

**STRESS AND COPING SKILLS OF
EDUCATORS WITH A LEARNER WITH A
PHYSICAL DISABILITY IN INCLUSIVE
CLASSROOMS IN THE WESTERN CAPE**

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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and has not previously in its entirety or in part been submitted at any University for a degree.

Signature

Date

SUMMARY

Education systems are in a constant change, more so now in the post-modern global era that we live in. With change comes the stressors associated with it. Some of us are able to cope while others are unable. This thesis focuses on the effect of stress on educators who have learners with physical disabilities in their classroom as well as the coping methods used by these educators to manage these learners in the classroom. Participants were five female educators from disadvantaged areas of the Western Cape. A qualitative research approach was taken and the results indicate the following: Major stress experienced by educators is caused by the fact that educators do not know how far to sustain, let alone challenge an active learning environment, because of lack of experience and relevant in-service training relating to learners with physical disabilities. It was found that the nature of the disability and its severity influences the attitudes of the educators in inclusive practice. The absence of communication or rather the lack of information about the learner from the parent and other parties involved caused stress amongst the participants. Participants identified that improving their self-esteem was one of the key coping methods in dealing with stress. It is clear that educators need some form collaborative support to know they are on the right path or in order to progress in the right direction.

OPSOMMING

Opvoedkundige stelsels is gedurig onderworpe aan verandering, veral tans in die post-modêrne globale era waarin ons leef. Verandering word vergesel deur stressors wat daarmee geassosieer word. Sommige van ons is instaat om hierdie te hanteer en ander nie. Hierdie tesis fokus op die effek van stres op opvoeders wat leerders met fisies gestremde in hul klaskamers het, asook die hanteringsstrategieë wat deur hierdie opvoeders gebruik word om hierdie leerders in die klaskamer te hanteer. Deelnemers was vyf vroulike opvoeders uit agtergeblewe areas in die Wes-Kaap. 'n Kwalitatiewe navorsingsbenadering is gevolg en resultate dui op die volgende. 'n Belangrike stressor wat deur opvoeders ervaar word, is dat hulle nie weet hoe om 'n aktiewe leeromgewing te volhou of uit te daag nie. Dit is die gevolg van 'n tekort aan ondervinding en relevante indiensopleiding aangaande leerders met fisiese gestremdhede. Daar is gevind dat die tipe en graad van gestremdheid die ingesteldheid van die opvoeders in 'n inklusiewe praktyk beïnvloed. Die afwesigheid van kommunikasie of liever die gebrek aan informasie deur die ouer of ander betrokke partye aangaande die leerder, het stres onder die deelnemers veroorsaak. Deelnemers het die verbetering van hulle eie selfbeeld as 'n belangrike hanteringsstrategie geïdentifiseer. Dit is duidelik dat opvoeders 'n vorm van samewerking en ondersteuning benodig om te weet of hulle op die korrekte weg is óf om hulle in die regte rigting te stuur.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION, MOTIVATION AND RELEVANCE

Education in apartheid South Africa was fragmented and characterised by inequalities and discrimination. Within specialized education *per se*, a particular double fragmentation occurred which could be seen in the form of racial discrimination and streaming of learners according to their abilities or disabilities. These inequalities created a chasm between learners who experienced barriers to learning and educational development (including disabilities and those without any disabilities) as well as those who were white and those who were non-white. Against this background the post-apartheid era has seen transformation taking place not only in education, but also in the political, social and economic spheres. Since 1994, new policies and legislation have created changes regarding learners who are experiencing barriers to learning within the mainstream classroom, as well as a focus on equality, non-discrimination and quality education for all (Bagwandeen, 1994:15; Department of National Education, 1997:53-54; 1998:6; Department of National Education, 1999:11; Engelbrecht, Green, Naicker and Engelbrecht, 1999:12; Nkomo, 1990:277).

The Education White Paper 6: Special Needs Education: Building an inclusive education and training system (Department of National Education, 2001:10) indicates how future policy regarding learners who are experiencing barriers to learning and development will:

- Systematically move away from using segregation according to categories of disabilities as an organising principle for institutions;
- Place an emphasis on supporting learners through full service schools;
- Direct how the initial facilities will be set up and how the additional

resources required will be accessed;

- Indicate how learners with disabilities will be incorporated into special, full service and ordinary schools in an incremental manner;
- Describe how small rural schools will adapt;
- Introduce strategies and interventions that will assist educators to cope with a diversity of learning and teaching needs to ensure that transitory learning difficulties are ameliorated;
- Give direction for the Education Support System needed; and,
- Provide clear signals about how current special schools will serve appropriate disabled learners on site and also serve as a resource to teachers and schools in the area.

It is evident from White Paper 6 that inclusive education will bring significant changes to South African education and the role of educators as they are now. Mainstream educators, as the people who make learning possible in schools, are currently being expected to make major changes in the way they have traditionally understood teaching and learning. Their professional education until very recently took place in a climate that viewed difference and disability as indicating a separate educational system. Many mainstream educators have had little experience of people with disabilities in their classroom (Lomofsky, Roberts and Mvambi, 1999:70-72).

International research on changes and how educators handle stress and change highlights the fact that the implementation of inclusive education causes high levels of stress associated with the increased demands of including learners with diverse needs into mainstream classrooms (Forlin, 2000:1; Forlin, Douglas and Hattie, 1996a:200; Petty and Saddler, 1996:15; Stanovich and Jordan, 1998:221; Wishart and Manning, 1996:56). In South Africa, similar results were found with educators who had learners with disabilities in their mainstream classrooms and indicate that educators can develop higher levels of stress when the demands of educating a learner with physical disabilities are placed on them (Engelbrecht, Swart, Elof and Newmark, 2000:5; Engelbrecht, Swart, Elof and Forlin, 2001:1-5; Van Zyl and Pieterse, 1999:74-78). Regarding the inclusion of learners with

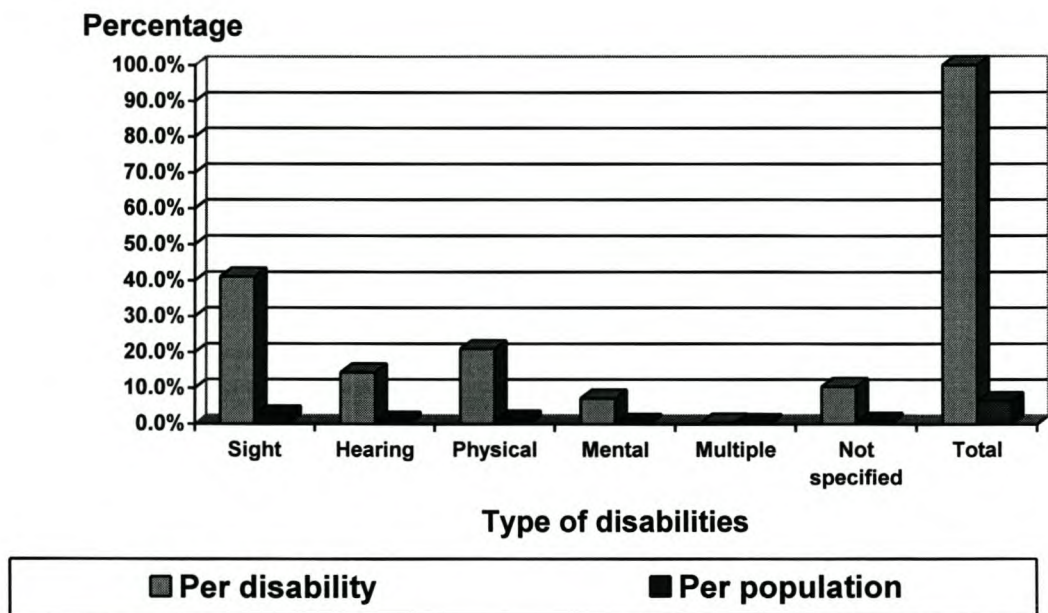
physical disabilities, research (Eloff, Swart and Engelbrecht, 2002:94-96) indicate that although there is a notion that learners with physical disabilities seem to be relatively easily included in the mainstream classes, educators do experience stress and that these learners will be included in larger numbers in the future.

It is necessary to contextualise physical disabilities within the broader perspective of the South African population with disabilities. Table 1.1. and Graph 1.1. provide a clear perspective on the percentage of South African people with disabilities: 20.99% of the population with disabilities have physical disabilities.

Table 1.1: Distribution of people with disabilities per category

	SIGHT	HEARING	PHYSICAL	MENTAL	MULTIPLE	NOT SPECIFIED	TOTAL
% PER DISABILITY	41.05	14.43	20.99	7.25	5.8	10.49	100.0
% PER POP	2.69	0.94	1.37	0.47	0.38	0.69	6.55

(Department of National Education 2001:14)



(Department of National Education 2001:14)

Figure 1.1 Representation of the distribution of people with disabilities per category

According to Feldman, Gordon and Snyman (2001:134), addressing the educational needs of learners with various physical disabilities in mainstream classrooms requires educators to provide reasonable solutions to barriers that occur in the inclusion process. The way in which educators cope with the process will determine how successful the implementation of inclusive education in South Africa will be.

1.2 RESEARCH PROBLEM

Although research has been conducted in the area of stress of educators in inclusive education in South Africa, not much research has been done on how educators cope with stress especially when including a learner with a physical disability. It is against this background that the following research question can be asked: What are the levels of various types of stress being experienced by educators who have a learner with a physical disability in their classrooms and which coping methods are being used by these educators?

1.3 AIM

The aim of the research is to identify what causes stress in mainstream educators in Eersteriver, Melton Rose and Mfuleni areas in the Western Cape who have learners with physical disabilities in their mainstream classes. In addition, the research aims to identify which coping skills the educators apply.

1.4 RESEARCH DESIGN AND METHODOLOGY

The section on research design and methodology will consist of the research design, participants, procedure and methodology data analysis, validity and reliability.

1.4.1 Research design

The research design is qualitative and descriptive in nature as this type of design can produce a wealth of detailed, in-depth and descriptive data and can facilitate the comprehension of the processes, actions, events and school as a lived experience. Moreover, qualitative research is grounded on the view that reality is constructed through individuals interacting in their social worlds (Babbie and Mouton, 2001:270; Merriam, 1998: 4-9). Qualitative research attempts to see the world directly through the eye of the participant, that is, the participant forms the active point of departure. In addition, qualitative research enables the researcher to experience the daily struggles of the participant when confronted with real life situations (Brynard and Hanekom, 1997:29-30).

1.4.2 Participants

The study will focus on five educators in mainstream education, who have learners with physical disabilities in their classroom. These five participants are female and come from three black primary schools in the Western Cape. The sample therefore can be described as non-random, purposeful and small (Merriam, 1998:8). The criteria for obtaining the purposive sampling include the following:

- Black: Representative of the majority population group in the Western Cape (Statistics South Africa, 1996:1).
- Female: Representative of the majority of educators in the Western Cape (Department of National Education, 2002a:17).
- Primary school: Representative of the type of schools at which most of the learners experiencing barriers to learning, including physical disabilities, are first identified.

1.4.3 Procedure

Permission was obtained from the Western Cape Education Department (WCED), the principal and governing bodies of the relevant schools to conduct the research. This permission was obtained on behalf of the researcher, by the supervisor.

1.4.4 Methodology

Methodology will show the following: literature review, questionnaires, field notes, semi-structured interviews and documentation.

1.4.4.1 Literature review

The literature review plays an important role in the research process as a whole. It becomes central to data analysis in that it serves as a source of reference from which data are collected, processed and interpreted (Hall, 1998:117). The literature review was conducted by reading and researching journals, books, theses, and newspaper articles as well as articles on the internet.

1.4.4.2 Questionnaires

A structured questionnaire was administered to enable the researcher to prepare an interview schedule for the interviews (Engelbrecht *et al.*, 2000; Forlin, 2000:5). The questionnaire (see appendix A) is a localised version of an Australian questionnaire on Teacher Stress and Coping (TSC).

It is divided into four sections. Part A focuses on demographic information, concentrating on the background of the educator, the learner, gender,

experience, training and the school. Part B focuses on information about the specific class structure and also examines other special needs within that class. Part C obtains perceptions on the severity of stressors in inclusive classrooms. This part has eight sub-sections and 83 items, which relate to practical issues in inclusive education. This part examines what is stressful and what is not. Part D focuses on perceptions on which coping strategies are most useful in reducing the levels of stress. This part consists of 36 items. A four-point Likert scale is used for responses. The degree of stressfulness is scored from one (not stressful) to four (extremely stressful). The measurement of usefulness is scored from one (not useful) to four (extremely useful).

1.4.4.3 *Field notes*

Field notes were used to make observations of the educators' in the natural setting, which in this case was the classroom of the learner with the physical disability. The notes also served as a guide for a better understanding of the educator and the stress and coping methods that she used. The field notes were taken before the semi-structured interview, which gave the researcher a deeper understanding of the educator and the environment. This sequence also added greater depth to the background against which possible questions could be posed for elaboration. The researcher utilised the full observer method, in which the researcher is not part of the group. The researcher can anticipate events while at other times they become more apparent as the observation process progresses. Field notes were used to correlate findings with the questionnaires. Field notes were also used to observe physical location and expressive movement (Babbie and Mouton, 2001:293-295).

1.4.4.4 *Semi-structured interviews*

For the purpose of this study semi-structured interviews (See Appendix C), based on the information obtained from the questionnaires, were conducted with

five participants. In semi-structured interviews, the questions and order of questions in the interview schedule are predetermined, but room for extra comments is allowed. The researcher is also very careful, during the interview process, not to lead or influence the interviewees (Merriam, 1998:72-74).

1.4.4.5 Documentation

Documentation is defined widely as a range of written, visual, and physical material. Documents are easily accessible and ready to use sources. There comprise various types of documents, which include public records, personal documents, and physical material (Merriam, 1998:112-133). Important documentation handed to the researcher was collected and analysed. Documentation included admission policies, teacher support team comments and vision and mission statements.

1.4.5 Data analysis

Relevant documentation, including policy documents, were also analysed. Data were analysed by means of content analysis of the questionnaire, documents, field notes and the interviews. Data was organised, summarised, reviewed repeatedly and coded. The focus of data consolidation was an inductive analysis to examine the themes that might emerge from the analysis (Babbie and Mouton, 2001:388-390; Coffey and Atkinson, 1996:26-32; Marshall and Rossman, 1995:143-145; Merriam, 1998:198; Silverman, 1993:24; Silverman, 2000:128).

1.4.6 Validity and reliability

The following strategies were employed to enhance the validity and reliability of the study. Peer examination was used. This involved constantly asking

colleagues to comment on findings as they emerge. The researcher also used member checks, which include checking with participants if the data analysis is a true reflection of what they actually said. Furthermore, data was validated using triangulation, according to which checks and balances are built into the design using multiple data collection strategies. Lastly, the researcher employed clarification of the researcher's assumptions at the outset of the study (Babbie and Mouton, 2001:274-276; Huysamen, 1994:115-117; Marshall and Rossman, 1995:143-145; Merriam, 1998:78).

1.5 DEFINITION OF TERMS

It is important to distinguish between terms as this sets the tone of understanding. A distinction will be made between mainstreaming, integration and inclusion, stress, coping and learners with physical disabilities.

1.5.1 Mainstreaming, integration and inclusion

There are clear distinctions between mainstreaming, integration and inclusion. These distinctions have developed over a period of time and can be seen as phases in the movement towards inclusive education. It has however appeared that these three words are used interchangeably in some countries and by certain individuals. Furthermore, in many countries, a distinction is made only between mainstreaming and inclusion. There is also a distinction between inclusion and inclusive education. The text below will clarify these terms and further elucidate the distinctions (Engelbrecht, 1997:16; Engelbrecht *et al.*, 1999:7-8; Friend and Bursack, 1999:3; Hall, 1998:69).

"Mainstreaming" can be defined as the process by which the individual learner is selectively placed in the mainstream class and has to adapt to the school and classroom set-up. The educator's role is to support the learner within this context but this process later became known as "maindumping" because learners were

often on their own to fend for themselves (Engelbrecht, 1997:16; Engelbrecht *et al.*, 1999:7; Salend, 1990:10).

“Integration” can be seen as the placement of learners with disabilities in the mainstream or in special settings using age-appropriate activities with non-disabled peers. Furthermore activities and class work were adapted to the needs of the learner. Insofar as the way the curriculum is presented and organised it does not meet the needs of the learner, and appropriate support is the provided (Engelbrecht, 1997:17; Engelbrecht *et al.*, 1999:8; Hall, 1998:69; Mittler, 2000:10; Smith, Polloway, Patton and Dowdy, 1998:3).

“Inclusion” is based on a human rights perspective (Engelbrecht and Green, 2001:4) and within the South African context is based on the principles and values contained in the Constitution and in education policy documents. These include among others: the right to equality, protection by the law, redress of past inequalities faced by previously disadvantaged groups in order to create equal opportunities for all people, and an education system that is accessible and responsive to all learners.

➤ ***Human rights and social justice for all learners:***

All learners should enjoy equal rights and protection of their human dignity. This means that each learner has the right to quality education, and to be treated with dignity and respect (Department of National Education, 1997:53-54; Engelbrecht and Green, 2001:4).

➤ ***Participation and social integration:***

All learners must be given the opportunity to participate in their communities and to be being provided with the widest possible education and social opportunities. Centres of learning must support and promote social integration in their communities so that mutual respect is fostered (Department of National Education, 1997:53-54; Engelbrecht and Green, 2001:4).

➤ ***Equal access to a single, inclusive education system:***

Appropriate and effective education must be organised in such a way that all learners have access to a single education system that is responsive to diversity. No learners should be prevented from participating in the system, regardless of their physical, intellectual, social, emotional, language, or other differences (Department of National Education, 1997:53-54; Engelbrecht and Green, 2001:4).

➤ ***Access to curriculum:***

All learners are entitled to participate in the common education curriculum. All aspects of the curriculum (including what is taught and how it is taught and assessed, teaching and learning materials, and the learning environment) should therefore be accessible to all learners. Where necessary, learners must be provided with the necessary support to enable them to access the curriculum effectively (Department of National Education, 1997:53-54; Engelbrecht and Green, 2001:4).

➤ ***Equity and redress:***

Educational change must focus on removing past inequalities in education provision and must ensure that all learners have an equal opportunity to benefit from the education system and from society as a whole. Barriers, which previously isolated particular learners from education and the general community, should be overcome, and processes developed to facilitate learner's integration into education and society as a whole. Particular attention must be paid to improving access to lifelong learning for learners with disabilities in disadvantaged and rural areas, in particular to those excluded from education provisioning in the past and present (Department of National Education, 1997:53-54; Engelbrecht and Green, 2001:4).

➤ ***Community responsiveness:***

Education must be relevant and meaningful to the lives of all learners; that is their education should prepare them for both work and life? Such an

education would ensure the successful integration of all learners into society. A community-responsive education system is also one that facilitates optimal and effective involvement of the community in the communication of learners at all levels. The development of strong links between the centre of learning and the community is therefore a fundamental prerequisite to ensure that all learners' needs are addressed and appropriate support provided. The strengths of the community support already present in most parts of South Africa should be drawn on to achieve this support (Department of National Education, 1997:53-54; Engelbrecht and Green, 2001:4).

Inclusion differs from inclusive education in that inclusion is considered as the philosophical principles and values encompassing inclusion, whereas inclusive education is concerned with the extent to which all learners, regardless of disability, disadvantage or difference, are able to participate in the curricula and culture of mainstream schools. Inclusion restructures education so as to reorganise classes, teaching techniques, curriculum, assessment and pedagogy. Moreover, inclusive education spells out that the educators take responsibility for all learners in the class. In addition, what is also implied is that the educator be given much needed support for all learners in the class. Inclusion is therefore a broad philosophical and principled position in relation to the human rights of all children (Engelbrecht, 1997:17; Engelbrecht *et al.*, 1999:8; Friend and Bursack, 1999:3-4; Hall, 1998:69; Mittler, 2000:10-11; Smith *et al.*, 1998:3).

