Demonstrates an appreciative stance	Includes any reference to being positive / thankful / grateful – all these references imply the self Excludes any reference to being ungrateful or dissatisfied; also excludes references to being cheerful (see below)
Demonstrates a cheerful disposition	Includes any reference to/symbol of happiness/cheerfulness/optimism and references to enjoyment of activities – all these references refer to the self Excludes any reference to feeling/being negative and references to being appreciative
Family facilitates regulatory support	Includes any reference to/symbol of family-based resources supporting adolescent with ID to regulate/tone down/control behaviour/emotion Excludes any reference to/symbol of family/other people/community-based resources supporting adolescent with ID to master activities, to be safe, or to exercise agency; excludes any reference to self-driven regulation of emotion/behaviour; excludes any reference to other people/community-based resources making it difficult to regulate emotion/behaviour (e.g. peer pressure); excludes any reference to non-family members

ADDENDUM H

Qualitative Health Research Guidelines

I included an excerpt – for full guidelines see http://www.sagepub.com/upm-data/42790_QHR_Manuscript_Guidelines_SEP_2011.pdf



Qualitative Health Research

An International, Interdisciplinary Journal

QHR

MANUSCRIPT

GUIDELINES

SEPTEMBER, 2011

NOTE TO AUTHORS:

If answers to your questions are not found within the Guidelines, please address your inquiries to QHR-Journal@nurs.utah.edu (please do not send inquiries to other/additional *QHR* email addresses). You may also telephone our office at 801-585-5378. Thank you for your cooperation.

When *APA* rules and *QHR* guidelines conflict, **follow *QHR***.

Qualitative Health Research

An International, Interdisciplinary Journal

ABOUT *QUALITATIVE HEALTH RESEARCH (QHR)*

Editor: **JANICE M. MORSE, RN, PHD (ANTHRO), PHD (NURS), FAAN**
University of Utah College of Nursing, Salt Lake City, Utah, USA

QUALITATIVE HEALTH RESEARCH, widely referred to as ***QHR***, is an international, interdisciplinary, refereed
journal for the enhancement of health care. Published monthly, it is designed to further the development
and understanding of qualitative research methods in health care settings. The journal is an invaluable
resource for researchers, practitioners, academics, administrators, and others in the health and social service professions, and graduate students who seek examples of qualitative methods.

COMPREHENSIVE, TIMELY COVERAGE FROM A VARIETY OF PERSPECTIVES

Issues of *QHR*provide readers with a wealth of information, including articles covering research, theory, and methods in the following areas:

☐Description and analysis of the illness experience

☐Health and health-seeking behaviors

☐The experiences of caregivers

☐The sociocultural organization of health care

☐Health care policy

☐Related topics

Articles in *QHR*examine an array of timely topics such as chronic illness; risky behaviors; patient–health professional interactions; pregnancy and parenting; substance abuse; food, feeding, and nutrition; living with disabilities; milestones and maturation; monitoring health; children's perspectives on health and illness, and much more. In addition, the journal addresses a variety of perspectives, including cross-cultural health, family medicine, health psychology, health social work, medical anthropology, sociology, nursing, pediatric health, physical education, public health, and rehabilitation.

We also consider critical reviews; articles addressing qualitative methods; and commentaries on conceptual, theoretical, methodological, and ethical issues pertaining to qualitative inquiry.

PUBLISHER

*QHR*is published by Sage Publications, Inc., 2455 Teller Road, Thousand Oaks, CA 91320, USA; www.sagepub.com; telephone 800-818-7243.
[REV 6: 01 SEP 11]

What follows is an excerpt – for full guidelines see http://www.sagepub.com/upm-data/42790_QHR_Manuscript_Guidelines_SEP_2011.pdf

GENERAL INFORMATION

This section of the Guidelines covers matters of *QHR*journal style, which are not subject to author preference; adherence is required.

Note: If you still have questions after carefully reading these instructions, please refer to the sample manuscripts (there are several types) beginning on page 35 before contacting the *QHR*office.

IMPORTANT CONSIDERATIONS

☐*Qualitative Health Research* is a peer-reviewed journal. Only complete, finished manuscripts should be submitted for consideration.

☐We do not publish stand-alone abstracts, *quantitative* studies, manuscript outlines, pilot studies, manuscripts-in-progress, letters of inquiry, or literature reviews. Research articles *must be pertinent to health*.

