THE COPING ORIENTATION AND RESOURCES OF TEACHERS EDUCATING LEARNERS WITH INTELLECTUAL DISABILITIES

by

TRACEY SENORA JACOBS

Submitted in partial fulfilment of the requirements for the degree of

Magister Artium in Counselling Psychology

in the

Faculty of Health Sciences at the Nelson Mandela Metropolitan University

2006

Supervisor: Prof JG Howcroft
Co-supervisor: Mrs O Brown-Baatjies
This treatise is dedicated to all special education teachers who so willingly continue to give of themselves in improving the quality of education provided to the learner with special educational needs.
Acknowledgements

I wish to express my sincere appreciation and gratitude to the following people who have made the completion of this research study possible:

- My parents, Helen and Stanford, and my brother, Tarquin, for their patience, love, support and understanding despite many sacrifices. Especially to my mother for being a remarkable role model of strength, love and understanding. Without her, I would not be where I am today.

- My dearest and closest friend, Rayno, for his never-failing support and faith in me.

- Prof. G. J. Howcroft, my supervisor, for his dedication, support and guidance throughout the process of this research. His insights have been truly invaluable.

- Mrs O. Brown-Baaitjies, my co-supervisor, whose encouragement, guidance and belief in my ability has been a constant source of motivation.

- The Department of Education in the Nelson Mandela Metropole and the principals of the special education schools for granting me permission for this study to be conducted.

- The participants, for their willingness to take the time out of their busy schedules to participate in this study. Without them this study would have been impossible.

- Mrs T. Geyer for her assistance with the data analysis procedures.

- Most importantly, I thank Almighty God, the giver of all talents and abilities for giving me the strength to complete this research study.
Table of Contents

Dedication i
Acknowledgements ii
Table of Contents iii
List of Appendices ix
List of Tables x
Summary xi

Chapter 1: Introduction and Problem Statement

1.1 Chapter Overview 1
1.2 Theoretical Overview 1
1.3 Problem Statement 3
1.4 Primary Objectives of the Research 7
1.5 Delineation of the Research 7
1.6 Conclusion 8

Chapter 2: Sense of Coherence and Coping Resources: A Conceptual Model of Understanding Stress and Coping

2.1 Chapter Overview 9
2.2 The Concept of Stress 9
2.3 Stress Models 10
   2.3.1 The Stimulus-Based Model 10
   2.3.2 The Response-Based Model 11
   2.3.3 The Appraisal/Transactional Model 12
   2.3.4 The Conservation of Resources Model 13
2.4 The Concept of Coping

2.4.1 Lazarus and Folkman’s Model of Coping

2.4.2 Antonovsky’s Model of Coping

2.5 The Salutogenic Paradigm

2.5.1 The Pathogenic Paradigm

2.5.2 The Salutogenic Paradigm

2.5.3 Implications of the Salutogenic Paradigm

2.6 The Sense of Coherence

2.6.1 Description of the Sense of Coherence Construct and its Components

2.6.2 Boundaries

2.6.3 Development of the SOC through Life Experiences

2.6.4 The Development of the SOC across the Lifespan

2.6.4.1 Infancy and Childhood

2.6.4.2 Adolescence

2.6.4.3 Adulthood

2.6.5 The SOC and Coping

2.6.6 The SOC and Related Concepts

2.7 Coping Resources

2.7.1 Antonovsky on Coping Resources

2.7.2 Lazarus and Folkman on Coping Resources

2.7.3 Hammer and Marting on Coping Resources

2.8 Conclusion
Chapter 3: The Stress and Coping of Teachers Educating Learners with Intellectual Disabilities

3.1 Chapter Overview

3.2 Variations in Terminology

3.3 Classification of Intellectual Disability
   3.3.1 Degrees of Severity
   3.3.2 Associated Clinical Features of Intellectual Disability

3.4 The Role of Special Education Teachers

3.5 Occupational Stress of Special Education Teachers
   3.5.1 Work Overload
   3.5.2 Challenging Behaviour of Learners
   3.5.3 Limited Progress of Learners
   3.5.4 Role Conflict and Role Ambiguity
   3.5.5 Lack Instructional Support, Materials and Resources
   3.5.6 Limited and/or Stressful Professional Interactions
   3.5.7 Limited Professional Training and Development
   3.5.8 Integration into Mainstream Schools

3.6 Special Education Teachers and Coping
   3.6.1 Age
   3.6.2 Gender
   3.6.3 Educational Qualifications
   3.6.4 Teaching Experience
   3.6.5 Social Support
   3.6.6 Spirituality
Chapter 4: Research Design and Methodology

4.1 Chapter Overview

4.2 Primary Objectives of the Research

4.3 Design

4.4 Participants and Sampling

4.5 Measures

4.5.1 The Biographical Questionnaire

4.5.2 The Orientation to Life Questionnaire (SOC-29)

4.5.2.1 The Reliability and Validity of the SOC-29

4.5.2.2 Implementation of the SOC-29 in the South African Context

4.5.3 The Coping Resources Inventory (CRI)

4.5.3.1 The Reliability of and Validity of the CRI

4.5.3.2 Implementation of the CRI in the South African Context

4.6 Procedure

4.7 Data Analysis

4.7.1 Descriptive Statistics

4.7.2 Correlational Analysis

4.8 Ethical Considerations

4.8.1 Informed Consent

4.8.2 Voluntary Participation

4.8.3 Privacy and Confidentiality
Chapter 5: Results and Discussion

5.1 Chapter Overview

5.2 Demographic Description of the Sample
   5.2.1 Gender
   5.2.2 Age
   5.2.3 Marital Status
   5.2.4 Religious Affiliation
   5.2.5 Highest Educational Qualification
   5.2.6 Training Received in Special Education
   5.2.7 Number of Years Teaching in Special Education
   5.2.8 Involvement in Extracurricular Activities
   5.2.9 Number of Learners
   5.2.10 Phase of the Learners
   5.2.11 Age of the Learners
   5.2.12 Participants’ Subjective Rating of Stress Experienced in Special Education
   5.2.13 Previous Treatment Received for Stress

5.3 Description of the Results of the Measures
   5.3.1 Results of Aim 1: Sense of Coherence of Teachers Educating Learners with Intellectual Disabilities
   5.3.2 Results of Aim 2: Coping Resources of Teachers Educating Learners with Intellectual Disabilities
List of Appendices

| Appendix A | Letter to Department of Education | 139 |
| Appendix B | Research Cover Letter | 144 |
| Appendix C | Consent Form | 147 |
| Appendix D | Biographical Questionnaire | 150 |
List of Tables

Table 1  The Sense of Coherence and Related Concepts 31
Table 2  Gender Distribution of the Sample (N=59) 85
Table 3  Age Distribution of the Sample (N=59) 86
Table 4  Marital Status of the Sample (N=59) 87
Table 5  Involvement in Religious Affiliation (N=59) 88
Table 6  Highest Educational Qualifications of the Sample (N=59) 89
Table 7  Special Education Training of the Sample (N=59) 90
Table 8  Distribution of the Number of Years Teaching in Special Education 91
Table 9  Responsibility for Extracurricular Activities of the Sample (N=59) 92
Table 10 Distribution of the Class Size of the Sample (N=59) 93
Table 11 Distribution of the Phases of the Learners 94
Table 12 Distribution of the Age Range of the Learners 95
Table 13 Participants’ Subjective Rating of Stress Experienced in Special Education 95
Table 14 Participants’ Previous Treatment for Stress 96
Table 15 Means and Standard Deviations of the SOC-29 of the Current Sample (N=59) 98
Table 16 Normative Data from Internationally Published Studies Using the SOC-29 99
Table 17 Normative Data from South African Studies Using the SOC-29 100
Table 18 Means and Standard Deviations of the CRI of the Sample (N=59) 105
Table 19 Correlation Matrix: SOC-29 and CRI (N=59) 110
Summary

An overview of recent literature and research indicates that stress in teaching is now a well-recognised phenomenon. More specifically, research has found special education to be more demanding than mainstream education. However, in comparison with the literature on mainstream education, both South African and international research relating to special education do not occupy prominent status in the literature. This study thus aims to explore and describe the coping orientation and resources of teachers educating learners with intellectual disabilities.

The sample consisted of 59 special education teachers (49 females and 10 males) in the Nelson Mandela Metropole who educate learners with intellectual disabilities. The special education teachers who agreed to participate in the study were requested to complete a biographical questionnaire, Antonovsky’s Orientation to Life Questionnaire (SOC-29) and Hammer and Marting’s Coping Resources Inventory (CRI).

An exploratory, descriptive design was utilised in this study. The data for this study was analysed by using descriptive and correlation statistics. The Pearson Product-Moment Correlation Coefficient was utilized in order to explore and describe the relationship between the sense of coherence and the coping resources of the sample.

Key findings include the following: Results from the SOC-29 revealed fairly high mean scores for the current sample. Results from the CRI indicated average mean scores on both the total coping resources scale and all five subscales. Significant positive relationships were found to exist between the SOC-29 and the CRI for the current sample. Significant positive relationships were also found between the SOC-29 score and some of the subscale scores of the CRI for the current sample. In general, the findings of the present study reveal a need for further research on special education teachers. The focus should not only be limited to the pathogenic
orientation, but should include more salutogenic approaches to better assist special education teachers to more effectively cope with their challenging work environment.

Key words: Salutogenesis, sense of coherence, coping orientation, coping resources, special education teachers, intellectual disability.
Chapter 1

Introduction and Problem Statement

1.1 Chapter Overview

The present chapter provides an overview of the theory underlying the research. The motivation for this research is outlined and a literature review against which the study can be viewed is presented. Thereafter, the proposed aims of the study are discussed. Finally, an outline of the chapters that are to follow in this study are highlighted.

1.2 Theoretical Overview

In an attempt to understand the stress and coping of any population, the discipline of health psychology provides theories and models to conceptualise these concepts. The field of health psychology has emerged because of a redefinition of health, which has involved a move away from health being viewed as simply the absence of a disease. The World Health Organisation (1948) defined health as a state of complete physical, mental and social well-being, and not simply the absence of a disease. Hence, it has been postulated that there has been a movement away from the pathogenic orientation with its emphasis on the factors (pathogens) that cause disease, to the salutogenic orientation with its emphasis on health promotion and stress management for well-being (Schafer, 2000). Matarazzo (1980) reiterated this sentiment in stating that one of the roles of health psychology is to contribute to the maintenance of health, the prevention and treatment of illness, and the identification of the correlates of health, illness and related dysfunctions. Hence, the investigation into the dynamic relationship between stress, coping and illness is one of the main focus areas of this discipline (Taylor, 1991).

Antonovsky (1979, 1987) was one of the leading pioneers in the field of health psychology. He formulated the salutogenic model as a reaction to the pathogenic philosophy underlying
Western medical health care. In order to explain how the human system copes with the introduction of stressors in daily living, Antonovsky (1987) developed the sense of coherence (SOC) construct. He claimed that a strong and stable SOC is essential for coping with the different stressors of living and mitigates the harmful effects of stress.

The SOC has been defined as a global orientation that expresses a person’s persistent, lasting, but at the same time dynamic feeling of confidence that, although challenges arise, life is comprehensible, manageable, and meaningful (Antonovsky, 1979). Furthermore, different studies have documented the beneficial effects of social support and coping resources, which seem to mitigate the illness-provoking capacity for a variety of stressors (Kobasa, Maddi & Kahn 1982). On an international level, it appears that the emphasis on stress and illness research in the field of health psychology has begun to shift towards the study of resilience resources (Antonovsky, 1979) that can neutralise the otherwise debilitating effects of stressful life events (Kobasa et al., 1982). In recent years, South African researchers (e.g., Cairns, 2001; Fourie, 2001; Madhoo, 1999) have given considerable attention to health psychology, and the need to engage in research from a positive perspective is constantly being expressed (e.g., Cairns, 2001; Madhoo, 1999; Strümpfer, 2000; Wissing & van Eeden, 1997).

One of the main focus areas of the salutogenic approach and health psychology is stress management for wellness. Stress and stressful reactions have been viewed as resulting from an imbalance in both coping resources and appraised demands (Matheny, Aycock, Curlette & Junker, 1993). According to Hobfoll (1989), it has been argued that the measurement of coping resources is more predictive of stressful reactions than the measurement of appraised demands. In line with this salutogenic framework, the present study focuses on investigating salutogenic concepts like sense of coherence and coping resources. Hence, this study examines the coping orientation and resources of special education teachers educating learners with intellectual
disabilities. In the subsequent section, the relevance and need for this research will be highlighted.

1.3 Problem Statement

Teaching is not a simple, straightforward enterprise, but ranks in the top quartile on complexity for all occupations, and this inherent complexity makes it a demanding profession to master (Snowman & Biehler, 2000). International research confirmed that teaching has become one of the most stressful professions in recent years (Beck & Garguilo, 2001; Billingsley, 2004; Eloff, Engelbrecht, Oswald & Swart, 2003). More specifically, various researchers have found special education to be more demanding than mainstream education (Bester & Swanepoel, 2000; Gersten, Keating, Yovanoff & Harniss, 2001). It is of interest to note that the field of special education loses many teachers to general education (Miller, Brownell & Smith, 1999; Stempien & Loeb, 2002). Billingsley (2004) and Brownell and Smith (1993) confirmed this finding when they reported that in comparison to general education teachers, attrition rates amongst special education teachers are higher. Similarly, Williams (2003) has noted that a similar pattern of attrition exists among special education teachers in South Africa. In view of the above findings, it is not surprising that the retention and attrition of special education teachers have been a growing concern to policymakers and administrators over the last few years (Payne, 2005).

In a recent South African study it was found that the problems and challenges teachers in special education face in their educational task are of an intensive, complex and multidimensional nature (Williams, 2003). Special education often places additional pressures on special education teachers. In addition to having to cater for the diversity of learners’ educational needs, special education teachers have to cope with the associated social, emotional, and behavioural difficulties often manifested by these learners. Furthermore, various researchers have identified a number of occupational stressors that special education teachers are confronted with in the work
environment (Antonio, Polychroni & Walters, 2000; Beck & Garguilo, 2001; Billingsley, 2004; Gersten, Keating, Yovanoff & Harniss, 2001; Male & May, 1997; Stempien & Loeb, 2002; Williams, 2003; Wisniewski & Garguilo, 1997). These stressors include: work overload, challenging behaviour of learners, limited progress of learners, role conflict and role ambiguity, lack of instructional support, materials and resources, limited and/or stressful professional interactions, limited professional training and development, and integration into mainstream schools. When these stressors become too intense and unmanageable, special education teachers experience occupational stress.

What makes occupational stress among teachers particularly significant is that it not only affects the teacher, but also has detrimental effects on the colleagues, learners, parents, and the teaching profession (Beck & Garguilo, 2001; Wisniewski & Garguilo, 1997). Effects on the teacher include physiological responses, such as elevated blood pressure, headaches, loss of energy; psychological responses, such as depression, anxiety, nervousness; and attributional responses such as feelings of resignation and helplessness (Wisniewski & Garguilo, 1997). The learners are also affected as occupational stress affects the quality of educational services, as teachers are less task-oriented, deliver less positive reinforcement, and are ineffective in managing disciplinary problems (Beck & Garguilo, 2001; Wisniewski & Garguilo, 1997). In interactions with colleagues and parents, teachers experiencing occupational stress have been described as less flexible, more cynical, and more likely to experience interpersonal conflicts with colleagues (Beck & Garguilo, 2001).

From the above discussion it becomes apparent that past researchers focused primarily on exploring the task demands that special education teachers face in the performance of their professional duties. Hence, previous studies have produced a number of important insights that explain the sources of occupational stress and burnout of special education teachers, but not
much attention has been given to the factors that ameliorate these teachers’ well-being. By following the salutogenic approach to describe the coping orientation of special education teachers, this study aims to bridge this gap. Apart from providing insights into the coping orientation and coping resources most frequently utilised by this group of special education teachers, this research also aims to identify the resources that are seldomly utilised by special education teachers. By providing general feedback to the participants regarding the resources that have been identified as most frequently utilised and those that are seldomly utilised, special education teachers could then decide to strengthen the existing resources that are being utilised and to mobilise those resources that have been identified as being under-utilised. Lazarus and Folkman (1984) hypothesised that the way individuals cope depend heavily on the resources that are available to them. By enhancing awareness among the current sample of special education teachers of the coping resources that are available to them, it is hoped that they would be empowered to cope more effectively with their challenging work environment. Furthermore, it must be emphasised that among the limited studies that do exist regarding the coping of special education teachers, none of them specifically relate to the SOC or coping resources. Hence, one of the reasons for undertaking this study is to add to the limited body of research available in this field.

Additionally, upon reviewing the literature on mainstream education teachers’ attitudes towards including learners with special educational needs, it has been demonstrated that teachers generally express negative attitudes towards mainstreaming efforts (Avramidis, Bayliss & Burden, 2000; Kochhar, West & Taymans, 2000; Scruggs & Mastropieri, 1996). Buell, Hallam and Gamel-McCormick (1999) reiterated this sentiment when they postulated that general education teachers do not always feel confident to fulfil the tasks that are needed to support inclusive education. In light of the above research findings, it becomes evident that mainstream
education teachers may experience a tremendous amount of stress should they be faced with teaching learners with special educational needs. In an attempt to prevent or alleviate some of the stress experienced by mainstream education teachers during the process of inclusion, this research aims to identify the coping orientation and coping resources employed by special education teachers. By enhancing awareness of the coping orientation and coping resources employed by special education teachers, mainstream education teachers could adopt some of the coping strategies identified, and thereby possibly enabling them to cope more effectively with their challenging work environment. Stakes and Hornby (2000) reiterated this viewpoint when they stated that it is now essential that all teachers in the mainstream schools become aware of their key role in teaching learners with special educational needs and seek to improve their knowledge and skills in this area. The present study thus aims to make a valuable contribution to the current policy of inclusive education.

The researcher’s decision to focus specifically on teachers educating learners with intellectual disabilities stems from the fact that previous South African research has indicated that these teachers reported significantly greater stress than teachers educating learners with physical disabilities (Eloff, Engelbrecht, Forlin & Swart, 2000). Previous research has also found that it is the inclusion of learners with intellectual disabilities which raises the greatest concern and which provokes the most disagreement about the wisdom of inclusive education (Avramidis, Bayliss & Burden, 2000; Scruggs & Mastropieri, 1996; Soodak, Podell & Lehman, 1998; Wilczenski, 1993; Winzer, 1998). In addition, Hattingh, Harvey, Saayman and Van Jaarsveldt (1987) indicated that intellectual disability features as one of the most prevalent disabilities in South Africa. The prevalence of intellectual disability in South Africa was found to be 12% (Statistics South Africa, 2005). For the reasons stated above, the researcher has decided
to focus specifically on teachers educating learners with intellectual disabilities. In the subsequent section the specific aims of the study are discussed.

1.4 Primary Objectives of the Research

The primary objective of this study is to investigate the coping orientation and resources of teachers educating learners with intellectual disabilities. There are three main aims in this regard:

1. To explore and describe the coping orientation, or sense of coherence, of a group of teachers educating learners with intellectual disabilities.

2. To explore and describe the coping resources of a group of teachers educating learners with intellectual disabilities.

3. To investigate whether there is a relationship between the coping orientation and coping resources of teachers educating learners with intellectual disabilities.

1.5 Delineation of the Research

Chapter 1 provides an introduction to the present study. In this chapter the contextual background against which the study was conducted is provided and the problem statement is presented.

Chapter 2 provides a conceptual model for understanding stress and coping. In this chapter the main theoretical framework for the current study is presented. The theoretical concepts of sense of coherence and coping resources are explored.

Chapter 3 is divided into 2 sections. The first section provides a theoretical overview of intellectual disabilities, including the classification system, severity and associated clinical features. A discussion of the role of the special education teacher is also provided. In the second section, a discussion of the stress and coping of special education teachers is presented.

Chapter 4 outlines the research design and methodology employed in the present study.
The research design, sampling procedure, measures and data analyses are discussed. Finally, the ethical considerations of the present study are reviewed.

Chapter 5 presents the results of the research. These results are discussed in terms of the literature presented in Chapters 2 and 3.

Chapter 6 provides conclusions based on the results of this research. A discussion of the possible limitations of the study is provided. The chapter ends with potential recommendations for future research in this area based on the results obtained from this study.

1.6 Conclusion

In this chapter, an overview of the current trends in health psychology was provided. The salutogenic orientation in the field of stress management was introduced. Current views regarding the stress and coping of special education teachers was provided, and the need for the research in the field of coping in special education was outlined. The aims of the current study, which focused on the salutogenic concepts of sense of coherence and coping resources were introduced. The chapter concluded with a delineation of the current research. The following chapter will discuss the concepts of stress and coping in more detail.
Chapter 2
Sense of Coherence and Coping Resources: A Conceptual Model of Understanding Stress and Coping

2.1 Chapter Overview
In order to provide a context for understanding the broader theoretical framework on which the present study is based, this chapter examines the central terms of this study, namely sense of coherence and coping resources, as well as the salutogenic paradigm from which these concepts arise. The first section of this chapter attempts to lay a foundation for these concepts, by exploring the various models and theories that define the concepts of stress, coping and coping resources.

2.2 The Concept of Stress
Psychological literature abounds with many different definitions and conceptualisations of stress. Stress has been defined as “a negative emotional experience accompanied by predictable physiological, biochemical and behavioural changes that are designed to reduce or adapt to the stressor, either by manipulating the situation to alter the stressor or by accommodating its effects” (Taylor, Peplau & Sears, 1997, p.399). A stressor refers to a stress-inducing factor acting on the individual, emanating from the self or the environment, to which a positive or negative meaning is ascribed by the person, and which he or she experiences as a threat or a challenge (Bester and Swanepoel, 2000). Similarly, stress has been defined as a tension experienced when an event is perceived as being harmful, threatening or challenging to one’s feelings of well-being (Sanderson, 2004). Furthermore, Straub (2002) indicated that stress results from an imbalance between existing resources and perceived demand.
However, it has been argued that not everyone perceives the same events as being stressful (Straub, 2002). Events are stressful when they are regarded as stressful, and not otherwise (Lazarus & Folkman, 1984). The above definition portrays stress as having a negative inference, however, when stress is perceived as a challenge, it is often associated with positive, energizing emotions (Brannon & Feist, 2000). Snyders (1998) further supported this statement by pointing out that a certain degree of stress is necessary to survive, as it motivates a person to perform constructively and achieve things, and to adapt to a particular situation. Some theories of motivation and arousal proposed that individuals function best, and feel best, at what is, for them, an optimum level of arousal (Sarafino, 2002). The various ways of understanding the term stress have been portrayed by theorists as models of stress. In the following section, the various stress models will be presented.

2.3 Stress Models

A number of models exist to define the terms stress. These include: the stimulus-based model, the response-based model, the appraisal/transactional model, and the conservation of resources model. These models will be discussed in detail.

2.3.1 The Stimulus-Based Model

Under the stimulus-based approach, stress is viewed as an external force or factor impinging on an organism in a disruptive way (Louw & Edwards, 1993). Stress is seen as a force being exerted on an individual (stimulus event) that results in difficult demands, causing distortion. Experiences under this model are deemed stressful on the basis of whether they usually lead to stress responses (Hobfoll, 1989). Researchers who follow this approach often study the impact of a wide variety of stimuli (or stressors), which include catastrophic events, chronic negative living
conditions and major life events (Sarafino, 2002). Bishop (1994) postulated that the stimulus-based model assumes that different individuals respond similarly to events.

However, Sutherland and Cooper (1990, p.17) contended that “purely objective measures of environmental conditions are inadequate”. This can be explained by the fact that two individuals exposed to exactly the same situation might react in completely different ways, because of individual differences and variability in tolerance levels and expectations (Sutherland & Cooper, 1990). Furthermore, Burns (1988) suggested that a major factor in determining the severity of the stress is an individual’s confidence in his/her ability to handle a stressful situation.