For the purpose of this study, "inclusive education" is defined as the education of all learners, regardless of disability, disadvantage or difference, who are able to participate in the curricula and culture of mainstream schools.

1.5.2 Stress

According to the Concise Oxford English Dictionary (1999:1419), "stress" is a state of mental, emotional or other strain. The Chambers Dictionary (1999:1634),

calls it a physical, emotional or mental pressure. The Chambers 21st Century Dictionary (1999:1395), states that it comprises a pressure of adverse influences, circumstances and so forth that disturbs the natural physiological balance of the body. The English word "stress" is derived from the Latin word "Stringere" (strictus) which means to draw tightly or bind. The word stress can also be traced back to the Old French . /estre'ce/. Some Middle English versions are "stres" and "staisse".

Stress is the body's reaction to stressors encountered in the environment. Hans Seyle, the father of the study of stress, found stress to be caused by physiological, psychological, and environmental demands. Seyle distinguished between two types of stress. He called the first type "eustress", which meant good or productive stress. He called the second type "distress", which he described as bad stress (Adams, 1999:1; Kutame, 1997:6).

Many researchers have found that it is difficult to define stress partly because of the use of the concept in the media and its use in a variety of disciplines such as physiology, psychology, sociology, management, psychiatry and pharmacology. Furthermore, there are 300 definitions and words that are semantically alike. The definition of stress could be seen as context and situation specific (Kutame, 1997:6; Reece, 1989:1; Jacobs, 2000:2).

Stress is seen as a universal and ambivalent human phenomenon (Roets and Lewis, 2002:202). Over the years some strong correlations of a global construct have been found, which have included job dissatisfaction, absenteeism and psychological distress (Litt and Turk, 1985:178-185). Stress has been treated as a stimulus, a response, or the result of some interaction or imbalance between the individual and aspects of the environment (Dewe, Cox and Ferguson, 1993:6).

For the purpose of this research the following definition of stress by Kyriacou and Sutcliffe (1978:159-163) will be used: Stress is a result of some appraisal mechanism, either perception of threat from the environment or endangerment of

well-being, or the perception that there is an imbalance or discrepancy between the demands made upon the individual and the individual's ability to meet or cope with the demands, where failure to meet or cope with these demands has important consequences for the individual.

1.5.3 Coping

Many researchers have defined coping in different ways. Three themes seem to emerge:

- That it is relational, in that it reflects the relationship between the individual and the environment.
- That it is a process, in contrast to more traditional trait-content orientated approaches.
- That it is interactive in nature, linking other components of the stress process.

(Chan, 1998; 146; Dewe *et al.*, 1993:7; Kutame, 1997:43-44).

For the purpose of this study the researcher has defined coping as the cognitions and behaviour adopted by the individual following the recognition of a stressful encounter, that are in some way designed to prevent, avoid or control that encounter or its consequences.

1.5.4 Learners with physical disabilities

The term "learners with physical disabilities" will refer to the following:

- All learners in schools, who have physical barriers due to impaired function of hands, arms, legs, trunk and/or neck. The barrier may involve the inability to move the body parts (e.g. quadriplegia), to co-ordinate movement (e.g. cerebral palsy) or a missing limb(s) through amputations (writing will be affected by conditions affecting muscle strength and mobility of wrist, which consequently affect the learner's grip, tempo and

neatness of writing), and an inability to speak or to express oneself by means of speech (Department of National Education, 2002b:157-158).

- Due to the vast number of physical disabilities the following examples were chosen due to the fact that not all could be studied in this research project: cerebral palsy, spina bifida and hydrocephalus, limb deficiencies, and osteogenesis imperfecta.

1.6 STRUCTURE OF PRESENTATION

The study proceeds in **Chapter 2** with a literature review on the education of learners with physical disabilities and a literature review on the types of stress and coping methods used. **Chapter 3** is concerned with the research design and methodology. **Chapter 4** focuses on the discussion of results, findings, implications and recommendations of the research. **Chapter 5** constitutes a summary of findings, recommendations and limitations of the study.

CHAPTER 2

EDUCATION OF LEARNERS WITH PHYSICAL DISABILITIES

2.1 INTRODUCTION

This chapter discusses physical disabilities, the education of learners with physical disabilities in a mainstream classroom and it also compares the traditional role of educators to the changing and new role of educators as outlined by White Paper 6 (Department of National Education, 2001:10). In addition this chapter highlights the fact that change in education policy causes stress in educators. It becomes important to highlight the fact that the participants did not work with all types of physical disabilities in their classroom, but the importance of understanding the disability so as to provide the optimum educational programme will be provided below.

2.2 LEARNERS WHO HAVE PHYSICAL DISABILITIES

Learners with Physical disabilities were divided up into the types of Physical disabilities, addressing educational needs, specific educational for specific educational needs and assessment of learners with physical disabilities.

2.2.1 Types of physical disabilities

This section will discuss a brief introduction of physical disability and look at specific disabilities like cerebral palsy, spina bifida, hydrocephalus, limb-

deficiencies and osteogenesis imperfecta.

2.2.1.1 Introduction

Physical disabilities can be divided into two broad types: neuro-motor impairments, and muscular/skeletal conditions. In order to understand physical and health impairments generally, and neurological impairments specifically, the reader needs a deeper understanding of the brain and the neurological co-ordination that exists.

Nervous co-ordination in laymen's terms is the communication between different parts of the body through specialised cells called nerve cells or neurons. The nervous system can be divided into two main systems called the central nervous system (CNS) and the peripheral nervous system. Figure 2.1 below indicates the division proposed by Claasens, Dalbock, Schroeder, Khadaroo and Wessels, (1988:320).

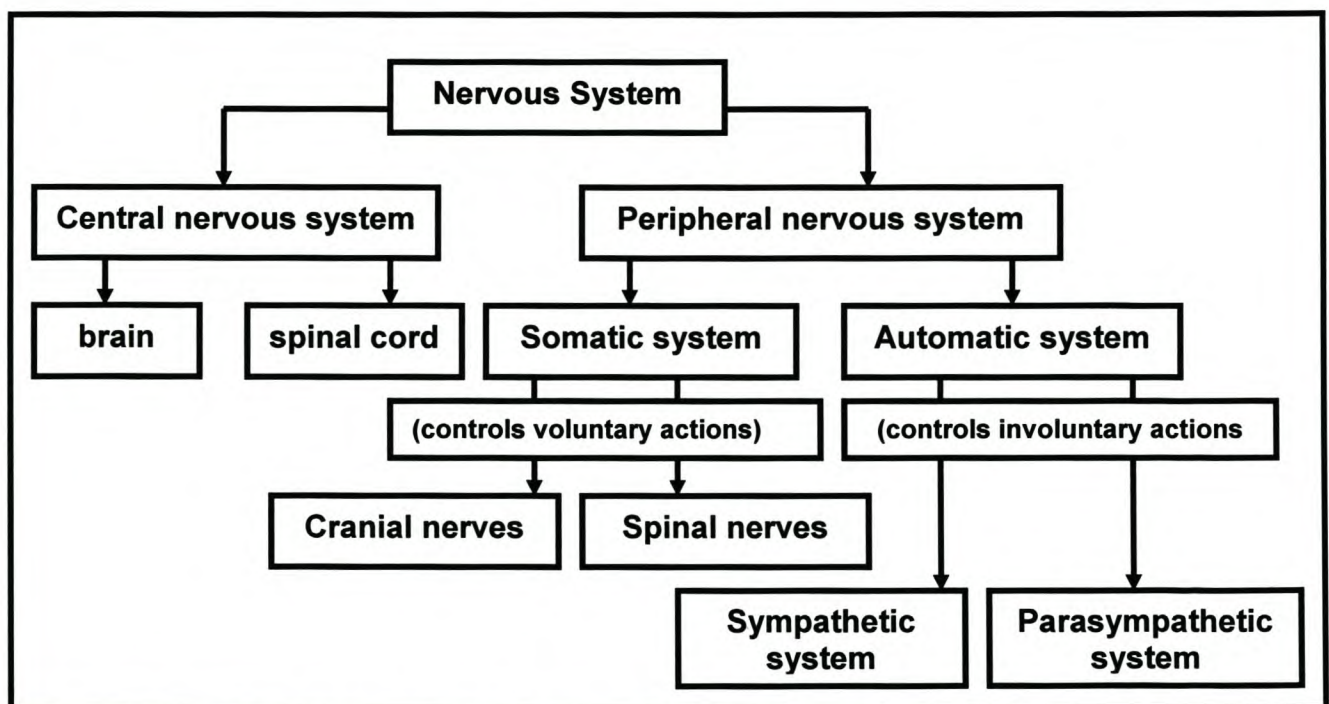


Figure 2.1 Representation of the divisions of the nervous system

(Claasens *et al.*, 1988:320)

The researcher will concentrate mostly on the CNS, which gives a clearer understanding of physical disabilities, bearing in mind that the nervous system functions as an integrated system. The CNS consists of the brain and the spinal cord. Twelve pairs of cranial nerves, which originate in the brain, and thirty-one pairs of spinal nerves, which originate in the spinal cord and branch out to the rest of the body, form part of the CNS. All activities are controlled by the brain, which receives information from touching, seeing, feeling, asking and hearing and which responds to this information by initiating the appropriate movements of different parts of the body. Messages from the brain are carried to different parts of the body by the spinal cord, which runs down the centre of the spinal column. This communication system for the body is very important and needs protection. The spine is made up of 33 bones or vertebrae. See Figure 2.2.

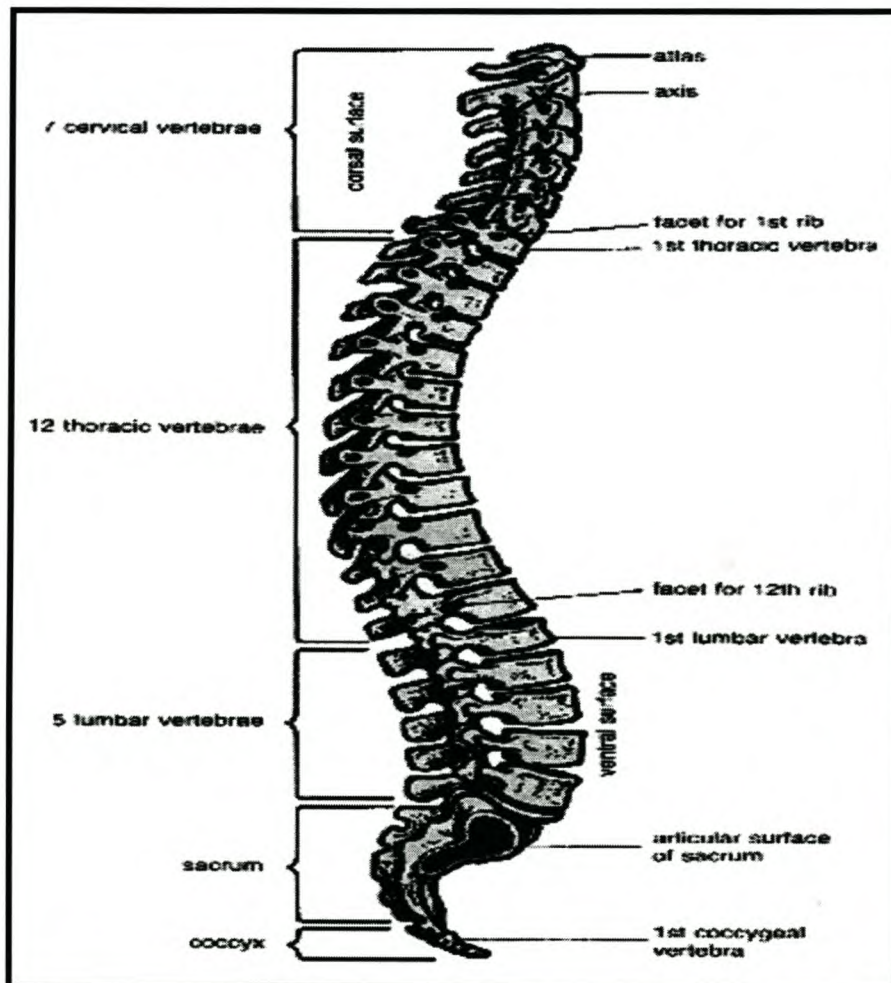


Figure 2.2 Representation of the spine of the human body

(Claasens *et al.*, 1988:320)

The vertebrae have two main functions. One is to provide anchorage for muscles so that the body can move as the brain dictates to the relevant muscles. The other is to provide protection to the spinal cord. The central nervous system and spine develop between the 14th and 28th day after conception. Nervous tissue consists of specialised cells called nerve cells or neurons. Neurons are the longest cells in the body and they consist of protoplasm and a nucleus. Neurons are unable to regenerate their cells, are easily stimulated and transmit impulses very rapidly. A nerve is made up of many nerve fibres or neurons bound together by connective tissue. There are three types of neurons as depicted in Figure 2.3.

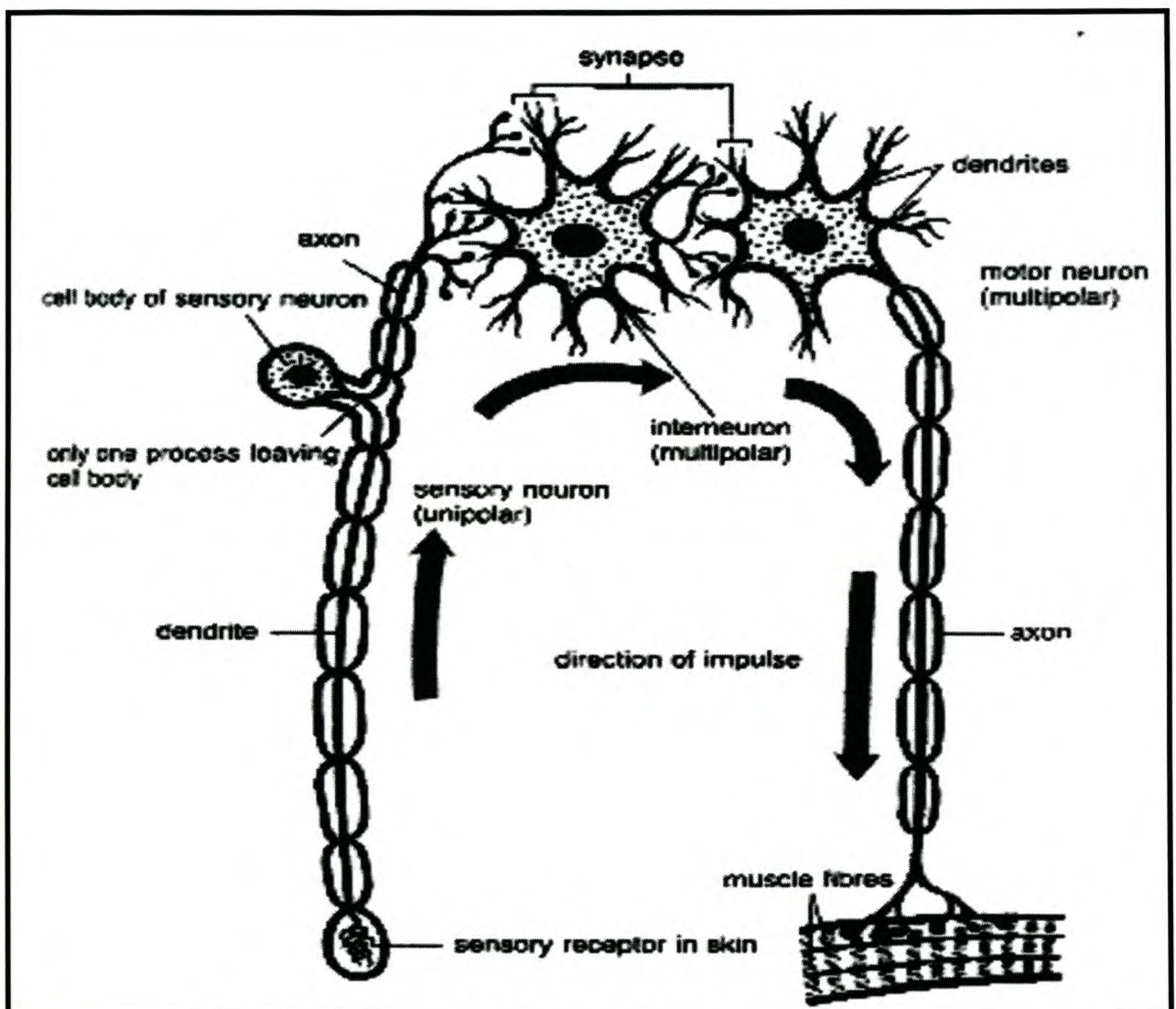


Figure 2.3 Representation of the three types of nerves

(Claasens *et al.*, 1988:322)

Sensory neurons conduct impulses from the sensory organs to the central nervous system. Motor neurons conduct impulses from the central nervous system to the effector organs (example muscles and glands) and inter-neurons or connector neurons connect the sensory to motor neurons (Claasens, Dalbock, Schroeder and Khadaroo, 1985:199-200; Claasens *et al.*, 1988:319-322; Association for Spina Bifida and Hydrocephalus, (ASBAH), 2000).

The neurons have a grey colour forming the grey matter of the CNS. The white matter of the CNS consists of the dendrite and axon. A synapse is formed when the dendrite of the cell body of a neuron touches the axon of another neuron. The synaptic knob is filled with transmission fluid, which causes impulses to be passed on to the dendrites. The brain is also important since it consists of millions of neurons. The brain, see Figures 2.3. and 2.4., is protected by a bony covering called the cranium as well as by three membranes called the meninges. The meninges consist of a innermost layer called the pia mater; a fibrous outer membrane called the dura mater; and an arachnoid membrane which lies between the two layers. The brain consists of the cerebrum, mid-brain, pons, cerebellum, medulla oblongata, thalamus and hypothalamus. The cerebrum is divided into two cerebral hemispheres by a deep longitudinal fissure. The two hemispheres are connected by a white mass called the corpus collosum, which makes co-ordination possible between the two halves. Each hemisphere in turn consists of two layers: an outer grey called the cerebral cortex and an inner one of white matter. The outer layer of the cerebral cortex consists of large folds (gyri) and grooves (sulci).

Each cerebral hemisphere is divided into four lobes (see Figure 2.4): frontal, parietal, occipital and temporal. The fissure of Rolando (central sulcas) separates the frontal and the parietal lobe. Just below the fissure of Sylvius lies the temporal lobe. The frontal lobe is concerned with rational control of actions, memory, intelligence, reasoning and problem solving; the parietal lobe with sensation and perception; the temporal lobe with hearing, taste and smell; the occipital lobe with vision. The cerebellum is concerned with balance.