☐Write both the abstract and the text of your manuscript in *first-person, active voice.*

☐For best results, review this entire document prior to preparing and submitting your manuscript.

☐Proper manuscript preparation will speed the peer-review process for your manuscript, and will facilitate a smoother production process if it should be selected for publication.

☐Improper manuscript preparation could result in burdensome revisions, lengthy delays in the review and production processes, and the possible rejection of your manuscript.

GENERAL STYLE

We ask authors considering submission to *QHR*to review these guidelines, survey several issues of the journal, and make their own decision regarding the "fit" of their article for *QHR*'s mission. *Please refrain from writing or calling to ask if we are interested in your particular manuscript or idea.*

In general, *QHR*adheres to the requirements of Sage Publications, Inc., and the guidelines contained in the ***Publication Manual of the American Psychological Association*** ["*APA*"], **6th edition** (ISBN 10:1-4338-0561-8, softcover; ISBN 10:1-4338-0559-6, hardcover; 10:1-4338-0562, spiral bound), with regard to manuscript preparation and formatting. Elsewhere in these Guidelines this book is referred to as the *APA Publication Manual*, or just *APA*. Additional help may be found online at http://www.apa.org/, or search the Internet for "*APA*format."

Many universities and private organizations have Web sites devoted to *APA*style. However, when guidelines found on those sites, or in the *APA Publication Manual*, conflict with *QHR*Guidelines, *you must follow the* QHR*Guidelines*.

JOURNAL STYLE

9

CONFIDENTIALITY AND PROTECTION OF IDENTITY

*QHR*is committed to protecting the identity and confidentiality of research study participants. With the exception of participatory action research (PAR), *no information* that could potentially allow identification of a participant—*or even a specific study site*—should be included in a submitted manuscript or, subsequently, included in a published article.

If the use of participant names is absolutely necessary for reader understanding, each study participant referred to in the manuscript should be assigned a pseudonym. Study sites, such as hospitals, clinics, or other organizations, should not be named, but instead should be described; for example: "Study participants were recruited from the coronary care unit of a large metropolitan hospital on the eastern seaboard of the United States." Authors who include participant names and/or photos/images in which individuals are identifiable must submit written permission from the participants to do so—*no exceptions*. Permission to use photographs should contain the following verbiage: "Permission is granted to use, reproduce, and distribute the likeness/photograph(s) in all media (print and electronic) throughout the world in all languages."

To protect author anonymity during the review process, author citations in the text should include only the word "Author" and the year: *(Author, 2008)*. Author references in the reference list should also include only the word "Author" and the year: *Author. (2008).* (See the section on references for more details.)

WORD CHOICES

It is always best to use the most precise language possible to convey important data, concepts, and findings. Because *QHR*is an international journal published in U.S. English, there is the added need to avoid commonly used English terms (colloquialisms, slang) that might be misinterpreted by or confusing to readers whose first language is something other than English.

Word or Phrase Consideration

as Do not use this word when your meaning is *because*.
amongst Use *among* instead.
as regards Use *with regard to*, or *regarding* instead.
can't, don't, and so forth
Use *cannot*, *do not*, and so forth. Do not use contractions unless they are part of a quotation.
Caucasian Use *White* instead, capitalized.
due to Use *because of* instead.
etc. Use *and so forth* instead.
feel It is appropriate to use this word when referring to a physical sense or state of mind; do not use it when your intent is *think* or *believe*.

female(s) Please use *woman* or *women* instead, whenever possible and appropriate.
firstly, secondly, thirdly
Use *first*, *second*, and *third* instead.
further This word is appropriately used when referring to distance, or perhaps with respect to “furthering” something. At the beginning of a new sentence, when writing of something in addition to something already stated, it is more appropriate to use *furthermore*, *moreover*, *in addition*, or *additionally*.
Importantly Do not use this word unless it is part of a quotation.
in order to Use *to* instead.
Interestingly Do not use this word unless it is part of a quotation.
lastly Use *last* or *finally* instead.
male(s) Please use *man* or *men* instead, whenever possible and appropriate.
may Do not use this word in place of *might*. Use *may* for permission, *might* for possibility, and *can* for ability.
10
on the one hand / on the other hand
Do not use these terms in your writing.
over Do not use this word when the intended meaning is *more than*.
paper Use *article* instead.
since*Since*is the appropriate word to use when referring to the passage of time; do not use it when your intended meaning is *because*.
towards Use *toward* instead.
upon Use *on* instead
U.S./United States
Use *U.S.* only as an adjective; in all other instances, spell out *United States*. The same rule applies to *UK*/*United Kingdom*.
while/whilst Use *while* when referring to concurrent events; do not use it when your intent is *whereas*, *although*, or *even though*. Do not use *whilst*.