2.3.2 The Response-Based Model

According to this model, stress is portrayed as an individual’s response to demands made by the environment (Sarafino, 2002). Various authors share a similar description of the response-based model. Selye (1976) conceptualised stress as a non-specific physiological response of the body, caused by any of a number of environmental stressors. Bishop (1994) indicated that such a response could include a psychological component as well. The physiological component refers to heightened bodily arousal, changes in heart rate, respiration rate and an increase in the release of certain hormones (Bishop, 1994). The psychological component involves behaviour, thought patterns and emotions (Sarafino, 2002). Selye believed that a wide variety of different situations could prompt the stress response, but that the response would always remain the same.

However, some researchers have noted several weaknesses associated with this response-based definition. Brannon and Feist (2000) indicated that Selye largely ignored to include psychological factors into his approach. McGrath (1970) argued that following this type of definition, any stimulus that produces the particular stress response must be viewed as a stressor. Furthermore, he argued that the same response may be evoked by several different situations,
again some of which may not be regarded as stressful (McGrath, 1970). Heart rate, for instance, may increase for many reasons: with heavy smoking, after exercise, with fear, and during pregnancy (Cox, 1978).

2.3.3 The Appraisal/Transactional Model

This model portrays stress as not only being a stimulus or a response, but rather a process in which the person is an active agent who can influence the impact of a stressor through behavioural, cognitive, and emotional strategies (Sarafino, 2002). For the transactional model, physical or physiological stressors will only produce stress responses after they have been appraised as threatening by human beings (Crossley, 2000). According to this explanation, it is not the life event or stimulus that produces stress, but rather one’s view of the situation that causes an event to become stressful. The key issue in this model is an assessment process called cognitive appraisal, which may occur repeatedly following the introduction of a stressor (Crossley, 2000). Lazarus and Folkman (1984) explained that individuals make use of two sets of appraisals namely, primary appraisal and secondary appraisal.

Primary appraisal is concerned with evaluating an event as being irrelevant to the individual’s well-being, relevant but not threatening, or stressful (Lazarus & Folkman, 1984). Secondary appraisal comes into play if the event is primarily appraised as stressful, and refers to one’s ongoing assessment of the resources available for coping with the stressor (Bishop, 1994). Sarafino (2002) suggested that the condition of stress that we experience often depends on the outcome of the appraisals we make in our transactions with the environment. When we evaluate the fit between demands and resources to correlate, we may experience little or no stress. However, when our appraisals indicate a discrepancy, particularly if we evaluate greater demands than resources, we may experience an immense amount of stress.
Hobfoll (1989) criticised the transactional model of stress as being “tautological, overly complex, and not given to rejection” (p.515). His criticism of tautologism arises from the fact that demand and coping capacity are not defined separately in the transactional model of stress (Brown, 2002). Hobfoll (1989) postulated that whether an event is demanding or not depends on coping capacity, and whether coping capacity is adequate or not is dependent on demand. As a substitute for the appraisal/transactional model of stress, Hobfoll (1989) suggested the conservation of resources model, which will be discussed in the subsequent section.

2.3.4 The Conservation of Resources Model

In the discussion of the appraisal/transactional model of stress, it was highlighted that individuals experience stress when they possess insufficient resources to meet perceived demands. Hence, coping resources can be seen as forming an integral part of the coping process. Coping resources can be defined as “those objects, personal characteristics, conditions or energies that are valued by the individual or that serve as a means for attainment of these objects, personal characteristics, conditions or energies” (Hobfoll, 1989, p.515). This model suggests that people possess resources that are valuable to them, which they constantly strive to protect and conserve (Hobfoll, 1989).

These resources include physical assets such as health, energy and stamina; psychological assets such as beliefs, values, self-esteem and problem-solving skills; social assets such as social networks and support systems; and material assets such as money, equipment and tools (Hobfoll, 1989). Resources are of critical importance to individuals, as available resources influence coping outcomes (Sanderson, 2004). Individuals who possess sufficient resources to meet perceived demands are able to cope more effectively than those individuals who are faced with demands that exceed resources and who experience stress as a result of this discrepancy. From
the above discussion it becomes evident that a close relationship exists between available resources and coping outcomes, therefore, the term coping will be explored next. Thus far, no criticisms have been established on the conservation of resources model.

### 2.4 The Concept of Coping

There are as many theories on the definition and process of coping, as there are theories and definitions of stress. Coping has been conceptualised as “a complex, multidimensional process that includes a variety of intrapersonal and interpersonal strategies for managing problems and regulating emotions” (Cummings, Green and Karraker, 1991, p.7). According to Bishop (1994), the coping process includes all of a person’s efforts to deal with perceived threats – whether covert or overt, positive or negative, adaptive or maladaptive. This process is a goal directed dynamic process of constantly changing efforts to combat stressful situations, concentrated and focused on managing perceived threats (Bishop, 1994).

Coping processes have been divided into two groups, including those that are maladaptive or with limited value and those that are constructive or adaptive (Houston, 1987; Weiten & Lloyd, 2003). Maladaptive coping strategies include giving up, indulging or blaming oneself, striking out at others and defensive coping (Weiten & Lloyd, 2003). Appraisal-focused coping, problem-focused coping and emotion-focused coping are viewed as adaptive coping strategies (Weiten & Lloyd, 2003). However, Bishop (1994) indicated that adaptive coping strategies do not always result in positive outcomes. In the subsequent section two theories relevant to coping will be discussed, namely Lazarus and Folkman’s (1984) model of coping and Antonovsky’s (1987) model of coping.
2.4.1 Lazarus and Folkman’s Model of Coping

Lazarus and Folkman (1984, p.141) described coping as “constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of a person”. These cognitive and behavioural efforts are directed at mastering, tolerating, reducing and/or minimizing environmental and internal demands and conflicts that strain an individual’s resources (Schafer, 2000). Furthermore, it has been emphasised that although coping efforts can, and should, be aimed at correcting or mastering the problem, it may also simply help the person alter his/her perception of a discrepancy, tolerate or accept the harm or threat, and escape or avoid the situation (Lazarus and Folkman, 1984).

Lazarus and Folkman (1984) described the process through which an individual copes according to two phases, namely appraisal and coping. The appraisal phase can be subdivided into primary and secondary appraisal. Primary appraisal, as previously defined in the appraisal/transactional model, is concerned with evaluating an event as being irrelevant, relevant but not threatening, or stressful (Lazarus & Folkman, 1984). Once the event has been evaluated, an impression is formed of one’s ability to control or cope with harm, threat, or challenge, which also includes the evaluation of one’s coping resources (Lazarus & Folkman, 1984). Coping is the second phase and could include actions, a change in thinking, redefining the situation, or any other appropriate subjective solution (Lazarus and Folkman, 1984). The activities or efforts chosen in this final phase depend on the variety of personal and environmental resources that the individual has at his/her disposal (Schafer, 2000).

A further distinction of coping, namely problem-focused coping and emotion-focused coping has been made by Lazarus and Folkman (1984). Problem-focused coping involves the
individual’s efforts to deal with the source of stress through the modification of environmental conditions (Schafer, 2000). Relevant skills in problem-focused coping include problem-solving skills, decision-making skills, communication skills and social skills (Straub, 2002). Emotion-focused coping involves coping efforts directed toward modifying environmental distress and maintaining a moderate level of arousal or internal state that is necessary for effective information processing and action (Schafer, 2000). It includes strategies such as physical exercise, meditation, relaxation and skills for cognitive restructuring (Straub, 2002).

### 2.4.2 Antonovsky’s Model of Coping


- Primary appraisal I, similar to Lazarus and Folkman’s (1984) description of primary appraisal, refers to the definition of an event as either a stressor or a non-stressor.

- Primary appraisal II refers to the judgement of the nature of the stimulus as benign, threatening, or positive. At this stage the individual with a strong sense of coherence, having considerable experience of stressors which soon turn out to be non-problematic, will be more likely to define a stressor as benign or irrelevant and feel confident that the tension will quickly subside (Antonovsky, 1987).

- Primary appraisal III refers to the emotional component, and involves the extent to which one is cognitively and emotionally capable of dealing with the stressor (Antonovsky, 1987).

- Secondary appraisal pertains to the selection of the most appropriate strategy to deal with the stressor being confronted. This means that the individual with a strong sense of coherence
chooses from the repertoire of generalised and specific resistance resources at his or her disposal, what seems to be the most appropriate combination (Antonovsky, 1987).

- Tertiary appraisal refers to the further assessment of the availability of resources if the first option fails or turns out to be unavailable. Antonovsky (1987) explained that it may involve role modification, mobilisation of unknown resources and shifting of perception.

2.5 The Salutogenic Paradigm

Prior to a discussion of the theoretical constructs of sense of coherence and coping resources, a brief discussion of the pathogenic paradigm will be provided. This traditional paradigm will then be contrasted with the salutogenic paradigm in which the constructs sense of coherence and coping resources are grounded.

2.5.1 The Pathogenic Paradigm

In the past, the field of psychology firmly aligned itself with the pathogenic orientation of the Western medical model. The emphasis was on disease, investigations of the abnormal, and the prevention of specific diseases, while focussing on high-risk population groups, and the reasons for the ineffectiveness and malfunctioning of the individuals within these groups (Antonovsky, 1987; Strümpfer, 2000; Wissing & Van Eeden, 1997). According to Antonovsky (1987), Western medical thinking is rooted in the principles underlying the Newtonian philosophy. Newtonian law specifies that all systems, including the human body, operate mechanically and deterministically in equilibrium, subject to universal laws that an outside observer could discover (Fouché, 1999). Canon (1939) hypothesised that the normal state of the human organism is relatively constant. However, this consistency is occasionally interrupted when forces such as physical, biochemical, microbiological and psychosocial agents are
introduced into the system (Fouché, 1999). Consequently, the homeostatic process is disrupted and disease sets in.

From the abovementioned discussion, it becomes evident that attention has primarily been given to “sickness” and “dysfunction”, with resources being almost exclusively allocated to the remediation of problems (Witmar & Sweeney, 1992). More recently, however, there has been a shift toward emphasising health, rather than exclusively focusing on illness. Hence, the prevention of illness is emphasised, with resources being allocated to keep people healthy. However, Antonovsky (1987) postulated that this health-oriented position is also based on the fundamental dichotomy between healthy and sick people, and seeks to eradicate those pathogens/risk factors that result in ill health, and to provide those resources that maintain health.

2.5.2 The Salutogenic Paradigm

In contrast to the pathogenic paradigm, the salutogenic paradigm focuses on health rather than on illness. While the pathogenic paradigm is based on the Newtonian philosophy, the salutogenic paradigm’s core philosophy is based on the Chaos theory (Antonovsky, 1987; 1996). According to the Chaos theory, heterostasis, disorder, and entropy are the prototypical characteristics of systems such as the human organism (Fouché, 1999). The human system is viewed as being inherently flawed, and subject to unavoidable entropic processes that can also be referred to as the constant stressors of daily living (Antonovsky, 1987).

Although Antonovsky (1979) first coined the term “salutogenesis”, the salutogenic paradigm has been evident since the 1950s in Super’s (1955) distinction between hyiology and psychopathology; in Maslows’ (1954) thoughts on the need for self-actualisation and in Rogers’ (1959) description of the actualising tendency and the fully functioning personality (Strümpfer, 1993). Starting in the 1960s, Antonovsky followed the same path, introducing his ideas regarding
health, stress and illness. Antonovsky (1987) provided his answer to the question, “How do people manage stress and stay well?” and formulated the salutogenic model.

Opposing the traditional model that perceives stressors as isolated and negative events, Antonovsky (1987) argued that stressful situations are in fact an unavoidable part of daily living – that “stressors are omnipresent in human existence” and that “the human condition is stressful” (Antonovsky, 1979, p.10). However, it is important to note that stressors are not necessarily detrimental in effect, since their outcome may, at times, be positive (Antonovsky, 1987). Antonovsky (1987) postulated that while all stressors lead to psychological tension or stress, the transaction of that stress is mediated by the individual’s internal reaction and responses to those experiences. In other words, stressors are viewed as having pathological, neutral, or salutary consequences, depending on their subjective quality, and on the individual’s ability to manage tension.

Antonovsky’s (1987) main focus was on understanding how a system manages to survive the stressors of daily living and create order out of chaos. In an attempt to answer these questions, Antonovsky formulated the Sense of Coherence (SOC) construct. This construct explains successful coping with different life stressors, and the movement towards health (Antonovsky, 1987). The salutogenic paradigm shifts away from attempting to explain illness, and instead focuses on understanding health and the origins of health.

2.5.3 Implications of the Salutogenic Paradigm

Strümpfer (1993) described three implications of the salutogenic paradigm. Firstly, the dichotomy of people being either diseased or healthy, as proposed by the pathogenic orientation, is discarded in favour of what Antonovsky (1987, p.3) termed the “health ease/dis-ease continuum”. All of us fall “somewhere between the two theoretical poles of total terminal illness
and total wellness” (Strümpfer, 1993, p.163). By adopting this perspective the focus of study changes to a person’s position, at any point in time, on the ease/disease continuum, while interventions are directed at moving people toward the wellness pole (Antonovsky, 1987).

The second implication of the salutogenic paradigm is to discard the commonly held assumption that stressors are inherently bad (Antonovsky, 1979). Instead, stressors are viewed as being neutral or having salutary consequences (Antonovsky, 1979). According to Strümpfer (1993), stressors arouse a state of tension in people, and if the tension is managed poorly, stress results. However, if the tension is managed well, it can either have neutral implications or help the individual move towards growth and wellness. Hence, stressors are neutral in their health consequences, with the consequences depending on the individual’s response to them (Strümpfer, 1993). In contrast to the pathogenic emphasis on eradicating stressors, the salutogenic emphasis is on how to live with stressors and use them to our advantage (Antonovsky, 1987).

The third implication of the salutogenic paradigm addresses research (Strümpfer, 1993). When research is being conducted from a pathogenic perspective, there is a constant search for a causal link between disease and its correlates. Such a study may, for example, look for correlates between being a special education teacher and burnout. On the other hand, when research is being conducted from a salutogenic perspective, the focus will be on individuals with the same characteristics who do not develop the condition. Subsequently, the question in this type of research is: What is it about these individuals that enable them to stay well? (Strümpfer, 1993).

It is, however, imperative to note that Antonovsky did not advocate rejecting the pathogenic view (Antonovsky, 1987). Similarly, Strümpfer (1993, p.165) explained that “the benefits of the pathogenic approach are visible in all clinical fields and it is exceedingly
important that research directed at the discovery of pathogens and the effects of stressors should continue”. Antonovsky (1979) suggested that the two orientations are complementary but that there could be a more balanced representation of the newer field. Current research on stress and coping is progressing towards that balance between the two paradigms (Folkman & Moskowitz, 2000; Lazarus, 2000).

2.6 The Sense of Coherence

As previously mentioned in the above section, stress may be viewed as a neutral and natural function of daily living with either positive or negative consequences. The Sense of Coherence (SOC) construct, as developed by Antonovsky (1979; 1987), serves to explain how an individual either successfully or unsuccessfully copes with different life stressors. In the subsequent section, a description of the SOC is provided along with its components, development, its relationship to coping and related concepts.

2.6.1 Description of the Sense of Coherence Construct and its Components

Antonovsky (1996) described the SOC construct as a “generalised orientation toward the world which perceives it, on a continuum, as comprehensible, manageable and meaningful” (p.14). He explained that the SOC is a disposition, rather than a trait or state, that embraces components of perception, memory, information processing and affect, in habitual patterns of appraisal, based on repeated experiences of sense-making that have been facilitated by the availability of coping resources (Antonovsky, 1987). The SOC translates into a range of concrete behaviours, which are built by experiences of success when dealing with the stressors of daily living. Antonovsky (1987) provided the following comprehensive definition of the SOC:

“The sense of coherence is a global orientation that expresses the extent to which one has a pervasive, enduring, though dynamic feeling of confidence that (a) the stimuli deriving
from one’s internal and external environments, in the course of living, are structured, predictable and explicable; (b) the resources are available to one to meet the demands posed by these stimuli; and (c) these demands are challenges, worthy of investment and engagement” (p.19).

In terms of this definition, the SOC construct is comprised of three components namely, comprehensibility, manageability and meaningfulness (Antonovsky, 1987). Comprehensibility refers to the degree to which an individual regards the stimulus from both the internal and external environment as clear, ordered, structured and consistent. Individuals with a high sense of comprehensibility will expect the stimuli they encounter to be predictable. However, if the stimuli come as a surprise, it will at least be perceived as orderly and explicable. On the contrary, individuals with a low sense of comprehensibility will perceive the stimuli as “noise” – disorderly, accidental, chaotic and inexplicable. Antonovsky (1987) emphasised that these stimuli are not always desirable, but individuals with a high sense of comprehensibility are able to understand the challenges and make cognitive sense out of them.

Manageability refers to the extent to which one perceives that the resources available to one are adequate to meet the stimuli-imposed demands with which one is confronted. These resources may include those that are under the individual’s own control, or resources controlled by legitimate others, such as family, friends, colleagues, formal authorities and God. They may also include one or a variety of generalised resistance resources (GRRs). Individuals with a high sense of manageability will not feel victimised by events and will approach situations with the belief that the resources needed to cope are available to them.

Meaningfulness refers to “the extent to which one feels that life makes sense emotionally, that at least some of the problems and demands posed by living are worth investigating energy in, are
worthy of commitment and engagement, are challenges that are ‘welcome’ rather than burdens that one would much rather do without” (Antonovsky, 1987, p.18). Hence, the individual who has a high sense of meaningfulness would be motivated to cope with challenges and would be determined to seek meaning in them, even if they are perceived as unhappy and negative experiences.

Antonovsky (1987) described the relations among the three components as inextricably intertwined. However, he viewed meaningfulness as the most crucial component as it acts as a motivational factor and a measure of energy. Antonovsky (1987) explained that being high on comprehensibility and manageability is only temporary if an individual is low on meaningfulness. Next in importance is comprehensibility, since “high manageability is contingent on understanding” (Antonovsky, 1987, p.22). However, this does not mean that manageability is insignificant. On the contrary, if there are no perceived resources at one’s disposal, meaningfulness will be lessened and coping efforts will become weakened. Hence, Antonovsky’s (1987, p.22) statement, “successful coping, then depends on the SOC as a whole”.

2.6.2 Boundaries

Having a strong SOC does not necessarily mean that one views one’s entire world as comprehensible, manageable and meaningful (Strümpfer, 1993). Instead, individuals set boundaries for themselves as a way of avoiding distress (Antonovsky, 1987). Antonovsky (1987) suggested that flexibility within these boundaries is central to maintaining a strong SOC. In addition, a strong SOC could be reinforced by exploring and broadening these boundaries to new spheres of life (Antonovsky, 1987).

However, there are four spheres of life that cannot be excluded if an individual is to maintain a strong SOC (Antonovsky, 1987). These include: (a) an individual’s feelings; (b)
immediate interpersonal relations; (c) the major sphere of activity (usually work); and (d) the existential issues of death, inevitable failures, shortcomings, conflict and isolation. Antonovsky (1987) contended that these spheres are too intimately tied up with ourselves to be excluded from our consciousness.

2.6.3 Development of the SOC through Life Experiences

The development of an individual’s SOC is a function of different life experiences and the extent to which these experiences are comprehensible, manageable and meaningful. The development and maintenance of a strong SOC is further determined by the extent to which coping resources are available to an individual (Antonovsky, 1979). Antonovsky (1979) referred to these resources as Generalised Resistance Resources (GRRs), and has defined it as any characteristic of a person that facilitates effective tension management. Antonovsky (1987) pointed out that when there are deficits in these GRRs, an individual might cope ineffectively with life’s stressors and develop disease. Hence, the relationship between GRRs and SOC may be described as dynamic and reciprocal. Wolff and Rattner (1999) shared a similar viewpoint when they indicated that a person’s perception of available GRRs strengthens their SOC. On the other hand, deficits in an individual’s GRRs (also known as Generalised Resistance Deficits or GRDs) provide life experiences that negatively impact upon the individual’s SOC, and as a result, ineffective coping with life stressors occurs (Antonovsky, 1987). In addition to the SOC being shaped by GRRs and GRDs, Antonovsky (1987) described three kinds of life experiences that also shape the development and strength of the SOC in an individual. These life experiences will now be discussed:

- Consistency refers to an individual’s need for consistent, stable, predictable and structured experiences in different contexts. It represents an individual’s need for continuity and regularity
with regard to life experiences (Antonovsky, 1987). It thus forms the basis of the comprehensibility component of the SOC.

- Load balance refers to the perceived availability of resources to meet the demands placed on an individual (Antonovsky, 1987). Load balance thus represents the foundation of the manageability component of the SOC. Overload entails the experience that the perceived resources available are inadequate to meet the demands placed upon an individual. Underload refers to experiences and demands that are perceived as one-dimensional and monotonous, as individuals are not given an opportunity to actualise their potential or capabilities. Hence, an appropriate load balance is seen as imperative in determining the sense of manageability (Antonovsky, 1987).

- Participation in socially valued decision making refers to individuals’ ability to approve tasks set before them, to hold considerable performance responsibility and to have a say in the outcome of different life experiences (Antonovsky, 1987). The aim of this participation is to provide the individual with a sense of meaning and value that enables the person to perceive challenges or tasks as worthy of emotional investment and commitment (Antonovsky, 1987). Participation thus forms the foundation of the meaningfulness component of the SOC.

These life experiences, as discussed above, are in turn moulded by an individual’s culture, history, position in social structures, the family, work, as well as gender, ethnicity and genetics (Antonovsky, 1996).

2.6.4 The Development of the SOC across the Lifespan

Antonovsky (1987) traced the development of the SOC through experiences from three major life stages of an individual. These life stages include infancy and childhood, adolescence and adulthood. Since the sample under investigation in the present study involves adults, the
researcher will briefly describe the development of the SOC through childhood and adolescence, and place more emphasis on the development of the SOC through adulthood.

2.6.4.1 Infancy and Childhood

During infancy and childhood, family experiences play a significant role in shaping an individual’s SOC (Otto, 2002). Antonovsky (1987) noted that the comprehensibility component of the SOC develops over time as children become aware of the consistency and regularity of their social environment, thereby realising that their social world can be counted on to be familiar and structured. The sense of manageability develops as children become increasingly physiologically able to comply with the demands placed on them by the environment (Antonovsky, 1987). Children’s sense of meaningfulness develops and is influenced by their perception that they matter and are valued by significant others (Antonovsky, 1987).

2.6.4.2 Adolescence

According to Antonovsky (1987), the development of the SOC in adolescence is primarily influenced by the cultural and social settings in which they spend most of their time. Antonovsky (1987) described four different environments in which adolescents grow up, which may foster life experiences that shape the SOC. These include: (a) the complex open society which provides the adolescent with a wide variety of legitimate, realistic options, including drugs, sex, religion and education; (b) the homogenous and isolated subcultures that rigidly define legitimate teenage behaviour; (c) the socio-economically devastated and confusing subculture that challenges adolescents to develop in a state of socio-economic deprivation; and (d) the fundamentalist culture which is linked to power and destruction (Antonovsky, 1987).
2.6.4.3 Adulthood

Antonovsky (1987) indicated that adolescents have a tentative strong SOC which may be useful for short-range prediction about coping with stressors and the resulting health status. However, one’s location on the SOC continuum is reinforced and becomes more or less fixed during early adulthood (Antonovsky, 1987). This could be explained by the fact that adulthood requires commitments of a more long-range nature, such as commitment to persons (e.g., spouses and children), social roles and work. It is especially the experience gained from work that influences the SOC. The term “work”, as it is used here, refers not only to one’s career or occupation, but also to one’s life role (Antonovsky, 1987). Antonovsky (1987) pointed out that the reinforcement or reversal of the strength of the SOC gained in adolescence largely depends on the type of life experiences that are provided through their work experiences. Accordingly, he identified certain crucial variables in the work situation that provide life experiences central to the formation of the SOC in adulthood. These variables are highlighted in the following section.

- The life experience of constancy enriches the sense of comprehensibility. Consistency refers to the degree to which the working condition (a) promotes seeing the whole work picture and one’s position in it; (b) provides confidence in job security and the predictability of the future; and (c) provides social support, group identification and appropriate feedback in social relations.