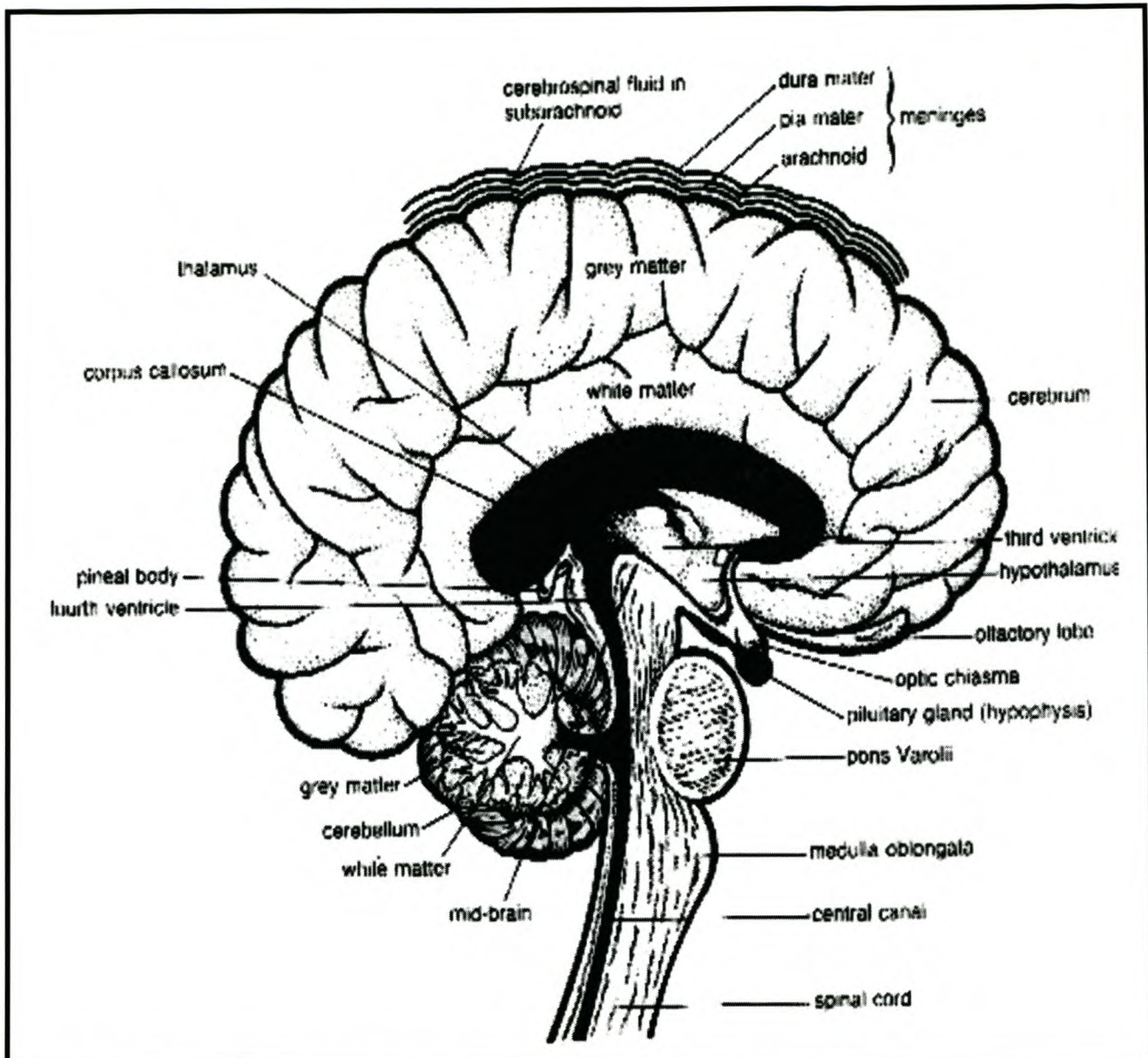


Figure 2.4 Representation of the structure of the brain

(Claasens *et al.*, 1988:320).

The afore-mentioned description of neurology and the associated functions of the brain shows that clear explanations of different disabilities are required (Claasens *et al.*, 1988:319-334; Feldman *et al.*, 2001:122-125).

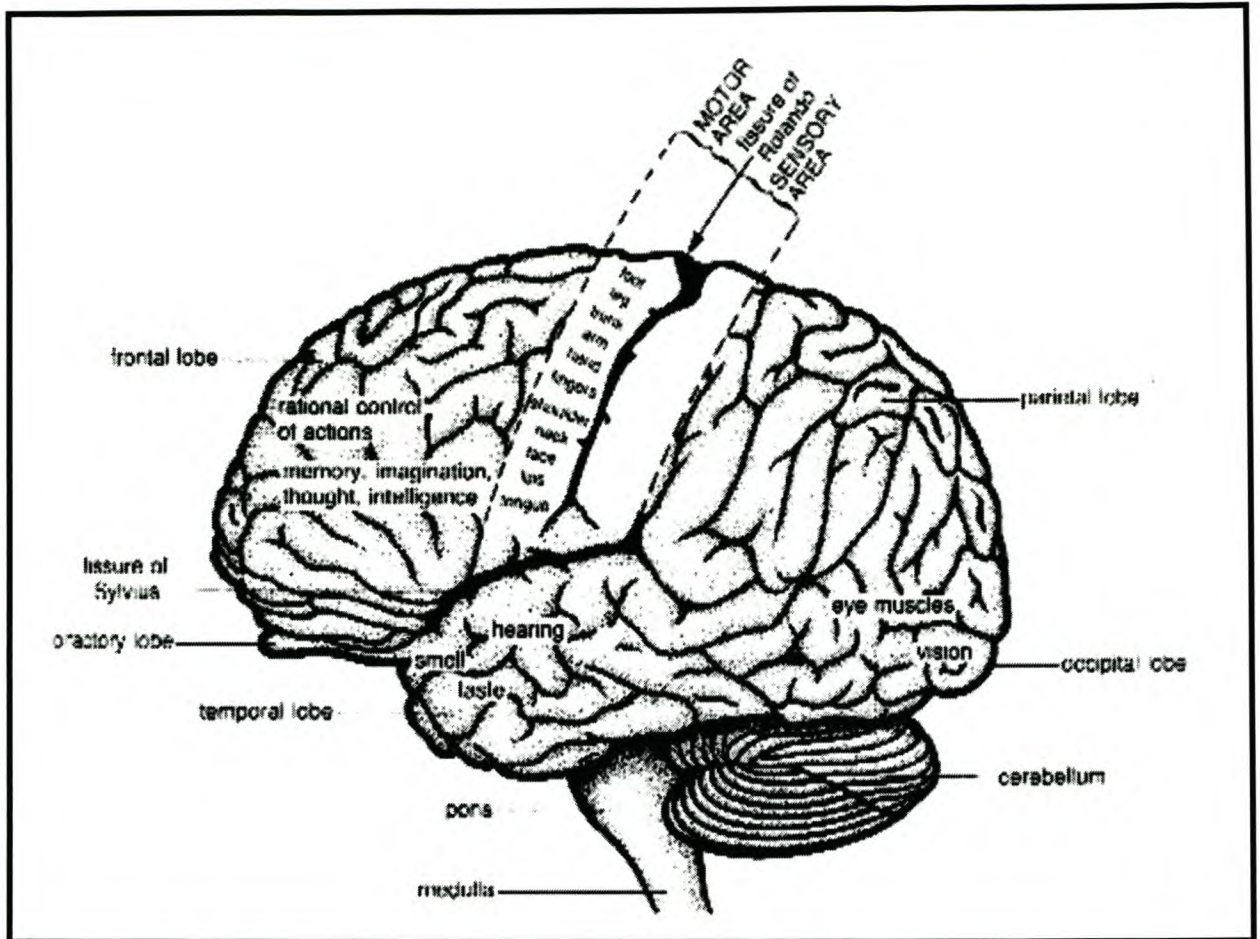


Figure 2.5 Representation of the structure of the brain

(Claasens *et al.*, 1988:320)

2.2.1.2 Cerebral palsy

The researcher has divided the physical disabilities into neuromotor impairments, and muscular conditions. Cerebral palsy (CP) is an incurable and non-progressive condition caused by brain injury that sometimes limits the individual's ability to control muscle groups or motor functioning in specific areas of the body or, infrequently, the entire body. The child who has the highest risk of developing CP is the premature, very small baby who does not cry in the first five minutes after delivery, who needs to be on a ventilator for over four weeks, and who has haemorrhaging of the brain. Babies who have congenital malformations in systems such as the heart, kidneys or spine are also more likely to develop CP,

probably because they also have malformations in the brain. Seizures in a newborn also increase the risk of CP. There is no combination of factors that will inevitably result in an abnormally functioning individual. That is, even the small premature infant has a better than 90 percent chance of not having cerebral palsy. There are a surprising number of babies who experience trauma during the newborn period and actually develop normally. In contrast, some infants who have rather benign beginnings are eventually found to have severe mental retardation or learning disabilities. CP may be associated with multiple disabilities. Orthopedic and physical therapy offer benefits (Berkow, 1987: 2110; Bowe, 2000:107-112; Mastropieri and Scruggs, 2000:114; Feldman *et al.*, 2001:130-132; National Information Center for Children and Youth with Disabilities (NICCYD), 2000; Smith, 1998: 375-377).

Cerebral palsy may be classified by the type of movement problem (such as spastic or athetoid cerebral palsy) or by the body parts involved (hemiplegia, diplegia, and quadriplegia). Spasticity refers to the inability of a muscle to relax, while athetosis refers to an inability to control the movement of a muscle. Infants who at first are hypotonic, that is very floppy, may later develop spasticity. "Hemiplegia" is cerebral palsy that involves one arm and one leg on the same side of the body, whereas with "diplegia" the primary involvement is both legs. "Quadriplegia" refers to a pattern involving all four extremities as well as trunk and neck muscles. Another frequently used classification is ataxia, which refers to balance and coordination problems (Berkow, 1987: 2110; Bowe, 2000:107-112; Mastropieri and Scruggs, 2000:114; Feldman *et al.*, 2001:130-132; NICCYD, 2000; Smith, 1998: 375-377).

As noted above, a useful method for making subdivisions is determined by which parts of the body are involved. Although almost all children with cerebral palsy can be classified as having hemiplegia, diplegia, or quadriplegia, there are significant overlaps, which have led to the use of additional terms, some of which are very confusing. To avoid confusion, most of the discussion will be limited to the use of the above three terms. Occasionally, such terms as "paraplegia", "double hemiplegia", "triplegia", and "pentaplegia" may occasionally be

encountered. These classifications are also based on the parts of the body involved. The dominant type of movement or muscle coordination problem is the other method by which children are subdivided and classified to assist in communicating about the problems of cerebral palsy. The component that is seen as the major cause of the problem is often used as the categorizing term. For example, the child with spastic diplegia has mostly spastic muscle problems, and most of the involvement is in the legs, but the child may also have a smaller component of athetosis and balance problems. The child with athetoid quadriplegia, on the other hand, would have involvement of both arms and legs, primarily with athetoid muscle problems, but such a child often has some ataxia and spasticity as well. Generally, a child with quadriplegia is a child who is not walking independently. The reader may be familiar with other terms used to define specific problems of movement or muscle function such as: dystonia, tremor, ballismus, and rigidity. The qualifications: severe, moderate, and mild are also often used in combination with both anatomic and motor function classification terms (severe spastic diplegia, for example), but these qualifying words do not have any specific meaning. They are subjective words and their meaning varies depending on the user (Berkow, 1987: 2110; Mastropieri and Scruggs, 2000:114; Feldman *et al.*, 2001:130-132; NICCYD, 2000; Smith, 1998: 375-377).

2.2.1.3 *Spina Bifida and hydrocephalus*

“Spinal cord” disorder is the broad term used for another type of physical disability. Spina bifida, a neural tube birth defect, is the improper closure of the protective tissue surrounding the spinal cord, which results in limited neurological control for organs and muscles controlled by nerves that originate below the level of the lesion. Children with this condition can suffer traumatic head or spinal cord injuries resulting in permanent disabilities. Spina bifida occurs when there is a failure of development of the bony canal that surrounds the brain and spinal cord. In the spine, the affected vertebrae have a defect posteriorly (at the back) so that a bony ring does not completely surround the spinal cord. This leaves a gap so

that, instead of the posterior arm being whole, it is divided -- bifid. The fault may occur in one or more of the vertebrae but is most common around waist-level. At present, the cause is unknown, although research continues. Folic acid supplements play a role in reducing the risk of spina bifida in pregnancy, providing they are taken daily from at least one month before conception and then through to the end of the 12th week of pregnancy. The exact reasons why the tube develops incorrectly are not yet known but it is probably connected with both genetic and environmental factors. Spina bifida is a defect that is present at birth (ASBAH, 2000; Association for Spina Bifida and Hydrocephalus of Western Cape (ASBAHWC) n.d.; Berkow, 1987:1951; Bowe, 2000:127-132; Feldman *et al.*, 2001:132; Smith, 1998: 373, 376-377).

There are two main types of spina bifida. Spina Bifida Occulta (hidden) is a very mild and common form and very rarely causes disability. There is a slight deficiency in the formation of (usually) one of the vertebrae. There may be visible signs such as a dimple or slight hair growth on the back. However, many people are unaware that they have spina bifida occulta as they have no symptoms or signs. One survey suggested the proportion could be one in 10 of the population. The vast majority of these cases will have no symptoms or problems. Where a child is found to have spina bifida, there may have been a family history of spina bifida occulta. Spina bifida occulta may be detected by x-ray when, for example, investigations of back injury are being made. In such cases, it can be alarming to be labelled as having spina bifida but it must be emphasized that, for the vast majority, having spina bifida occulta is of no consequence whatsoever (ASBAH, 2000; ASBAHWC n.d.; Berkow, 1987:1950-1951; Bowe, 2000:127-132; Feldman *et al.*, 2001:133).

Spina bifida cystica (cyst-like) manifests as a sac or cyst, rather like a large blister, on the back, covered by a thin layer of skin. There are two types of spina bifida cystica: Meningocele and Myelomeningocele (meningomyelocele). In the former form, the sac contains tissues, which cover the spinal cord (meninges) and cerebro-spinal fluid. (The fluid bathes and protects the brain and spinal cord.) The nerves are not usually damaged and are able to function; therefore

there is often little disability present. This is the least common form of spina bifida. Myelomeningocele is the more serious and more common form of cystic spina bifida. Here the cyst not only contains tissue and cerebro-spinal fluid but also nerves and part of the spinal cord. The spinal cord is damaged or not properly developed. As a result, there is always some paralysis and loss of sensation below the damaged region. The amount of disability depends very much on the location of the spina bifida and the amount of nerve damage involved. Many people with this condition have bowel and bladder problems because of related nerve damage from the bottom end of the spinal cord (ASBAH, 2000; ASBAHWC n.d.; Berkow, 1987:1950-1951; Feldman *et al.*, 2001:133).

Most babies born with spina bifida also have hydrocephalus (from the Greek “hydro”, meaning water, and “cephalie” meaning brain), an accumulation of cerebro-spinal fluid, which arises from an imbalance in the production and drainage of that fluid from the meninges surrounding the brain and spinal cord. An artificial shunt is surgically installed to drain the fluid that collects in the brain. The normal health care needs for both groups include good skin care, management of bladder and bowel and orthopedic and physical therapy (ASBAH, 2000; ASBAHWC n.d.; Berkow, 1987:1950-1951; Feldman *et al.*, 2001:133; Smith, 1998: 377).

2.2.1.4 Limb deficiencies

Limb deficiencies are caused by skeletal problems in which the individual's limb(s) are shortened (amputated), absent or malformed. The problems may be caused by congenital conditions or by injuries. Landmines are the primary cause of limb amputations. Other reasons for amputations include birth defects, infection, diabetes, cancer and trauma from accidents. Limb deficiencies are caused by Rubella, maternal drug taking during pregnancy and single-gene mutations. Lower-limb amputations are the most common, followed by upper-limb amputations. The two terms commonly used in congenital limb deficiencies

are “phocomelia”, meaning the incomplete development of a limb and “amelia”, which means the complete absence of a limb. All children with limb deficiencies will suffer some delay in motor development. These learners lead normal lives and most use artificial limbs or a prosthesis. Health care needs focus on adaptive interventions to support or improve functioning of the missing limb(s). Care should be taken to check artificial limbs to prevent infection caused by irritation of joints and skin (Bowe, 2000:181-184; Heller, Alberto, Forney and Schwartzman, 1996:179-192; Shepherd, 1980:288-304; Smith, 1998: 377).

2.2.1.5 *Osteogenesis imperfecta*

Osteogenesis imperfecta (OI), a genetic disorder, sometimes known as brittle bone disease, is a condition in which normal calcification of the bone does not occur, leading to breakage and abnormal healing of bones with accompanying loss of height. OI is caused by a genetic defect that affects the body's production of collagen, the major protein of the body's connective tissue. In OI, a person has either less collagen than normal or a poorer quality of collagen. Most cases of OI are caused by a dominant genetic defect. It can be inherited from a parent but there are children who are born with it without any family history of the disorder (Osteogenesis Imperfecta Foundation, 2002; Smith, 1998:372-374).

The characteristic features of OI vary greatly from person to person, type-to-type and even within the same family. There are at least four recognized forms of the disorder. Type I is the most common and mildest type of OI. Most bones will fracture and fractures will occur before puberty. Normal or near-normal stature will be attained but with loose joints and low muscle tone. The sclera usually has a blue, purple, or grey tint to it and the person will have a triangular face. There is a tendency towards spinal curvature but bone deformity is usually absent or minimal. There is also a possibility of brittle teeth and hearing loss, the latter often beginning in the early twenties or thirties. Collagen structure is normal, but the amount is less than normal. Type II the most severe form of OI. Type II is frequently lethal at or shortly after birth, however a few individuals have lived into

young adulthood. Collagen is improperly formed which leads to numerous fractures and severe bone deformity. The person has a small stature with underdeveloped lungs (Osteogenesis Imperfecta Foundation, 2002; Smith, 1998:372-374).

In Type III the bones fracture easily. Fractures are often present at birth, and x-rays may reveal healed fractures that occurred before birth. The Sclera has a blue, purple, or grey tint. There are loose joints and poor muscle development in arms and legs. Individuals present a short stature with spinal curvature and a barrel-shaped ribcage, and will have a triangular face. Respiratory problems are also a possibility. Collagen is improperly formed which leads to severe bone deformity. There is also a possibility of brittle teeth and hearing loss.

Type IV falls between Type I and Type III in severity. Bones fracture easily, most before puberty. Individuals have a shorter than average stature. The sclera is white or near white. Collagen is improperly formed which leads to mild to moderate bone deformity and a tendency toward spinal curvature. A barrel-shaped ribcage, triangular face and the possibility of brittle teeth occur. There is a possibility of hearing loss. Health care interventions include physical therapy and medical care. Most adults and children with OI lead productive and successful lives and function well within society (Osteogenesis Imperfecta Foundation, 2002; Smith, 1998:372-374).

There are many different types of physical disabilities of varying degrees severity that may overlap one another. It is for this reason that a method of educating learners with these disabilities needs to be discussed.

2.2.2 Addressing Educational Needs

The discussion on the educational needs will specifically look at general strategies. The specific educational needs of learners can be divided up as

learners with, cerebral palsy, spina bifida, hydrocephalus, limb-deficiencies and osteogenesis imperfecta.

2.2.2.1 General strategies

If educators wish to maximize the potential of the learner with physical disabilities, they need a more inclusive and flexible curriculum that encompasses all learners. Gross (2002:34-51) and Heller *et al.* (1996:372-375) propose the following strategies, which could be very useful. The first strategy is setting suitable learning challenges: the educator decides on certain outcomes for individuals or groups. These outcomes differ from those of the general population of the class. The explanations, modelling and teaching are presented to include everyone, but the tasks, while maintaining the same educational level throughout, are set up variously according to the needs of individuals or groups. This strategy therefore generalises the curriculum, but also differentiates as well.