COMMON PROBLEMS

Acronyms The full spelling of the related words must precede the first usage of an acronym (even if you think everyone knows what the acronym stands for), followed by the acronym in parentheses; e.g., *World Health Organization (WHO).*Thereafter you may use the acronym alone: *WHO*. Avoid the overuse of multiple acronyms.
Anthropomorphism Anthropomorphism occurs when human characteristics are attributed to things not human. For example: *This study used a grounded theory approach . . .* . Obviously, a study cannot “use” anything. It would be more appropriate to write, *In this study we used a grounded theory approach . . .* . Eliminate anthropomorphism from your manuscript.
Back-to-back parentheses Incorrect: (xxx) (yyy) / Correct: (xxx; yyy)
Bad beginnings Do not begin sentences—and especially paragraphs—with *and*, *yet*, or *but*. Use caution when beginning a sentence, and do not begin a paragraph, with *however*.
Capitalization Capitalize proper names. Do not capitalize words unnecessarily, such as titles and ranks (e.g., director, professor, doctor, chairperson), or themes, categories, concepts, and so forth. (See also Title Case, below)
Ellipses Ellipses(. . .) are to be used only to represent words missing from quotations. Do not use them to represent pauses in speech.
Hyphenation Refer to the *APA Publication Manual*, 6th edition, for an excellent explanation of the proper use of hyphens and dashes; *do not* depend on Word’s “Spell Checker” feature for decisions on hyphenation. With few exceptions (see *APA*), words beginning with *co, non, pre, post*, *re, semi*, *socio*, and *sub* do not require hyphenation.
Horizontal lines Do not place horizontal lines in your manuscript. If footnote separator lines appear, remove them.
Inconsistent writing style When reviewing your manuscript prior to submission, watch for inconsistent writing style. This is especially important for manuscripts having two or more authors.

Irrelevant data Page space in the journal is precious. Refrain from including interesting but irrelevant data or commentary.

Jargon *QHR*readers come from a wide variety of disciplines and backgrounds, and therefore might not be familiar with the terminology related to your particular field or discipline. If you must include jargon, be sure to explain it clearly the first time a discipline-specific word is used. Avoid the overuse of jargon.

11

Non-English words The first time a non-English word is used, italicize it. Thereafter, use only Roman font. All non-English words must be explained or defined in the text. Include English translations of all non-English titles in the reference list (refer to *APA*for instruction on how to do this).

Paragraph length To facilitate ease of reading, paragraphs should be no longer than one half of a double-spaced, 8.5 x 11-inch page. Avoid paragraphs of only two or three sentences in length; combine them as necessary to make paragraphs of more appropriate length.

Participant characteristics Under no circumstances should you include individual participant characteristics in your manuscript. Group participant characteristics. In most cases it is best to write group characteristics into the text rather than placing them in a table (use whichever format takes the least amount of page space).

Repetition Avoid it! Make your writing as "tight," precise, and concise as possible. Avoid including the same facts, conclusions, or information in multiple places in the text (this does not mean you cannot summarize, of course). Avoid overuse of the same phrases, and avoid repeating certain characteristics of your sample; for example: *Twelve-year old boys are perceived as . . . This is often a problem for 12-year-old boys. Also, 12-year-old boys are . . .*

Run-on sentences Avoid long, wordy, complex sentences.

Spacing Use *no spaces* before, and only a *single space after* periods (.), commas (,), colons (:), semicolons (;), question marks (?), and closing quotation marks (”). All line spacing (except for text within figures) should be set at *exactly* double, with 0” before and 0” after.

Special formatting *Never* use *any* coding or formatting in your manuscript that is not called for in these Guidelines.