- The sense of manageability is influenced by load balance in the work situation. Load balance refers to the availability of resources to the individual to perform the job well and the degree to which the job situation allows the worker to develop his/her full potential, which is then utilised in what Antonovsky (1987) called “work of substantive complexity” (p.12). This
refers to a reasonable match between the ability of the worker and the challenge of degree of difficulty of his or her task (Carstens, 1995).

- The sense of meaningfulness is influenced by the opportunity to participate in the decision-making processes at work, thereby having a say in the conditions of one’s work that promote a sense of joy and pride. Carstens (1995) postulated that discretionary freedom and decision latitude seem crucial to this environment, as well as the legitimacy of power allocation in the work setting.

Antonovsky (1987) hypothesised that by the age of 30, the SOC becomes crystallised and relatively stable over time. Antonovsky accepted that once the SOC has stabilised, it will not change in a radical way despite the minor changes that may occur (Carstens, 1995). This, however, seems only to apply to individuals with a strong SOC at the beginning of adulthood (Carstens, 1995). When individuals with a strong SOC are confronted with challenges, one could expect their SOC to return or even surpass premorbid levels once the crisis is over (Carstens, 1995; Otto, 2002). On the contrary, individuals with a weak SOC tend to exacerbate their situation. They take on the challenge as a burden, which results in a downward spiralling circle (Antonovsky, 1987). When individuals with a weak SOC are in crisis, one could expect their SOC to weaken even further. Moreover, when the crisis is resolved, it is highly likely that these individuals’ SOC will not return to premorbid levels (Otto, 2002).

Carstens (1995) argued that if the aforementioned is accepted, then Antonovsky (1987) seemed to contradict himself. He claimed that the SOC is stable, but noted that if the SOC is low to start with, it is bound to weaken. Antonovsky (1987) explained this apparent contradiction by hypothesising that there seems to be a critical level of the SOC above which there is a strong tendency to stabilise, and below which there seems to be a deterioration of the SOC strength.
Furthermore, he claimed that although the SOC tends to stabilise near the end of the first decade of adulthood, people are equipped to seek out “SOC-enhancing experiences” to cope with their stressors. Individuals could either seek out these experiences by themselves or enlist the assistance of health professionals who are trained to modify the SOC with planned interventions (Carstens, 1995).

2.6.5 The SOC and Coping

Antonovsky (1987) referred to the SOC as a dispositional orientation, rather than a specific coping style. The SOC is viewed as a coping orientation that allows a choice from a variety of coping strategies that are deemed most appropriate when dealing with different life stressors (Antonovsky, 1987). Hence, an individual will choose from the GRRs at his/her disposal, the most appropriate combination. Fouché (1999) indicated that there is a positive relationship between successful coping and a strong SOC. Whereas an individual with a strong SOC may be able to cope successfully with different life stressors, an individual with a weaker SOC may be overwhelmed by life stressors and therefore, cope less effectively.

According to Antonovsky (1987), individuals with a weak SOC have a tendency to perceive internal and external stimuli as disorderly and incomprehensible. These individuals would feel victimised by life events and feel that they are treated unfairly (Antonovsky, 1987). In addition, these individuals would feel that life’s demands are unbearable, and that life holds little or no meaning for them (Antonovsky, 1987). In contrast, if an individual’s SOC is stronger, the possibility is greater that a stimulus will be perceived as non-stressing, less dangerous and less threatening (Antonovsky, 1987; Fouché, 1999). This individual will have a greater ability to prevent tension from being transformed into stress, and will focus on emotions, without feeling threatened by them (Antonovsky, 1987). Furthermore, an individual with a strong SOC will have
a wider range of resources available and is more flexibly able to choose from that repertoire (Antonovsky, 1987). Finally, this individual will also be able to introduce order and meaning into the experience, and will engage in health-adaptive behaviours (Antonovsky, 1987; Fouché, 1999).

Research conducted by McSherry and Holm (1994) confirmed Antonovsky’s ideas that were discussed above. In addition to the characteristics of individuals who have a weak SOC, as highlighted by Antonovsky (1987), McSherry and Holm (1994) further discovered that these individuals, when compared with individuals who have a stronger SOC, were less likely to believe that they possessed the necessary coping resources to deal with demands. Furthermore, results from their research found that “not only are low SOC individuals more psychologically distressed prior to a stressful situation, but they maintain these greater levels of distress subsequent to the stressful experience as well” (McSherry & Holm, 1994, p.484).

2.6.6 The SOC and Related Concepts

An overview of the literature indicates that most of the research regarding stress and coping was conducted from a pathogenic perspective, through its attempts at explaining the cause of pathology. However, a number of theorists and researchers have emerged in the field who have developed similar concepts to the SOC, that attempt to explain health in terms of coping styles and stress resilient personality patterns (Schafer, 2000). Table 1 represents a brief description of some of these concepts (as adapted from Cairns, 2001; Otto, 2002).
### Table 1

The Sense of Coherence and Related Concepts

<table>
<thead>
<tr>
<th>Concept</th>
<th>Description</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardiness</td>
<td>A personality style comprised of three components namely, a liking of challenge, a sense of commitment and a sense of control.</td>
<td>Kobasa (1979)</td>
</tr>
<tr>
<td>The Survivor</td>
<td>Personality</td>
<td>Siebert (1993)</td>
</tr>
<tr>
<td>Personality</td>
<td>A personality pattern of individuals who have survived a major crisis or challenge, surmounted the crisis through personal effort, and emerged from the experience with new strengths and abilities.</td>
<td></td>
</tr>
<tr>
<td>Learned Optimism</td>
<td>A coping style and personality pattern that entails a pattern of thinking in which good events are explained by factors that are internal, permanent and pervasive. Bad events are explained by factors that are external, temporary and limited in scope.</td>
<td>Seligman (1970)</td>
</tr>
<tr>
<td>Fortigenesis</td>
<td>A construct that refers to the origins of strength. It looks beyond salutogenesis, through referring to those sources of strength in general.</td>
<td>Strümpfer (1995)</td>
</tr>
<tr>
<td>Concept</td>
<td>Description</td>
<td>Researcher</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>A coping style that refers to the conviction that, when one is confronted by a threatening situation, one can successfully behave in such a way as to produce the desired outcome.</td>
<td>Bandura (1982)</td>
</tr>
<tr>
<td>The Type C Pattern</td>
<td>The type C personality pattern describes how people are able to manage and operate at peak performance under pressure. The Type C pattern draws some of the best attributes from Type A and Type B patterns and adds new elements to form a cluster that enables individuals to meet challenges head-on.</td>
<td>Kriegel and Kriegel (1984)</td>
</tr>
<tr>
<td>Internal locus of control</td>
<td>Locus of control refers to a cognitive strategy by which individuals evaluate situations. Individuals with an internal locus of control are convinced that they can control their own fate. They believe that through hard work, skill, and training, they can find reinforcements and avoid punishments. Individuals with an external locus of control do not believe they control their fate.</td>
<td>Rotter (1954)</td>
</tr>
</tbody>
</table>
These conceptualisations of coping listed in Table 1 tend to explain and describe the coping process as a result of either a personality pattern, or a cognitive appraisal, or an emotive and behavioural style. On closer examination, threads of the three components of the SOC namely, comprehensibility, manageability and meaningfulness, may be found in all of the above theories. A study by Smith and Meyers (1997) that investigated the relationship between the measure of SOC and measures of learned optimism, self-efficacy, hardiness and locus of control found that all of the variables seemed to be measuring the same core construct. Although internal locus of control was not included in either Cairns (2001) or Otto’s (2002) table, the present researcher has included it as an additional construct, based on Smith and Meyer’s (1997) findings. These researchers concluded that the SOC offers a useful model for understanding the relationship between personality, stress and health. Furthermore, the SOC has been found to be a more useful measure than other personality constructs, since it appears to offer considerable utility in explaining how an individual’s orientation to life influences the stress and coping process (Smith & Meyers, 1997).

The results of a South African study conducted by Wissing and Van Eeden (1997) also support Antonovsky’s (1993) findings of positive correlations of the SOC with indices of psychological well-being, quality of life, problem-focused coping and stamina. The uniqueness of the SOC concept lies in its particular combination of the cognitive, behavioural and emotional aspects of coping (Antonovsky, 1996). Furthermore, unlike concepts such as internal locus of control, mastery, and empowerment, the SOC is not a culture-bound construct (Antonovsky, 1996). Antonovsky (1996) explained that the sources of the three components may vary greatly from culture to culture and situation to situation. The second area of investigation in the present study is that of coping resources, which will be discussed in the subsequent section.
2.7 Coping Resources

There are a number of coping resources available to an individual in the coping process. These coping resources have been examined and defined by different researchers in various ways (Schafer, 2000). For the purpose of the present study, Antonovsky (1979), Hammer and Marting (1988) and Lazarus and Folkman’s (1984) models of coping resources will be explored.

2.7.1 Antonovsky on Coping Resources

Antonovsky’s focus on coping resources is concerned with how people manage to continue functioning regardless of the overwhelming stressors which can, and do, come their way (Antonovsky, 1979). The concept of generalised resistance resources (GRRs) was developed by Antonovsky (1979) to provide a theoretical answer to the question of what explains an individual’s movement toward the health pole of the ease/dis-ease continuum. GRRs are defined as “any characteristic of the person, the group, or the environment that can facilitate effective tension management” (Antonovsky, 1979, p.99). Antonovsky (1979) divided the GRRs into the following categories:

- Physical and biochemical GRRs, which include immunosuppressors and potentiators.
- Artifactual-material GRRs, particularly wealth that can buy, for example, food and clothing but also power, status and services.
- Cognitive GRRs, particularly knowledge and intelligence, contingent on education.
- The emotional GRR of ego identity.
- Coping strategies, as overall plans of action for overcoming stressors.
- Interpersonal-relational GRRs, which include social support and commitment.
• The macrosociocultural GRRs, which include religion, beliefs, rituals, norms and values embedded in a larger culture.

In Antonovsky’s (1987) view, a commonality among these GRRs is that they facilitate “making sense out of the countless stressors with which we are constantly bombarded” (p.xiii). In providing these experiences repeatedly, they generate over time, a strong sense of coherence. The SOC, which is considered to be a relatively stable personality disposition, is hypothesised to serve itself as a major coping resource (Sagy, Antonovsky & Adler, 1990). When there are deficits in these GRRs (also known as Generalised Resistance Deficits or GRDs) an individual will have more difficulty coping successfully (Antonovsky, 1979).

2.7.2 Lazarus and Folkman on Coping Resources

Lazarus and Folkman (1984) stated that the way in which people cope depend heavily on the availability of different coping resources and on the constraints that inhibit the use of available resources in specific situations. These researchers described six major categories of coping resources:

• Health and energy: Lazarus and Folkman (1984) postulated that these are the most pervasive and relevant resources to all people and refer to physical well-being. Healthy people are able to manage external and internal demands much better than frail, sick, tired people.

• Positive belief: “Viewing oneself positively can also be regarded as a very important psychological resource” (Lazarus & Folkman, 1984, p.159). When people believe that they can successfully bring about desired consequences, their ability to cope with stress is enhanced.

• Problem-solving skills: Problem-solving skills involve the ability to search for information, analyse situations, and generate alternative solutions to the problem at hand (Lazarus &
Folkman, 1984). These skills are drawn from other resources that include general experience, knowledge, cognitive ability and the capacity for self-control.

- Social skills: An important source of stress management is the ability to get other people to cooperate. This involves the capacity to communicate with others in a socially appropriate manner.

- Social support: This is obtained from interpersonal relationships that involve information giving, tangible support involving direct assistance, and emotional support that contributes to the feeling that one is loved and cared about (Lazarus & Folkman, 1984).

- Material resources: Monetary resources, including money and the resources that money can acquire, provide easier and sometimes more effective access to professional assistance, such as legal, medical and financial help.

2.7.3 Hammer and Marting on Coping Resources

Hammer and Marting (1988) defined coping resources as “those resources inherent in individuals that enable them to handle stressors more effectively, to experience fewer or less intense symptoms upon exposure to the stressor, or to recover faster from exposure” (p.2). Hammer and Marting (1988) examined coping resources in five domains, which include cognitive, social, emotional, spiritual/philosophical and physical. The following is a description of these five domains as described by Hammer and Marting (1988):

- The cognitive domain is concerned with the extent to which individuals maintain a positive sense of self-worth, a positive outlook towards others, and optimism about life in general.

- The social domain focuses on the degree to which individuals are embedded in social networks that are able to provide support in times of stress.
• The emotional domain questions the degree to which individuals are able to accept and express a range of affect, based on the proposition that a range of emotional responses help in relieving the long-term negative consequences of stress.

• The spiritual/philosophical domain examines the degree to which actions of individuals are guided by stable and consistent values derived from religious, familial, or cultural tradition or from personal philosophy. Such values might serve to define the meaning of potentially stressful events and to prescribe strategies for responding effectively.

• The physical domain questions the degree to which individuals enact health-promoting behaviours, which is believed to contribute to increased physical well-being. Physical well-being is thought to decrease the level of negative responses to stress and to enable faster recovery from stressful events.

On closer examination of the domains discussed above, it becomes evident that these domains fall under the larger framework of the biopsychosocial model. The biological component is comprised of the physical domain; the psychological component is comprised of the cognitive and emotional domains; and the social component is comprised of the social and spiritual/philosophical domains of the biopsychosocial model (Brown, 2002). Hammer and Marting’s model of coping resources has been adopted for the present study as it provides a detailed explanation of the possible coping resources that could be utilised by individuals who are faced with stressful situations. It is for this reason that the present researcher has decided to adopt Hammer and Marting’s (1988) model of coping resources, together with the Coping Resources Inventory (CRI) for the purpose of this study.
2.8 Conclusion

Most of the research in the field of stress and coping is pathogenic in nature, with its emphasis on risk factors, causes and prevention of illness. However, this chapter has highlighted the growing body of research that is rooted in exploring the origins of health rather than disease. Within this salutogenic framework, many rich and useful insights have been gained into how individuals manage stress and stay well. For the purposes of the present study, two main constructs have been highlighted. These include: the sense of coherence concept and the concept of coping resources. In the following section a discussion regarding the stress and coping of teachers educating learners with intellectual disabilities will be provided.
Chapter 3

The Stress and Coping of Teachers Educating Learners with Intellectual Disabilities

3.1 Chapter Overview

The present chapter aims to examine the stress and coping experienced by special education teachers educating learners with intellectual disabilities in special education schools. In order to understand the uniqueness of the special education environment, it is imperative to have some background knowledge of the condition of the learners that these teachers educate. Hence, the first section of the present chapter aims to briefly define intellectual disability with regard to its classification, severity and associated clinical features. A discussion of the role of the special education teacher is also provided. The second section of this chapter focuses on the occupational stressors of special education teachers and the various coping strategies identified by the research are discussed. Included in this section, is a discussion of the effect of certain demographic variables on the coping process.

3.2 Variations in Terminology

The terminology used to describe the lower end of the range of intellectual and cognitive abilities has changed over time and continues to vary in different countries and contexts. Some of the terms utilized to describe this condition include mental retardation, mental handicap, intellectual handicap, intellectual disability, cognitive handicap, and developmental disability (Lomofsky & Skuy, 2001). Although the term mentally disabled is almost universally accepted, many authors (Lomofsky & Skuy, 2001; Stakes & Hornby, 2000; Steenkamp & Steenkamp, 1992) prefer the term intellectual disability as they believe that this term is more specific, whilst mental disability could include a variety of mental states. The Report of the National
Commission on Special Needs in Education and Training (Department of National Education, 1997) also prefer the term intellectual disability. For the purposes of this study, the researcher will follow the lead of the National Commission, by employing this term to refer to individuals at the lower end of the range of intellectual and cognitive abilities. In the following section, the criteria for diagnosing intellectual disability, as suggested by the American Psychiatric Association (APA) (2000), will be provided.

3.3 Classification of Intellectual Disability

According to the APA (2000), intellectual disability is defined as significantly sub-average general intellectual functioning that is accompanied by significant limitations in adaptive functioning and is manifested during the developmental period, before the age of 18 years. The diagnosis is made regardless of whether the person has a coexisting physical disorder or other mental disorder (Sadock & Sadock, 2003). General intellectual functioning is defined by the intelligence quotient (IQ) obtained by an assessment with one or more standardized, individually administered intelligence tests (APA, 2000). Sub-average intellectual functioning is defined as an IQ score of approximately 70 or less. Adaptive functioning refers to how effectively individuals cope with common life demands and how well they meet the standards for personal independence expected of someone in their particular age group, sociocultural background and community setting (APA, 2000). Adaptive functioning can be measured by using standardised scales to measure the following skill areas: communication, self-care, home living, social/interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health and safety (APA, 2000).

Individuals with intellectual disabilities differ significantly in their degree of disability. Almost all classification systems have differentiated these individuals based on their level of ability or on the etiology of the intellectual disability (Barlow & Durand, 1999). The APA (2000)
classified four different degrees of intellectual disability, based on the functioning level of the individual. These are discussed below.

### 3.3.1 Degrees of Severity

Intellectual disabilities are classified into four categories namely, mild, moderate, severe, and profound (APA, 2000). Individuals with mild intellectual disability have an IQ of 50 to 70, and represent approximately 85% of individuals who have intellectual disabilities (Beirne-Smith, Ittenbach & Patton, 2002). Donald, Lazarus and Lolwana (1997) indicated that approximately 4.5% of South African children are mildly intellectually disabled. In general, learners with mild intellectual disability are not identified until after the first or second grade, when academic demands increase (Sadock & Sadock, 2003). By late adolescence they often acquire academic skills at approximately a sixth grade level. With the appropriate support, many adults with mild intellectual disability can live independently and raise their own families (Sadock & Sadock, 2003).

Individuals with a moderate intellectual disability have an IQ of 35 to 49, and constitute about 10% of the entire population of people with intellectual disabilities (Beirne-Smith et al., 2002). Approximately 0.5% of South African children have moderate intellectual disability (Donald, Lazarus, & Lolwana, 1997). During early childhood, most children with moderate intellectual disability acquire language and can communicate adequately (Sadock & Sadock, 2003). Learners in this group are challenged academically and often are not able to achieve academically above a second to third grade level. They can learn basic academic skills, such as reading basic words and sentences, although possibly with limited understanding (Lomofsky & Skuy, 2001). During adolescence, their difficulties in recognizing social conventions may interfere with peer relationships and a great deal of social and vocational support is beneficial.
As adults, individuals with moderate intellectual disability may be able to perform semi-skilled work under the appropriate supervision (Sadock & Sadock, 2003).

Individuals with severe intellectual disability have an IQ of 20 to 34, and represent approximately 3% of individuals with intellectual disabilities (Beirne-Smith et al., 2002). Most children with severe intellectual disability acquire little or no communicative speech during early childhood (APA, 2000). During the school-age period, these children may learn to talk and can be trained in elementary self-care skills. Learners in this group can master skills such as learning sight reading of some “survival” words, but they benefit to a limited extent from instruction in pre-academic subjects, such as learning the alphabet and simple counting (Donald, Lazarus & Lolwana, 1997). As adults, individuals with severe intellectual disability may be able to perform simple tasks in closely supervised settings (APA, 2000).

Individuals who are profoundly intellectually disabled have IQ scores below 20, and constitute approximately 1% of individuals with intellectual disabilities (Beirne-Smith et al., 2002). Most individuals with profound intellectual disability have identifiable causes for their condition (Sadock & Sadock, 2003). During their early childhood years, they display considerable impairments in sensorimotor functioning. Given the appropriate training, children in this group may be taught some self-care skills and learn to communicate their needs. As adults, some individuals with profound intellectual disability can perform simple tasks in closely supervised and structured settings.

From the above discussion it is evident that individuals with intellectual disabilities display a broad range of abilities, based on the degree of their intellectual disability. In a similar way, these individuals also display a number of associated clinical features, which may vary depending on the degree of intellectual disability. These clinical features will be discussed in the subsequent section.
3.3.2 Associated Clinical Features of Intellectual Disability

Surveys have identified several clinical features that occur with greater frequency in individuals who are intellectually disabled than in the general population (Sadock & Sadock, 2003). Learners with mild intellectual disability tend to have difficulties with peer relationships and possess fewer skills in responding sensitively in ambiguous social situations (Mash & Wolfe, 1999). These learners relative lack of social spontaneity may be due to communication deficits or their low self-esteem (Sadock & Sadock, 2003). Furthermore, learners with mild intellectual disability are often unable to deal with even minor frustrations and may lose their temper over simple tasks (Sadock & Sadock, 2003). Donald, Lazarus and Lolwana (1997) postulated that although this is sometimes seen as a primary characteristic of learners with mild intellectual disability, it is more likely to be the result of repeated failure experiences in life. Additional associated features of learners with mild intellectual disability include behaviour problems, such as stubbornness, general negativism and resistance. Furthermore, these learners’ inability to succeed academically may lead to a low self-esteem, chronic frustration, anxiety and social withdrawal (Silver & Hagin, 2002).

Learners with a moderate intellectual disability develop more slowly, and their social isolation may begin in the elementary school years (Sadock & Sadock, 2003). These learners are aware of their deficits and often feel alienated from their peers and frustrated by their limitations (Mash & Wolfe, 1999). They have a short attention span, tend to be immature and have behavioural difficulties. Learners who have severe intellectual disability have poor motor development and their speech is minimal. Their inability to articulate their needs fully may cause feelings of frustration, which may result in aggressive behaviour. Furthermore, Sadock and Sadock (2003) postulated that self-injurious behaviours seem to be more frequent and more intense with increasingly severe intellectual disability. Children with profound intellectual
disability are severely limited in communication and motor skills. Additional associated clinical features of intellectual disabilities include hyperactivity, low frustration tolerance, affective instability, repetitive and stereotypic motor behaviours and various self-injurious behaviours (Sadock & Sadock, 2003).

Teachers that will be participating in this study educate learners who have mild or moderate intellectual disabilities, as these learners are placed in special schools. Based on the discussion provided above, it is evident that special education teachers not only have to cope with learners’ varying degrees of intellectual disabilities, but they also have to deal with the associated social, emotional and behavioural difficulties often manifested by these learners. Hence, it can be concluded that the role of a special education teacher is of an extremely complex, multidimensional and demanding nature. A discussion exploring the role of special education teachers follow.

3.4 The Role of Special Education Teachers

In order to devise realistic educational aims for their learners, special education teachers need to be knowledgeable about intellectual disabilities, have sufficient information about each particular learner in the class and be aware of the various levels of ability of each learner. Special education teachers need to be patient as learners with intellectual disabilities are usually slower than children in general education. They should be prepared to repeat their teaching and break work up into small steps (Donald, Lazarus & Lolwana, 1997). It is imperative that special education teachers realise and accept that the results of their efforts will be gradual and often very meagre due to the slow and infrequent progress of these learners. Special education teachers should be able to maintain self-discipline, be able to assess learners objectively, listen to the learners and know how to talk to them to obtain the best results (Mash & Wolfe, 1999).
It is also important for special education teachers to be tolerant and understand each learner’s difficulties and know how to adjust to the tempo of each learner in the class. Special education teachers need to be flexible and creative in their approach and utilise a range of resource materials, such as visual aids and practical activities, such as games to convey information to learners. Similarly, Stakes and Hornby (2000) suggested that special education teachers must be skilled in a variety of approaches and will have to design various learning situations to accommodate each learner’s needs and developmental level. In order to limit anxiety and help the learners feel more secure, special education teachers should be consistent in their teaching and establish a clear routine for daily activities (Donald, Lazarus & Lolwana, 1997). Furthermore, special education teachers should make use of self-esteem and confidence building exercises, and praise and encouragement to increase the learner’s self-esteem. Special education teachers should also help the learners to develop social skills by encouraging group work (Stakes & Hornby, 2000). In order to ensure that learners develop to their maximum potential, it is essential that special education teachers are able to work cooperatively in collaboration with colleagues, other professionals and parents.

The discussion provided above aimed to create a context for understanding the work environment of special education teachers. From this discussion it becomes obvious that special education teachers are expected to fulfil a number of roles, which are often accompanied by a variety of occupational stressors. The following section provides a description of these stressors.