The second strategy focuses on teaching styles. The educator plans the method of teaching to suit individual or group needs, for example, the inclusion of mind-maps for learners who learn better with visual explanations, such as spina bifida and hydrocephalus learners; the use of short tasks for learners with attention problems and longer tasks for learners with no attention problems. Switching from whole class teaching to individual teaching in order to gain concentration and maintain enthusiasm is also a variation in the teaching style. The teacher should use methods that will oblige the learner to interact with the class. It is essential to vary groups so as to maintain uniqueness and motivation with new groups, and to use different group methods. The use of banking praise is also important for motivation and self-esteem of learners. This strategy therefore caters for mainstream learners as a whole, but also caters for the learners with a physical disability within the mainstream (Downing and Eichinger, 2003:26-27; Gross, 2002:34-51; Heller *et al.*, 1996:372-375).

The third strategy involves access to the curriculum, that is, making certain accommodations within the class or school to provide access to the curriculum. The educator should identify ways to facilitate the process of mobility of a learner from point A to point B, for example, for a learner to go from the toilet to the classroom requires the easiest way to get there. This might include using a wheelchair, crutches or cane, in which case the wheelchair might have to be properly prepared to facilitate a smooth ride. If the learner is a quadriplegic or physically weak, then he might need a motorised wheelchair. The assistive devices of the learner should be checked on a regular basis to ensure that they work effectively (Donald, Lazarus and Lolwana, 1997:272; Engelbrecht *et al.*, 1999: 49-51; Feldman *et al.*, 2001:134-141; Gross, 2002:34-51; Heller *et al.*, 1996:372-375; Jowsey, 1992:35-53).

The above strategies are closely linked to the characteristics of Outcomes Based Education (OBE). What a learner needs to learn is clearly identified. There is a clear focus on culminating outcomes of significance. Outcomes are future orientated, publicly defined, learner- centred, focused on life skills and context, characterised by high expectations of and for all learners, and are sources from which all other educational decisions flow. Learning is carefully facilitated towards the achievement of outcomes, characterised by its appropriateness to each learner's needs, interests and developmental level, active and experienced-based for maximum application of the knowledge, skills and orientation necessary to learner success in the present and future (Department of National Education, 1997; Van der Horst and McDonnald, 1997:6-14).

Each learner is provided time and assistance to realise his/her demonstrated achievement. Emphasis is on achievement of outcomes and application of learning rather than on "covering" material. Assessment of learning is appropriate to the learning, its life context and the learner. Advancement is based on achievement of outcomes, rather than on seat time or comparative data. Progress is demonstrated and recorded on the basis of criterion- referenced, rather than on norm- referenced assessment. Learners advance because they demonstrate the accomplishment of significant skills for their independence and

future success (Department of National Education, 1997; Van der Horst and McDonnald, 1997:6-14).

Each learner's needs are accommodated through multiple teaching and learning strategies and assessment tools. Instructional decisions are based on learner's needs, desires and readiness for achieving outcomes. Instructional design for each learner is an ongoing process of reflection and analysis that is focused on meeting the learner's needs. Educators facilitate the learning process and coach learners on the basis of the best theory, research and analysis. Assessments are effectively used to practise and substantiate learning and provide data for further learning decisions. Learners become progressively more able to design their own learning options and assessments (Department. of National Education, 1997; Van der Horst and McDonnald, 1997:6-14).

Each learner is provided the time and assistance to realise his/her potential. All learners work to become more responsible for their own learning, able to appropriate learning decisions, independent in their learning and thinking, self-assessing and successful. Time is viewed and applied as a variable, while learning is a constant, managed wisely by the learner and the school to achieve ever-increasing levels of accomplishment. Assistance is sought from every available resource for providing significant learning opportunities ensured to maximise each learner's success is not limited to traditional definitions of school, learning or teaching and is provided to meet the needs of the whole learner (Department of National Education, 1997; Van der Horst and McDonnald, 1997:6-14).

Physical management and positioning of learners is important for daily educational habits. A seven-point procedure is described. The first is planning ahead for what might have to be taken into consideration, for example, weight of learner, if two people are necessary for lifting and preparing the area where the learner is to be received. The second is to cognitively prepare the learner by informing him what you are planning to do and when. The third is to provide tone mobilisation for the learner. Fourthly, to reposition the learner so that he is in a

compact position and then hold him as closely as possible. Fifthly, keep your feet apart when lifting or transferring the learner, this will provide balance and weight positioning and also avoid strained muscles. The sixth is to use your legs during the lifting procedure to complement your arms. The seventh is to carry the learner in a normal position looking forward so as to allow the learner to see where he is going. Differentiation is made between positioning low- and high-toned learners so as not to create regression and further deformity. Because positioning being so important it is sometimes necessary to use adaptive positioning equipment like wedges, prone boards and prone standers (Feldman *et al.*, 2001:134-141; Heller *et al.*, 1996:372-375; Jowsey, 1992:35-53).

Placement of instruction materials needs to be considered. Instruction while the learner is in a wheelchair requires consideration of the adjustment of the height of the table. Furthermore, learners need to move approximately every, 20 minutes so they do not develop pressure sores. When placing writing or reading materials on the desk, the learner's range of motion, eye-hand co-ordination and fine motor skills needs to be considered. Sometimes it is necessary to allow the child to lie on the ground on his/her side or tummy, to make things more comfortable for the child (Feldman *et al.*, 2001:134-141; Heller *et al.*, 1996:372-375; Jowsey, 1992:35-53).

Adaptations and assistive devices are needed in the education of the learner with a physical disability. Adaptations are made to desks and seats, and alternative worktops are provided. Assistive devices comprise any equipment or software that can facilitate the learner's ability to perform a certain function more effectively. Assistive devices can be viewed in a dichotomous way. They are either low technology, which includes objects having no or few moving parts, lack electronics and are low cost like grabbers and typing devices made of wood. These assistive devices may include raised toilet seats, special shower chairs, special desktops, ramps instead of steps, and handrails. Some children, especially those with short arms and wheelchair users, may need assistance in using toilet facilities and special arrangements may have to be made. High technology, on the other hand, includes objects having many moving parts, have

electronics and perform multiple tasks. The use of this type of high technology is becoming more and more prominent in schools today. The use of overhead projectors, tape recorders, photocopied notes, speech recognition software, and alternative computer keyboards and so forth can aid the learner in the class. There is a programme called "Biomuse", which uses the biological signals of the eye, muscles and brain to send signals to the computer. This makes it easy for a learner who is quadriplegic or paraplegic to move the arrow on a screen and give instructions to the computer. There are very many alternatives in software and hardware development such as the use of "sticky keys" which are extremely useful for learners who struggle with fine motor development. In addition, there is the use of "headmasters", which control the mouse with a blowing action while the head is moved to position the mouse (Bigge and Stump, 1999:444-459; Cornwall, 1996:223-233; Department of National Education, 2002b:158-159; Engelbrecht *et al.*, 1999: 73; Feldman *et al.*, 2001:134-141; Gross, 2002:68; Heller *et al.*, 1996:372-375; Shell *et al.*, 1989:30-35; Verhoef, 2001:46-47; Weikle and Hadadian, 2003:182-183).

Photocopy machines can be used in various ways to accommodate written responses and so to decrease the amount of writing. The educator should try to photocopy notes, tasks and worksheets before the lesson is given, to enable the physically disabled learner to keep up with the pace of the rest of the class. If no photocopy machines are available, teachers should allow learners to merely circle or underline answers or to respond verbally. A workbook could be made in which learners need only to fill in a few words. In tasks that require learners to physically be writing, educators should allow for extra time for the learner to complete the task. Learners should also be allowed to record their work on tape recorders if they have to hand in a task or assignment that requires so much written work that it will prevent them from completing it on time. When doing assignments it is advisable that accommodations be used for the learner to work co-operatively, in groups or with buddies. The learner could be the one who gives feedback in groups instead of having to write. Furthermore, for the educator it is pro-active, dynamic and alternative methods that should be on the forefront of educating learners with physical disabilities (Bigge and Stump, 1999:444-459;

Department of National Education, 2002b:158-159; Engelbrecht *et al.*, 1999:73; Feldman *et al.*, 2001:134-141; Gross, 2002:68; Heller *et al.*, 1996:372-375).

2.2.3 Specific education for specific educational needs

Specific education for specific educational needs can be divided into learners with cerebral palsy, learners with Spina Bifida Hydrocephalus, learners with limb deficiencies and learners with osteogenesis imperfecta.

2.2.3.1 Learners with cerebral palsy

Learners with cerebral palsy need to maintain correct posture. If the learner sits correctly there will be more control over the limbs and head. To promote blood circulation and to prevent stiffness, learners need to change position frequently. School buildings need to be accessible to learners. Accessibility starts with the widening of doorways for learners with wheelchairs. Toilets also need to be adapted for the learner in a wheelchair. Ramps need to be built for accessibility up to an upper floor (Bigge and Stump, 1999:444-459; Cornwall, 1996:223-233; Department of National Education, 2002b:158-159; Engelbrecht *et al.*, 1999: 73; Feldman *et al.*, 2001:134-141; Gross, 2002:68; Heller *et al.*, 1996:372-375; Lewis and Doorlag, 1999:344-365; Shell *et al.*, 1989:30-35; Verhoef, 2001:46-47; Weikle and Hadadian, 2003:182-183).

Alternative communication aids can be used to support the learner within the class, for example, the use of Bliss symbols, simple board pictures and computers with speech recognition software. The educator should allow part of the task given to be written in keywords. The use of a thick pencil or a pencil grip will help the learner grasp the pencil. The educator may need to place a non-slip pad under the book to facilitate writing. The use of typewriters and computers is helpful for learners. When a learner is experiencing perceptual or attention problems the seating position becomes important. Extra time must be given to

complete tasks. Educators should keep a reminder card on their desks to remind them of the type of disability present in the classroom. Allow for freedom of discovery by the learner, using the best method possible, in the learner coping within the classroom. Make allowances in your preparation within the class. Also allow for work to be taken home so that parents could assist with the task (Feldman *et al.*, 2001:134-136; Heller *et al.*, 1996:372-375; Jowsey, 1992:35-53; Lewis and Doorlag, 1999:344-365).

2.2.3.2 Learners with Spina Bifida and Hydrocephalus

Incontinence is a major problem with this condition and the educator should make provision for the catheterisation that is required at regular intervals. Furthermore the educator should learn how to do this so as to be of assistance to the learner. The damage to the spinal cord, which causes loss of sensation and loss of muscle control, leads to the learners wetting themselves. A tactful way of handling this needs to be created. On a communication level the learner is quite bubbly but lacks real understanding of the topic at hand. The learner needs to pay attention and the educator needs to make sure that the learner understands what is being said. School buildings need to be accessible to learners. Accessibility starts with the widening of doorways for learners with wheelchairs. Toilets also need to be adapted for the learner in a wheelchair. Ramps need to be built for accessibility up to an upper floor (Bigge and Stump, 1999:444-459; Cornwall, 1996:223-233; Department of National Education, 2002b:158-159; Engelbrecht *et al.*, 1999: 73; Feldman *et al.*, 2001:134-141; Gross, 2002:68; Heller *et al.*, 1996:372-375; Lewis and Doorlag, 1999:344-365; Shell *et al.*, 1989:30-35; Verhoef, 2001:46-47; Weikle and Hadadian, 2003:182-183).

Learners with spina bifida and hydrocephalus have perceptual and motor skill problems that may result in writing, typing and other visual motor development problems. They struggle at first to develop dominance in their hands, which may cause them to have handwriting problems. Structured classroom activities tend to benefit learners with spina bifida. Learners with spina bifida should be included in

all sporting activities to encourage physical exercise. Learners tend to struggle with abstract educational approaches and therefore concretisation should be encouraged in the classroom. When a learner is experiencing perceptual or attention problems the seating position becomes important. Extra time must be given to complete tasks. Educators should keep a reminder card on their desks to remind them of the type of disability experienced by the learners. Allow for freedom of discovery of the learner, to the best method possible, in the learner coping within the classroom. Make allowances in your preparation within the class. Also allow for work to be taken home, whereby the parents could assist with this task (Feldman *et al.*, 2001:134-141; Heller *et al.*, 1996:372-375; Jowsey, 1992:35-53; Lewis and Doorlag, 1999:344-365).

2.2.3.3 *Learners with limb deficiencies*

Section 2.2.1.4 indicated that limb deficiencies are caused either congenitally or by an accident. These learners have either an extra missing digit or limb. The educator therefore needs to allow for extra time to complete tasks. The learner may be in a wheelchair or may be using assistive devices and the educator needs to keep this in mind when drawing up a learning programme. The majority of these learners usually need low levels of support and will be able to fit in with the curriculum very easily. The educator should keep a reminder card on the desk to as a reminder of the type of disability of the learners. Allow for freedom of discovery of the learner, to the best method possible, in the learner coping within the classroom. Make allowances in your preparation within the class. Also allow for work to be taken home, whereby the parents could assist with this task (Feldman *et al.*, 2001:134-141; Heller *et al.*, 1996:372-375; Jowsey, 1992:35-53; Lewis and Doorlag, 1999:344-365).

2.2.3.4 *Learners with osteogenesis imperfecta*

As previously discussed in this chapter, learners with osteogenesis imperfecta are

much more likely to experience bone fractures and even breakages. By the time children reach school age, the family will have acquired considerable experience of the condition and the causes of fracturing so that educators can glean valuable information about the learner from the parents. It is very important to know that fractures can be caused by normal behaviour, for example, closing a door or walking. Whilst every effort should be made to prevent the opportunity for a fracture occurring educators should not be held responsible if a break does occur at school although it is natural for them to be concerned about the learner. Learners with osteogenesis imperfecta may, as a result, miss out on a lot of schooling merely because they tend to fracture or break very easily and might require periods of recuperation in hospital or at home. This in turn may affect their confidence as well as their learning. It is recognised that education remains important for these learners whilst they are in hospital and therefore the educator should develop a home programme. In some instances home teaching is appropriate until the child is able to return to school. Education needs to be flexible for these types of learners (Brittle Bone Society, 2003; Orthopedic Impairment, 2003).

A few learners with this condition experience problems with handwriting. The majority of learners with osteogenesis imperfecta are either left-handed (as they have fewer fractures in this hand) or hold their pens in an unusual manner. It may be necessary to experiment with different types of pens, the width of lines on paper, size of sheet etc. Plastic penholders, a triangular pen or felt tip pens may also be helpful. Many children may also need attention to their seating arrangements, desks or worktops. A reliable handwriting scheme, paying particular attention to letter formation, is a basic requirement. Such learners may find it difficult to write for long periods and may write more slowly than other children so that handouts or copies of other learner's notes may be appreciated. Children who are very susceptible to fracturing often use specialised wheelchairs for safety as well as support. A child who breaks a limb may temporarily need to use a wheelchair or the limb may simply be protected with splints and the learner be allowed to return to school. Some children may use other mobility aids such as sticks and crutches that may make them vulnerable to knocks and bumps and

the school may need to develop strategies to keep them as safe as possible. Physical education should be avoided at all times except for swimming. Supervision during playtime is imperative. These learners should be encouraged to play in quiet places. In the winter months they may need to stay indoors. Allowing learners with osteogenesis imperfecta to leave a couple of minutes before the end of a lesson will decrease their vulnerability when large numbers of children are moving about. Independence of learners with osteogenesis imperfecta is important for to enable them to fit into society as a whole (Brittle Bone Society, 2003; Orthopedic Impairment, 2003).

2.2.4 Assessment of learners with physical disabilities

Initially it is important that to define assessment, in order to understand how to assess a learner with physical disabilities. 'Assessment' can be defined as the process of identifying, gathering and interpreting information about the learner's learning. Assessment is used to determine a point of departure for lesson preparation or determining the learner's needs. Two forms of assessment exist, the first being formative. Formative assessment is done on an ongoing basis by gathering information throughout the year. This form of assessment is usually done in an informal manner, although that it could also be applied in a formal fashion, like tests. The other form of assessment, summative assessment is conducted on an intermittent basis and is used to make a final judgement of a section of work. Learners should be allowed alternative means of assessment, which could include verbal responses as well as the use of a computer or typewriter, not only to provide assessment tasks in a format that is accessible to the learner but also to help the learners formulate and produce assessment responses. Summative evaluation prescribes that the educator accommodates extra time as well as a scribe for learners who are quadriplegic. The term "power testing" is used when you evaluating the learner's total knowledge of a particular learning outcome and it is not based on time constraints at one sitting. The scribe and the learner should be given copies of the guidelines prior to assessment, so that both are aware of and clearly understand the criteria of assessment and test

instructions. The scribe scrupulously renders the learner's answers to avoid any bias. No discussion should take place by the scribe, unless it relates to the learner's communication of assessment answers. The educator could allow five minutes before the start of the exam for learners to read through the paper. One-word response questions represent the type of question that makes it easier for the learner to finish. A tape recorder could be used to record answers and for listening to questions. Marking accommodations through collaborative approaches could be utilised for learners with physical disabilities and these might include oral exams portfolio-based assessment and criterion-referenced assessment (Bigge and Stump, 1999:182-183; Department of National Education, 2002b: 158-159; Engelbrecht *et al.*, 1999: 109-112; Feldman *et al.*, 2001:134-141; Gross, 2002:68; Heller *et al.*, 1996:372-37).

2.3 EDUCATIONAL PROVISION FOR LEARNERS WITH PHYSICAL DISABILITIES

The educational provision for learners with physical disabilities can be divided into the traditional educational provision and inclusive education in the Western Cape Educational Department.

2.3.1 Traditional education provision

Traditionally, learners with physical disabilities have been accommodated in separate special schools in South Africa. It was accepted that each group of learners with a specific disability had its own particular characteristics and that specific educational needs were directly related to these specific deficits. The aim of education was therefore to focus on the alleviation of those deficiencies in separate educational settings (Du Toit, 1996:6).

It goes without saying that the creation of separate settings resulted in a fragmented specialised education system wherein duplication and disproportionate allocation and utilisation of facilities, professionals and services existed within different areas. This system maintained separate schools for children with different categories of disabilities as well as separate schools for different races. What is clearly evident from the past system was a lack of co-ordination between various areas of specialisation, such as education, health and welfare, and limited educational support services that were disproportionately distributed across the different educational departments. A strong medical focus with clinically described admission and discharge criteria and a multidisciplinary educational approach perpetuated a system that entrenched varying terminology and categories of specialised education in several departments. Furthermore, there were extreme disparities between the provision of urban and rural special education (Department of National Education, 1997; Du Toit, 1996:12; Engelbrecht *et al.*, 1997:3).

The thinking at the time was that the problem lay with the learner and the disability, which thus placed the responsibility for the cause on the learner. Education proposed a diagnostic goal to document specific deficits. Education attempted to segment learning into parts, and instruction and treatment of these learners differed as the years went by. The proposed teaching techniques assumed that instruction is most effective when it is most tightly controlled and structured and takes place in a clutter-free environment, which in turn left the learner predominantly passive. The education of learners with disabilities assumed a right and a wrong position about the teaching and the learning processes. The educational goals for learners were less community based and were almost exclusively school related goals (Carrington, 1999:260; Engelbrecht *et al.*, 1996:7; Engelbrecht *et al.*, 2000:4; Engelbrecht *et al.*, 2000:2; Farrell, 2000:8; Forlin, Douglas and Hattie, 1996b:123; Giangreco, 1996:196-197; Idol, 1997:388; Stanovich and Jordan, 1998:222; Vlachou, 1993: 76).

2.3.2 Inclusive education in the Western Cape Education Department

This section will consist on a brief introduction and than expand to look at implementation of inclusive education in the Western Cape Educationn Department.

2.3.2.1 Introduction

As discussed in Chapter 1 (1.1 and 1.2), Education White Paper 6 (Department of National Education, 2001:5) has clearly indicated that the majority of learners with disabilities who are included in mainstream schools have not received the necessary support. The curriculum and education system has not catered for the diverse needs of the learners, which in turn has resulted in drop-outs, push-outs and failures.