Spelling *QHR*is published in U.S. English. For best results, set the language of your document to U.S. English when you are establishing all other document setup requirements. Note the correct spelling of a few commonly misspelled words: *health care* (two words); *keywords* (one word); *semistructured*(one word, no hyphen). Also, refer to the section on hyphenation, above. *QHR*uses *Merriam-Webster's Collegiate Dictionary* (2005) as our spelling reference.

Title Case Title case is properly created by capitalizing:

☐the first letter of the first word

☐the first letter of the first word after a colon (:), period (.), or *em* dash (—)

☐all important words, and

☐*all words containing four or more letters*

Verb tense Things that happened, were said, or were written in the past should be written about in the past tense. When writing about what is included in your article, use the present tense rather than the future tense (e.g., *In this article we present*, rather than *In this article we will present*).

Voice Write in the first-person, active voice (use of third-person passive voice is not acceptable). When there are two or more authors, avoid the use of “I” statements.

Word confusion and substitution

Research studies and articles about research studies are two separate

things. Do not confuse the meaning of these words in your writing.
12

BASIC DOCUMENT PREPARATION

See also a variety of sample manuscripts beginning on page 35.
Note: Do not use any coding or formatting that is not described within these Guidelines!

DOCUMENT SETUP AND FORMATTING

Document file type Submit *only* documents created in **Microsoft Word**, and only with the regular file extension of **.doc** or **.docx**(do not submit documents with *.docm*, *.rtf*, *.pdf* or other extensions).
Paper size Letter, 8.5 x 11 inches, with portrait orientation
Margins 1 inch (1"; approximately 2.5 cm.) on all sides
Line numbers None
Line spacing Exactly "double," with 0" before and 0" after

ORDER OF MANUSCRIPT ELEMENTS

Compile the elements of your manuscript in the following order:
Document 1:
Title page (required)
Document 2:
Abstract and keywords (required)
Main manuscript text (required)
Notes (if any)
References (required)
Appendices (if any)
Tables (if any)
Document 3:
Figure 1 (if any)
Document 4:
Figure 2 (if any; and so forth, with each subsequent figure in a separate document)

FORMATTING OF MANUSCRIPT ELEMENTS

Note: For ease in locating needed information, the various elements are listed below in alphabetical order, and not in the order of anticipated use.
Dialogue Presentation of participant dialogue (i.e., two or more "speakers") should be set as block quotes/excerpts, indented by ½ inch (approximately 1.3 cm.) from the left margin. Do not use bullets or hanging paragraphs. Begin the narrative of each speaker on a new line. The first time a speaker name is used, type it in full, followed by an appropriate abbreviation in parentheses prior to the colon; thereafter, use only the abbreviation for the speaker name. Refer to the sample manuscripts for an example of dialogue presentation.
Ellipses / ellipsis points
Almost every manuscript contains ellipses. They are used to indicate words missing from quotations, and are to be created in a very specific manner. The proper way to create ellipsis points is as follows:
Three (3) dots, preceded, divided, and followed by spaces (i.e., SPACE.SPACE.SPACE.SPACE), like . . . this.
If it is necessary to indicate missing words between sentences (instead of in midsentence): Place a period (full stop) at the end of the first sentence, then format the ellipsis points as noted, and begin the next sentence (with a capital letter) immediately after the last space (i.e., .SPACE.SPACE.SPACE.SPACE). . . . Like this.
13
Font size: text Use 12-point font for *everything* except text in tables, figures, and (if applicable) conversation analysis.
Font size: tables and figures
Use only 8-point font in tables and figures.
Font style: headings, title page, abstract, keywords, tables,

and figures
Use Gill Sans font style for all of these. This includes figure/table numbers, titles, text within the figures/tables, and citations or explanatory notes below the figures/ tables (if any). *Note:* If you do not have Gill Sans font on your computer, please use Arial instead.
Font style: main manuscript
Use Times New Roman font for the main body text. Also, use Times New Roman font for the *text* (not the headings) of author's notes, acknowledgments, declarations of conflicting interests, funding statements, footnotes, and bios. *Italics* should be used only

☐as appropriate in the reference list (see *APA*);