3.5 Occupational Stress of Special Education Teachers

Teacher stress can be described as a complex process involving an interaction between the teacher and the environment that includes a stressor and a response (Eloff, Engelbrecht, Oswald & Swart, 2003). A stressor can be defined as “a stress-inducing factor, acting on the person and emanating from the self or the environment, to which a positive or negative meaning is ascribed
by the person, which is experienced as a threat or a challenge” (Bester & Swanepoel, 2000, p.255). Kyriacou (1998) defined a stress response as the experience of unpleasant emotions such as tension, frustration, anxiety, anger and depression, resulting from one’s occupation as a teacher. The key element in the above definition is the teacher’s perception of potential stressors in the work environment, as well as their appraisal of their ability to cope with the situation. Occupational stress can thus be defined as the effect of task demands that teachers face in their performance of their professional roles and responsibilities (Eloff, Engelbrecht, Oswald & Swart, 2003).

Occupational stress and burnout have been found to affect the quality of educational services because they affect instructional and interpersonal interactions as well as teachers’ physical and mental health (Wisniewski & Garguilo, 1997). Teachers who have reported frequent and intense levels of stress over a period of time have also reported changes in their interpersonal interactions with learners and colleagues. According to Beck and Garguilo (2001), it has been found that teachers teaching under stressful conditions respond more negatively, are less task-oriented, deliver less positive reinforcement, are less focused on instructional tasks, and are less able to concentrate on instructional interactions. Furthermore, stressed teachers were rated as less effective in managing disciplinary problems and as more likely to use aversives to modify learner behaviour (Wisniewski & Garguilo, 1997). The use of aversives may further intensify a cycle of maladaptive behaviours and lead to teacher withdrawal. Finally, these teachers were also viewed as being less sensitive to the social, physical and emotional needs of their learners (Eloff, Engelbrecht, Oswald & Swart, 2003). Consequently, the effect of stress is to create a learning environment that lacks cohesion and is more disorganized.
In interactions with colleagues and parents, teachers teaching in stressful environments have been described as less flexible, more cynical, and more likely to experience interpersonal conflicts with colleagues (Beck & Garguilo, 2001). Conflicts in turn, have been noted to directly affect interpersonal relationships, leading to social isolation and feelings of social inadequacy. Long-term stress has been found to affect the teacher’s physical and mental health, producing physiological, psychological, and attributional responses (Wisniewski & Garguilo, 1997). Physiological responses include elevated blood pressure, dietary changes, headaches, loss of weight, loss of energy, or other related symptoms. Long-term stress may produce psychological responses. For example, teachers teaching under stressful conditions have rated themselves as being more depressed, nervous, anxious, and more likely to have psychosomatic complaints than a comparison group of nonstressed teachers (Wisniewski & Garguilo, 1997) Attributional responses are evident when teachers report feelings of inferiority, feelings of resignation, and feelings of helplessness (Wisniewski & Garguilo, 1997). Beck and Garguilo (2001) postulated that teachers may also report a change in their locus of control; they may attribute their lack of success as teachers to forces beyond their control. Finally, teachers may resort to coping strategies, for example, the use of sick-leave days that inadvertently create an ever-increasing cycle of stress that culminates in burnout and the eventual decision to leave the profession (Beck & Garguilo, 2001).

From the above discussion it is evident that occupational stress does not only affect the teacher, but may have a significant impact on colleagues, learners, parents, and the teaching profession. In the subsequent section we will take a closer look at the variables that teachers report to be stressful. These variables include: work overload; challenging behaviour of learners; limited progress of learners; role conflict and role ambiguity; lack of instructional support,
materials and resources; limited and/or stressful professional interactions; limited professional training and development; and integration into mainstream schools.

3.5.1 Work Overload

From the discussion on the role of special education teachers, it became obvious that these teachers are not only responsible for managing the diverse intellectual needs of their learners, but they also have to manage the social, emotional and behavioural difficulties that these learners manifest. Beck and Garguilo (2001) reiterated this statement when pointing out that in order for special education teachers to competently manage the challenging and diverse needs of their learners, these teachers need to perform at a high level in the areas of curriculum development, behaviour management, instructional management, collaboration and paperwork completion. Similarly, in a South African study conducted by Makhubela-Nkondo (1993), it was found that teachers in special education are often required to fulfil various roles, such as class aide, nurse and social worker.

Another source of work overload reported by special education teachers is that of insufficient time for lesson planning, curriculum development, and communication with parents, colleagues or outside agencies (Male & May, 1997). Billingsley (2004) explained that in order to accommodate the different levels, abilities, and languages of their learners, special education teachers have to plan their lessons carefully. Similarly, Beck and Garguilo (2001) postulated that special education teachers are required to do a lot of preparatory work as instructions have to be adapted to accommodate each learner’s ability.

Additionally, recent studies have consistently identified paperwork as a problem that contributes to work overload, and eventually teacher attrition (Billingsley, 2004; Beck & Garguilo, 2001). In particular, findings from the largest study investigating paperwork suggested
that paperwork problems were significantly related to special education teachers’ intent to leave teaching, after many other work-condition variables were controlled (Billingsley, 2004). Large class sizes and the long hours required to meet either instructional objectives or learner needs is yet another stressor faced by these teachers (Wisniewski & Garguilo, 1997). In a South African study conducted by Williams (2003), large classes were identified as contributing to disciplinary problems.

### 3.5.2 Challenging Behaviour of Learners

As previously mentioned, research has identified several clinical features, such as behavioural problems, to be more common in individuals who are intellectually disabled than in the general population. Hence, learners who are disruptive, disobedient or misbehave also add to the occupational stress of special education teachers (Beck & Garguilo, 2001). Similarly, Antonio, Polychroni and Walters (2000) indicated that learners with difficulties sometimes exhibit a variety of behaviours which are likely to produce negative effects among their teachers. Furthermore, it has been pointed out that teachers are faced with the responsibility of motivating and disciplining those learners who have poor motivation and negative attitudes toward their work (Wisniewski & Garguilo, 1997).

### 3.5.3 Limited Progress of Learners

When working with learners with disabilities, special education teachers often find themselves frustrated by the slow progress that the learners make in learning and in managing their own behaviour (Beck & Garguilo, 2001). However, Antonio, Polychroni and Walters (2000) indicated that this may be expected as teachers are responsible for teaching learners who have limited ability in comprehending the curriculum. Furthermore, the progress of learners are characterised by very small steps and regression to previous cognitive stages is often the case.
In this situation, teachers need to remind themselves of the severity of their learners’ challenges and realise that a lack of learner progress does not necessarily indicate shortcomings on the teacher’s part.

### 3.5.4 Role Conflict and Role Ambiguity

Role conflict occurs when the organization, in this case the school, provides relevant information about a teacher’s roles and responsibilities that conflict with the realities of daily professional life (Wisniewski & Garguilo, 1997). Role ambiguity occurs when teachers have insufficient information to carry out their professional responsibilities adequately (Eloff, Engelbrecht, Forlin & Swart, 2000). Role ambiguity therefore involves a lack of clear and consistent information about special education teachers’ duties, tasks, responsibilities and rights. Research findings provide evidence that role conflict and role ambiguity significantly interfere with special education teachers’ job satisfaction and their ability to effectively educate their learners (Billingsley, 2004). Special education teachers have been found to experience significantly higher rates of role conflict and role ambiguity than a comparison group of general education teachers (Gersten, Keating, Yovanoff & Harniss, 2001).

Furthermore, special education teachers report that their role is often in conflict with the expectations of their supervisors, building administrators and parents (Wisniewski & Garguilo, 1997). For example, despite the long hours required to prepare instructional materials to meet learners’ needs, special education teachers are given insufficient planning time. Due to this inconsistency, special education teachers may become frustrated and experience psychological conflict, as they are unable to direct class activities in a manner which they feel adequate.

Finally, Stempien and Loeb (2002) pointed out that if the organization creates ambiguous rules or imposes too many directions on teacher-led activities, teachers might perceive these
rules as an infringement on their professionalism and judgement, and their inability to share in the decision-making process. The ambiguity and conflict that special education teachers experience in their roles in supporting and facilitating organizational goals and objectives, will also influence their occupational or professional commitment (Billingsley, 2004). In light of this, Gersten, Keating, Yovanoff and Harniss (2001) indicated that addressing the design of special education teachers’ role is a critical need, since many special education teachers transfer to general education.

3.5.5 Lack of Instructional Support, Materials and Resources

Special equipment and materials may be needed for individual instruction in the special education classroom. The resources used by a teacher have a major influence on what and how information and skills are taught (Wisniewski & Garguilo, 1997). Croll and Moses (2000) contended that special education schools sometimes have inadequate resources to meet the specific needs of their learners, therefore having a negative impact on the quality of both the teaching and learning processes. Similarly, Donald, Lazarus and Lolwana (1997) postulated that a constant lack of resources and overcrowded classrooms due to financial constraints is a reality in South African schools. The issue of financial delegation highlighted some of the problems associated with resource allocation for special schools (Croll & Moses, 2000). Wisniewski and Garguilo (1997) pointed out that when schools create performance expectations but fail to provide a sufficient supply of resources, teachers experience some degree of uncertainty. This uncertainty becomes an important source of anxiety and stress that ultimately influences a teacher’s commitment to the school and to the profession (Wisniewski & Garguilo, 1997).
3.5.6 Limited and/or Stressful Professional Interactions

The professional interactions that special education teachers develop with their colleagues, administrators, and parents are valuable sources of stimulation. It is essential that a professional relationship exists between special education teachers and other relevant professionals, in order to provide maximum stimulation and quality education to learners. Stempien and Loeb (2002) reiterated this statement when they pointed out that healthy interpersonal relationships between teachers promote greater commitment to and responsibility for teaching learners with special educational needs. The more supportive colleagues are in helping each other adjust and achieve professional goals, the more job satisfaction there would be (Stempien & Loeb, 2002).

However, professional interactions can also be a significant source of stress for special education teachers. Recent research findings demonstrated that teachers who experience higher levels of principal support are more likely to experience greater job satisfaction and school commitment and less likely to experience personal health problems than those receiving lower levels of support (Otto & Arnold, 2005). On the other hand, non-supportive principals can lead teachers to feel frustrated and unimportant, as well as create an atmosphere of ill-will and helplessness (Gersten, Keating, Yovanoff & Harniss, 2001). Researchers have identified a number of situations that may contribute to stressful professional interactions. These include: lack of recognition by administrators for a job well done, a general lack of parental support and a lack of or inconsistent support from school personnel to implement curricular innovations (Otto & Arnold, 2005; Stempien & Loeb, 2002; Wisniewski & Garguilo, 1997). These situations may lead special education teachers to develop a perception that they lack the power to affect the decision-making process (Wisniewski & Garguilo, 1997). Furthermore, special education teachers may also develop attributions that cause them to question their professional judgement,
their ability to contribute to the decision-making process, and their professionalism (Wisniewski & Garguilo, 1997).

3.5.7 Limited Professional Training and Development

It has been found that attrition is correlated with the level of training, special education certificates and teaching talent as measured by standardised tests (Wisniewski & Garguilo, 1997). Anderson and Pellicer (2001) noted that many current teachers were prepared years ago in programmes that did not envision the kinds of challenges schools now confront, and did not have access to the knowledge about teaching and learning that is available today. Many teachers with teaching qualifications have no specialist training in special education, while others may not have worked with learners across the full ability range (Anderson & Pellicer, 2000). Emphasis has been placed on the role of training and development in overcoming certain limitations in the basic training of teachers.

Croll and Moses (2000) contended that training would substantially increase the expertise in schools and stated that more teachers should have qualifications such as a diploma or certificate in special educational needs. By gaining specialised training, teachers would overcome certain limitations encountered in special education. Special education teachers would be equipped with skills and expertise that would enable them to more effectively cope with the demands made on them by special education. However, Croll and Moses (2000) argued that some barriers include the lack of finances available to support these teachers in further development, as well as the increase in teacher workload, therefore leaving them with limited time to attend workshops.

Professional development opportunities refer to the degree to which special education teachers perceive that they have opportunities to grow and advance professionally (Gersten,
Keating, Yovanoff & Harniss, 2001). Research conducted by Gersten, Keating, Yovanoff and Harniss (2000) found that teachers who perceived greater professional development opportunities experienced less role dissonance. Currently, professional development for teachers working with learners with special educational needs continues to be a problem area (Croll & Moses, 2000). Opportunities are scarcely available in the present climate as there is a transitional and transformational period in which there is a paradigm shift in education. There has been a strong movement toward the integration of pupils with special educational needs, however, teachers have not yet received any specific training for this challenging role (Stakes & Hornby, 2000).

3.5.8 Integration into Mainstream Schools

During the last decade there has been a fundamental, turbulent, and rapid transformation in the education system of South Africa. Since 1994, the demand to educate learners with special needs within mainstream classrooms in South Africa has continued to grow, and the implementation of inclusive education is in the final process of legislation (Eloff, Engelbrecht, Oswald & Swartz, 2003). As a result of this development, special education teachers might experience a tremendous amount of stress, as they have not had any specific training for this challenging role (Antonio, Polychroni & Walters, 2000). An added stressor is the critical nature of the wide-ranging functions that these teachers are expected to fulfil. For instance, collaborating with general education teachers and working with parents.

Although stress is apparently an unavoidable consequence of the teaching profession, as clearly demonstrated in the above discussion, special education teachers can adopt various coping strategies to deal with the occupational stress they experience (Beck & Garguilo, 2001). However, Billingsley (2004) postulated that efforts to improve the coping of special education
teachers should be based on an understanding of the variables that teachers report to be stressful. Hence, the discussion provided above aimed to highlight the variables that contribute to the occupational stress of special education teachers. The subsequent section focuses on the coping strategies employed by special education teachers.

3.6 Special Education Teachers and Coping

It has already been highlighted that occupational stress does not only affect the special education teacher, but has also proven to have detrimental effects on colleagues, learners and parents. It is therefore pertinent that special education teachers are able to effectively cope with the demands placed on them by their occupation. Although research relating specifically to the coping of special education teachers remains scant, there have been some attempts to inform special education teachers of ways to reduce stress and avoid burnout.

A frequently mentioned strategy is the establishment of a peer support system that provides for professional and personal interactions with colleagues (Yee, 1990). This is an especially useful strategy as teachers would have an opportunity to share their experiences and realise that others are experiencing similar problems. Special education teachers would also be able to receive positive feedback and encouragement from their peers, leading to an increased sense of adequacy, personal accomplishment and motivation (Bernard, 1990). Seeking administrative assistance has also been regarded as an important strategy in combating the stresses of a complex work environment (Wisniewski and Garguilo, 1997). Similarly, Cross and Billingsley (1994) explained that administrative support will help to alleviate stress, increase leadership roles, and produce job satisfaction. Ongoing professional training and development has also been identified to reduce stress, as it enhances the personal and professional well-being of teachers (Wisniewski & Garguilo, 1997).
Furthermore, another helpful strategy includes the creation of mentorships in which novice teachers are matched with veteran colleagues who can provide useful advice, guidance and support in stressful situations (Bernard, 1990). A related strategy includes teacher preparation programmes, which play an important role in mitigating the stresses and strains faced by special education teachers. Wisniewski and Garguilo (1997) explained that by acquainting preservice teachers with the stark realities of their chosen profession, teachers will have the opportunity to identify potentially stressful situations while generating appropriate adaptive responses. Participation in physical exercise, recreational activities and hobbies has also been cited as a helpful strategy to reduce stress in teachers (Beck & Garguilo, 2001). Dunham (1992) suggested that special education teachers should apply positive self-talk, while drawing strength from previous successes. As teachers start believing in themselves, they would develop a more positive self-image.

Research findings revealed that other frequently used coping strategies adopted by special education teachers involve keeping things in perspective, expressing feelings and seeking support from others, thinking objectively about the situation and trying to keep emotions under control (Kyriacou, 1980). Furthermore, Bandura (1993) found that special education teachers who have a heightened sense of efficacy were less vulnerable to stress because they perceived themselves as having the tools to do their job. Special education teachers who are motivated and develop a positive outlook on life would be able to work more successfully through a stressful situation (Williams, 2003).

The innovations discussed above are critical in supporting special education teachers in their professional roles and are proficient in mitigating the harmful effects of occupational stress. However, in addition to the coping strategies discussed above, a number of researchers have
found that certain demographic variables could influence the coping process. Some of these variables, which will be discussed below, include: age, gender, educational qualifications, teaching experience, social support and spirituality.

3.6.1 Age

Research conducted by Billingsley (2004) revealed that age is related to increased job satisfaction among special education teachers. Teachers in their middle years feel an increasing commitment to and responsibility for others and experience more job satisfaction than during their earlier years (Billingsley, 2004). On the other hand, researchers consistently proved that younger special education teachers are more likely to leave, or express intent to leave, than older special education teachers (Boe, Bobbit, Cook, Whitener & Weber, 1997; Cross & Billingsley, 1994). Singer (1992) found that young special education teachers leave at a rate nearly twice that of mature teachers. Furthermore, both men and women tend to become less self-centred and develop better coping skills with age (Billingsley, 2004). According to Sadock and Sadock (2003), coping strategies are well developed in middle adulthood, with individuals having a wide repertoire of coping behaviours to choose from. Moreover, individuals in this age group are more flexible in their ability to choose the most effective coping behaviour from this repertoire, as opposed to individuals in earlier or later adulthood (Sadock and Sadock, 2003). Sadock and Sadock (2003) noted that younger individuals have a less well-developed repertoire of coping behaviours, while people in later adulthood have more inflexible and rigid coping strategies.

3.6.2 Gender

The relationship between gender and job satisfaction among special education teachers has been studied frequently but the findings have been inconsistent. A possible rationale for these inconsistent findings may be that biological differences have been identified to have little
bearing on job stress and satisfaction (Eichinger, 2000). Researchers have gone beyond biological gender and examined job stress and satisfaction relative to individuals’ social role orientation. Overall findings revealed that teachers who had a balanced (androgy nous) role orientation, tended to report higher levels of job satisfaction and lower levels of job stress (Eichinger, Heifetz & Ingraham, 1991; Schuttenberg, O’Dell & Kaczala, 1990). This could be explained by the fact that an androgynous social role orientation is seen as psychologically more healthy, since it proposes that individuals who possess a combination of masculine (instrumental) and feminine (expressive) traits are able to draw upon both sets of strengths when needed (Bem & Lenney, 1976; Bem, Martyna & Watson, 1976). This is especially pertinent in the field of special education, where teachers are required to perform an array of skills on a regular basis. For instance, instrumental skills would include advocating for a special education placement for a student with a disability, whereas expressive skills include actively listening to parents at a parent-teacher meeting.

3.6.3 Educational Qualifications

Clear evidence exists that links certification status to special education teacher attrition (Billingsley, 2004). In a study conducted by Miller, Brownell and Smith (1999), a higher level of attrition was found among uncertified teachers than certified teachers. Croll and Moses (2000) suggested that more teachers should have qualifications such as a diploma or certificate in special education, as this would substantially increase the expertise in schools. By gaining specialised training, teachers would overcome certain limitations encountered in special education. Consequently, they would be able to more effectively cope with the demands made on them by special education.
3.6.4 Teaching Experience

Studies consistently found that special education teachers who have been teaching for a number of years find their profession more satisfying and are able to more effectively deal with the teaching demands than their colleagues who have less experience (Cross & Billingsley, 1994; Gersten, Keating, Yovanoff & Harniss, 2001; Singh & Billingsley, 1996). More specifically, Otto and Arnold (2005) indicated that the highest group of special education teachers at-risk for attrition include those with five years or less experience in special education. In an interview study of beginning special education teachers, novice special education teachers described themselves as insufficiently prepared, frustrated and exhausted (Stempien & Loeb, 2002). Similarly, Wisniewski and Garguilo (1997) explained that in comparison to veteran teachers, beginning teachers usually lack the reservoir of experiences and skills necessary to cope with the stresses and strains brought about by a challenging teaching assignment. These findings suggest that many of the problems of teachers in special education may be acute adjustment issues rather than evolving, chronic complaints (Stempien & Loeb, 2002). Eventually, as special education teachers acquire the necessary skills and their self-confidence improves, they manage to overcome some of these frustrations.

3.6.5 Social Support

Administrative support is critical to the professional development and well-being of special education teachers. Research findings indicated that special education teachers who experience higher levels of administrative support are more likely to experience greater job satisfaction and school commitment and less likely to experience personal health problems than those receiving lower levels of support (Otto & Arnold, 2005). Special education teachers, who characterise their principals and colleagues as being supportive, find work more rewarding, enjoy a productive,
motivating work environment, and demonstrate lower attrition rates (Wisniewski & Garguilo, 1997). Furthermore, special education teachers who believe that they make a difference contribute more to the organisation, increase their participation in activities and work harder to succeed (Otto & Arnold, 2005). On the other hand, a lack of administrative support may result in teachers feeling frustrated and unimportant and creates an atmosphere of ill-will and helplessness (Gersten, Keating, Yovanoff & Harniss, 2001).

Finally, the literature indicated that support from spouses, friends and family are important factors in psychological and physical well-being (Carroll, 1992). Various researchers have highlighted many positive aspects relating to the involvement in a marital relationship. Carroll (1992) found that support within the marital relationship is important for the well-being of both partners and that social support within the marital relationship is negatively related to later depressive symptoms. In a South African study of special education teachers, Williams (2003) emphasised the importance of receiving positive support from spouses and families, which could be an important factor in stress reduction.

3.6.6 Spirituality

The relationship between spirituality and coping have been examined in numerous studies, and research findings revealed that a positive correlation exists between spirituality and coping ability (Graham, Furr, Flowers, & Burke, 2001; Kloosterhouse & Ames, 2002; Rowe & Allen, 2004). Kloosterhouse and Ames (2002) contended that individuals who have a spiritual identity were found to have an increased physical health, fewer psychological symptoms, greater life satisfaction, wellbeing, fellowship, coping skills and self-esteem. Thus far, no research has been conducted to examine the relationship between spirituality and coping among special education teachers.
Rowe and Allen (2004) postulated that although spirituality and religion are often used interchangeably, these terms are not synonymous. Spirituality refers to the search for existential meaning within any given life experience, in the absence of any clear practice of a religion or faith (Rowe & Allen, 2004). Religion pertains to the external expression of faith and is composed of beliefs, ethical codes and worship practices that unite an individual with a moral community (Kloosterhouse & Ames, 2002). The above discussion highlighted the influence of certain demographic variables on the coping process. In the subsequent section attention will be drawn to the coping orientation and resources of special education teachers.

3.7 The Coping Orientation and Resources of Special Education Teachers

The aim of the present research is to describe the coping orientation and resources of a group of special education teachers. Hence, it is important to understand the above-mentioned coping strategies within the framework of these two constructs, both of which were discussed in chapter 2. It must be emphasised that among the limited studies that do exist regarding the coping of special education teachers, none of them specifically relate to SOC or coping resources. Hence, one of the reasons for undertaking this study is to add to the limited body of research available in this field. However, many similarities can be drawn between the coping strategies that have been discussed and the three components of the SOC concept.

Thinking objectively about the situation is clearly related to the comprehensibility component of the SOC (Kyriacou, 1980). Expressing emotions and seeking support from others corresponds with the manageability component of the SOC (Kyriacou, 1980). The coping pattern of feeling motivated and having a positive outlook on life can be viewed as related to the meaningfulness component (Williams, 2003). The coping strategies provided in the discussion may also be related to the concept of coping resources. As discussed in chapter 2, Hammer and
Marting’s (1998) CRI assesses coping resources in five domains, namely: cognitive, social, emotional, spiritual/philosophical and physical. The coping strategies that have been discussed may be regarded as coping resources and could be classified according to one of these domains. The cognitive domain involves having a positive outlook on life, maintaining a positive self-image and thinking objectively about a situation (Dunham, 1992; Kyriacou, 1980; Williams, 2003). While the social domain involves seeking support from others, the emotional domain involves expressing feelings and being motivated (Kyriacou, 1980; Williams, 2003). Participation in physical exercise falls within the physical domain and religion and spirituality fall within the spiritual/philosophical domain (Beck & Garguilo, 2001; Kloosterhouse & Ames, 2002).