2.3.2.2 Implementation of inclusive education in the Western Cape

The Education White Paper 6 on the implementation of Inclusive Education was accepted on June, 2001. In October, 2002 draft guidelines on the implementation of inclusive education were provided to the provinces (Department of National Education, 2002b:158-159). In the Western Cape the following support model regarding inclusive education (Figure 2.6) has been introduced:

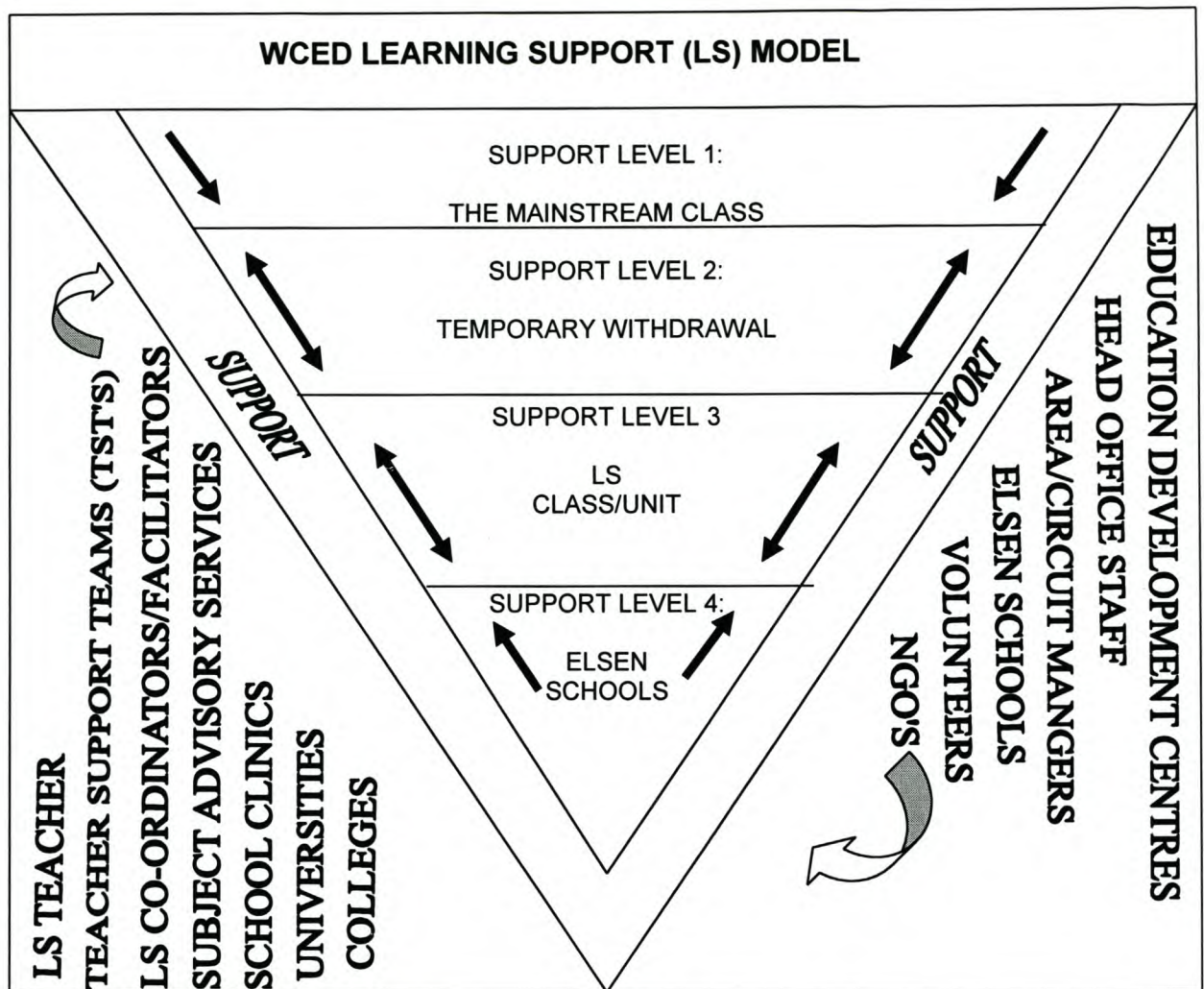


Figure 2.6: Learning support model (WCED n.d.:5-6).

This proposes that, within an inclusive model, there should be four levels on which to provide accommodation for learners who are experiencing barriers to learning (including physical disabilities). A central feature of this focus is support. The first level lends itself to full inclusion within the mainstream class. This implies that all efforts should be made to accommodate the learner within a curriculum that caters for all and within a classroom that caters for all. Full inclusion implies that the mainstream educator be trained to do the task at hand. Moreover, in order for full inclusion to succeed, further support must be given in the form of a specialist educator post at the school. The establishment of teacher

support teams (TST) at each school are also required. The aim of the TST is to give support to the educator in or out of the classroom (WCED n.d.:5-6).

The second level of support deals with the withdrawal from the mainstream classroom of learners who are experiencing barriers to learning. This measure presupposes that everything was done to accommodate the learner within the curriculum before attempting to move to level two. As part of this level, individual learners or groups of learners are periodically withdrawn and assisted when necessary by the specialist educator. The aim is not to create new posts but utilise existing special, remedial and adaptation class educators in these posts (WCED n.d.:5-6).

The third level deals with the establishment of special classes. Like the second level, also presupposes the fact that nothing further could be done to assist the learner within the curriculum or within periodical pull-outs of these learners. In the afore-mentioned cases, a special class can be established at the school. These classes will cater for all learners who need specialised support in removing the barriers to learning. Furthermore, when these learners are ready to return to the mainstream class, they must do so (WCED n.d.:5-6).

The fourth level deals with the seventy-seven special schools that currently exist in the Western Cape. It also presupposes that everything possible should be done to support the learner within the above levels before the learner is admitted to a special school. Where at all possible and if the learners has shown progress and can be supported within the mainstream, then the learner must be reintroduced into the mainstream (WCED n.d.:5-6).

According to WCED (n.d.:7), the model aims to create equal educational opportunity; prevent learning difficulties and offer optimal opportunities as far as possible; quicken progress in schools and offer lifelong learning; eventually offer effective education for all learners and use all available resources optimally within an inclusive system. It also aims to integrate support on all levels from NGO's, academic institutions and support from other sectors. The support should

be given in a collaborative manner, which encompasses a sharing of physical and human resources, as well as a sharing of ideas.

There are many different strategies for including learners with disabilities, including physical disabilities in the class, but certainly one that stands out from the rest is that of collaboration. Central to understanding why collaborative habits or collaboration are important for the enhancement of inclusive education is a definition on collaboration. "Collaboration" has been defined as shared decision making in governance, planning, delivery and evaluation in education, where people of different backgrounds come together and work on an equal status (Idol and West, 1991:72). According to Stanovich (1996:39), collaboration has been defined as joint planning, decision-making and problem solving directed toward a common goal, and can be formal or informal. According to Lacey (2001:173), collaboration is also seen as the most advanced form of working together, implying sharing and joint purpose, mutual trust and support.

To implement inclusive education requires a creative partnership between all role-players who work equally together to identify mutually defined barriers and needs, and ways to meet the needs and address the barriers (Askew and Carnell, 1998: 44; Engelbrecht and Green, 2001:34-42; Tilstone, Florian and Rose, 1998:87). Collaboration should be seen not only as collaboration between the mainstream educator and other educators (including those with specific training in learning support), but should also be collaboration between learner and learner, educator and learner, educator and parent, educator and management, mainstream school and special school, school and Educational Management District Centres (EMDC) and finally, school and community (Corbett, 2001:56-57; Daane, Beirne-Smith and Latham, 2001:331-332; Engelbrecht *et al.*, 2000:4-5; Kugelmass, 2001:49-51; Mastropieri and Scruggs, 2000:39-66; Vaughn, Gersten and Chard, 2000:91; Wood, 1998:181-182).

There exist various approaches to collaboration and various levels of collaborating. What is imperative to effect collaboration is that the role-players understand the aim for collaborating. Once the aim has been established, the

type of collaboration can be determined. Four collaborative approaches can be distinguished. The first approach, *Collaborative consultation*, which is the most commonly used, involves consultation between the inclusive educator (mainstream educator) and the special educator. This method works indirectly for the learner, involving the shared planning between inclusive educator (mainstream educator) and the special educator in, say, drawing up an IEP or deciding which resources to use. The approach is an interactive one (Choate, 1997:453; Idol, 1997:389; Kugelmass, 2001:53-59; Mastropieri and Scruggs, 2000:59-60; Smith *et al.*, 1998: 42; Voltz, Brazil and Ford, 2001:27-29; WCED n.d.:5-6).

The second approach, *Peer collaboration*, which is also commonly used, occurs when two inclusive educators (mainstream educators) work together to identify effective solutions to classroom problem situations. This method works indirectly for the learner, but involves structured, problem solving, self-questioning and meta-cognitive strategies. The approach emphasizes the balance of the relationship (Choate, 1997:453; Charlton, 1998: 51-52; Idol, 1997:389; Mastropieri and Scruggs, 2000:59-60; Smith *et al.*, 1998: 42; WCED n.d.:5-6).

The third approach is referred to as *Teacher support teams*, it is commonly called TST's. The aim of the TST is to give support to the educator in the classroom (by maybe assisting in drawing up an IEP) or out of the classroom. The learner benefits indirectly in that this method emphasizes analysing the problem situation and developing potential solutions. The TST comprises a multidisciplinary team which could include the core support team consisting of the principal, ELSEN educator, senior staff, subject specialists, and, where appropriate, parents, learners and a local specialist which could include the psychologist, therapeutic services, social services and medical services. The co-ordinator of the team should, where appropriate, be an educator with experience with learners having barriers to learning. The team functions as a permanent structure in the school but the role players might change from situation or need to situation or need (Choate, 1997:453; Engelbrecht *et al.*, 1999: 160-161; Idol, 1997:389; Mastropieri and Scruggs, 2000:59-60; Smith *et al.*, 1998: 42; WCED n.d.:5-6).

Six key questions should be addressed when implementing a teacher support team these include one, who is the target population? This is important for establishing a response, which is specifically for the target group. Two, who has the responsibility for the referral to the team? The specific responsibility roles are important in establishing a culture of accountability for the support of the learner. Three, who should serve on the team? Choice must be based on the need and level of support. Four, who should co-ordinate the team? A coordinator is essential to act as a permanent channel for the facilitation of a speedier response. Five, how should the team operate? Clearly defined ways of co-operation and collaboration need to be established for efficiency and proficiency of the team. Six, how effective should the team be?

These are measurable objectives, which ensure a positive teamwork ethos. After a team has been selected, the team members need not only to understand the workings of the team, but also need to understand the whole collaborative small group approach to the workings of the team (Choate, 1997:453; Engelbrecht *et al.*, 1999: 160-161; Idol, 1997:389).

Engelbrecht *et al.* (1999:161-162), proposes a seven-stage problem solving process.

- Stage 1: The team co-ordinator explains the process to be followed, and the states the problem to be dealt with.
- Stage 2: The referring educator makes a brief statement about the problem.
- Stage 3: Team members ask questions of the referring educator to clear up any uncertainties they may have. Stages 2 and 3 permit team members to define the parameters of the problem for the educators. Team members may ask for some specific examples.
- Stage 4: A range of possible interventions must be generated and this is done by a roundtable brainstorming session, which generates suggestions from the team members as to how the problem can be solved. Brief practical statements are encouraged and are directed to the facilitator. The referring educator does not interact with others at this stage.

- Stage 5: The co-ordinator and the referring teacher discuss the suggested strategies with the team, but the ultimate selection of strategies rests with the referring educator.
- Stage 6: A plan to follow up on the ideas or strategies that have been selected by the referring educator is established. All aspects of the plan should be put in writing, so that each team member involved has a clear idea of his or her responsibilities. This written plan also serves as a record to facilitate accountability.
- Stage 7: The co-ordinator thanks the team members and ensures that all participants leave the meeting feeling that something constructive will come from it.

The fourth approach involves *Cooperative teaching*. This involves the inclusive educator and specialist educator. This specialist does not necessarily have to be the ELSEN educator, all he/she has to have is special skills or know how to relate to education. These educators will work together in providing a direct service to students. Employing joint planning and teaching, the approach emphasizes the joint responsibilities of instruction. Cooperative teaching methods can be divided up into team teaching, supportive learning activities and complementary instruction. Team teaching takes place when the two educators plan and present new content together to the learners. Supportive learning activities occur when both educators plan and present to reinforce, enrich or enhance learning. Complementary instruction involves one educator being responsible for teaching while the other is responsible for the functional skills necessary to acquire the material (Bauwens and Hourcade, 1997:81-89; Choate, 1997:453; Idol, 1997:389; Mastropieri and Scruggs, 2000:59-60; Smith *et al.*, 1998: 42; Stoddard, Hewitt, O'Connor, Beckner, Elder, Laporta and Poth, 1996:241; Voltz *et al.*, 2001:27-29; WCED n.d.:5-6).

Educational approaches of collaboration in the WCED mention the use of intersectoral collaboration within Multi-Functional Teams (MFT's). Furthermore intersectoral collaboration is defined as different sectors working together across traditional boundaries, while pooling resources, skills, knowledge, perspectives

and experience to solve a complex problem within a client system. There is joint responsibility for this and so the organisational support needs to be structured to enable this (WCED, 2001:54 and 73b).

In addition to the above, the WCED describes the reasons for intersectoral collaboration and the benefits of intersectoral collaboration as follows:

“The education sector presents broad and complex challenges while representing a national educational policy that includes an integrated and holistic understanding of issues. The sector eliminates fragmentation and duplication of services and enables the acknowledgement of diverse client backgrounds. In this way it ensures the efficient utilisation of resources”.

(WCED, 2001:54 and 74b).

It becomes evident that it is possible to include all learners with disabilities and even more so learners with physical disabilities within an education system that caters for learners according to their strengths and not their deficits. In order for this inclusion to take place successfully, it is important that educators are prepared for the changes.

2.4 CHALLENGES FACING EDUCATORS IN INCLUSIVE EDUCATION

A brief introduction to facing educators in inclusive education and furthermore a discussion on the context of change can be seen below.

2.4.1 Introduction

Against the background of the previous discussion on the educational support of learners with physical disabilities, the implementation of inclusive education in

the Western Cape (Chapter 1.1 and 1.2) and Education White Paper 6 (Department of National Education, 2001:3), it becomes clear that educators face various anxieties, and fear the many challenges that currently face them. Furthermore, the uncertainties and anxieties are aggravated by the challenge of change in an ever-changing education system not only in the Western Cape, but also in South Africa as a whole.

2.4.2 Context of change

Implementing new educational initiatives compels educators to change their traditional beliefs, and shifts policy, thereby creating challenges that educators are forced to face. Change can happen in two ways. Firstly it can be imposed on people or secondly they can accept it voluntarily. Whichever way it comes about, it is imperative that the meaning behind change be shared with all concerned. We are living in a global village; it has become smaller with the development of computers and technology. The world is undergoing continuous changes and we, as humans, need to adapt to these changes if we are to survive. Furthermore, the social, political and economic pressures of globalisation and modernity have put strain on education to such an extent that it needs to adapt. In particular, fiscal restraints, various new educational policies and social transformation have led to an increase of pressures on South African schools (Bascia and Hargreaves, 2000: 3-4; Fullan, 1991: 17,31; Hargreaves, 1994:5-10).

Change should be seen as a process and not an event. Many more principles have been postulated about change; some have been proved while others are contestable. What should however be seen as central to educational change are educators, since they are at the forefront of education. Educators deliver curriculum, but also develop, define and interpret it. Educators therefore need to form part of the process of educational change, not just at surface level but at the root level too (Bascia and Hargreaves, 2000: 4; Carrington, 1999: 264; Fullan, 1991: 49, 55; Hargreaves, 1994:10-12).

According to Hargreaves (1994:11-12), since educators are social beings, they too have desires to change, although policymakers forget often that educators have desires to change. Furthermore, with desire comes the link between the emotional state of the educator to his work, his colleagues and his learners. Educators' desires are also influenced by the practicality of the context and the effect it has on the outcome. Self-efficacy is central to understanding the aforementioned statement. According to Bandura (1978:346), in order to understand the vital role self-efficacy will play, one needs to look at the definition of self-efficacy. Self-efficacy has its roots in social cognitive theory. According to Maddux (1995:4), social cognitive theory is an approach to understanding cognition, action, motivation, and emotion that assumes that people are capable of self-reflection and self-regulation and that they are active shapers of their lives, not merely passive reactors. According to Bandura (1977:191-215), self-efficacy was originally defined as a rather specific type of expectancy concerned with one's belief in one's ability to perform a specific behaviour or set of behaviours required to produce an outcome. The definition of self-efficacy has been expanded, however, to refer to people's beliefs about their capabilities to exercise control over events that affect their lives (Bandura, 1989:1175) and their beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over events that affect their lives (Bandura, 1990:101-105).

There is empirical evidence to support the construct of efficacy as being critical to educators' acceptance of special needs students in regular education classrooms. Furthermore, theorists have identified two distinct components of teacher efficacy. First, personal efficacy, which is the belief that an individual can effect changes in students. Second, teaching efficacy, which is the belief that teaching can overcome the effects of other influences. In addition, studies have shown that personal efficacy beliefs were associated with an educator's decision to refer difficult-to-teach children to a special education class. Also found was the fact that educators with a high sense of efficacy were more ready to recommend regular education placement for special needs learners (Buell, Hallam, McCormick and Scheer, 1999:145; Soodack, Podel and Lehman, 1998: 482).

Moreover, according to Opdal, Wormnæs and Habayeb (2001:159), it was found that when educators were asked how public schools would have to change in order to meet the needs of students with special needs, fifty-one percent answered that there was a need for further qualifications. All these various needs imposed on the already changing education system causes educator stress.

2.5 EDUCATOR STRESS

Since the early, 1960's, there have been an increasing number of researchers reporting that educators are experiencing physiological and psychological symptoms of stress in a changing environment (Boyle, Borg, Falzon and Baglioni, 1995: 49; Farber, 1991:1-2; Forlin *et al.*, 1996a:203).

Boyle *et al.* (1995:50) refer to educator stress as a response of negative affect (such as anger or depression) by a educator usually accompanied by pathogenic physiological and biochemical changes (such as increased heart rate or release of adrenocorticotrophic hormones into the bloodstream) resulting from aspects of the educator's job and mediated by the perception that the demands made upon the educator constitute a threat to his or her self-esteem or well-being and from coping mechanisms activated to reduce the perceived threat. Kyraicou (1998:4) defines stress as the experience by a educator of unpleasant emotions such as tension, frustration, anxiety, anger and depression, resulting from aspects of his or her work. Jacobs (2000:2) refers to educator stress as the experience by an educator of unpleasant emotions such as anger, tension, frustration, anxiety, depression and nervousness. For the purpose of this thesis, the researcher has adopted the definitions of Kyraicou, and Jacobs above. An educator feeling unpleasant emotions such as tension, frustration, anxiety, anger and depression, resulting from aspects of his or her work, can be defined as experiencing educator stress.

2.5.1 Models of stress

This section will give a brief introduction then looking at response-based model; stimulus-based model; the interactionist model, the transactional model of Cox and Mackay and last but not least Kyriacou and Sutcliffe's stress model.

2.5.1.1 Introduction

Stress has been characterised in many ways and demonstrated in many models. This section of the thesis looks at the types of models and focuses on the one to be used henceforth in the thesis. Because of the vast research on the topic stress, not all stress models will be looked at. However, the most important ones will be covered in this research.