☐as appropriate in level-2, -3, and -4 headings; and

☐to introduce non-English words, or *unusual* new concepts (2 to 3 words),

and then only when the new word or concept is first introduced in the manuscript; subsequent use of the same word(s) should be in regular Roman font.
Headings All headings, without exception, are to be set in Gill Sans, 12-point font. (Use Arial if you do not have Gill Sans on your computer.) *QHR*uses 4 distinct levels of headings (H = Heading), including:
H Level Formatting (Note: All headings should be double-spaced, just like the regular text)
H1 **Flush Left, Bold Text, in Title Case**
H2 *Flush Left, Italicized Text, in Title Case*
H3 *Flush left, italicized text, in sentence case, ending with a period.* At this level, the paragraph text begins immediately after the heading, instead of on the next line. The heading is part of the paragraph. Use this heading only if you have a total of four (4) heading levels. **Note: Try to avoid the use of H3 if possible, and use only H1, H2, and H4 (see below).**
H4 *Indented (.5" or 1.3 cm.), italicized text, in sentence case, and ending with a period.* At this level, the paragraph text begins immediately after the heading, instead of on the next line. The heading is part of the paragraph.
Use *at least two* heading levels:
For manuscripts with 2 heading levels, use H1 and H2
For manuscripts with 3 heading levels, use H1, H2, and ***H4*** [***not*** H3]
For manuscripts with 4 heading levels, use H1, H2, H3, and H4
Be aware of limitations on the use of heading levels H2, H3, and H4: You are not required to use an H2 heading below any given H1 heading, but if you do, you must use two or more H2 headings; you cannot use just one. The same is true for H3 headings below any given H2 heading, and for H4 headings below any H2 or H3 heading.
Justification of margins
All text should be *left justified*.
Length of manuscript
***There is no predetermined word or page limit*.** Provided they are "tight" and concise, *without unnecessary repetition* and/or irrelevant data, manuscripts should be as long as they need to be.
The editor might require a reduction in length if the manuscript contains material that does not add anything useful to the topic being discussed. Limits might be imposed on the number/size/length of tables, figures, reference lists, and appendices.
Line spacing ***Everything****, in all elements of the manuscript*, from the title page through the references and tables (if any), must be exactly double spaced. The only exception: Text within a figure should be single spaced.
14
Lists Vertical lists (i.e., listed down the length of the page) should be either simple dot bullets or bullets numbered 1., 2., 3., and so forth. Leave a blank, double-spaced

line after all lists.
Paragraphs Paragraphs are to flow, one after the other, without additional line breaks (with few exceptions; see below), and with no extra space between paragraphs.
Leave a blank (double-spaced) line between the abstract and the keywords.
Leave a blank line *after* (not before) each block quote, numbered list, or bulleted list.
Leave a blank line between block quotes if you have placed two or more in succession.
Indent the first line of every new paragraph by ½ (.5) inch (approximately 1.3 cm.), *except:*

☐the first line of the abstract or the keywords.

☐the first (opening) paragraph of the manuscript text.

☐paragraphs immediately after level-1 and level-2 headings.

☐paragraphs beginning with level-3 headings.

Use Word's Format > Paragraph function to set paragraph first-line indentations, *but apply this paragraph by paragraph, and not to the entire document*.
Use Word's Format > Paragraph function to set block quote/excerpt and bulleted/numbered list indentations. Note that block quotes/excerpts and lists are to be *completely* indented (not just the first line) by .5 inches (approximately 1.3 cm.)from the left margin only; *do not indent from the right side*.
Quotation marks In general, use double quotation marks (e.g., "Xxxx.") to set off quotations appearing within regular paragraphs, and to set off words being used with "special" meaning (or unusual spelling to convey special meanings within the text; e.g., "busy-ness"). Do not use quotation marks around quotations presented as block quotes/excerpts.
In regular paragraphs, use single quotation marks to set off a quote within a quote (e.g., "Xxx, 'Yyy,' xxxx.").
Note that when *closing* quotation marks coincide with a comma or period (full stop), the quotation marks go outside (after) the comma or period: "Quotation. . . last word."
Quotations Quotations of fewer than 40 words should be surrounded by double quotation marks (") and included within the regular sentences of a paragraph. Internal quotations within quotations of fewer than 40 words should be set apart with single quotation marks (').
Quotations of 40 or more words should be set as separate paragraphs, with the entire quotation indented .5 inches (approximately 1.3 cm.) from the left margin (this is also referred to as a "block quote" or "excerpt"). Do not use quotation marks for block quotes unless there is a separate, internal quotation within the larger quotation; in that case, use double quotation marks (") for the internal quotation only. *Make sure all quotations are properly capitalized and punctuated*.
Format the indentation for block quotes with Word's Format > Paragraph feature.
See the special section, below, for instructions on formatting *conversation analysis.*
SeriationSeriation refers to "numbered" lists appearing in sentences of regular text (in other words, across the page rather than in a vertical list). The proper seriation style for manuscripts submitted to *QHR*is (a), (b), (c), and so forth (lowercase letters, enclosed in parentheses).
Spelling See "Common Problems," above. Exceptions to the use of U.S. English include (a) direct quotes from *written*, *published material*, and (b) titles in the reference list (which should be spelled exactly as published).