3.8 Conclusion

The complex, multidimensional and demanding nature of special education often places additional pressures on the special education teacher. Apart from having to cater for the diversity of learners’ educational needs and dealing with the associated social, emotional and behavioural difficulties manifested by these learners, special education teachers are often confronted with many additional stressors in the work environment. These stressors involve work overload, challenging behaviour of learners, limited progress of learners, role conflict and role ambiguity, lack of instructional support, materials and resources, limited and/or stressful professional interactions, limited professional training and development, and integration into mainstream schools. When these stressors become too intense and unmanageable, special education teachers experience occupational stress. Since occupational stress has detrimental effects for the teacher, colleagues, learners, parents and the teaching profession, it is essential that teachers develop strategies to effectively cope with the stress they encounter in their occupation. Certain
demographic variables have also been found to influence the coping process. These include age, gender, educational qualifications, teaching experience, social support, and spirituality. The research background presented in this chapter forms the foundation of this study, which is aimed at investigating the coping orientation and resources of teachers educating learners with intellectual disabilities. In the following chapter, the research design and methodology of the study are explored.
Chapter 4

Research Design and Methodology

4.1 Chapter Overview

In Chapter 2 an overview of the literature on stress and coping was provided and the central concepts of this study, namely sense of coherence and coping resources, were examined. Chapter 2 provided relevant background information about intellectual disability and the occupational environment of special education teachers was explored. The concepts of stress and coping were re-examined with reference to teachers who teach in special education schools. In the present chapter, an overview of the research design and methodology employed in this study is provided. The objectives of this study are outlined and an explanation of the design and sampling procedures are provided. A discussion of the measures utilised in this research is included to provide a better understanding of the data collection. Finally, an explanation of the research process and the data analysis of the study are provided. This chapter concludes with a concise discussion of the ethical considerations that were taken into account whilst conducting this research.

4.2 Primary Objectives of the Research

The primary objective of this study was to investigate the SOC (coping orientation) and coping resources of a group of teachers educating learners with intellectual disabilities. There were three main aims in this regard:

4. To explore and describe the coping orientation, or sense of coherence, of a group of teachers educating learners with intellectual disabilities.

5. To explore and describe the coping resources of a group of teachers educating learners with intellectual disabilities.
6. To investigate whether there is a relationship between the coping orientation and coping resources of teachers educating learners with intellectual disabilities.

4.3 Design

An exploratory descriptive, quantitative research design was employed in this study, in which participants were requested to complete self-report survey-type questionnaires. Exploratory research has been defined as research undertaken to explore relatively unknown research areas, thus gaining new insight into and a better understanding of a phenomenon (Nardi, 2003). Descriptive research can be defined as the description of thoughts, feelings or behaviours of a particular group of subjects (Nardi, 2003). As this research ventures into an area that has rarely been investigated in the past, by describing the participants’ feelings, thoughts and behaviours regarding various aspects of coping, the present study thus follows an exploratory descriptive research design. Descriptive research aims to document the frequency and prevalence of particular psychological problems (Elmes, Kantowitz & Roediger III, 2003). Since descriptive research establishes the foundation for future research, it is considered to be a necessary initial step in research (Rosnow & Rosenthal, 2005). As this research was conducted by means of questionnaires delivered to a medium sized sample, it constitutes survey research. Spata (2003) postulated that the survey method makes use of self-report measures to question individuals about their attitudes, behaviours and demographic variables. The survey method that was employed in this study included a biographical questionnaire and standardized paper-and-pencil measures that identified the coping orientation and coping resources of teachers who educate learners with intellectual disabilities.

Furthermore, Leedy and Ormrod (2001) stated that survey research is an important way of collecting data that enables a study of relationships between variables. However, it is important to note that this does not suggest the establishment of causal relationships between two or more
variables. Results from survey-type designs can indicate whether a relationship exists or not, but does not point to the strength or direction of the relationship (Leedy & Ormrod, 2001). When participants produce the information themselves, survey methods are particularly useful as they provide access to phenomenological data, which constitutes the participants’ perceptions of themselves, others and the world (Elmes et al., 2003). Elmes et al., (2003) indicated that the survey method is most commonly employed in the form of self-administered questionnaires, rating scales and interviews and is most frequently used for data collection in the field of social sciences, and clinical psychology in particular.

There are a number of advantages of conducting survey research. This type of research saves time and money, the results obtained are accurate, the privacy of participants is well kept, and there is a lack of interviewer bias (Rosnow & Rosenthal, 2005). A survey characteristically has instructions on how to complete the questionnaires, and present a number of questions or items that may have forced response choices (closed-ended questions) or open-ended questions (Fowler, 2002). Regardless of the type of questions used, these measures are easy to use, score and code, and provide all participants with the same option, therefore enhancing reliability and validity (Rosnow & Rosenthal, 2005). The questionnaires to be utilised in this study will be made up of forced-choice questions.

Although these advantages exist, a disadvantage is that participants are not always honest, and their subjective responses may bear little semblance to reality (Nardi, 2003). In addition, Sullivan (2001) postulated that the survey method is rigid, with limited variation in responses. Other disadvantages include incomplete responses, the likelihood of misunderstood questions, lack of control over question order, and low response rates (Sullivan, 2001).

In an attempt to overcome some of these disadvantages, participants will be provided with the researcher’s telephone number in the event that misunderstood items arise. The
questionnaires will be personally delivered and collected instead of being mailed, thereby attempting to reduce low response rates. In line with the aims of this study, it has been decided that the disadvantages posed by this type of design were counteracted by the appropriateness of this design for the present study.

4.4 Participants and Sampling

Sampling procedures are divided into two categories, namely probability and non-probability sampling (Leedy & Ormrod, 2001). A probability sample is selected by an objective method and it is possible to calculate each individual’s chances of being selected (Fowler, 2002). Non-probability sampling, on the other hand, means that the probability of selecting an individual of interest from the population is unknown, and it involves only those participants who are willing and available to participate in the study (Fowler, 2002). As the present researcher did not have a sampling frame (a list of all the teachers educating learners with intellectual disabilities in the Nelson Mandela Metropole), non-probability sampling was employed in this study. Furthermore, because participants were included in the current study based on their availability and willingness to participate, this study constituted non-probability convenience sampling.

The advantages of this particular sampling method include saving time, costs and reducing complications, since the population is accessible (Sullivan, 2001). A limitation of this type of sampling is that participants are not randomly selected (Jackson, 2003). Therefore, although the sample is convenient and provides the researcher with valuable data, it will not be representative of any other population, and generalisation of the results cannot be made beyond the scope of the selected group (Jackson, 2003). However, Sullivan (2001) argued that although one cannot determine the representativeness of the sample in non-probability sampling, it remains valuable since generalisation can be assessed through replication. Another disadvantage pointed out by
Jackson (2003) is that there are no attempts to control bias. However, since the aims of this research study were exploratory and descriptive in nature, these factors did not significantly impact on the study.

In this regard, teachers who are employed at special education schools in the Nelson Mandela Metropole, specifically catering for learners with intellectual disabilities, were invited to be included in the sample. While 30 subjects are considered a minimum in terms of sample size for an exploratory descriptive study, at least 50 are required for a correlation study (Bailey, 1987). Since the aims of the present study have a correlation component, the data was collected until the requirements for conducting a correlation study were met. Fifty-nine teachers educating learners with intellectual disabilities in the Nelson Mandela Metropole were included in the study. The inclusion of participants took place irrespective of age, culture, gender, socio-economic status, or marital status. However, although an educational level was not a participation criterion, it was ensured that all participants were literate in reading and writing in English, so that they could understand and answer the questionnaires.

4.5 Measures

Three measuring instruments were utilised to gather data for this study. These included a Biographical Questionnaire, Antonovsky’s (1983) Orientation to Life Questionnaire (SOC-29), and the Coping Resources Inventory (CRI) (Hammer & Marting, 1988). A discussion of these measures follows.

4.5.1 The Biographical Questionnaire

A brief biographical questionnaire was designed by the researcher to obtain essential demographic and background information from the participants. The questions included were based on the literature review and included biographical information needed for the meaningful interpretation of the research findings. The questionnaire requested information pertaining to the
participants’ age, gender, marital status, religious affiliation, highest educational qualification, training in special education, number of years teaching in special education, number of learners in a class, extracurricular activities, grade/level of the learners, and age of the learners. In addition, participants were asked whether they have received treatment for stress in the past and participants also had to rate themselves in terms of their subjective perception on the amount of stress they experience in their occupation as a special education teacher.

4.5.2 The Orientation to Life Questionnaire (SOC-29)

This questionnaire, developed by Antonovsky (1983), assesses the theoretical concept of sense of coherence as a global life orientation. The SOC-29 scale consists of 29 items, whereby participants are asked to choose a response from a seven-point semantic scale which has two anchoring phrases at each end of the continuum. As mentioned in Chapter 2, an individual’s sense of coherence is assessed according to three elements namely, comprehensibility, manageability and meaningfulness. Each of these elements is represented as groups of individual items. The comprehensibility score ranges from 11 to 77, the manageability score ranges from 10 to 70, and the meaningfulness score ranges from 8 to 56. These scores are added together and integrated into a global score, which ranges from 29 to 203. Higher scores reflect a stronger SOC, and hence more successful coping ability, while lower scores reflect the opposite (Antonovsky, 1993).

However, it is important to note that although there are three different groups of items, Antonovsky (1993) warned that the SOC scale was technically constructed to measure the global orientation, and not the explicit components of comprehensibility, manageability and meaningfulness. It was therefore decided to use only the total SOC score in the current study, as it aims to explore and describe the global orientation of the sample. A short form of the SOC-29 is also available. It consists of 13 of the 29 items of the SOC-29 and is called the SOC-13. For
the purposes of this study, the English version of the SOC-29 was used, because of its reliability, validity across cultures and reputability as evidenced by a number of studies around the world (Antonovsky, 1993).

4.5.2.1 The Reliability and Validity of the SOC-29

The SOC-29 has been widely used in past research across the globe. According to Antonovsky (1993), there are over 113 individuals in twenty different countries using the SOC as a central concept in their research. The SOC-29 was found to have high validity, with Cronbach’s alpha (internal consistency) scores ranging from .83 to .95. According to Antonovsky (1987), there is sufficient evidence to warrant the conclusion that the SOC-29 scale is an adequate representation of the SOC construct.

To date, substantial evidence that confirms the feasibility, reliability and validity of the scale exists (Antonovsky, 1993). While an instrument is said to be reliable only for a given population, Antonovsky (1993) indicated that the SOC construct cuts across lines of gender, religion, social class, and culture. The SOC-29 has been translated into 14 different languages including Afrikaans, Czech, Dutch, English, Finnish, German, Hebrew, Norwegian, Rumanian, Russian, Serbian, Spanish, Swedish, and Tswana. High internal consistency has been found in all these populations, indicating that the SOC-29 is, in fact, reliable across a diverse range of populations.

Test-retest studies that have been conducted have indicated stability over time. In an undergraduate group with a one-week interval, Frenz, Carey and Jorgenson (1993) reported a high test-retest reliability (r= .92). In a group of farmers, over a six-week period, a test-retest reliability coefficient (r) of .97 was reported (Wissing, De Waal & De Beer, 1992) and Dutch psychology students that were retested after three weeks presented a reliability coefficient (r) of .80 (Antonovsky, 1993). Antonovsky (1996) reiterated these findings by asserting that the SOC-
29 was found to be consistently feasible, reliable, and valid across cultures, ethnic groups and social classes, for men and women of all ages.

4.5.2.2 Implementation of the SOC-29 in the South African Context

Recent South African studies that have used the SOC-29 include Carstens (1995), who investigated the strength of the SOC in patients with depressed mood; Madhoo (1999) who investigated the SOC in patients participating in cardiac rehabilitation programmes; Cairns (2001) who investigated the SOC in patients suffering from cancer; Otto (2002) who investigated the SOC in adults with depressed mood; and Katalan (2003) who investigated the SOC in HIV-positive adult females attending a support group. In addition to the employment of the instrument in South African research, Wissing and Van Eeden (1997) investigated the validity and cross-cultural applicability of the SOC-29 for South Africa. The results of their study found the SOC-29 to have validity in South Africa.

4.5.3 The Coping Resources Inventory (CRI)

The Coping Resources Inventory (CRI) was developed by Hammer and Marting (1988) to provide a tool for identifying resources that are currently available to individuals for managing stress. In contrast to a large body of clinical theory and practice, the CRI was constructed to emphasise resources rather than deficits (Hammer & Marting, 1988). Hammer and Marting (1988) stated that identifying and acknowledging individuals’ resources and competencies as well as their deficits and impairments may prove useful in designing interventions and improving self-concept. Such increased knowledge on the role of resources in the coping process could also assist in the planning of prevention programmes and allow researchers to specify more comprehensive models of coping that take both deficits and resources into account (Hammer & Marting, 1988).
Hammer and Marting indicated that the CRI has been used in a variety of clinical and educational settings and also has the following potential uses:

- In treatment planning for stress-related problems of individuals in counselling.
- In treatment planning for specific rehabilitation programmes.
- As a tool for designing stress workshops tailored for specific groups.
- As a tool for programme evaluations.
- As an educational planning and assessment device in high school health classes.
- As a research instrument to investigate the coping resources in a variety of populations, and to provide a standardised measure in coping research.

The resource domains of the CRI were devised on the basis of the test developers’ experience in running stress programmes, through work with individual clients and extensive literature reviews. All the resources that fell under the counselling domain were then incorporated into the measure. This resulted in the 60-item instrument that measures resources in five domains, namely cognitive, social, emotional, spiritual/philosophical and physical (Hammer & Marting, 1988).

The scope of the five domains, as described by Hammer and Marting (1988) are as follows:

1. The cognitive (COG) domain is concerned with the extent to which individuals maintain a positive sense of self-worth, a positive outlook toward others, and optimism about life in general. Examples from this domain include:

   “I feel as worthwhile as anyone else”;
   “I see myself as loveable”; and
   “I am optimistic about my future”.
2. The social (SOC) domain focuses on the degree to which individuals are embedded in social networks that are able to provide support in times of stress. Examples of items from this domain are:

“I am part of a group, other than my family, that cares about me”

“I enjoy being with people”; and

“I initiate contact with people”.

3. The emotional (EMO) domain questions the degree to which individuals are able to accept and express a range of affect, based on the proposition that a range of emotional responses helps in relieving the long-term negative consequences of stress. Examples of items from this domain include:

“I can show it when I am sad”;

“I express my feelings clearly and directly”; and

“I laugh wholeheartedly”.

4. The spiritual/philosophical (S/P) domain examines the degree to which the actions of individuals are guided by stable and consistent values derived from religion, familial or cultural traditions, or on personal philosophy. Examples of items from this domain are:

“I know what is important in life”;

“Certain traditions play an important part in my life”; and

“My values and beliefs help me to meet daily challenges”.

5. The physical domain questions the degree to which individuals enact health-promoting behaviours, which is believed to contribute to increased physical well-being. Examples of items from this domain are:

“I exercise vigorously 3-4 times a week”;

“I snack between meals”; and
“I am in good physical shape”.

The 60-item questionnaire consists of both a questionnaire booklet and an answer sheet. Participants are required to indicate how often they have engaged in the behaviour described in the item over the past six months by using a four-point scale: (1) never or rarely; (2) sometimes; (3) often; or (4) always or almost always (Hammer & Marting, 1988). Hammer and Marting (1988) stated that the inventory can be completed in about 10 minutes. The CRI is hand-scored, using the template provided by the test developers. The sum of the item responses for each scale constitutes the scale scores. Six items with negative wording are reversed scored, before adding their points to the total score for that particular scale. The Total Resource score is computed by adding the five individual scale scores. The higher the scale score, the higher the resources of the individual (Hammer & Marting, 1988).

4.5.3.1 The Reliability and Validity of the CRI

A variety of subjects were used to investigate the constructs of reliability and validity of the CRI. With regard to reliability, the following emerged: (a) for item-to-scale correlations, the CRI achieved fair homogeneity of item content per scale; (b) the scale internal consistency, as measured using Cronbach’s alpha, was found to be fairly homogenous, and reliably tapped the constructs; and (c) test-retest reliability, investigated over a 6-week period, indicated that CRI scales are reasonably stable over time (Hammer & Marting, 1988).

With regard to the validity of the CRI, it was found to have some scale intercorrelations, as well as predictive, convergent, divergent, discriminant and concurrent validity (Hammer & Marting, 1988). Regarding the scale intercorrelations of the CRI scales, the correlations reveal some overlap among resource constructs for the cognitive, social, and emotional scales. However, Hammer and Marting (1988) cautioned that their continued separations seem justified until further data are available. The relationship among these scales suggests that individuals
with a positive outlook also have a supportive social network, and are aware of, and can express their emotions. Hammer and Marting (1988) stated that the strongest test of validity of a coping measure is its ability to predict symptoms of stress over time. Theoretically, higher resources should be associated with fewer symptoms (Hammer & Marting, 1988). After various statistical tests were conducted in order to measure the predictive validity of the CRI, it was found that the CRI Total Resource score was a significant incremental predictor of stress symptoms (Hammer & Marting, 1988).

4.5.3.2 Implementation of the CRI in the South African Context

The CRI has been used in a variety of studies in South Africa. These include Madhoo (1999), who investigated the coping resources of patients participating in cardiac rehabilitation programmes; Cairns (2001), who investigated the coping resources in patients suffering from cancer; Brown (2002), who investigated the coping resources of medical professional women, Otto (2002), who investigated the coping resources and orientation of patients with the diagnosis of major depression; and Katalan (2003), who investigated the coping resources of HIV-positive adult females attending a support group. Madhoo’s (1999) local national study resulted in means and standard deviations that were very similar to the results of Hammer and Marting’s (1988) cardiac rehabilitation patients sample. Brown’s (2002) South African-based study generated a Cronbach’s alpha reliability coefficient of .93, indicating moderate to high reliability (Aiken, 2000). Similarly, the Cronbach’s alpha generated in Otto’s (2002) study was .85, which indicates moderate to high reliability (Aiken, 2000).

The Cronbach’s alpha of the CRI was calculated for the current sample. Aiken (2000) indicated that a fairly modest reliability coefficient (.60 to .70) may be satisfactory, when comparing the mean scores of two groups. The Cronbach’s alpha obtained for the present sample was .87, which indicates moderate to high reliability (Aiken, 2000).
4.6 Procedure

Schools in the Nelson Mandela Metropole, catering for learners with intellectual disabilities were identified. The researcher then wrote a letter (Appendix A) to the relevant authorities at the Department of Education, requesting permission to allow teachers from specific special education schools to participate in the study. In the letter the researcher outlined the purpose of the study and the measures to be utilised in the study were also explained. After permission was granted by the relevant authorities at the Department of Education, the researcher telephonically contacted the principals of the specific special education schools to inform them about the study and to arrange for an appropriate time to meet with the special education teachers. After an appropriate time was negotiated, the researcher went to the specific special education schools and introduced the study to the teachers. Those special education teachers who agreed to participate in the study were issued with an envelope containing a cover letter (Appendix B), a consent form (Appendix C), a biographical questionnaire (Appendix D), the Orientation to Life Questionnaire (SOC-29), and the Coping Resources Inventory (CRI).

The cover letter fully informed the participants of the procedure and outcomes of the research, and their rights as participants were also explained. The consent form ensured that participation was voluntary. All participants were informed that their participation would be treated as highly confidential and that the results would remain anonymous, since the participants were not requested to write their names on any of the questionnaires. The participants were also provided with the researcher’s work telephone number in the event that they required assistance with the completion of the questionnaires. It was arranged that the participants would return the consent forms together with the completed questionnaires directly to the secretaries at their respective schools. For reasons of confidentiality, participants were requested to seal their envelopes when returning their completed questionnaires to the secretary.
Although completion of all the questionnaires takes approximately 40 minutes, participants were given one week within which to complete the questionnaires. Two days before collecting the questionnaires, the researcher phoned the secretaries at the special education schools and requested that an announcement be made to remind the teachers that the questionnaires would be collected. The questionnaires were personally collected from the secretaries to prevent the likelihood of low response rates, a major disadvantage of survey research. Questionnaires were collected, irrespective of whether they were completed or not, to ensure that participants who chose not to participate do not handle the psychometric measures irresponsibly. After all the questionnaires have been collected, the data was coded, scored, double-checked by an independent researcher and sent for analysis. The methods of data analysis will be discussed in the following section.

4.7 Data Analysis

The data was analysed in terms of the three aims of this research. Hence, the data consisted of both descriptive and correlational analysis.

4.7.1 Descriptive Statistics

Descriptive statistics were used for the first two aims of exploring and describing the coping orientation and resources of teachers educating learners with intellectual disabilities. Descriptive statistics provides the researcher and the reader with important summary information, providing a picture of the sample as a whole (Gravetter & Wallnau, 2002). This involved investigating the means, standard deviations, ranges and percentages for each of the measures that were administered (Gravetter & Wallnau, 2002). The mean is a measure of central tendency which provides numerical values that refer to the centre of the distribution (Bordens & Abbott, 2002). The advantage of using the mean is that it can be algebraically manipulated and it estimates a population mean better than other measures that assess central tendency, such as the
median or the mode (Gravetter & Wallnau, 2002). The range is a measure of dispersion that identifies the number of possible values for scores in a data set (Gravetter & Wallnau, 2002).

However, it is important to note that both the mean as a measure of central tendency and the range as a measure of the dispersion of scores can be influenced to a great extent by extreme scores (outliers), which could be considered a substantial disadvantage (Gravetter & Wallnau, 2002). In such cases, it is preferable to use the mode and the standard deviation respectively. The standard deviation is a measure of variability that indicates the average deviation of scores from the mean (Bordens & Abbott, 2002). Describing the data in terms of its mean and standard deviation is a fundamental step towards understanding the SOC and coping resources of special education teachers, since norms for the sample under investigation have not yet been established. The data from the biographical questionnaire, which was essential for describing the sample, was also analysed by using descriptive statistics.

4.7.2 Correlational Analysis

In terms of the third aim, to investigate whether there is a relationship between the coping orientation and coping resources of teachers educating learners with intellectual disabilities, the following statistical procedures were employed. Firstly, the multiple correlation technique was employed to explore the relationship between the SOC-29 total score, the CRI total score, and the five subscale scores of the CRI. Multiple correlations depict a correlation between a group or combination of variables and another variable (Harris, 1998). Secondly, the Pearson Product-Moment Correlation Coefficient was utilised to explore and describe relationships between the mean of the SOC-29 total scores, the mean of the total CRI scores, and the means of the CRI’s five subscale scores. This was done in order to explore whether significant relationships existed between the various components explored. Harris (1998) postulated that a correlation coefficient provides information about the strength and direction of the relationship. Correlation studies aim
to examine the relationship between two or more variables in order to identify whether they co-
vary, correlate or are associated with each other (Spata, 2003). However, Aiken (2000) cautioned
that although two variables may be related to one another, it does not necessarily imply
causation. Hence, although two variables may be related to one another, one cannot say that
either necessarily causes the other.

Rosnow and Rosenthal (2005) indicated that the value of $r$ provides information about both
the strength and direction of the relationship between variables. The Pearson $r$ ranges from -1.0
through 0 to +1.0 (Rosnow & Rosenthal, 2005). A value of 0 indicates that there is no
relationship between the variables being correlated. A value of -1.0 indicates that there is a
perfect negative relationship between variables. This means that as scores on the one variable
increase, so scores on the other variable decrease (Spata, 2003). A value of +1.0 means that
there is a perfect positive relationship between variables, indicating that as scores on the one
variable increase, so scores on the other variable also increase (Spata, 2003).