2.5.1.2 Response-based model

The first model is known as the *response-based model of stress* taken from Cox and Mackay (1981: 95) and is shown in Figure 2.7. This model therefore focuses on the person's response pattern to disturbing elements in his or her environment (loads, demands, psychological stimuli, threats, *et cetera*). The person's response pattern is viewed as stress. This model was originally taken from Hans Selye defines stress as a non-specific response of the body to any demand, a state manifested by a specific syndrome, which consists of all the non-specifically induced changes within a biological system. Selye states that when the body is confronted with stressors, it creates extra energy and stress occurs because the body does not use up all of the extra energy that has been created. Furthermore, he describes three distinct phases to what he terms 'General Adaptation Syndrome' (GAS). These phases may include: firstly, an alarm reaction; secondly, a stage of resistance and thirdly, a stage of exhaustion (Adams, 1999:1; Roets and Lewis, 2002:206-207).



Figure 2.7: A simple response-based approach to stress

(Cox and Mackay, 1981:95).

2.5.1.3 Stimulus-based model

The *stimulus-based model* is based on the view of stress as an independent variable for study, that is, as an objective property of the external environment (see Figure 2.2.).

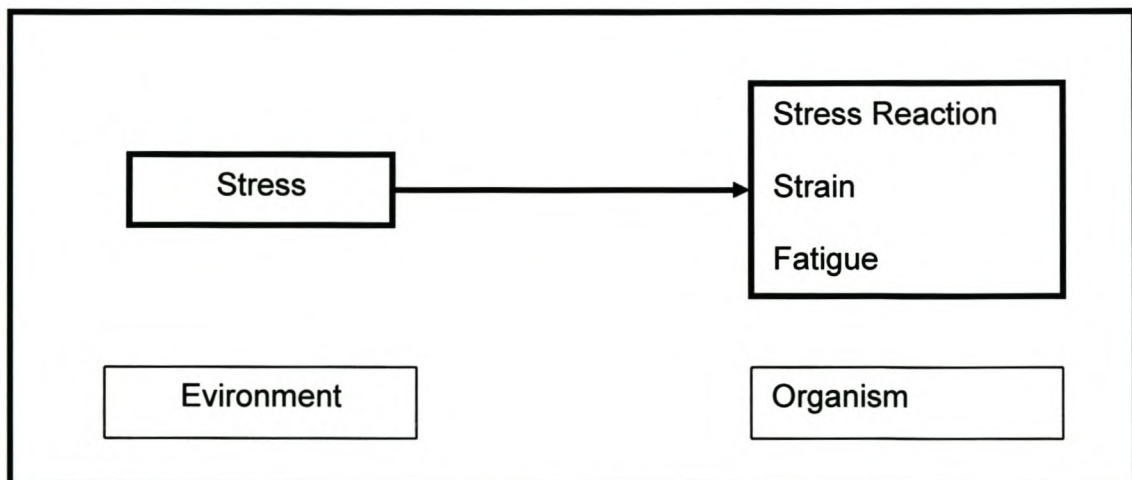


Figure 2.8 A stimulus-based approach to stress

(Cox and Mackay, 1981: 97)

This model is commonly referred to as 'the engineering model', which describes stress as pressure exerted on an individual by the environment. Pressure that is excessive, or too frequently applied, takes the individual beyond the limits of his or her flexibility and results in breakdown or permanent damage. The state of

permanent damage caused by prolonged or repeated stress is often described as 'burnout'. This model shows what is commonly understood by stress but it has its pitfalls in that it sees the stressed individual as an inanimate object (Boyle *et al.*, 1995:50; Cunningham, 1983:37-51).

2.5.1.4 Interactionist Model

This model identifies stress as situated in the relationships that the person has within the context of his or her environment. Stress occurs when there are demands on the person that tax or exceed his or her adjustive resources.

Marshall and Cooper (1979) refer to the fact that the concept of stress only causes stress when seen as an imbalance in the context of an organism-environment transaction. Furthermore, they state that most writers endorse the 'person-environment fit model' (Figure 2.9.) that sees each person as defining for himself or herself those situations that they find to be stressful. The individual's past experience, needs or enduring traits could influence these perceptions. There is no predictable pattern of reaction to stressors – both environment and internal. Environmental demands are neutral, but may become stressful for an individual when they are perceived to constitute a threat. When demands and resources are well balanced, there is minimal stress, but when balance is destroyed, stress develops, causing the person to take coping action to restore the balance and remedy the situation. When coping is successful, problems will be overcome, but if coping is unsuccessful, harmful consequences to the individual may result. These may be in form of brief negative reactions, or more long-term effects – which could be physical, psychological or behavioural.

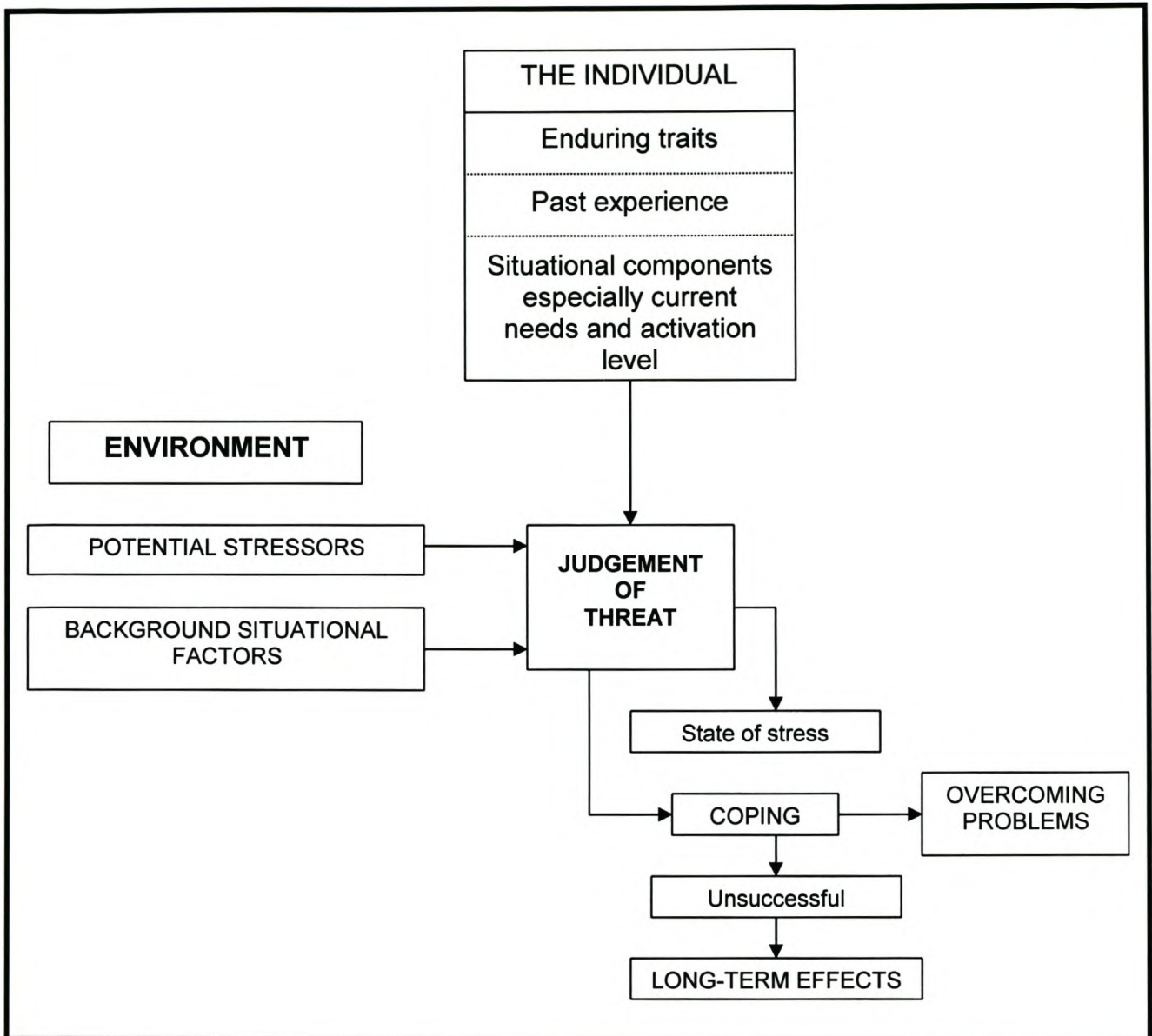


Figure 2.10 The Stress reaction: The person-environment fit model

(Marshall and Cooper, 1979)

2.5.1.5 Transactional Model of Cox and MacKay

The transactional model of Cox and Mackay (1981:102) deals with the interaction within and between different stages and relies on the concept of feedback from each interaction. Cox and Mackay use the word 'transaction' is used to emphasize the active and adaptive nature of the process.

Cox and Mackay (1981:102) believe that stress should be seen as a cognitively mediated relational concept in which not only the characteristics and the job differ from time to time, but in which there is also a particular dynamic relationship in which the person and the environment act on each other. Figure 2.11. below depicts the model proposed by Cox and Mackay (1981:102).

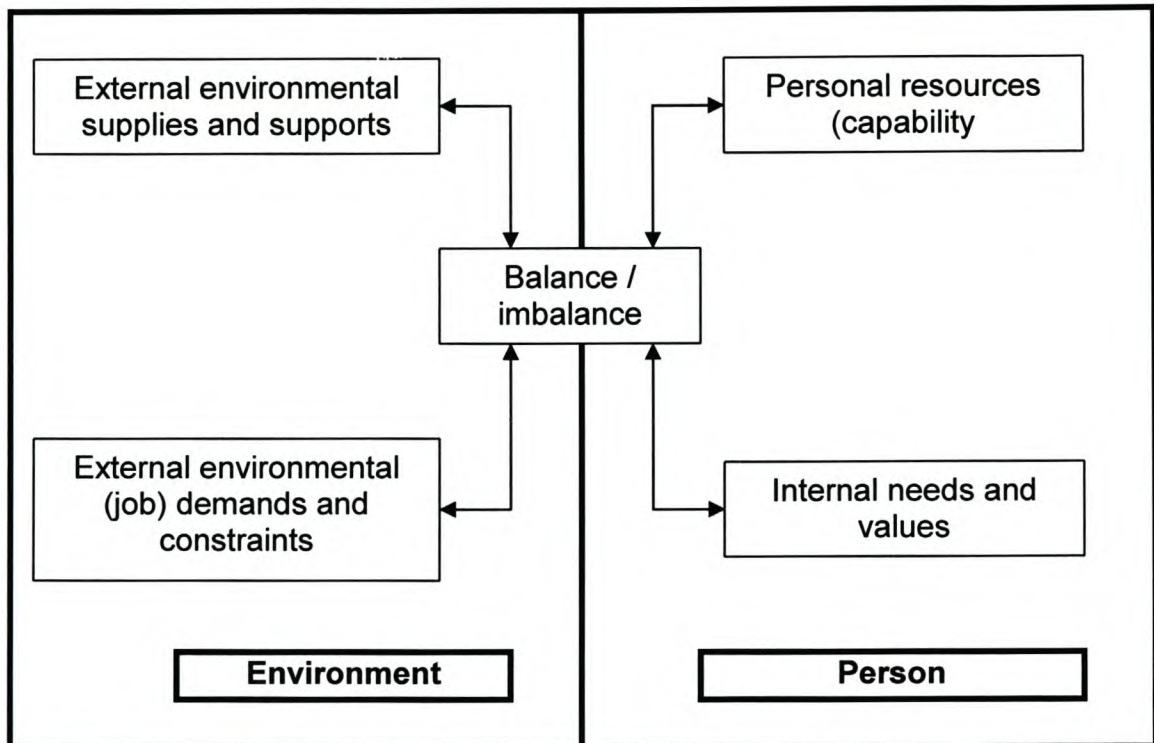


Figure 2.11 The basic components of the transactional model

(Cox and Mackay, 1981:102)

This transactional model could be summarised as the ability of the individual to cope with the demands placed on him or her. What this suggests is that if the individual experiences discrepancies between the demands and personal ability, he or she experiences stress. Furthermore, associated with this model are the personal characteristics that might influence the ability to cope (Boyle *et al.*, 1995:50; Reece, 1989:7; Roets and Lewis, 2002:208-209).

The transactional model embraces three important themes: firstly, stress as a dynamic cognitive state; secondly, a disruption in equilibrium; and thirdly, a

restoration of the equilibrium (Dewe *et al.* , 1993).

2.5.1.6 Kyriacou and Sutcliffe's stress model

Kyriacou and Sutcliffe's perceived that the stress model should consist of eight different items.

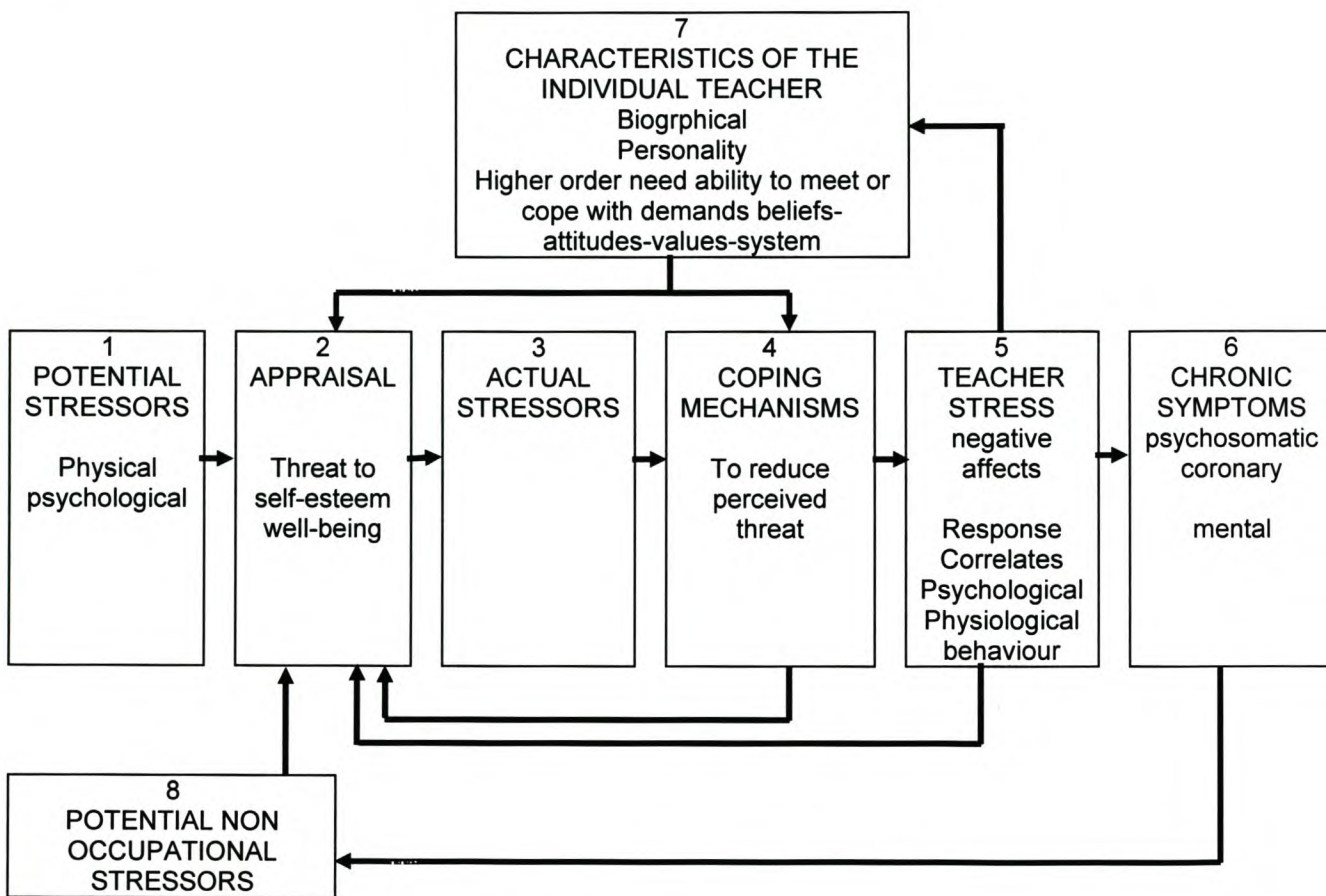


Figure 2.12 Kyriacou and Sutcliffe's model of teacher stress

(1978:3)

This model differentiates between potential occupational stressors (box 1) and actual occupational stressors (box 3). Potential occupational stressors are objective aspects of an educator's job that may result in teacher stress (box 5). These might include, for example, too much work or too many changes. Potential

occupational stressors will only result in teacher stress if they are first perceived by the teachers to constitute a threat to their self-esteem or well being (box 2). Such an appraisal may occur in two ways. Educators may feel they are unable to meet or cope with the demands made on them, and that such failure has important consequences for them. They may also feel that the demands made on the educators conflict with their higher needs (Kutame, 1997:27-28; Kyriacou and Sutcliffe, 1978:1-6).

The educators' appraisal of the demands made on them will have a direct relation to the interaction between the educators' individual characteristics (box 7) and the educators' perception of their own ability to cope with demands. A differentiation is made between potential occupational stressors that are essentially psychological and those that are essentially physical, whilst recognising that some potential occupational stressors may be a mixture of the two. The psychological stressors could be demands for high quality work, poor relationships with colleagues, while the physical stressors could be dashing between classes, high noise levels, while the mixture could be marking numerous examination papers. However, potential physical stressors, as well as potential psychological stressors, may only lead to educator stress if the individual educators perceive a threat to their self-esteem or well-being (Kutame, 1997:27-28; Kyriacou and Sutcliffe, 1978:1-6).

Coping mechanisms (box 4) are introduced by the individual to deal with actual occupational stressors that is, to deal with that sub-set of potential occupational stressors that constitute a threat to the educator's self-esteem or well-being. Coping mechanisms are also partly determined by the educator's individual characteristics (Kutame, 1997:27-28; Kyriacou and Sutcliffe, 1978:1-6).

For the purpose of this study the researcher will use the above-mentioned model because of the thorough research underlying this model of stress and the mechanisms it uses to cope within situations.

2.5.2 Symptoms of stress

There are three kinds of symptoms that which may result in stress. The first are psychological symptoms, such as anxiety, depression, lack of motivation, feelings of guilt, underachievement, social incompetence, withdrawal, mood swings, unhappiness, suicidal thoughts, nightmares, constant irritability, restlessness, inter-personal problems, frustration, tension, hypertension and fear. The second are physiological symptoms, such as increased heart rate, headaches, tension headaches, stomach aches, muscle tension, cramps, diarrhoea, constipation, peptic ulcers, lack of appetite, hives, fatigue, sleeplessness, perspiring for no apparent reason, nervous twitches, nail-biting, nausea, fainting spells, intense itching, skin disorder, heart pounding, burn-out, dry mouth, speech problems, hyperventilation, teeth grinding and digestive problems. The third are behavioural symptoms, such as deterioration in work performance, truancy, and disturbed interpersonal relationships (Adams, 1999:1-3; Farber, 1991:313; Reece, 1989:11; Roets and Lewis, 2002:205-206; Van Dick and Wagner, 2001:244).

2.5.3 Sources of stress

Similar findings by researchers arrived at to the following sources of educator stress. Stress sources can be characterised into the following broad categories.