ADDENDUM I

South African Journal of Education (SAJE) guidelines

Author Guidelines

Guidelines for Contributors

Editorial policy

The South African Journal of Education (SAJE) publishes original research articles reporting on research that fulfils the criteria of a generally accepted research paradigm; review articles, intended for the professional scientist and which critically evaluate the research done in a specific field in education; book reviews, i.e. concise evaluations of books that have recently appeared; and letters in which criticism is given of articles that appeared in this Journal.

Indicate the relevance of the study for education research where the education system is characterised by transformation, and/or an emerging economy/development state, and/or scarce resources.

Research articles of localised content, i.e. of interest only to specific areas or specialists and which would not appeal to the broader readership of the Journal, should preferably not be submitted for consideration by the Editorial Committee.

Ethical considerations: A brief narrative account/description of ethical issues/aspects should be included in articles that report on empirical findings.

All articles will be submitted to referees (national and/or international). The consulting editors/referees will have documented expertise in the area the article addresses. When reviews are received, an editorial decision will be reached to either accept the article, reject the article, request a revision (in some cases for further peer review), or request arbitration. As a rule not more than one article per author or co-author will be accepted per year for refereeing and possible publication.

Authors bear full responsibility for the accuracy and recency of the factual content of their contributions. A signed declaration in respect of originality must accompany each manuscript. On submission of the manuscript, the author(s) must present a written undertaking that the article has not been published or is not being presented for publication elsewhere.

Plagiarism entails the use of ideas that have been published previously and is prohibited. Word-for-word copying of the work of others should be indicated by means of double quotation marks. When quoting, always provide the author's surname, year of publication and the page number e.g. (Brown, 1997:40-48).

Redundancy/self-plagiarism is unacceptable. It may occur in the following ways:
1) Authors reproduce sections of their previously published papers without quotation.
2) Authors create several papers slightly differing from each other, submitting it to different journals without acknowledging it (Information adapted from Code of Ethics for the Journal of International Business Studies (n.d.). Available at *http://www.palgrave-journals.com/jibs/author_instructions.html#Ethical-guidelines*. Accessed 20 March 2013).
In cases where redundancy is suspected, the Editor in collaboration with the Editorial Board, will investigate the matter.

Plagiarism and redundancy/self-plagiarism will be dealt with as follows:
1) With regards to papers already published - a formal notice of redundant publication will be issued to readers as part of the next edition. The Editor has the right to refuse accepting submissions of those authors for a certain period of time (Information adapted from Redundant Publication: The Editorial Policy Committee of the Council of Science Editors (n.d.). Available at *http://natajournals.org/userimages/ContentEditor/1256771128861/redundant_pub.pdf*. Accessed 20 March 2013).
2) In cases of major concerns authors will be denied the privilege of publishing the particular paper in the South African Journal of Education.
3) In cases of minor concern authors will be asked to rephrase the duplicated sentences. It is expected of authors to cite materials which overlap with their work within the manuscript. Upon request of the Editor, the information should be made available where necessary (Information adapted from Code of Ethics for the Journal of International Business Studies (n.d.). Available at *http://www.palgrave-journals.com/jibs/author_instructions.html#Ethical-guidelines*. Accessed 20 March 2013).

The author(s) must ensure that the language in the manuscript is suitably edited and the name and address of the language editor must be supplied.

Copyright of all published material is vested in the Education Association of South Africa (EASA).

Page charges

Article processing charges (APCs) – ZAR R4500 per article for South Africans and USD $500 for international authors. Authors will be invoiced for the required charges. Total number of pages should preferably not exceed 15 pages (± 5,500 words).