Once a correlation between variables have been established, it is important to assess the
significance of the relationship. In order to assess the significance of the correlation coefficients
computed for the third aim, a standard p-value of .05 was utilised, as this is the standard for most
psychological research reports (Harris, 1998). Harris (1998) maintains that although a p-value of
.05 is regarded as being statistically significant, a p-value of .01 or .001 is considered to be more
significant, as these p-values are representative of more stringent and rigorous significance
levels. With regard to the interpretation of significant correlations, the following well established
set of guidelines suggested by Guilford (1946) was used for the interpretation of the magnitude
of the relationships:

- Less than .20 slight; almost negligible relationship
- .20 - .40    low correlation; definite but small relationship
- .40 - .70    moderate correlation; substantial relationship
- .70 - .90    high correlation; marked relationship
- .90 – 1.00   very high correlation; very dependable relationship

4.8 Ethical Considerations

Since social science research projects require the participation of human beings, research procedures must be carefully considered (Leedy & Ormrod, 2001). Struwig and Stead (2001) postulated that research ethics provide researchers with a code of moral guidelines on how to conduct research in a morally acceptable manner. Research participants are entitled to be treated with dignity, respect and courtesy, hence, stringent ethical guidelines exist that govern research procedures in the social sciences. Such ethical guidelines seek to prevent researchers from engaging in scientific misconduct, such as failing to maintain the confidentiality and privacy of participants, forcing people against their will to be involved in the research, not executing a study properly, and deceiving participants (Struwig & Stead, 2001). A number of guidelines exist to ensure that researchers always respect the rights and dignity of participants (Elmes, Kantowitz & Roediger III, 2003; Jackson, 2003; Leedy & Ormrod, 2001; Russel & Roberts, 2001; Struwig & Stead, 2001). In the subsequent section, some of the ethical considerations that were taken into account whilst conducting the present study will be explored. These ethical guidelines include informed consent, voluntary participation, privacy and confidentiality, and protection from harm.

4.8.1 Informed Consent

Informed consent involves informing participants about the nature of the study and providing participants with accurate information regarding the possible risks involved in participating in the study (Leedy & Ormrod, 2001). Participants should be informed that they have the right to withdraw from the study, or remove their results from the study, at any given
time, either while the study is being conducted, or at its end, regardless of whether they have received payment for participation (Russel & Roberts, 2001). Jackson (2003) stated that informed consent serves the dual purpose of ensuring participants’ privacy as well as giving them enough information in order to ensure that they are able to make an informed decision. Leedy and Ormrod (2001) emphasised that all research projects using human beings as participants must have informed consent forms read and signed by the participants.

In this study, each prospective participant was provided with a cover letter (Appendix B), explaining the purpose of the research, who the researcher was, the issues of confidentiality and anonymity, and a contact number was provided in the event that participants had any questions regarding the study. Finally, a consent form (Appendix C) was signed by each participant.

4.8.2 Voluntary Participation

Coercion is yet another ethical guideline that needs to be taken into consideration when undertaking a research project. Russel and Roberts (2001) described coercion as the act of a researcher or someone that has authority or influence to force or pressurise participants to participate in a study. Coercion goes hand in hand with voluntary participation. This ethical guideline was adhered to in the present study, as participation in this study was completely voluntary and the researcher did not force anyone to participate in the research project against his or her will. In the cover letter, prospective participants were informed that participation in the research study is completely voluntary. Hence, only those participants who showed an interest in participating in the study were requested to complete the questionnaires. Additionally, participants were informed that if they chose to withdraw from the study, they were still required to return the incomplete questionnaires.
4.8.3 Privacy and Confidentiality

The researcher has an ethical responsibility to protect participants’ rights to both privacy and confidentiality (Elmes, Kantowitz & Roediger III, 2003). Russel and Roberts (2001) described privacy as referring to anonymity, whereas confidentiality refers to the fact that the data obtained may only be used for the purpose of the study and may not be revealed to others (Jackson, 2003). The current study guaranteed both anonymity and confidentiality of the participants. All the questionnaires utilised in this study were completed without the indication of the participants’ names. The data obtained from the participants were kept confidential, and in the future, will not be used for any other purpose, or revealed to others.

4.8.4 Protection from Harm

It is the researcher’s obligation to minimise and protect participants from any physical or psychological harm or discomfort that might be incurred during participation in a study (Jackson, 2003). The potential risks of the current study were relatively low. However, should participants have felt any discomfort during the completion of the questionnaires, they had the option of contacting the researcher, since a contact number was made available to the participants in the cover letter.

4.9 Conclusion

The research design and methodology employed in this study was based on the aims and objectives of this research. An exploratory descriptive research design was adopted in the present study. This study made use of quantitative data that was collected through a biographical questionnaire, containing closed-ended questions only, the Orientation to Life Questionnaire (SOC-29), and the Coping Resources Inventory (CRI). Both the SOC-29 and the CRI are coping related, and both questionnaires display high measures of reliability and validity. A non-probability convenience sample of specific special education teachers in the Nelson Mandela
Metropole was sampled in order to collect the data. The ethical principles in research, such as informed consent, voluntary participation, privacy and confidentiality, and protection from harm were taken into consideration for the purposes of this study. The questionnaires were personally delivered to the participants, who were given one week within which to complete the questionnaires. The questionnaires were personally collected, scored, and the data statistically analysed using descriptive statistics to examine the means and standard deviations. The biographical data was also analysed using descriptive statistics. The interrelationship between the two coping-related measures, namely the SOC and the CRI, were then examined using the Pearson Product-Moment Correlation Coefficient. The results obtained from the statistical analysis will be presented and discussed in the following chapter.
Chapter 5

Results and Discussion

5.1 Chapter Overview

Prior to a discussion of the results of this study, it is important to revisit the aims. As noted in Chapter 4, there were three aims to this study. The first aim was to explore and describe the coping orientation, or sense of coherence, of a group of teachers educating learners with intellectual disabilities. The second aim was to explore and describe the coping resources of a group of teachers educating learners with intellectual disabilities. The third aim was to investigate whether there is a relationship between the total scores of the SOC-29 and the CRI of a group of teachers educating learners with intellectual disabilities.

The results of this study are presented and discussed in this chapter, according to the three aims of this research. In order to gain a comprehensive understanding of the sample, this chapter begins with a description of the demographic details of the sample, obtained from the biographical questionnaire. Thereafter, the results obtained from each of the two measures, namely the SOC-29 and the CRI, as found in this sample are presented and explored individually in response to the first and second aims respectively. This chapter concludes with an examination and discussion of the relationship between the results of the two measures as found in this sample.

5.2 Demographic Description of the Sample

In the subsequent section the information that was obtained from the participants’ responses to the biographical questionnaire will be discussed. These biographical variables include age, gender, marital status, religious affiliation, highest educational qualification, training received in special education, number of years teaching in special education,
extracurricular activities, number of learners in a class, phase of the learners, age range of the learners, the participants’ subjective perception of the extent to which they experience their occupation as a special education teacher as stressful, whether the participant has been treated for stress in the past, and whether this stress has resulted from the participant’s occupation as a special education teacher. The importance of the biographical information is that it helps to contextualise the findings in relation to the other two measures (SOC-29 and the CRI) that were utilised in this study. Where possible, the findings presented in this section will be examined and compared with the relevant literature discussed in previous chapters as related to special education teachers as well as the coping process.

5.2.1 Gender

The gender distribution of the sample is presented in Table 2.

Table 2: Gender Distribution of the Sample (N=59)

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>49</td>
<td>83.05</td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>16.95</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

A total of 59 participants were included in this study. Of these, 49 were female and 10 were male. This indicates a female to male ratio of 4.90: 1. Although the relationship between gender and job satisfaction among special education teachers have been studied frequently by a number of researchers in the past, the findings have proven to be inconsistent. Subsequently, researchers examined job stress and satisfaction relative to individuals’ social role orientation. Overall findings revealed that teachers who have a balanced social role orientation tended to report
higher levels of job satisfaction and lower levels of job stress (Eichinger, Heifetz & Ingraham, 1991; Schuttenberg, O’Dell & Kaczala, 1990).

5.2.2 Age

The age distribution of the sample is presented in Table 3.

Table 3: Age Distribution of the Sample (N=59)

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-35</td>
<td>9</td>
<td>15.25</td>
</tr>
<tr>
<td>36-40</td>
<td>9</td>
<td>15.25</td>
</tr>
<tr>
<td>41-45</td>
<td>6</td>
<td>10.17</td>
</tr>
<tr>
<td>46-50</td>
<td>14</td>
<td>23.73</td>
</tr>
<tr>
<td>51-55</td>
<td>11</td>
<td>18.64</td>
</tr>
<tr>
<td>56-60</td>
<td>7</td>
<td>11.86</td>
</tr>
<tr>
<td>61-65</td>
<td>3</td>
<td>5.08</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

The age distribution of the participants in this sample ranged from 30 to 62 years, with an average age of 46.31 years. As can be seen in Table 3, most of the sample fell within the 46 to 55 age group, with the majority of the sample being between 46 to 50 years of age. Research findings presented in Chapter 3 indicated that teachers who are in their middle years feel an increasing commitment to and responsibility for others and experience more job satisfaction than during their earlier years (Billingsley, 2004). On the contrary, research has revealed that younger special education teachers are more likely to leave the profession, or express intent to leave, than older special education teachers (Boe, Bobbit, Cook, Whitener & Weber, 1997; Cross & Billingsley, 1994). A possible explanation for this difference could be that younger individuals have a less well-developed repertoire of coping behaviours, while people in their middle adulthood have more flexible coping strategies (Sadock & Sadock, 2003). Hence, these results
may also be significant in terms of coping behaviours or strategies available to the current sample. Based on their age, participants in this sample would be expected to choose from a wide variety of coping behaviours in response to stressors, which would enable them to more effectively cope with the occupational stress they may encounter in special education.

In Chapter 2, it was noted that many factors contribute to shaping the individual’s SOC throughout the life-span. It was further noted that around the age of 30, after an individual is exposed to a pattern of life experiences, the SOC stabilises (Antonovsky, 1987). When viewing the age distribution of the current sample, it is clear that the entire sample (100.00 %) are 30 years or older. This indicates that all the participants may have a crystallised SOC, based on previous patterns of life experiences. According to Antonovsky (1987), once the SOC is crystallised, it is a well-established and stable dispositional orientation that generally does not change, with the exception of short-lived fluctuations in close proximity to the mean (Antonovsky, 1987). Thus, one can expect that individuals in the current sample have relatively stable SOC’s.

### 5.2.3 Marital Status

The marital status of the sample is reflected in Table 4.

**Table 4: Marital Status of the Sample (N=59)**

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>8</td>
<td>13.56</td>
</tr>
<tr>
<td>Married</td>
<td>38</td>
<td>64.41</td>
</tr>
<tr>
<td>Divorced / Separated</td>
<td>10</td>
<td>16.95</td>
</tr>
<tr>
<td>Widowed</td>
<td>3</td>
<td>5.08</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

*Note: Percentages have been rounded off to 2 decimal points.*

The marital status of the participants in the sample varied between single, married, divorced or separated, and widowed, with the majority (64.41 %) of the sample being married. In
both Chapters 2 and 3 it was emphasised that support from spouses, friends and family members are important factors in the psychological and physical well-being of individuals (Carroll, 1992). A number of researchers found that social support within the marital relationship is important for the well-being of both partners, and that social support within the marital relationship is negatively related to later depressive symptoms (Carroll, 1992). In a South African study of special education teachers, the importance of receiving positive support from spouses, which could be an important factor in stress reduction, has been emphasised (Williams, 2003).

5.2.4 Religious Affiliation

The distribution of the sample’s religious affiliation is presented in Table 5.

Table 5: Involvement in Religious Affiliation (N=59)

<table>
<thead>
<tr>
<th>Religious Affiliation</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>56</td>
<td>94.92</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>5.08</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

On the biographical questionnaire participants were requested to indicate whether they belong to a religious affiliation. The majority (94.92 %) of the participants in this sample associate themselves with a religious affiliation. Although no research has been conducted thus far to examine the relationship between spirituality and coping among special education teachers, numerous studies revealed that a positive relationship exists between spirituality and coping ability (Graham, Furr, Flowers & Burke, 2001; Kloosterhouse & Ames, 2002; Rowe & Allen, 2004). Kloosterhouse and Ames (2002) contended that individuals who have a spiritual identity were found to have an increased physical health, fewer psychological problems, greater life satisfaction, well-being, fellowship, coping skills and self-esteem.
5.2.5 Highest Educational Qualification

The distribution of the sample’s highest educational qualifications is presented in Table 6.

<table>
<thead>
<tr>
<th>Highest Educational Qualification</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matric</td>
<td>1</td>
<td>1.69</td>
</tr>
<tr>
<td>Certificate</td>
<td>1</td>
<td>1.69</td>
</tr>
<tr>
<td>Diploma</td>
<td>46</td>
<td>77.98</td>
</tr>
<tr>
<td>Undergraduate Degree</td>
<td>6</td>
<td>10.17</td>
</tr>
<tr>
<td>Postgraduate Degree (Honours)</td>
<td>3</td>
<td>5.08</td>
</tr>
<tr>
<td>Postgraduate Degree (Masters)</td>
<td>2</td>
<td>3.39</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

The sample reflected a relative heterogeneity in terms of highest educational qualifications. The majority (77.98 %) of the participants in this sample completed a diploma, while 6 other participants completed a degree. Five of the participants completed a postgraduate degree, with 3 of the participants having obtained Honours and 2 obtaining Masters’ Degrees. Of the remaining 2 participants, 1 of the participants completed matric with the other participant having a national certificate. The 46 diplomas reflected in the above table also varied, and consisted of Primary Teaching Diploma, Secondary Teaching Diploma, Diploma in Education, Higher Diploma in Education and Diploma in Special Education. Research presented in Chapter 2 found that education may be viewed as a cognitive general resistance resource that facilitates coping and the development of a stronger SOC.
5.2.6 Training Received in Special Education

The percentage of teachers who received training in special education is reflected in Table 7.

Table 7: Special Education Training of the Sample (N=59)

<table>
<thead>
<tr>
<th>Training in special education</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>25</td>
<td>42.37</td>
</tr>
<tr>
<td>No</td>
<td>34</td>
<td>57.63</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

As can be seen in Table 7, more than fifty percent of the sample did not receive training in special education. These results confirm Anderson and Pellicer’s (2000) findings which indicated that many teachers with teaching qualifications have no specialist training in special education. However, it has been contended that more teachers should have qualifications such as a diploma or certificate in special educational needs, as such training would substantially increase the expertise in schools (Croll & Moses, 2000). By gaining specialised training, special education teachers would be equipped with the necessary skills that would enable them to more effectively cope with the demands made on them by special education.
5.2.7 Number of Years Teaching in Special Education

Table 8 illustrates the number of years participants have been working as a special education teacher.

Table 8: Distribution of the Number of Years Teaching in Special Education

<table>
<thead>
<tr>
<th>Number of years</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>2</td>
<td>3.39</td>
</tr>
<tr>
<td>1-5 years</td>
<td>11</td>
<td>18.64</td>
</tr>
<tr>
<td>6-10 years</td>
<td>20</td>
<td>33.90</td>
</tr>
<tr>
<td>11-15 years</td>
<td>7</td>
<td>11.86</td>
</tr>
<tr>
<td>16-20 years</td>
<td>10</td>
<td>16.95</td>
</tr>
<tr>
<td>21-25 years</td>
<td>6</td>
<td>10.17</td>
</tr>
<tr>
<td>26-30 years</td>
<td>2</td>
<td>3.39</td>
</tr>
<tr>
<td>More than 30 years</td>
<td>1</td>
<td>1.69</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

The number of years that participants have been teaching in special education ranged from 6 months to 31 years, with an average of 11.79 years. Most (52.54%) of the participants in the sample have indicated that they have been teaching in special education between 1 to 10 years, with the majority of the sample teaching in special education between 6-10 years.

Research findings presented in Chapter 3 indicated that special education teachers who have been teaching for a number of years find their profession more satisfying and are able to more effectively deal with the teaching demands than their colleagues who have less experience (Cross & Billingsley, 1994; Gersten, Keating, Yovanoff & Harniss, 2001; Singh & Billingsley, 1996). More specifically, Otto and Arnold (2005) indicated that the highest group of special education teachers at-risk for attrition include those with five years or less experience in special education.
5.2.8 Involvement in Extracurricular Activities

Table 9 illustrates the percentage of participants who are responsible for managing extracurricular activities at their school.

Table 9: Responsibility for Extracurricular Activities of the Sample (N=59)

<table>
<thead>
<tr>
<th>Extracurricular Activities</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>41</td>
<td>72.88</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>27.12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

The sample mentioned a variety of extracurricular activities for which they are responsible at their school. Some of the extracurricular activities or additional responsibilities mentioned included driving the school bus, choir, gumboot dancing, liturgical dancing, running a parent support group, and a variety of sports which included athletics, cricket, cross-country, gymnastics, mini-cricket, soccer, swimming and table tennis. Although previous studies have not specifically identified involvement in extracurricular activities as a source of occupational stress, it may be regarded as a factor which results in work overload. In Chapter 3 work overload has been identified as one of the factors which lead to the occupational stress of special education teachers. Another source of work overload which has been highlighted in Chapter 3, is the number of learners in a class. This will be reported on in the subsequent section.
5.2.9 Number of Learners

Table 10 provides an indication of the number of learners participants have in a class.

Table 10: Distribution of the Class Size of the Sample (N=59)

<table>
<thead>
<tr>
<th>Number of learners</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10</td>
<td>1</td>
<td>1.69</td>
</tr>
<tr>
<td>10-12</td>
<td>20</td>
<td>33.90</td>
</tr>
<tr>
<td>13-15</td>
<td>32</td>
<td>54.24</td>
</tr>
<tr>
<td>16-18</td>
<td>6</td>
<td>10.17</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

From Table 10 it becomes evident that most (88.14 %) of the participants in this sample have 10 to 15 learners in a class, with the majority (54.24 %) of the sample having 13-15 learners in a class. According to the Department of Education, the maximum number of learners that should be placed in special education classrooms is eight (Williams, 2003). When comparing the number stipulated by the Department of Education to the above table, it is clear that a significant discrepancy exists between the stipulated amount and the number of learners that participants in the current sample have in a class. Hence, it could be concluded that participants in the current sample are faced with a situation of having more learners in a class than what they are expected to manage. Furthermore, in a South African study conducted by Williams (2003), large class sizes were identified as contributing to disciplinary problems. This may contribute to an increased level of stress amongst special education teachers.
5.2.10 Phase of the Learners

The phase of the learners that participants in the current sample educate is presented in Table 11.

Table 11: Distribution of the Phases of the Learners

<table>
<thead>
<tr>
<th>Phase</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior</td>
<td>18</td>
<td>30.51</td>
</tr>
<tr>
<td>Middle</td>
<td>14</td>
<td>23.73</td>
</tr>
<tr>
<td>Senior</td>
<td>24</td>
<td>40.68</td>
</tr>
<tr>
<td>Occupational</td>
<td>3</td>
<td>5.08</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>59</td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

*Note: Percentages have been rounded off to 2 decimal points.*

On the biographical questionnaire participants were requested to indicate the phase of the learners that they educate. Four phases exist in special education schools and these phases are based on the age of the learners. The four phases include the Junior phase, which consists of learners aged 6 to 10 years; the Middle phase, comprising learners aged 11 to 14 years; the Senior phase, consisting of learners aged 15 to 18 years, and the Occupational phase, comprising learners aged 19 to 21 years. From Table 9 it can be noted that the majority (40.68 %) of the sample educate learners who are in the Senior Phase, whereas only 5.08 % of the sample educate learners who are in the Occupational Phase.
5.2.11 Age of the Learners

Table 12 illustrates the age range of the learners that the current sample educate.

Table 12: Distribution of the Age Range of the Learners

<table>
<thead>
<tr>
<th>Age of the learners</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-10 years</td>
<td>15</td>
<td>25.43</td>
</tr>
<tr>
<td>11-15 years</td>
<td>24</td>
<td>40.67</td>
</tr>
<tr>
<td>16-20 years</td>
<td>20</td>
<td>33.90</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

Participants were requested to indicate the age range of the learners that they educate. The age distribution of the learners that the current sample of teachers educate ranged from 6 years to 20 years. As can be seen in Table 12, the majority (40.67 %) of the sample indicated that they educate learners between the ages of 11-15 years. Middle childhood (7 to 12 years) and early adolescence (11 to 15 years) is a time of significant physical and socio-emotional change which may place additional demands upon special education teachers.

5.2.12 Participants’ Subjective Rating of Stress Experienced in Special Education

Participants were requested to rate themselves in terms of their subjective perception on the extent to which they experience their occupation as a special education teacher as stressful. The sample’s responses are presented in Table 13.

Table 13: Participants’ Subjective Rating of Stress Experienced in Special Education

<table>
<thead>
<tr>
<th>Rating of stress</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not stressful</td>
<td>6</td>
<td>10.17</td>
</tr>
<tr>
<td>Moderately stressful</td>
<td>37</td>
<td>62.71</td>
</tr>
<tr>
<td>Extremely stressful</td>
<td>16</td>
<td>27.12</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.
The majority (62.71%) of the sample rated their experience as a special education teacher as moderately stressful. Only 10.17% of the sample indicated that they did not experience their occupation as a special education teacher as stressful, while the other 27.12% of the sample experienced their occupation as being extremely stressful. It was interesting to note that 12 of the 16 participants who rated their occupation as being extremely stressful, obtained scores on the Coping Resources Inventory (CRI) which were below the proposed mean of 50 (Hammer & Marting, 1988). A possible explanation for this is that when individuals possess insufficient resources to meet perceived demands, they may experience an immense amount of stress. This lack of coping resources which has been described above also relates to the manageability component of the SOC (Antonovsky, 1987). Hence, individuals with a low sense of manageability will feel victimised by events and will approach situations with the belief that the resources needed to cope are not available to them (Antonovsky, 1987).

5.2.13 Previous Treatment Received for Stress

Participants were requested to indicate whether they have been treated for stress in the past. The sample’s responses are reflected in Table 14.

Table 14: Participants’ Previous Treatment for Stress

<table>
<thead>
<tr>
<th>Treated for stress</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>15</td>
<td>25.42</td>
</tr>
<tr>
<td>No</td>
<td>44</td>
<td>74.58</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Note: Percentages have been rounded off to 2 decimal points.

From Table 14 it can be seen that the majority (74.58%) of the sample indicated that they have not been treated for stress in the past. However, 25.42% of participants in the sample indicated that they have been treated for stress in the past. Additionally, participants who responded yes to having received past treatment for stress were also requested to indicate
whether the stress resulted from their occupation as a special education teacher. Of the 15 participants who indicated that they have been treated for stress in the past, 8 participants indicated that the stress resulted from their occupation as a special education teacher, while 7 participants indicated that the stress did not result from their occupation as a special education teacher. Once again, it was interesting to note that all the participants, with the exception of 2 participants, who indicated that the stress was in fact as a result of their occupation as a special education teacher, also obtained a score on the CRI which was far below the proposed mean of 50 (Hammer & Marting, 1988). Once again, this reiterates the research findings that a lack of coping resources could result in an immense amount of stress.

5.3 Description of the Results of the Measures

The following section will focus on the results that were obtained from the SOC-29 and the CRI. The data that was obtained from the measures were analysed according to the aims of exploring and describing the SOC and coping resources of the sample. In addition, the relationship between the SOC and the coping resources, as reflected by the results that were obtained from the two measures, is also discussed.

5.3.1 Results of Aim 1: Sense of Coherence of Teachers Educating Learners with Intellectual Disabilities

The first aim of this study was to explore and describe the coping orientation, or sense of coherence, of a group of teachers educating learners with intellectual disabilities. Before discussing the findings of the current study with regard to the SOC, it is necessary to refer back to Antonovsky’s (1987) sense of coherence construct, which was discussed in Chapter 2. The SOC was defined as a global orientation towards life and coping that develops over the life-span and crystallises in early adulthood, around the age of 30 years. The core components of the SOC,
namely comprehensibility, manageability and meaningfulness, work together as a whole to shape the strength and effectiveness of an individual’s coping orientation.

A person with a strong SOC will be more successful in choosing the most effective coping strategies, whereas a person with a weaker SOC will be overwhelmed when confronted with life stressors and therefore, will employ less successful coping strategies (Antonovsky, 1987). According to Antonovsky (1987), the strength of individuals with a strong SOC lie in their ability to mobilise and utilise a combination of effective resources to confront the stressor. These individuals will perceive situations and life experiences as comprehensible, manageable and meaningful, are flexible in their approach to situations, and are able to prevent tension aroused by the event from turning into stress (Antonovsky, 1987; Fouché, 1999). Table 15 reflects the means and standard deviations for the current sample of special education teachers, and thus provides information regarding the coping orientation of this group.