Learner Issues:

- Poor learner behaviour, ranging from low levels of learner motivation to overt disciplinary problems;

School Issues:

- Poor school ethos, including poor relationships with head educator and with colleagues;
- Poor working conditions, including a lack of resources and poor physical features of the building used;

- Poor communication;

Classroom Issues

- Time pressure and work overload including administration and class size;

Professional

- Role conflict and ambiguity;
- Poor prospects concerning pay, promotion and career development;

Personal

- Efficacy/ achievement
- Having to deal with change.
- Lack of recognition;

(Adams, 1999:1-3; Forlin *et al.*, 1996a:204; Jacobs, 2000:4and6; Kelly and Berthelsen, 1995:346; Kutame, 1997; 29-39; Kyriacou, 1998:7; Pithers and Fogerty, 1995; 5; Pithers and Soden, 1998:270; Pithers and Soden, 1999:52; Reece, 1989:17-42; Tatar and Yahav, 1999:459).

2.6 COPING WITH STRESS

Then looking at the idea of stress it is important to look at various coping strategies.

2.6.1 Coping strategies

From the research it becomes clear that to understand how to cope with stress it is necessary to understand stress at a personal level. The fundamental feature of stress is appraisal. Appraisal is the process whereby we analyse a situation and in which we perceive that situation as being a threat to ourselves. Central to appraisal is the fact that it is personal in nature. Appraisal works on the process of whether or not we feel stressed; we make our own decision by appraising the

circumstances in light of previous experience. To make the decision, we take into account a range of experiences, which may include personal, situational and external factors (Gray and Freeman, 1987:11-12).

Appraisal can be divided into two important interactions. Firstly, there is primary appraisal, which refers to the judgement that the situation is relevant or irrelevant; a challenge or a threat; potential benefit or harm; in short what is at stake. The individual's commitment, goals, beliefs, and values influence their primary appraisal of events (Dewe *et al.*, 1993:7; Kutame, 1997:43-44).

Secondly, there is secondary appraisal, which refers to the evaluation of the adequacy of the forms of coping resources and strategies available for mastering the demands of a specific situation. When a person appraises, he or she is influenced by both internal and environmental factors. These might include the following:

- Control
- Past experience
- Available resources
- Importance of the event
- Severity of the demand
- Personality factors

(Dewe *et al.*, 1993:7; Kutame, 1997:45-47).

Once the situation has been appraised, the educator will use certain strategies to cope with the situation. These strategies are individual and fall into two main groups. Firstly, there are direct-action techniques, which refer to things that a teacher can do that eliminate the source of stress. Direct action techniques can be divided into four different forms:

- Fighting the stressor: the individual identifies the source of threat confronting him or her it and takes steps to deal with it.
- Displays of aggression: aggression is used against the source and may give temporary relief.

- Fleeing: this may involve temporary withdrawal, which further involves procrastination.
- Ignoring or tolerating the demand: the individual ignores the sources of stress and concentrates on more gratifying aspects of work.

(Kutame, 1997:47-48; Kyriacou, 1998:9).

In some situations where direct-action techniques do not work effectively, and then indirect or palliative techniques are used. Palliative techniques do not deal with the sources of stress themselves, but rather at lessening the stress. Two main forms of palliative techniques can be found. One deals with mental strategies, which involve the educator trying to change how his or her situation is appraised. An attempt is made to put the source of stress in to perspective, so as to reduce the anxiety. There could also be an attempt to see the humour in the situation. The second technique deals with physical strategies, which may include physical activities that help retain or regain a state of being relaxed. These include having a hot bath, exercise, listening to music or an alcoholic drink after work (Kutame, 1997:48-51; Kyriacou, 1998:9).

2.7 CONCLUSION

This chapter clearly points out that traditional educational roles are not going to be applicable in an inclusive model. There are new developments in the instruction and assessment of learners with physical disabilities in mainstream classrooms and these are based within new approaches of support in inclusive education. It stands to reason that changing from the traditional role is central to the success of the new model. Hence the statement that the traditional educator will need to make the change, and change causes stress. In addition, the educator will need to cope with the stress or else he or she might not be able to cope at all. This chapter dealt with the challenges facing educators in the face of change. It referred to different types of stress models and the symptoms and sources of stress. The chapter also looked at the sources of coping and the coping methods used. This broad literature review provides a wealth of

information for use in the research analysis process that follows. The next chapter will look at the research design and methodology behind the research process.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

The research process should be seen as cyclical process. A broad literature review was undertaken before starting with the problem. This chapter will look at the research methodology used. Furthermore, it will dovetail into the research process, research design, format, data collection methods and data analysis.

3.2 RESEARCH DESIGN

The research design is qualitative and contextual in nature.

3.2.1 Qualitative and contextual

As discussed in **Chapter 1.5** the research design is qualitative in nature as this type of design can produce a wealth of detailed, in-depth and descriptive data.

Qualitative research has certain characteristics, which may include:

- **Emic:** This is the phenomenon of understanding the interest from the perspective of the participant, rather than from that of the researcher.
- The researcher is the primary instrument in the research collection and analysis. He or she is able to adapt techniques to the circumstances or the context.
- The researcher physically goes into the field and collects data when he or she does fieldwork. These data and the setting are then interpreted in

order to observe behaviour in the natural setting.

- Research is of an inductive type rather than deductive.
- The product is richly descriptive.

(Babbie and Mouton, 2001:270-273; Brynard & Hanekom, 1997:29-20; Denzin and Lincoln, 1994:12-15; Hewitt-Taylor, 2001:39; Merriam, 1998:6-9).

3.3 PARTICIPANTS AND PROCEDURE

Permission was obtained from the Western Cape Education Department and the principals and governing bodies of the relevant schools to conduct qualitative studies in the schools. The sample consisted of five educators in the mainstream, who each have a learner with a physical disability in their class. Data were collected through documents, questionnaires and the transcripts of interviews with the five participants of the sample. The sample therefore can be described as non-random, purposive and small (Merriam, 1998:9).

Purposive sampling implies that the researcher uses a typical or characteristic population that meets certain criteria, which is representative of that population (Berg, 1998:229; Bless and Higson-Smith, 1995:95; Huysamen, 1994:44; Merriam, 1998:61-65).

As mentioned in par. 1.4.2 the criteria for obtaining the purposeful sampling include the following:

- Black: Representative of the majority population group in the Western Cape (Statistics South Africa, 1996:1).
- Female: Representative of the majority of educators in the Western Cape. (DNE, 2002:17)
- Primary school: Representative of the type of schools in which most of the learners experiencing barriers to learning, including physical disabilities, are first identified.

3.4 METHODS OF DATA COLLECTION

As discussed in **Chapter 1**, the following methods of data collection were used. These methods included documents in the form of questionnaires, observations done by the interviewer and interviews.

3.4.1 Literature review

The literature review plays an important role in the research process as a whole. The literature review becomes central to data analysis because it serves as a frame of reference from which data are collected, processed and interpreted (Hall, 1998:117). In Chapters 2 and 3 the researcher conducted an in-depth literature review that yielded a wealth of information that can be used to interpret, process and analyse data.

3.4.2 Questionnaires

A structured questionnaire was administered to enable the researcher to prepare an interview schedule for the interviews (Engelbrecht *et al.*, 2000; Forlin, 2000:5). The questionnaire thus gave the researcher a point of departure from which to work. The questionnaire (see appendix A) is a localised version of an Australian questionnaire on Teacher Stress and Coping (TSC) (Engelbrecht *et al.*, 2000; Forlin, 2000:5). The questionnaire was administered to prepare the researcher for the type of answers to be expected in the interviews and also served as preparation for detail in the field notes. The questionnaire is divided into four sections. Part A focuses on demographical information, concentrating on the background of the educator, the learner, gender, experience, training and the school. Part B focuses on information about the specific classroom structure and also examines other special needs within that class. Part C obtains perceptions

on the severity of stressors in inclusive classrooms. This part has eight subsections and 83 items, which relate to practical issues in inclusive education. This part examines what is stressful and what is not. Part D focuses on perceptions of which coping strategies are most useful in reducing the levels of stress. This part consists of 36 items. A four-point Likert scale was used for responses. The degree of stressfulness is scored from one (not stressful) to four (extremely stressful). The measurement of usefulness is scored from one (not useful) to four (extremely useful).

3.4.3 Observation and field notes

Observations take place in natural field settings instead of a location designated for the purpose of the interview. Informal interviews and data collection are interwoven with observations. There are different means of observation, ranging from full participant observer to complete observer (Merriam, 1998:94-102).

This researcher maintained full observer status. Consent was given by the participant to be observed in the natural setting. The researcher also reassured the interviewer that he or she would not be disruptive, but act as an additional teacher if help was needed. Items to observe in the setting are: the physical setting, the participants and activities and interactions, the conversations, subtle factors and the researcher's own behaviour (Bless and Higson-Smith, 1995:105; Merriam, 1998:100-101). The observer was able to observe the situation, the person, the discussions and the reactions within the class. The observer made field notes during the class situation and before the interview. These were then been transcribed as soon as possible into descriptive field notes.

3.4.4 Interviews

Interviews involve a conversation, the art of asking questions and listening. The most common types may involve two people in a face-to-face verbal interchange,

a group interview, mailed or self-administered questionnaires, and telephone surveys (Denzin and Lincoln, 1993:365,361).

Face-to-face interviewing can be range on a continuum scale from highly structured, semi-structured and unstructured to informal interviewing. Structured interviewing involves a predetermined list of questions in which the order also is predetermined. Furthermore, the wording of the questions is predetermined and the interview takes an oral form. In contrast, unstructured interviewing styles use a more exploratory method of eliciting information. In addition, the latter style uses open-ended questions and is very much like a conversation. Semi-structured interviews are a mix of the two styles (Bless and Higson-Smith, 1995: 106-108; Merriam, 1998:72-74).

This researcher has chosen to use a semi-structured method of interviewing since this allows for a wealth of information and exploration to take place. Furthermore, it allows for a rapport to be established thereby putting the interviewee at ease. At the same time, it does create some form of structure, which lends credibility to the interview. The researcher used ideal position and interpretive questions. These questions prompt the respondent to describe which can then be elucidated by interpretive questions.

The first interview schedule consisted of the same questions from the questionnaire (see appendix A) that had been administered initially. This approach was used to establish consistency of answers and to establish if the interviewee had understood the questions that were asked in the initial questionnaire. The first interview was administered to the educator after the observation process and directly out of contact time.

The second interview schedule (see appendix B) consisted of a list of questions that were asked of the interviewee in order for the interviewer to elicit more information and to clarify. All the interviews were taped, and transcripts were made. The second interview was administered to the educator after a long lapse in time. To prevent the time lapse from causing an adverse influence, the

educator was allowed to see the transcripts of the first interview before the second interview was administered.

3.4.5 Documentation

Documents or artefacts have been under-utilised in qualitative research over the years. There are various types of documents, which include public records, personal documents, and physical material. Public records include police records, association manuals, court transcripts and government documents. Documents are usually free, easily accessible and contain information that would take a researcher a huge amount of time. Using documentation is a lot similar to using interview transcripts in that, when analysing the data, the researcher may ask many questions related to the research problem. The researcher must keep an open mind when trying to find useful documentation. The researcher has to determine the authenticity and accuracy of the documents (Merriam, 1998:112-133).

For the purpose of this study the researcher asked the following questions about the documents:

- How did it come into my hands? It was given to the researcher by the principal.
- Are the documents complete, as originally constructed? Yes, all of them.
- For whom was the document intended? Primarily for the educator and learner and secondarily for the parents.

In this research the documents collected were admission policies, teacher support team policies, and vision and mission statements of schools. This aforementioned documentation was then analysed.

3.5 DATA ANALYSIS

For the purpose of this study interviews were conducted with five participants. Relevant documentation, including documents from the schools, interview transcripts, observation notes and questionnaire transcripts, was collected and analysed. Data were analysed using content analysis and more specifically with the method termed “constant comparative analysis”. Glaser and Straus developed this analysis in, 1967 as a means of developing grounded theory. This method is most often used due to the fact that it is compatible to inductive concept building. The basic strategy is to constantly compare data. The data is constantly revisited after initial coding, until it is clear that no new categories are emerging. (Marshall, and Rossman, 1995:143-145; Merriam, 1998:159-160; Silverman, 1993:24).

After comparing various suggestions for coding and analysis by authors like Berg (1998), Hewitt-Taylor (2001) and Merriam (1998), the following guidelines for the coding procedure were used:

- Step 1: The analysis process starts with coding of different types of data collected.
- Step 2: Each document was read while searching the data for specific and consistent set of questions. The researcher asked the following questions: Is this relevant to the stress or coping strategies? If so, how is it relevant? What is the impact? What categories are discussed here?
- Step 3: Codes were attributed to sentences, paragraphs or sections.
- Step 4: Sections of transcripts were given no code, one code or more than one code on the hard copies of each document.
- Step 5: The codes and their definitions were recorded in a separate computer file. A separate file was used to ensure that the use of each code remained consistent and to establish an audit trail.
- Step 6: Data analysis was inductive, as the study sought to promote understanding of individual perceptions, not prove a preconceived theory. Codes were, therefore, generated from the data, rather than

predetermined.

- Step 7: Initially more groups, incidents and interactions are formulated until saturation is reached. Later these are refined to form categories or themes. The researcher frequently interrupted the coding to write a theoretical note.
- Step 8: After having coding the first transcript, the other transcript's were coded in a similar way, keeping in mind the first transcripts codes. New codes were added as necessary.
- Step 9: After coding the hard copy of each document, the copy was then highlighted, cut and pasted.
- Step 10: Each coded section was put onto a new 'window' and stored on a computer file with the title code. The name of the participant whose interview the code pertained to, and the line numbers from the transcript, were included on each coded section. These sections were then electronically stored in a file with the name of the code.
- Step 11: One hard copy of each coded transcript was retained, in addition to the electronic copy. After final coding was complete, code files were printed and stored in files labelled with each code name.
- Step 12: During data coding, notes were made about how decisions had been reached, how the coding process had been conducted, and any specific queries raised. Established coded sections were compared with other similarly coded segments to ensure consistency of application, as well as adherence to the definition of the code. The researcher never assumed data to be relevant until data showed they were relevant.
- Step 13: Once coding was completed, the codes that had common elements were merged to form categories. The coded sections of data were placed in categories from the data collection methods used. This was performed electronically; files were created for each category, containing copies of the codes that had been merged to form the category. The definitions of the categories and the codes placed in these were recorded in the same way as the codes.
- Step 14: Some codes were placed in more than one category.

- Step 15: The categorised data were then printed and stored manually in files with the name of each category.
- Step 16: The categories derived from each data collection method were then clustered around each research question they had contributed to answering.
- Step 17: A list was compiled of categories that related to each research question, and some categories were used to address more than one question.
- Step 18: Once all the research questions had been allotted input from the categories, the information pertaining to each question was examined and reviewed to compile a report.
- Step, 19: The findings were finally checked with the participants, so that no undue influence or interpretation of the data occurred.
- (Berg, 1998:236-238; Hewitt-Taylor, 2001:39; Merriam, 1998:180-184)

3.6 DATA CONSOLIDATION

The focus of data consolidation is an inductive analysis to examine the categories that may emerge from the analysis (Marshall and Rossman, 1995:143-145; Merriam, 1998:159-160; Silverman, 1993:24).

3.7 DATA INTERPRETATION

This level involves making inferences, developing a model or generating a theory. Furthermore, the levels of categories, are experienced and the relationships thus discerned make interpretations and inferences easier (Merriam, 1998:188-189).

3.8 DATA VERIFICATION

Being able to trust research is extremely important, especially in the social sciences. Certain tools are therefore needed to test the data. Terms such as “credibility”, “transferability”, “dependability” and “confirmability” replace the positivistic or quantitative criteria like internal validity, external validity, reliability and objectivity (Denzin and Lincoln, 1994:14).

3.8.1 Credibility/validity

Validity in the research lies in the extent to which the researcher and others believe and trust in the research topic and the results obtained from the research. Credibility was established using:

- Multiple data sources: These included literature study, field notes or observations, recorded interviews and documentation. Berg (1998:4-5) confirms that, by combining different lines of sight, researchers obtain a better, richer, more complete, and more substantive reality.
- Triangulation: By combining different perspectives or lines of sight, the researcher is able to obtain a more substantive picture of reality (Babbie and Mouton, 2001:274-276; Berg, 1998:4-5; Hewitt-Taylor, 2001:41; Huysamen, 1994:115-117; Marshall and Rossman, 1995:143-145; Merriam, 1998:204). Triangulation can be divided into data triangulation, investor triangulation (consisting of multiple rather than single observer), theory triangulation and methodological triangulation (Berg, 1998:5).
- Peer examination: Colleagues are constantly asked to comment on findings as they emerge (Babbie and Mouton, 2001:274-276; Hewitt-Taylor, 2001:41; Huysamen, 1994:115-117; Marshall and Rossman, 1995:143-145; Merriam, 1998:204).
- Clarification: From the outset of the study carrying through to the end of the research the researcher's assumptions need to be clarified. The researcher will also be very careful, during the interview process, not to lead or influence the interviewees (Babbie and Mouton, 2001:274-276;

Huysamen, 1994:115-117; Merriam, 1998:78).

- Member checks: The researcher will also use member checks, which include checking with members if what was analysed from the data is actually what they said (Babbie and Mouton, 2001:274-276; Hewitt-Taylor, 2001:41).

The following strategies will enhance the objectivity, validity and reliability of the study.

3.8.2 Transferability/External validity

This criterion refers to the extent to which the findings of one study can be applied to other situations. The role of qualitative studies is not to find generalizations, but rather a unique experience from which interpretations can be formed. Furthermore, the researcher wishes to plumb depths through a wealth of rich descriptive information. Generalizations should be re-conceptualised to yield assumptions or working hypotheses. Purposive sampling is used rather than random sampling as this should provide perspective rather than state a truth (Babbie and Mouton, 2001:277; Hewitt-Taylor, 2001:41; Merriam, 1998:207-209).

This researcher used a wealth of rich, detailed description and multi-site designs to enhance the potential of the results.

3.8.3 Dependability/reliability

These terms refer to the extent to which the results can be replicated. In qualitative research, however, because people in many contexts and human behaviour, are being dealt with, different results are usually seen. But if the same results are obtained, this does not mean that the results are erroneous. In qualitative research, the demand should not be for outsiders to obtain similar results, but rather the researcher should conclude that the data obtained are

consistent and dependable. In summary, the findings should not be scrutinised for repetition, but to see if the results are consistent with the data collected (Babbie and Mouton, 2001:278; Merriam, 1998:205-206).

With this study the explicit nature of the research methodology, the procedures and the context add to the credibility and dependability of the study. The researcher, furthermore, used triangulation and also clarified the investigator's position by explaining the assumptions and theory behind the study. The researcher also left an audit trail for further proof of dependability.

3.8.4 Confirmability

Confirmability can be seen in light of the neutrality of the data. The level of confirmability lies in the level of credibility and dependability. If the various methods used are in line with credibility and data are consistent with obtaining dependability, then the confirmability is high (Babbie and Mouton, 2001:278; Krefting, 1991:217). One criterion used for establishing the confirmability of research is the establishment of an audit trail. This trail is intended to allow other individuals to understand and evaluate how the data were coded and categorised, why data were placed into these codes and categories, and how the latter were clustered to answer the research questions (Hewitt-Taylor, 2001:41). This research, therefore, described the methods and procedures in detail, which adds to the conformability of the study.

3.9 ETHICAL CONSIDERATIONS

Ethics and protection of human rights have come to the fore in recent years; especially in the biomedical, medical and behavioural sciences (Merriam, 1998:212-219). This researcher has used the following ethical considerations in the research:

- Confidentiality and anonymity: the researcher assured the participants of

their privacy and anonymity to the participants before the interviews and questionnaires were handed out.

- Voluntary participation: The aim of the study was explained beforehand. The participants were assured that they did not have to participate in the research against their wishes. They were also assured that their participation would be held in high regard, if they were to participate.
- Feedback: The staff and principals were assured of feedback once the study was complete.