Preparation of manuscripts

The manuscript, including abstract, figure captions, tables, etc. should be typed on A4-size paper and the pages numbered consecutively. Manuscripts should be in Microsoft Word format. Text should be set in Arial font, 12 point in size with 1.5 line spacing. Margins should be 2.54 cm all around.

The title should be brief (max. 15 words), followed by the author(s) name(s), affiliation(s) (Department and University), and an e-mail address for the corresponding author.

An abstract in English (approximately 190 words) must be provided, followed by up to 10 keywords, presented alphabetically.

The text of the article should be divided into unnumbered sections (e.g. Introduction, Method, Results, Discussion, Acknowledgements, References, Appendix, in that order). Secondary headings may be used for further subdivision. Footnotes, if any, will be changed to endnotes.

Authors must observe publishing conventions and should not use terminology that can be construed as sexist or racist.

Figures should be clear, black/white originals, on separate pages — not embedded in the text. Grey or coloured shading must NOT be used. **Tables/figures** should be numbered consecutively, with a brief descriptive heading/caption. Information should not be duplicated in text and tables. Each table/figure must be referred to in the text by number — not 'above' or 'below'. They will be placed where possible after the first reference.

References

References are cited in the text by the author(s) name(s) and the year of publication in brackets (Harvard method), separated by a comma, e.g. (Brown, 1997).

If several articles by the same author and from the same year are cited, the letters a, b, c, etc. should be added after the year of publication, e.g. (Brown, 1977a).

Page references in the text should follow a colon after the date, e.g. (Brown, 1997:40-48). In works by three or more authors the surnames of all authors should be given in the first reference to such a work. In subsequent references to this work only the name of the first author is given, followed by the abbreviation et al., e.g. (Ziv et al., 1995).

If reference is made to an anonymous item in a newspaper, the name of the newspaper is given in brackets, e.g. (Daily News, 1999).

For personal communications (oral or written) identify the person and indicate in brackets that it is a personal communication, e.g. (M Smith, pers. comm.).

List of references

Only sources cited in the text must be listed, in alphabetical order, after the article. References should be presented as indicated in the following examples. Special attention should be paid to the required punctuation.

Journal articles:
Johnson DW & Johnson RT 1999. Gifted students illustrate co-operative learning. *Educational Leadership*, 50:60-61.

Books:
Van Zyl R (ed.) 1994. *Recent advances in classroom research.* New York: McGraw-Hill.

Chapters in books:
Dukzec S 1988. Gender issues. In D Hicks & J Brown (eds). *Education for peace.* London: Routledge.

Unpublished theses or dissertations:
Squelch J 1991. Teacher training for multicultural education in a multicultural society. MEd dissertation. Pretoria: University of South Africa.

Anonymous newspaper references:
Citizen 1996. Education for all, 22 March.

Electronic references:
Published under author's name:
Wilson J 2000. The blame culture. *British Educational Research Journal,* 26. Available at http://www.govsources/gtp%access. Accessed 20 April 2005.

Website references: No author:
These references are not archival and are therefore subject to change in any way and at any time. If it is essential to present them, they should be included in a numbered endnote and not in the reference list.

Personal communications:
Not retrievable and not listed.

Submission of manuscripts for publication:

Manuscripts may be submitted electronically by e-mail or via the internet. Manuscripts should be submitted in MS Word format.

E-mail submissions:
Manuscript and covering letter must be e-mailed to *Estelle.Botha@up.ac.za*

Internet submissions:
Website: *http://www.sajournalofeducation.co.za*
Use the "Register as Author" link to register and submit an article. This will enable you to track the status of your article on the website.
For inquiries contact *Estelle.Botha@up.ac.za*

Submission Preparation Checklist

1. The submission has not been previously published, nor is it before another journal for consideration.
2. The submission file is in Microsoft Word or RTF document file format.
3. All URL addresses in the text (e.g., http://pkp.sfu.ca) are activated and ready to click.
4. The text adheres to the stylistic and bibliographic requirements outlined in the Author Guidelines, which is found in About the Journal.
5. The text has had the authors' names removed. If an author is cited, "Author" and year are used in the bibliography and footnotes, instead of author's name, paper title, etc. The author's name has also been removed from the document's Properties, which in Microsoft Word is found in the File menu.
6. The article is approximately 5500 words or 15 pages.
7. The text was approved by a language editor.
8. Empirical data must be checked by a statistical consultant.

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