Table 15: Means and Standard Deviations of the SOC-29 of the Current Sample (N=59)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>Minimum</th>
<th>Maximum</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of Coherence (N=59)</td>
<td>144.95</td>
<td>80</td>
<td>185</td>
<td>22.5</td>
<td>105</td>
</tr>
</tbody>
</table>

It is important to note that Antonovsky (1987) did not provide any standard scores or normative samples for the SOC-29. However, a number of internationally published studies exist which provide normative data using the SOC-29 for a variety of samples (Antonovsky, 1993). In order to place the findings of the current study in perspective, this normative data is presented in Table 16.
Table 16: Normative Data from Internationally Published Studies Using the SOC-29

<table>
<thead>
<tr>
<th>Sample</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish high-risk childhood</td>
<td>148</td>
<td>152.6</td>
<td>22.0</td>
</tr>
<tr>
<td>Kibbutz fathers</td>
<td>67</td>
<td>152.5</td>
<td>14.5</td>
</tr>
<tr>
<td>Israeli retired men (aged 65 years)</td>
<td>428</td>
<td>152.2</td>
<td>22.8</td>
</tr>
<tr>
<td>Kibbutz men (65 years)</td>
<td>130</td>
<td>152.2</td>
<td>22.8</td>
</tr>
<tr>
<td>Kibbutz mothers</td>
<td>67</td>
<td>151.0</td>
<td>15.3</td>
</tr>
<tr>
<td>Israeli medical students at entry</td>
<td>93</td>
<td>150.2</td>
<td>16.5</td>
</tr>
<tr>
<td>Finnish adult male sample</td>
<td>340</td>
<td>150.2</td>
<td>21.9</td>
</tr>
<tr>
<td>Kibbutz fathers, disabled children</td>
<td>67</td>
<td>146.3</td>
<td>19.4</td>
</tr>
<tr>
<td>Finnish adult female sample</td>
<td>329</td>
<td>146.1</td>
<td>22.7</td>
</tr>
<tr>
<td>Kibbutz women (60 years)</td>
<td>130</td>
<td>145.7</td>
<td>20.2</td>
</tr>
<tr>
<td>Israeli retired women (age 60)</td>
<td>368</td>
<td>145.0</td>
<td>23.4</td>
</tr>
<tr>
<td>Czech controls in cancer study</td>
<td>153</td>
<td>145.0</td>
<td>-</td>
</tr>
<tr>
<td>Kibbutz mothers, disabled children</td>
<td>67</td>
<td>140.1</td>
<td>22.6</td>
</tr>
<tr>
<td>USA male patients at VA clinics (aged +55 years)</td>
<td>240</td>
<td>139.6</td>
<td>36.4</td>
</tr>
<tr>
<td>Finish university students (52 % women)</td>
<td>117</td>
<td>138.6</td>
<td>23.1</td>
</tr>
<tr>
<td>New Zealand, chronic pain (78 % women)</td>
<td>107</td>
<td>138.6</td>
<td>14.9</td>
</tr>
<tr>
<td>Israeli Jewish national sample</td>
<td>297</td>
<td>136.5</td>
<td>19.8</td>
</tr>
<tr>
<td>USA production workers (76 % women)</td>
<td>111</td>
<td>133.0</td>
<td>26.5</td>
</tr>
<tr>
<td>Israeli cerebral palsy (ages 18-33)</td>
<td>34</td>
<td>131.1</td>
<td>0.8</td>
</tr>
<tr>
<td>USA undergraduates (68 % women)</td>
<td>307</td>
<td>129.5</td>
<td>24.5</td>
</tr>
<tr>
<td>Czech cancer patients</td>
<td>17</td>
<td>117.0</td>
<td>-</td>
</tr>
</tbody>
</table>

(Adapted from: Antonovsky, 1993)

As can be seen in Table 16, the highest mean score obtained in these studies was 152.6, in a study on Swedish high-risk childhood. The lowest mean obtained in these studies was for a sample of Czech cancer patients (N=17), who obtained a mean of 117.0. If one compares the mean score of the current sample (M=144.95) with that obtained in the above-mentioned studies, the mean of the current sample could be described as average. The mean SOC found in the
current sample therefore correlates with the means found for women in Kibbutz, Israeli retired women, and Czech controls in a cancer study, as depicted in Table 16.

A number of recent South African studies have explored the SOC of individuals (Cairns, 2001; Carstens, 1995; Katalan, 2003; Madhoo, 1999; Otto, 2002; Wissing, De Vaal & De Beer, 1992; Wissing & Van Eeden, 1997). The samples in these studies consisted of both individuals who are not confronted with a particular stressor, as well as individuals diagnosed with chronic illness or general medical conditions. The mean scores of these studies are summarised in Table 17.

Table 17: Normative Data from South African Studies Using the SOC-29

<table>
<thead>
<tr>
<th>Sample</th>
<th>N</th>
<th>M</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients in cardiac rehabilitation</td>
<td>35</td>
<td>159.00</td>
<td>Madhoo (1999)</td>
</tr>
<tr>
<td>Cancer patients</td>
<td>34</td>
<td>151.71</td>
<td>Cairns (2001)</td>
</tr>
<tr>
<td>Group of rural university students</td>
<td>249</td>
<td>140.21</td>
<td>Wissing et al. (1992)</td>
</tr>
<tr>
<td>Mixed group sample of Psychology students</td>
<td>550</td>
<td>136.52</td>
<td>Wissing and Van Eeden (1997)</td>
</tr>
<tr>
<td>HIV-positive adult females attending a support group</td>
<td>83</td>
<td>116.65</td>
<td>Katalan (2003)</td>
</tr>
<tr>
<td>Patients with Major Depressive Disorder</td>
<td>50</td>
<td>100.56</td>
<td>Carstens (1995)</td>
</tr>
</tbody>
</table>

From Table 17 it is evident that the highest mean score obtained in these studies was for a sample of patients in cardiac rehabilitation, who obtained a mean of 159.00. The lowest mean obtained in these studies was for a sample of adult patients with depressed mood, who obtained a mean of 99.10. A review of both South African and international literature revealed that no studies exist that address the SOC of special education teachers. Hence, no specific norms for the
SOC of teachers educating learners with intellectual disabilities have been established. However, when comparing the mean SOC score of the current study with the mean scores of the studies presented in Table 16, the results of the current study are fairly high.

The mean ($M=144.95$) of the current sample is higher than that obtained in the study by Wissing et al. (1992) of rural university students ($M=140.21$), and Wissing and Van Eeden’s (1997) study of psychology students ($M=136.52$). However, in both the above-mentioned studies, the sample sizes were much greater ($N=249$ and $N=550$, respectively) than the sample size of the current study. Therefore, comparing the SOC of the present sample with that of Wissing et al.’s (1992) and Wissing and Van Eeden’s (1997) sample, should be done with caution. However, a similarity between the current study and the above-mentioned studies is that in all these studies the samples constituted healthy individuals who were not confronted with a chronic life stressor. From the remaining studies presented in Table 17, it can be noted that those studies investigated samples who were either diagnosed with a chronic illness or a general medical condition.

In the absence of any other comparative sample in general, and specifically with regard to special education teachers, the present study can only provide tentatively speculative reasons for any differences in mean scores apparent in the above samples. Antonovsky (1993) postulated that it is important to examine the sample in context, since a valid scale should produce different mean scores among samples that would be assumed to vary, based on theoretical knowledge. It appears that the mean obtained from the present sample is relatively high. These results suggest that individuals in the current sample have a fairly high SOC. Numerous studies referred to in Chapter 2 have highlighted that individuals with a strong SOC report better levels of physical and mental health, and are able to cope more effectively with life stressors than those with a weak SOC.
Results from the current study raise important questions regarding the fairly high mean of the SOC obtained in this group of special education teachers. One such question raised is whether the sample’s SOC was strengthened in response to the nature of their role as a special education teacher, or whether it was fairly high when they entered their profession. For the purposes of discussion, this question will be pursued further, bearing in mind that no definite attributions may be made. From the discussion on the role of special education teachers presented in Chapter 3, it was concluded that teaching in special education is extremely complex, multidimensional and demanding. However, despite the numerous challenges encountered in special education, Williams (2003) in her study of special education teachers, reported that the majority of the participants in her study regarded their occupation as very fulfilling and rewarding. Furthermore, as noted in Chapter 2, life events that introduce negative entropy onto the individual may have either salutary or negative psychological consequences. Stressful life events, such as continued exposure to routine work stress, may be a catalyst for the reconsideration of goals and priorities, as well as for re-establishing a sense of self (Cairns, 2001). Thus, these findings seem to suggest that an individual’s SOC could be strengthened subsequent to a stressful life event, such as teaching in special education which is considered to be a demanding profession.

The central factor determining whether stressful life events produce desirable outcomes appears to be whether or not individuals are able to find meaning and purpose within their circumstances (Antonovsky, 1987). In Chapter 2, it was noted that the meaningfulness component represents the most important aspect of the SOC, as it acts as a motivational factor and a measure of energy (Antonovsky, 1987). Without meaningfulness, neither high comprehensibility nor high manageability would be permanent (Antonovsky, 1987). Because the SOC was presented as a global orientation in the current study, individual scores for the three
components of the SOC (i.e. comprehensibility, manageability and meaningfulness) were not calculated. However, one could speculate that the sample of special education teachers in the current study may experience high meaningfulness. This suggestion is made based on the findings reported by Williams (2003), who indicated that the majority of special education teachers in her study regarded their occupation as very fulfilling and rewarding, despite the numerous challenges they encounter. Hence, it is conceivable that working in a demanding profession, such as special education, may have acted as a catalyst for the participants in the current study to find meaning in their circumstances, and that this in turn increased their SOC.

While addressing the suggestion that working in a demanding profession such as special education may have strengthened the sample’s SOC, it is necessary to address the question of whether the SOC can indeed be changed. A discussion of this issue was provided in Chapter 2, in the section on the development of the SOC. Antonovsky (1987) postulated that although the SOC crystallises in later adulthood, approximately at the age of 30, he recognised that minor changes may occur. He described these changes as only temporary fluctuations around a mean (Antonovsky, 1987). However, Antonovsky (1987) acknowledged that the SOC can change more permanently in response to a completely new pattern of life experiences. In addition to this, Antonovsky (1987) postulated that when individuals who have had a strong SOC at the beginning of adulthood are confronted with a crisis, one can expect their SOC to return or even surpass premorbid levels once the crisis is over. Based on this, it makes sense to hypothesise that the strength of the SOC of individuals in the current sample was fairly high to begin with.

Furthermore, as noted in Chapter 2, the development of a strong SOC depends to a large extent on positive life experiences characterised by different levels of consistency, load balance and participation in socially valued decision-making (Antonovsky, 1987). One could argue that special education teachers in the current sample are functioning adequately in these areas.
Antonovsky (1987) also mentioned four spheres of life that he maintained, cannot be excluded if an individual is to maintain a strong SOC. These included an individual’s feelings, immediate interpersonal relations, the major sphere of activity (usually work), and the existential issues of death, inevitable failures, shortcomings, conflict and isolation. The life conditions of special education teachers can be argued to significantly touch on all these spheres, and thus could critically affect the pattern of their life experiences.

In conclusion, the current sample obtained a fairly high mean SOC score. In view of the research that illustrates an array of positive outcomes that may result from stressful events, it has been suggested that the SOC of individuals in the present sample may have been strengthened after working in special education. Furthermore, meaningfulness has been identified as the central factor determining whether stressful life events produce desirable outcomes. It was suggested that special education teachers in the current study may experience high meaningfulness, based on research indicating that despite numerous challenges encountered in special education, special education teachers still regard their occupation as very fulfilling and rewarding. In the subsequent section, the results that were obtained on the CRI will be explored and described.
5.3.2 Results of Aim 2: Coping Resources of Teachers Educating Learners with Intellectual Disabilities

The second aim of this study was to explore and describe the coping resources of a group of teachers educating learners with intellectual disabilities. The current sample’s CRI results for both the total scale score and subscale scores are presented in Table 18.

Table 18: Means and Standard Deviations of the CRI of the Sample (N=59)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M*</th>
<th>Minimum*</th>
<th>Maximum*</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping Resources Total Score (N=59)</td>
<td>52.83</td>
<td>38</td>
<td>71</td>
<td>7.91</td>
<td>33</td>
</tr>
<tr>
<td>Cognitive Resources</td>
<td>54.78</td>
<td>34</td>
<td>69</td>
<td>7.82</td>
<td>35</td>
</tr>
<tr>
<td>Social Resources</td>
<td>50.46</td>
<td>32</td>
<td>69</td>
<td>9.19</td>
<td>37</td>
</tr>
<tr>
<td>Emotional Resources</td>
<td>51.86</td>
<td>35</td>
<td>69</td>
<td>8.05</td>
<td>34</td>
</tr>
<tr>
<td>Spiritual/Philosophical Resources</td>
<td>53.15</td>
<td>39</td>
<td>66</td>
<td>6.66</td>
<td>27</td>
</tr>
<tr>
<td>Physical Resources</td>
<td>50.49</td>
<td>29</td>
<td>73</td>
<td>8.37</td>
<td>44</td>
</tr>
</tbody>
</table>

Note: *Scores in this column are standard scores

Since the five subscales of the CRI have different numbers of items, direct comparisons between scales based on raw scores is not possible. Thus, in order to facilitate comparisons between the various subscales of the CRI, standard scores are indicated in Table 18. The mean raw score obtained by the current sample for the total resources scale, as well as for the five subscales were converted into standard scores, having a mean of 50 and a standard deviation of 10 points (Hammer & Marting, 1988). Table 18 also indicates the minimum and maximum standard scores obtained by the current sample for the total coping resources scale and for the five subscales. According to Hammer and Marting (1988), approximately 95% of individuals will have standard scores that fall between 30 and 70. It can therefore be concluded that scores
below 30 are considered to be below average, while scores above 70 can be considered as being above average.

Before addressing the findings of the current study with regard to the CRI, it is essential to revisit the definition of coping resources and its place in the coping process, as discussed in Chapter 2. Coping resources, as postulated by Hammer and Marting (1988), are those resources inherent in individuals that enable them to experience fewer or less intense symptoms on exposure to a stressor, or to recover faster from exposure to stressors. Thus, coping resources may be viewed as a protective factor or buffer against the harmful effects of stress, and forms a vital component of the coping process. In order to understand how the presence of coping resources results in the more effective handling of stressors, it is important to be aware of how coping resources fit into the coping process. In terms of appraisal processes, coping resources come into play during both primary and secondary appraisal (Lazarus & Folkman, 1984). Primary appraisal is concerned with evaluating an event as being irrelevant, relevant but not threatening or stressful. Individuals with sufficient coping resources are less likely to perceive a stressor or challenge as threatening. During secondary appraisal, individuals evaluate their coping resources and options for dealing with the perceived threat or challenge (Lazarus & Folkman, 1984). Hence, it could be concluded that a perception of high coping resources would facilitate better coping, and individuals who possess sufficient resources would most likely respond to stressors more effectively.

The mean of the total coping resources score for the current sample was 52.83. This was only slightly higher than the mean of 50 established by Hammer and Marting (1988). The means of the cognitive, social, emotional, spiritual/philosophical and physical subscales (see Table 18) were all clustered slightly above the mean of 50. These results indicate that the current sample perceived themselves as having average levels of coping resources. The highest mean score
obtained by the current sample was 54.78 for the cognitive resources subscale. This subscale refers to the extent to which individuals maintain a positive sense of self-worth, a positive outlook toward others, and optimism about life in general (Hammer & Marting, 1988). This finding is consistent with research outlined in Chapter 3 which indicated that some of the frequently used coping strategies adopted by special education teachers involve applying positive self-talk, believing in oneself, maintaining a positive self-image, feeling motivated and developing a positive outlook on life (Dunham, 1992; Williams, 2003).

As highlighted in Chapter 3, the occupation of the special education teacher is extremely complex, multidimensional and demanding in nature. In addition to having to cope with the learners’ varying degrees of intellectual disabilities, teachers also have to deal with the associated social, emotional and behavioural difficulties often manifested by these learners. However, research conducted on special education teachers at a special school in Port Elizabeth revealed that the majority of the participants regarded their occupation as very fulfilling and rewarding, despite the numerous challenges encountered in special education. A possible explanation for this could be that special education teachers focus on the learners’ strengths as opposed to focussing on their weaknesses (Williams, 2003).

Williams (2003) indicated that learners with special educational needs are genuine, spontaneous, generally eager to learn, and they revel in sporting activities and games. Furthermore, she postulated that “every achievement, however small, by the mentally handicapped learner is a victory, doubly precious because so hard fought” (Williams, 2003, p.103). This is indicative of the positive outlook maintained by special education teachers towards both the learners and others, which forms the foundation of the cognitive resources subscale. However, it is not known whether the reliance on this coping resource is a result of the nature of being a special education teacher, which involves focussing on the strength of the
learners despite the different levels of the learners’ intellectual ability as well as dealing with the associated clinical features often manifested by these learners (as discussed in Chapter 3).

The lowest mean score obtained by the current sample was 50.46 for the social resources subscale. This subscale refers to the degree to which individuals are embedded within a social network that provides support in times of stress (Hammer & Marting, 1988). However, when examining this score ($M=50.46$) it is important to bear in mind that this score is still slightly above the mean of 50, as reported by Hammer and Marting (1988), and therefore although lower than the rest of the scores, still remains average. As highlighted in Chapter 3, literature indicated that professional interactions that special education teachers develop with their colleagues, administrators and parents are valuable sources of stimulation. Wisniewski and Garguilo (1997) explained this statement when they pointed out that special education teachers who characterise their principals and colleagues as being supportive, find work more rewarding, enjoy a productive, motivating work environment, and demonstrate lower attrition rates than special education teachers who receive lower levels of support.

Furthermore, a number of situations that may contribute to a lack of social support, and consequently to stressful professional interactions among special education teachers have been identified by the literature. These situations include lack of recognition by administrators for a job well done, a general lack of parental support, low levels of principal support, and a lack of or inconsistent support from school personnel to implement curricular innovations (Otto & Arnold, 2005; Stempien & Loeb, 2002; Wisniewski & Garguilo, 1997). These situations may lead special education teachers to develop attributions that cause them to question their professional judgement, their ability to contribute to the decision-making process, and their professionalism (Wisniewski & Garguilo, 1997). Finally, the literature indicated that receiving support from one’s spouse is an important factor in psychological and physical well-being (Carroll, 1992).
Thus, because the majority (64.41\%) of participants in the current sample are in a marital relationship, one would expect the mean score of this sample to be average, possibly due to the presence of effective social support systems.

In conclusion, the current sample obtained average mean scores for both the total coping resources scale as well as for the five coping resources subscales. It appears that the participants in the current study perceive the availability of their coping resources to be average, and therefore demonstrated generally average coping resource scores throughout the different domains. The highest score obtained in the current sample was for the cognitive resources subscale. This suggests that participants in the current study maintain a positive sense of self-worth, have a positive outlook towards others, and are optimistic about life in general. Although still in the average range, the lowest score obtained in the current sample was for the social resources subscale. This suggests that participants in the current study are able to receive the necessary support from the social networks that they have developed. The following section will focus on exploring and describing the relationship between the CRI and the SOC-29 results obtained by this sample.
5.3.3 Results of Aim 3: The Relationship Between the SOC-29 and the CRI

The third aim of the current study was to explore and describe the relationship between the coping orientation, or sense of coherence, and coping resources of teachers educating learners with intellectual disabilities. The relationship between the SOC-29 and CRI, measuring sense of coherence and coping resources respectively, was examined by utilising multiple correlations and the Pearson Product-Moment Correlation Coefficient or Pearson $r$. For the purposes of the current study, the mean of the SOC-29 total scores was correlated with the means of the total CRI scores, as well as with the means of the five subscale scores of the CRI. The results are displayed in Table 19.

Table 19: Correlation Matrix: SOC-29 and CRI ($N=59$)

<table>
<thead>
<tr>
<th>Variable</th>
<th>SOC and Total CRI</th>
<th>SOC and Cognitive subscale</th>
<th>SOC and Social subscale</th>
<th>SOC and Emotional subscale</th>
<th>SOC and Spir./Phil. Subscale</th>
<th>SOC and Physical subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation (r)</td>
<td>0.394*</td>
<td>0.380*</td>
<td>0.422*</td>
<td>0.169</td>
<td>0.211</td>
<td>0.270*</td>
</tr>
<tr>
<td>p-value</td>
<td>0.002</td>
<td>0.003</td>
<td>0.001</td>
<td>0.201</td>
<td>0.108</td>
<td>0.039</td>
</tr>
</tbody>
</table>

Note: *Results are significant, $p<0.05$

Several interesting findings become evident from the correlation matrix presented in Table 19, and these will be discussed individually. Firstly, it is evident that for a critical $p$-value of 0.05, a significant positive correlation ($r=0.394$) exists between the SOC mean score and the total CRI mean score. This is evident from the significant interrelationship between the total mean scores of the two measures that were employed in this study. In terms of the magnitude of the relationship, according to the guidelines suggested by Guilford (1946), it can be described as a low correlation which indicates a definite but small relationship between the two measures. This relationship suggests that in the current sample of special education teachers, those participants who scored higher on their SOC were also likely to report higher levels of coping resources,
while the participants who scored lower on their SOC were more likely to report lower levels of coping resources. While it is not possible to establish a causal link in terms of this research, it is evident that a significant positive relationship exists between the two variables.

This finding is consistent with observations noted in Chapter 2, concerning the similarities between Antonovsky’s (1987) Generalised Resistance Resources (GRRs) and the concept of coping resources. GRRs were defined as any properties of a person that facilitates successful coping with the inherent stressors of daily living (Antonovsky, 1987). These GRRs comprise cognitive, emotional, social and physical, and meaning characteristics. This definition is very similar to Hammer and Marting’s (1988) definition of coping resources, which is defined as “those resources inherent in individuals that enable them to handle stressors more effectively, to experience fewer or less intense symptoms upon exposure to a stressor, or to recover faster from exposure” (p.2). Hammer and Marting (1988) divided coping resources into five domains, namely cognitive, social, emotional, spiritual/philosophical and physical. From the above discussion, it becomes evident that the definition of GRRs and coping resources clearly overlap, and hence one would expect a significant positive correlation to exist between the two measures.

Furthermore, this finding confirms the findings of other research studies conducted in South Africa. For example, Cairns (2001) in her study, found a positive relationship between the coping resources and SOC among a group of cancer patients. Individuals high on SOC were likely to report high levels of coping resources. Likewise, McSherry and Holm (1996) found that individuals with low SOC scores were significantly less likely than individuals with high SOC scores to believe that they possessed the personal resources necessary to cope with a stressful situation. Compared to the subjects in the high SOC group, individuals with a low SOC were less likely to believe that they had the social resources (e.g., friends, family), the material resources (e.g., money, tools, equipment), or the psychological resources (e.g., beliefs, attitudes, problem-
solving skills) to cope effectively with a stressful situation (Hammer & Marting, 1988). Further evidence for this relationship between SOC and coping resources was provided by Madhoo (1999) who investigated the SOC and coping resources of 35 patients in cardiac rehabilitation. Similar to previous research, the present researcher also reported a significant positive correlation between the SOC and coping resources ($r=0.394$).

The finding of a significant positive relationship also appears to support the premise that SOC significantly affects cognitive appraisal, specifically secondary appraisal, as described by Lazarus and Folkman (1984). According to literature presented in Chapter 2, individuals with a high SOC are more likely to mobilise and take advantage of the resources available to them when confronted with a stressful situation (Antonovsky, 1987). As a result, they are more likely to define stimuli as non-threatening during primary appraisal, leading them to believe that they are able to adapt to the demands using the resources available to them during secondary appraisal (Cairns, 2001). Relating to this, Antonovsky (1987) explained that coping resources (termed GRRs) interplay with the coping process to build a strong SOC in individuals who experience success in their coping efforts.

While a significant positive relationship was evident between the SOC-29 and the total score of the CRI, not all the subscales of the CRI were found to be significantly related to SOC. A further investigation of the correlation matrix presented in Table 19 revealed significant positive relationships between the SOC and the cognitive, social and physical subscales of the CRI. While the magnitude of the relationship between the SOC and social subscale may be described as moderate, indicating a substantial relationship, the magnitude between the SOC and both the cognitive and physical subscales may be described as low, indicating a definite but small relationship. Furthermore, it is evident that no significant relationship existed between the
SOC and the emotional and spiritual/philosophical subscales of the CRI for the current sample. Possible explanations for these findings will now be considered.

As discussed in Chapter 4, the emotional subscale of the CRI measures the extent to which individuals are able to accept and express a range of affect, based on the premise that a range of emotional responses aids in ameliorating long-term negative consequences of stress (Hammer & Marting, 1988). Accordingly, all the items in the emotional subscale of the CRI reflect a general tendency to use behavioural expression as a measure of the individual’s emotional state. However, the SOC-29 is designed to measure an individual’s sense of comprehensibility, manageability and meaningfulness, which do not draw directly on the individual’s ability to accept and express emotions behaviourally. The meaningfulness component of the SOC refers to the extent to which individuals feel that life makes sense emotionally, that at least some of the problems and demands posed by living are worthy of investing energy in (Antonovsky, 1987). This may account for the lack of relationship between the SOC and the emotional subscale of the CRI.

Another important finding is the lack of a significant relationship between the SOC and the spiritual/philosophical subscale of the CRI in the current sample. As discussed in Chapter 4, the spiritual/philosophical subscale measures the extent to which actions of individuals are guided by stable and consistent values derived from religious, familial, or cultural tradition or from personal philosophy (Hammer & Marting, 1988). Such values might serve to define the meaning of potentially stressful events and prescribe strategies for responding effectively. In contrast, the SOC-29 does not directly address the spiritual dimension. Although this explains the lack of a significant relationship between these two variables, it does not mean that spirituality is completely excluded from the SOC concept.
In conclusion, the relationship between the measures of coping orientation and coping resources found in this study, points to a link between the participants’ perceptions of stress and stressors and their perceived availability of coping resources. Antonovsky (1979, 1987) postulated that adequate resources and a strong SOC lead to a reduction of negatively experienced stress, and that this in turn will have a positive effect on an individual’s coping ability. While the emotional and spiritual/philosophical subscales of the CRI were not found to be significantly correlated to the SOC of the sample, the rest of the subscales of the CRI and the total score of the CRI were found to be significantly correlated to the SOC. In other words, in the current study participants with higher SOC also perceived themselves as having high levels of cognitive, social and physical resources which would help them cope with stressful situations. Furthermore, it could be assumed that during primary appraisal, these participants would be less likely to appraise a stimulus as a threat, and during secondary appraisal, they would be more likely to believe that they have the resources to cope with the stressor.

5.4 Conclusion

The results obtained from the data analysed in accordance with the three aims of the current study have been presented in this chapter. In order to gain an understanding of the sample, the distribution of the demographic details obtained from the biographical questionnaire were explored. Results regarding the first aim, to explore and describe the coping orientation of teachers educating learners with intellectual disabilities, suggested that a fairly high SOC was evident in the current sample. This finding suggests that special education teachers may be more successful in choosing the most effective coping strategies when confronted with a stressor. Furthermore, results from the CRI revealed that special education teachers in the current sample obtained average mean scores for both the total coping resources scale, as well as for the five coping resources subscales. This finding indicates that special education teachers in the current
sample perceived themselves as having generally average levels of coping resources. With regard to the third aim, a significant positive relationship was established between the SOC-29 and the CRI. However, not all the subscales of the CRI were found to be significantly related to the SOC-29. Although a significant positive relationship was found between the SOC and the cognitive, social and physical subscales of the CRI for the current sample, no significant relationship was found between the SOC-29 and the emotional and spiritual/philosophical subscales of the CRI. The conclusions and limitations based on the results of the study, as well as recommendations regarding future research will be discussed in the Chapter 6.
Chapter 6
Conclusions, Limitations and Recommendations

6.1 Chapter Overview

The results of the current study were presented and discussed in Chapter 5. It is necessary to draw certain conclusions based on these findings. The present chapter provides a summary of the main findings of the results, and the value and limitations of the research are discussed. This chapter concludes with recommendations for future research.

6.2 Objectives of the Study Revisited

In order to understand the conclusions of the research it is necessary to revisit the aims of this study. The primary objective of this study was to investigate the coping orientation, or sense of coherence, and coping resources of teachers educating learners with intellectual disabilities. There were three main aims in this regard:

7. To explore and describe the coping orientation, or sense of coherence, of a group of teachers educating learners with intellectual disabilities.
8. To explore and describe the coping resources of a group of teachers educating learners with intellectual disabilities.
9. To investigate whether there is a relationship between the coping orientation and coping resources of teachers educating learners with intellectual disabilities.

The conclusions which may be drawn from this study will now be addressed in terms of the aims provided above.

6.2.1 Description of the Sense of Coherence of the Sample

The current sample of special education teachers obtained a fairly high mean score on the SOC-29. As there are no established norm scores for the SOC of special education teachers in
South Africa at this stage, it is difficult to assess whether the mean score for this sample is significantly higher. However, when compared to a variety of South African studies that measure SOC, the mean score for the current sample was one of the highest obtained.

Literature has revealed that stressful life events may have either salutary or negative psychological consequences (Antonovsky, 1987). Thus, it appears that for the current sample, a stressful life event such as continued exposure to routine work stress, which is the case among special education teachers, brings about positive psychological change and strengthens the SOC. A central factor determining whether stressful life events produce desirable outcomes appears to be whether or not individuals are able to find meaning and purpose within their circumstances (Antonovsky, 1987). It was speculated that the above findings might be true for the sample under investigation, and that their overall SOC may have increased due to the nature of teaching in special education. Special education teachers’ high sense of meaningfulness has been confirmed in a previous study, which indicated that the majority of special education teachers regard their occupation as very fulfilling and rewarding, despite the numerous challenges encountered in their profession (Williams, 2003). The current sample of special education teachers was therefore able to construct meaning and a sense of purpose from their circumstances.

Additional explanations for the fairly high SOC mean score that was reported in the current study might have resulted from the biographical variables that characterised the sample. Some of the biographical variables that were considered included participants’ age and educational qualifications. Literature indicates that the SOC develops throughout the life-span and stabilises around the age of 30 years (Antonovsky, 1987). As all of the participants in the current sample were 30 years or older, they may have crystallised SOC’s based on previous patterns of life
experiences. In addition, the majority of the sample indicated that they have received tertiary training, which may have contributed to the development of a fairly high SOC.

6.2.2 Description of the Coping Resources of the Sample

Results of the CRI indicate that the current sample perceived themselves as having average levels of coping resources. This conclusion was based on the fact that the mean for the total coping resources scale obtained by the sample, as well as the means for the cognitive, social, emotional, spiritual/philosophical and physical subscales were all slightly above the proposed mean of 50 established for the CRI by Hammer and Marting (1988).

The highest mean score obtained by the current sample was for the cognitive resources subscale. It was speculated that this could be understood in terms of previous research findings which indicated that some of the frequently used coping strategies adopted by special education teachers involve applying positive self-talk, believing in oneself, maintaining a positive self-image, feeling motivated, and developing a positive outlook on life (Dunham, 1992; Williams, 2003).

The lowest mean score obtained by the current sample was for the social resources subscale. However, it is important to bear in mind that although this score was lower than the rest of the CRI scores obtained by the sample, it was still slightly above the proposed mean of 50, as reported by Hammer and Marting (1988). The majority of the current sample indicated that they are in a marital relationship. A number of researchers have confirmed that support within the marital relationship is important for the well-being of both partners (Carroll, 1992, Williams, 2003). Williams (2003) emphasised the importance of receiving positive support from one’s spouse, which could be an important factor in stress reduction. Hence, as the majority of
the participants are married, one would expect the mean score of the social resources subscale to be average.

6.2.3 The Relationship between the Sense of Coherence and Coping Resources of the Sample

In terms of correlations that were conducted, a significant positive relationship was found between the SOC and the total CRI scores obtained from the sample. This relationship suggests that in the current sample of special education teachers, participants who scored higher on SOC were also likely to report higher levels of coping resources, while participants who scored lower on SOC were more likely to report lower levels of coping resources. However, owing to the exploratory descriptive nature of this study, a causal or explanatory link in terms of this specific research was not possible. Furthermore, although it is important for these results to be examined in the context of the current sample, these results were found to be similar to the results of other studies investigating the SOC and coping resources of different samples (e.g., Cairns, 2001; Katalan, 2003; Madhoo, 1999; McSherry & Holm, 1996; Otto, 2002).

The results in the current study support the similarity between Antonovsky’s (1987) concept of GRRs and the concept of coping resources. It can be concluded that the theory of SOC (specifically the theory surrounding GRRs) and that of coping resources does overlap to a certain extent. The findings of a significant positive relationship also appear to support the premise that SOC significantly affects cognitive appraisal processes, which was outlined by Lazarus and Folkman (1984). Specifically, individuals with a high SOC are more likely to define stimuli as non-stressors during primary appraisal or to perceive that they have the resources to cope with stressors during secondary appraisal.
With regard to the individual subscales of the CRI, results indicated that there were significant positive correlations between the SOC and the cognitive, social and physical subscales. However, there was no significant relationship between the SOC and the emotional and spiritual/philosophical subscales for the current sample. It was speculated that the lack of a significant relationship between the SOC and the emotional subscale was due to the fact that none of the three components of the SOC-29 (i.e. comprehensibility, manageability and meaningfulness) directly address an individual’s ability to accept and express emotions behaviourally. The lack of a significant relationship between the SOC and the spiritual/philosophical subscale of the CRI may be due to the fact that spirituality is not directly addressed in the SOC-29 as it is in the CRI.

6.3 Value of the Research

This study contributes to the body of research within the salutogenic paradigm. Instead of focussing on illness, emphasis was placed on salutogenic concepts such as sense of coherence and coping resources. The link between stress, coping, and health, is the primary field of investigation in health psychology. By exploring these concepts in a group of special education teachers, this study contributed to the knowledge base of salutogenic factors, and consequently to the relatively new field of positive psychology, which investigates the possible positive effects of stressful situations.

The value of the current research further lies in the fact that this is the first study that has examined the SOC and coping resources of a sample of special education teachers in a South African context. Hence, this study contributes to the limited body of research available in this field. Furthermore, this research generates information that could assist community members, parents, and other allied professionals to gain a greater understanding of the challenges special
education teachers encounter in their profession. A discussion of the major sources of occupational stress encountered in special education was also provided, and thus provides both special education teachers and principals with a perspective on the problems and challenges experienced by their colleagues. Hence, teachers may realise that their colleagues experience similar problems, which could encourage them to seek contact and collectively address these challenges. Furthermore, a discussion of the coping strategies identified by the literature, which could be employed to alleviate some of the stress experienced by special education teachers, has been provided. This could assist special education teachers to mobilise or improve those resources that have previously not been utilised.

In addition, the participants in this study were provided with general feedback regarding the results of this research. This aids in increasing the participants’ awareness of their perceptions and empowers them, as they could identify and change the areas of their life that are hindering them from their ability to cope maximally with their occupation as a special education teacher.

6.4 Limitations of the Research

There are various limitations to this research. These limitations relate to the research design, the participants and sampling method, and the measures utilised in this study. These limitations will be discussed in the subsequent section.

6.4.1 Limitations of the Research Design

The design of this study posed particular limitations. Lazarus (2000) postulated that certain research methods are essential in the study of stress, emotion and coping. These methods are described as longitudinal, since they repeat measurements on the same people, across time and circumstances (Lazarus, 2000). The current study adopted a cross-sectional design and
therefore measured the participants’ SOC and coping resources at one point in time, rather than across various points in time. Consequently, no account can be given of premorbid levels, or changes in these levels.

Another limitation in the design of the current research is the absence of qualitative information. Elmes, Kantowitz and Roediger (2003) postulated that qualitative research is based on the participants’ subjective view of a changing reality, and seeks to understand the individual’s world. In other words, a disadvantage of using quantitative data only, stems from the fact that the individual’s story gets lost among the forced-choice questions (Elmes, Kantowitz & Roediger, 2003). Combining both quantitative and qualitative data in triangulation would have enriched the data and contributed to a deeper understanding of the sample under investigation.

6.4.2 Limitations of the Sampling Method

Another shortcoming of this study is related to the sampling method and sample size. The sampling method employed in this study was non-probability convenience sampling. With convenience sampling, the sample is not randomly selected implying that the sample would probably not be representative of the general population. Furthermore, the small sample size and unequal groupings of the current study render it non-representative of the wider population. Hence, the findings of this study are only applicable to the sample under investigation, and cannot be generalised to the general population of special education teachers. Additionally, the small sample size and unequal groupings prevented the utilisation of additional parametric procedures, which could be used to identify the relationship among variables of the sample (Harris, 1998). Such an analysis would have been useful in exploring the significance of the biographical information in relation to the results of the measures.
As mentioned in Chapter 4, a further possible limitation is that the biographical questionnaire and the two measures (SOC-29 and CRI) were available in English only. Consequently, it was a requirement that the participants be able to read and write in English as a first or second language. Despite the fact that all the participants are able to do so, this could possibly be viewed as a limitation of the study because such a requirement excludes participants who are not conversant with the English language.

6.4.3 Limitations of the Measures Utilised

A possible limitation also arises from the measures used in order to collect the data. The biographical questionnaire could have included questions regarding the strategies or resources participants use to cope with a stressful situation. This information would have enriched the data, as it would have provided a more detailed description of the strategies or resources used by this particular sample of special education teachers.

A shortcoming associated with the Coping Resources Inventory stems from the fact that it was developed and standardised in the United States of America by Hammer and Marting (1988). The norms and standard deviations used for the interpretations of the participants’ response are therefore not necessarily valid in a South African context. In addition, no previous South African studies, which explore the coping resources of special education teachers, have been completed thus far. Hence, there is no previous study with which to compare the findings of the current study.

Finally, although a significant relationship between the two measures under investigation was found, causality cannot be deduced. Due to the exploratory descriptive nature of the study, a causal explanation cannot be established.
6.5 Recommendations

Since much of the research mentioned in this study comes from international sources, there is a vast need for research to be conducted within the South African context in the field of special education. Based on the limitations of the current study, as discussed in the previous section, the following recommendations for future research are suggested.

Firstly, it is recommended that this study be replicated in the future, using questionnaires in more than one language, with larger and more representative samples, so that the results can be more generalisable to the larger population of special education teachers in South Africa. This will allow for the effects of biographical variables on the results of the measures to be assessed. Replication is further recommended in order to examine if the positive relationship that was found between the two measures in this study, also exists in other South African samples of special education teachers. Investigating such a phenomenon may lead to significant contributions to the research on stress and coping. Secondly, it is recommended that longitudinal research designs be employed to investigate the consistency of sense of coherence and coping resources over time.

Finally, it is recommended that further replication of this research includes qualitative information into the data collection as this will serve to confirm and enrich the quantitative data. As qualitative research focuses on the specific context and setting of interactions, it could be valuable in the replication of this study in understanding the stress and coping experiences among special education teachers in the South African context.

6.6 Conclusion

This study is an initial attempt at exploring and describing the sense of coherence and coping resources of a group of teachers educating learners with intellectual disabilities. This
study also investigated the relationship between the sense of coherence and coping resources of the sample. Results of the SOC-29 indicated a fairly high mean score, which suggests that the current sample of special education teachers may be more successful in choosing the most effective coping strategies when confronted with a stressor. Results from the CRI revealed that special education teachers in the current sample obtained average mean scores, indicating that they perceived themselves as having average levels of coping resources.

The results from the correlation between the SOC-29 mean score and the CRI total mean score indicated a significant positive relationship. The results from the correlations conducted between the SOC-29 mean score and the mean scores of the different CRI subscales, yielded significant positive relationships between the SOC of the sample and the cognitive, social and physical coping resources subscales. Overall, the relationship found, suggested that in the sample under investigation, those individuals who demonstrated higher levels of SOC were also likely to demonstrate higher perceived availability of coping resources. Although the results of this study cannot be generalised to the larger population of special education teachers, the results pave the way for future research involving the stress and coping resources of special education teachers.

Future research could incorporate larger sample sizes, as well as longitudinal research designs, to investigate the sense of coherence and coping resources of special education teachers across time and circumstances. It has also been pointed out that qualitative information could enrich the results by providing individual accounts of the experiences of special education teachers, and hence allow the individual’s story to emerge. As previously mentioned, teaching in special education is an extremely complex, multidimensional and demanding profession. Awareness and utilisation of salutogenic concepts such as sense of coherence and coping resources, can offer hope and optimism to these teachers. It can allow for more successful coping
and adjustment with the challenges encountered in their profession, and a movement towards the positive end of the ease/disease continuum.
References


Appendix A

Letter to Department of Education
Dear Mr A Grundling

As part of my qualification for the degree of Magister Artium in Counselling Psychology, I am required to complete a treatise. The research study undertaken for this purpose falls within the field of special education. Upon reviewing the literature on special education teachers, it became evident that special education is more demanding than mainstream education. Furthermore, in comparison to the vast amount of literature available on mainstream education, both South African and international research relating to special education do not occupy prominent status. Hence, this study aims to explore and describe the coping orientation and resources of teachers educating learners with intellectual disabilities.

It is with this goal in mind that I would like to request your permission to have teachers educating learners with intellectual disabilities participate in this study. Participants will be requested to complete three questionnaires, namely a biographical questionnaire, the Orientation to Life Questionnaire (SOC-29) and the Coping Resources Inventory. A copy of each of these measures is attached. The completion of all these questionnaires should take no longer than 40 minutes. Participants will be given two weeks within which to complete the questionnaires, thereafter questionnaires will be collected by the researcher. In order to prevent or minimize any disruption in the normal teaching routine, the researcher will consult with the principal regarding the most appropriate way of informing the teachers about the proposed study. Participation in this study is completely voluntary and confidentiality and anonymity will be maintained at all times. Should you have any queries, please do not hesitate to contact me on 072 450 3818.

Thanking you in anticipation.
Yours sincerely

T Jacobs (Ms)
(Intern Counselling Psychologist and Researcher)

J G Howcroft (Prof)
(Psychologist and Supervisor)

O Brown-Baatjies (Mrs)
(Psychologist and Co-supervisor)

M B Watson (Prof)
(Head of Department)
Dear Mr P V Spies

As part of my qualification for the degree of Magister Artium in Counselling Psychology, I am required to complete a treatise. The research study undertaken for this purpose falls within the field of special education. Upon reviewing the literature on special education teachers, it became evident that special education is more demanding than mainstream education. Furthermore, in comparison to the vast amount of literature available on mainstream education, both South African and international research relating to special education do not occupy prominent status. Hence, this study aims to explore and describe the coping orientation and resources of teachers educating learners with intellectual disabilities.

It is with this goal in mind that I would like to request your permission to have teachers educating learners with intellectual disabilities participate in this study. Participants will be requested to complete three questionnaires, namely a biographical questionnaire, the Orientation to Life Questionnaire (SOC-29) and the Coping Resources Inventory. A copy of each of these measures is attached. The completion of all these questionnaires should take no longer than 40 minutes. Participants will be given two weeks within which to complete the questionnaires, thereafter questionnaires will be collected by the researcher. In order to prevent or minimize any disruption in the normal teaching routine, the researcher will consult with the principal regarding the most appropriate way of informing the teachers about the proposed study. Participation in this study is completely voluntary and confidentiality and anonymity will be maintained at all times. Should you have any queries, please do not hesitate to contact me on 072 450 3818.
Thanking you in anticipation.
Yours sincerely

T Jacobs (Ms)
(Intern Counselling Psychologist and Researcher)

J G Howcroft (Prof)
(Psychologist and Supervisor)

O Brown-Baatjies (Mrs)
(Psychologist and Co-supervisor)

M B Watson (Prof)
(Head of Department)
Appendix B

Research Cover Letter
Dear Research Participant

Stress in teaching is now a well-recognized phenomenon and various studies have found the profession to be a stressful one. More specifically, research has found special education to be more demanding than mainstream education. However, in comparison to the literature on mainstream education, both South African and international research relating to special education do not occupy prominent status in the literature. Hence, this study aims to explore and describe the coping orientation and resources of teachers educating learners with intellectual disabilities. It is with this goal in mind that I would like to enlist your help in this study.

As a participant you will be required to complete three measures as follows:

1. A Biographical Questionnaire
2. The Orientation to Life Questionnaire (SOC-29)
3. The Coping Resources Inventory (CRI).

It should take you approximately 40 minutes to complete all of the above. Your participation is both anonymous and voluntary. If at any time during this study you wish to withdraw your participation, you are free to do so without discrimination. Feedback regarding the results of this study will be available to all participating schools. If you have any questions prior to your participation or at any time during the study, please do not hesitate to contact me on 072 450 3818 (c) or 041-504 3854 (w). Please note that I will collect the questionnaires within 1 week after delivery.

Your participation will be much appreciated.

Yours sincerely
T Jacobs (Ms)
(Intern Counselling Psychologist and Researcher)

J G Howcroft (Prof)
(Psychologist and Supervisor)

O Brown-Baatjies (Mrs)
(Psychologist and Co-supervisor)

M B Watson (Prof)
(Head of Department)
Appendix C

Consent Form
DECLARATION BY PARTICIPANT

I, the undersigned, ____________________________________ (name)
(I.D. No: __________________), the participant of ________________
_____________________________________________________________
___________________________________________________________
_____________________________________________________________
_____________________________________________________________
(address).

A. HEREBY CONFIRM ASフォロウS:

1. I was invited to participate in the above-mentioned research project which is being undertaken by Tracey Jacobs of the Department of Psychology in the Faculty of Health Sciences at the Nelson Mandela Metropolitan University.

2. This research project aims to explore and describe the coping orientation and resources of teachers educating learners with intellectual disabilities. The information will be used as part of the requirements for a MA Counselling Psychology degree. The results of this study may be presented at scientific conferences or in specialist publications.

Please initial against each paragraph

__________  __________
3. I understand that I will be asked to complete three questionnaires as well as a consent form. If I am unable to participate in the study, I will return all questionnaires and letters to the researcher.

4. Risks: None

5. Confidentiality: My identity will not be revealed in any discussion, description or scientific publications by the researcher.

6. My participation is voluntary. My decision whether or not to participate will in no way affect my present or future employment.

7. No pressure was exerted on me to consent to participation and I understand that I may withdraw at any stage without penalization.

8. Participation in this study will not result in any additional cost to myself.

B. I HEREBY CONSENT VOLUNTARILY TO PARTICIPATE IN THE ABOVE-MENTIONED PROJECT.

I grant this as a voluntary contribution in the interest of training and knowledge.

Signed at ______________________________ on __________________ 2005.

Signature of participant ______________________________.

Signature of witness ________________________________.
Appendix D

Biographical Questionnaire
BIOGRAPHICAL QUESTIONNAIRE

Please complete the following: (Place and X over the most appropriate answer):

1. Your age in completed years:
   ________________

2. Gender:
   □ Male □ Female

3. Marital status:
   □ Single □ Engaged □ Married □ Divorced □ Separated □ Cohabiting □ Widowed

4. Do you belong to a religious affiliation?
   □ Yes □ No

5. What is your highest educational qualification?
   __________________________________________

6. Have you received training (certificate, diploma, or degree) in special education? Please specify.
   __________________________________________

7. Number of years teaching in special education:
   __________________________________________

8. Are you responsible for extracurricular activities at your school? Please specify.
   __________________________________________

9. Number of learners in a class:
   __________________________________________

10. What is the grade/level of the learners you teach?
    _________________________________________
11. What is the age range of the learners you teach?

__________________________________________

12. In general, how stressful do you experience your occupation as a teacher in a special education school? (please tick the appropriate block)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not stressful</td>
<td></td>
</tr>
<tr>
<td>Moderately stressful</td>
<td></td>
</tr>
<tr>
<td>Extremely stressful</td>
<td></td>
</tr>
</tbody>
</table>

13. Have you been treated for stress in the past?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

14. If you answered yes to the question above, was this stress as a result of your occupation as a special education teacher?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>