3.10 CONCLUSION

In this chapter, the research methodology was discussed and clarified. The data collection methods, data analysis, data consolidation, and data verification were also discussed. Methods of coding were also explained in detail. Trustworthiness was discussed under the headings: credibility, transferability, dependability and confirmability. In the following chapter the findings, results, discussion and conclusion will be presented and supported with a broad literature review.

CHAPTER 4

RESEARCH FINDINGS AND DISCUSSION

4.1 INTRODUCTION

The findings of results as well as the discussion of the findings form the focus of this chapter. The chapter also aims to present recommendations, define limitations, and offer a brief conclusion of the research process as a whole. The researcher used a constructivist approach to the qualitative data analysis, since this approach depends on a variety of inputs from participants.

4.2 FINDINGS

Under this section the following three main themes have arisen: Learners' needs, classroom and personal.

4.2.1 Participants

The research was undertaken in three different primary schools in the Eersteriver, Melton Rose and Mfuleni areas. The five participants were non-white female educators aged between 30-50 years, their qualifications ranged from junior primary qualification (4) to one with matric plus 2 years. The class size ranged between 35-45, and consisted of multi-aged learners. The participants had one learner with a physical disability in each of their classrooms. The type of disability differed in each case and ranged from cerebral palsy, spina bifida and hydrocephalus, and limb deficiencies to osteogenesis imperfecta.

4.2.2 STRESS

Under this section the following three main themes have arisen: Learner's needs, classroom and personal.

SUB-THEMES	THEMES
Attention Behaviour Safety	<u>Learner's needs</u>
Curriculum adaptations Classroom set-up Disability Lack of information Support	<u>Classroom</u>
Experience Qualifications Lack of stress	<u>Personal</u>

4.2.2.1 Learner's Needs

It has become clear that the following sub-themes on attention, behaviour and safety has been found.

(a) Attention

That the educators perceived that the learner with physical disability needed special attention is evident from the following statements:

- "I saw that the educator spent lots of time in assisting this learner when she needed to" (Participant E).
- "There are certain times when he needs my attention, but not always."

Somewhat stressful" (Participant A).

- "She does everything on her own. What I tend to do is send someone with her to the toilet. Anything can happen to her in the toilet" (Participant D).
- "Definitely quite stressful" (in response to question on difficulty in monitoring other learners when attending to the learner with a disability) (Participant A).
- "Like I said there is nothing really wrong mentally with him, but I feel that I can't spend all my time with him, ...and sometimes he needs this attention, so I think he should go to another class. I feel that he is losing out a lot" (Participant A).
- "She is very average; she doesn't take part in activities in class. When I attend to individually she ignores you; when I give her work she want to go to the toilet" (Participant B).
- "There are certain times when I give her individual attention and I can't give the others attention, then I find it somewhat stressful" (Participant B).
- "Her improvement I can attribute to the attention that she received from me" (Participant E).
- "I started by winning her confidence. When I use to speak to her she would cry. I then played with her till I gained her confidence" (Participant E).

(b) Behaviour

The educator perceived the learner's behaviour as being stressful as seen in the statements below:

- "The child then stood up and walked out" (Participant B).
- "He is hyperactive. I can give him an activity and then in 5 minutes he loses concentration.
- Yes, quite stressful" (Participant A).
- "Is hyperactive, definitely" (Participant A).
- "Extremely" (in response to a question if behaviour was stressful)

(Participant A).

- “Yes. Quite stressful” (in response to a question if he was manipulative) (Participant A).
- “Somewhat stressful, because he seeks attention and there are many children and I can’t concentrate on him all the time” (Participant A).
- “Yes, I can and I feel that it is somewhat stressful” (in response to a question on learner’s personality) (Participant A).
- “She is very average; she doesn’t take part in activities in class. When I attend to individually she ignores you; when I give her work she want to go to the toilet. Yes, extremely stressful. (Participant B).
- “Somewhat stressful. Today I can work with her, tomorrow nothing”(in response to a question on attention span) (Participant E).
- “Somewhat stressful. I experienced it mostly when the weekend was over” (to question on lack of communication) (Participant E).
- “Wat vir my baie, baie stresvol was, was die gedrag van die leerling” (Participant A).

(c) Safety

Safety seemed not to be perceived as a stress; however, one educator did perceive it as stressful as shown in the following statements:

- “The days when her sister is not here her mother and her granny came to do it” (Participant C).
- “I had a feeling that don’t knock her or run her over and things like that. I would be scared if she must get up and maybe somebody would just come past her and you know?” (Participant C).

4.2.2.2 Classroom

Five sub-themes have been found and the comprising of curriculum adaptations,

classroom set-up, disability, lack of information support.

(a) Curriculum adaptations

The majority of the educators showed a lack of ability in adapting the curriculum to suit the needs of the learner with physical disabilities. This was evident in the statements:

- “learners copying down from the board...felt that the educator could have photocopied the notes, since the notes were nothing to do with fine motor development of the learner” (Participant A).
- “educator was not aware of the fact that spina bifida learners suffer from being unable to do abstract work and short-term memory problem” (Participant C).
- “This tells me that the educator should have given the learner time and also adapted the curriculum to the needs of the learner” (Participant D).
- “was not aware of the fact that learners with osteogenesis imperfecta work slowly and need more time. She struggled for about, 20 minutes trying to explain to the learner how to work it out” (Participant D).
- “Does not apply” (in response to question on adapting the curriculum to meet the learner’s needs) (Participant C).
- “Does not apply” (in response to question on adjusting unit plans) (Participant C).
- “It was not necessary to do that. Not stressful” (response on adaptations to curriculum)(Participant D).
- “Not stressful” (in response to a question on adjusting unit plans) (Participant D).

(b) Classroom set-up

The educators perceived a large number of learners as constituting a stressful situation when there was a learner with a physical disability in the classroom.

This is evident from the following statements:

- “39 learners and 1 educator in grade 1” (7 Participant A).
- “Want dit is nog baie moeilik met nog 40 kinders in die klas” (Participant A).
- “40 learners and 1 educator in grade 2” (Participant C).
- “Maybe if there are less learners in the class” (Participant C).

(c) Disability

The lack of understanding about the disability can be perceived as a concern in that it affects the way the educator reacts to the learner. The following statements show evidence of this:

- “physical impairment... I struggle to understand her” (Participant B).
- “Just one thing I would like to know about spina bifida learners. The way I understand it such babies don't live long” (Participant C).
- “Her parents was here and told me she suffers from brittle bone and that we must be careful that the learner does not get hurt, because otherwise the learner lies in the hospital for a while. The children in the class are very protective, but for me it was not stressful ” (Participant D).
- “It was difficult at first, but I persevered”(in response to a question concerning the learner's disability) (Participant E).
- “You know I did not know how to help her and I did not really have experience of what is spina bifida, you know” (Participant C).

(d) Lack of information

The educators had experienced stress arising from the lack of information concerning various aspects of the disability. What is evident is the lack of information about the learner, as seen in the following statements:

- “I have nothing in writing about the fact that he has been on an operation or something that was done to him” (Participant A).

- “I do need information so that I can know what to do with that child. I will have to make a change here to somewhat stressful” (Participant A).
- “Yes, I know nothing about the child and I find it quite stressful” (Participant A)
- “Die vorige onderwysers van haar het eintlik vir my baie min inligting gegee” (Participant E).

The circulation of information about the learner with a physical disability in the classroom also contributes to causing stress. This is evident in the following statements:

- “I know a bit about spina bifida. I read up about her and the problem and this is before I had her. So it was not stressful” (Participant C).
- “Just one thing I would like to know about Spina Bifida learners. The way I understand it such babies don't live long” (Participant C).
- “A little bit stressful, because I could not get information about her disability. Her mother was always drunk. The information I received from the other teachers was incomplete” (Participant E).
- “Ek het nie geweet hoe om haar te hanteer nie, wat kan sy doen, wat moet ek maak” (Participant A).
- “As iemand ten minste in kon gekom het om vir my te sê hoe om vir haar te hanteer” (Participant A).
- “self meer inligting van die vorige opvoeders wat begin werk sou dit minder stresvol gewees het” (Participant E).

The circulation of information about the learner and limited contact with parents causes stress. This is evident in the following statements:

- “Yes, I would like to meet the parents, because I would like to learn more about the learner” (when asked a question whether it was stressful in making contact with the parent) (Participant A).
- “I have received some information from the mother” (Participant B).
- “I have only seen the parents when I met the learner for the first time. But this does not stress me out. Therefore, not stressful” (Participant D).

- “I have not spoken to parent. Does not apply (Participant D).
- “Met ‘n gesin by die huis, die skool. Dit sou vir my baie gehelp het ja. Want ek het haar ouers in die eerste 2, 3 maande nie gesien nie en om met hulle te kon gesels hoe om vir haar te hanteer nie” (Participant A).
- “It was just that the parents informed me and things like that and she had a few operations and she could not use the toilet and things like that” (Participant C).

However, the stress experienced by the educators was soon alleviated when the parent provided the information and contact needed. From the statements below this can be seen:

- “Then the parents came to the principal and they sorted out the matter and we sorted out the matter” (Participant C).
- “Her parents was here and told me she suffers from brittle bone and that we must be careful that the learner does not get hurt, because otherwise the learner lies in the hospital for a while. The children in the class are very protective, but for me it was not stressful” (Participant D).

(e) Support

The stress experienced by the majority of the educators resulted from lack of support. The following statements can substantiate this:

- “and the principal does not even come and check up to see if I am coping” (Participant D).
- “Quiet stressful” (in response to question whether they receive enough in-service from outside support) (Participant A).
- “I have not worked work with a learner like this. I received very little help from outside and I feel extremely stressful. I am very honest when I answer these questions” (Participant A).
- “I would like the learner to do the work and I do not know if he can do it or if he is just lazy. So I feel quite stressful” (Participant A).

- “I would like to help the learner everyway I can, but I feel I don’t have that competency to do it, so I would say quite stressful” (Participant A).
- “because no one comes in” (in response to question on support received) (Participant A).
- “Does not apply” (in response to question on support received) (Participant A)
- “Does not apply” (question on accessing occupational therapy, physiotherapy, speech therapy, and obtaining advice from support (remedial) teacher) (Participants A, B, C, D and E).
- “Extremely stressful. There is no one to help me and I feel responsible for the learner, and responsible for co-ordinating the support people to come here even though they do not come” (Participant B).
- “Extremely stressful, because we got no training in this disability from anybody. The department does not come in and help us” (Participant B).
- “I received very little help from outside and I feel quite stressed, because I don’t have any experience in working with this type of learner” (Participant B).
- “I felt why could these teachers do more with this child. None of these teachers wanted to assisted me” (Participant E).
- “I would contribute it as follow-up work, which was not done. I forced the psychologist to test her. She did not want him to test her without me being present. He never gave feedback to me about the test” (Participant E).
- “Quite stressful, I am telling you. There was a time when I made the appointments and no one pitched. There was appointments when that I made for the mother to be there and to bring hospital reports etcetera and then no one pitched up or they say that something came up. Why it was so stressful was the fact that something could have been done during this time. The time factor was to long-1 to 2 years. It was genuinely stressful” (Participant E).
- “Quite stressful, because of getting hold of one. The school clinic had something on it. I feel that the school clinic and the school had very little to do with each other. I feel the school clinic could do more” (Participant E).

- “Somewhat stressful, we don’t get enough. The involvement of the clinic was very little” (Participant E).
- “Enige hulp wat ek sou kry op daai oomblik sal help. Van onderwysers, my kollegas, die departement. Enige hulp sal help. Al moet ek ‘n kursus doen, dan sal ek dit doen. Om dit vir myself te vergemaklik en om die kind se lewe te vergemaklik” (Participant A).
- “I definitely think it would because I had to handle the situation on my own and these people from the clinics were not here to help me. Lots of times I left her on her own” (Participant B).
- “Ooh no there was not a TST”. (Participant B).
- “Yes, nobody” (in response to question on support) (Participant B).
- “I definitely think it would” (in response to question on whether more support if it would help) (Participant C).
- “because I had to handle the situation on my own” (Participant C).
- “Ooh no there was not a TST, I can tell you that much” (Participant C).
- “Yes, nobody” (Participant C).
- “Ja dit sou vir my baie gehelp het, beslis, want ek moes rêrig uit my eie uit dinge doen” (Participant D).
- “En een keer was die sielkundige hier waar ek by was en om vir haar te toets, juis om vir haar in ‘n spesiale skool te sit. En die opvolg daarop volgens my was baie swak” (Participant E).

4.2.2.3 Personal

The theme personal has given us three sub-themes comprising of experience, qualifications and lack of stress.

(a) Experience

The educators possess a vast amount of experience in educating mainstream

learners, but very little experience in educating learners with physical disabilities.

- “27 teaching experience and 4 years of teaching experience with LSEN” (Participant B). Compare also
- “with, 19 years of teaching experience and 9 years with LSEN learner” (Participant E), and “with 7 years of teaching experience and 1 year with a LSEN learner” (Participant C). Even the Principals of the schools made a comment to support this finding.
- “What I can just say was that teacher was thrown into the deep side. She could not swim on what was in this river” (Participant F) and “sy het geen ondervinding gehad nie” (Participant G).

The lack of experience leads to the educator not being able to challenge the learner to his or her full potential. This in turn causes stress for the educator. If we refer below to the questions asked on sustaining an active learning environment for the learner and on how far to challenge the learner it becomes clear that, in both instances, experience plays a role in educating a learner with a physical disability:

- “Quite stressful. I have not worked with a learner like this. I received very little help from outside and I feel extremely stressful. I am very honest when I answer these questions” (Participant A).
- “Yes, quite stressful. I feel less equipped to teach this learner. I use the same tasks as for the other learners” (Participant B). Compare this with “I would like the learner to do the work and I do not know if he can do it or if he is just lazy. So I feel quite stressful” (Participant A).
- “I received very little help from outside and I feel quite stressed, because I don’t have any experience in working with this type of learner” (Participant B).
- “I know she wants to do certain things, but she is unable to do it. If I knew how to assess her or what to do it would make my life easier. Therefore I say somewhat stressful” (Participant D).
- “Quite stressful, I don’t know what to do with the learner sometimes to help her” (Participant E).

The educator also experiences stress when he has reduced ability to teach learners with disabilities effectively in the same class as mainstream learners. Answers like the following substantiate this:

- “Quite stressful. I would like to help the learner everyway I can, but I feel I don’t have that competency to do it, so I would say quite stressful” (Participant A).
- “Somewhat stressful” (Participant B).

A lack of experience can also cause a lack of stress, since the educator would not know what to do and would treat the learner with the physical disability the same as the other learners. This is apparent in some the following answers received:

- “Does not apply, because I regard her as any other child” (Participant D).
- “It was not necessary to do that. Not stressful” (Participant E).

(b) Qualifications

None of the educators were trained to teach learners with physical disabilities. This is evident in the following statements:

- “The educator has a teacher’s diploma” (Participants A, B, C, D and E).
- “Yes, I did it in the group I have now” (In response to question whether educator had a diploma in the kindergarten group) (Participant A).
- “It is the ordinary 3- years diploma” (Participant B).
- “It is the ordinary 3- years diploma” (Participant C).
- “It is a 3- years diploma in the primary education. Junior primary. It is the ordinary 3- years diploma and then matric after” (Participant D).
- “Junior primary. It is the ordinary 3- years diploma and then matric after” (Participant E).

All the participants felt that their lack of pre-service training was a negative influence in preparing them adequately for a learner with a physical disability in

the mainstream classroom. Even in the follow-up interviews on the findings, there was evidence of this. The following statements show this:

- “I do not know how to handle the situation. So I would say quite stressful” (Participant A).
- “Yes, because sometimes I do not know how to handle the situation. I don’t have the training that other teachers might have. I feel less equipped. So I would say extremely stressful” (Participant B).
- “I feel that training for a teacher did not equip me for that. I did not know, you know. In the beginning I was very scared” (Participant C).
- “Somewhat stressful. At first I did not know how to deal with this type of learner and then I learnt how” (Participant D).
- “No, I feel that the training was not enough, because the first time when she came into the class I asked myself how would I handle the problem. This was quite stressful, because I did not know how to handle her. If they had a course on this then I would know how to handle her” (Participant D).
- “No, because sometimes at the start I did not know how to handle the learner. I had the training beforehand I would have known what to do. So I would say somewhat stressful” (Participant E).
- “I did not know how to help her and I did not really have experience of what is spina bifida, you know” (Participant C).
- “ek meer opleiding gehad het om vir haar meer gemaklik in die klas te laat voel” (Participant D).

(c) Lack of stress

The statements below indicated lack of stress, which is an area of concern:

- “don’t really have any problems with the learner and a lot of these questions I feel is irrelevant” (Participant C).
- “No I don’t feel any stress. I went to the principal with this form and I said to her that I feel I should have filled in this form” (Participant C).
- “No, not stressful. Like I told you, I told the principal I don’t see what’s the

fuss about this questionnaire" (Participant C).

The second area of concern was the lack of stress perceived by the educators in relation to treating the learner with a physical disability the same as the mainstream learner. This is evident in the statements below:

- "Does not apply, I use the same as for other children" (Participant A).
- "No provision is made for that learner. The learner uses what the other learner uses" (Participant A).
- "I treated him the same as the other children. So I found it not stressful" (Participant A).
- "I treated her the same as the other children. So I found it not stressful" (Participant B).
- "I treated her the same as the other children" (Participant C).
- "I can tell you that this problem that she has does not affect my class at all. It does not affect me, because to me she does not need any special attention. I treat her like I treat the rest of the children. I don't make a issue of her" (Participant C).
- "So like I tell you know, it does not stress me" (Participant C).
- "I read up about her and the problem and this is before I had her. So it was not stressful" (Participant C).
- "No it is not stressful at all, because I treat her like any other learner" (Participant C).
- "I know about all the operations she had. It did not affect me much" (Participant C).
- "It was not necessary to do that. Not stressful" (Participant D).
- "No not stressful. All that is a problem is that we had these sorts of tables and this stool. She had to lift her legs to sit at the table. We asked her if she wanted to write at a smaller table. She did not want to have a smaller table. I then said to her that she has to sit like this. She is comfortable at this table" (Participant D).
- "Nee, nee geensins nie"(in response to question on vulnerability to breaking her bones) (Participant D).

- “I handle her like any person in the class, so I don't discriminate at all” (Participant D) .
- “Does not apply, because I regard her as any other child” (Participant D).

4.3 COPING

Two themes emerged from the transcripts, and these then formed a single category of the research as represented by table 4.3. below of the research:

Themes	Category
Self-esteem	Self-efficacy
Collaboration	

4.3.1 Self-efficacy

4.3.1.1 Self-esteem

The perception that using various coping methods would boost the educator’s self-esteem was prevalent in the response to the following questions:

- To try to look on the bright side of things? “Quite useful” (Participants A, B, D, E).
- To take some form of physical exercise e.g. aerobics or sport? “Extremely useful” (Participants B, D).
- To develop other interests outside school? “Somewhat useful” (Participant’s A, B, C, D, E).
- To assure yourself that things will get better? “Somewhat useful” (Participant’s D, E).
- To maintain a sense of humour? “Somewhat useful” (Participant’s A, B, E).
- To practise meditation? “Quite useful” (Participant’s B, D, E).
- To seek spiritual/religious support? “Quite useful” (Participant’s B, D, E).

(b) Collaboration

The perception that using various coping methods that would increase the collaboration was prevalent in response to the following questions:

- To discuss the situation with your principal? “Somewhat useful” (Participant’s A, B, D, E)
- To discuss the situation with the learner’s parents? “Yes, quite useful” (Participant’s A, B, D, E)
- To seek help and resources from other teachers? “Quite useful” (Participant’s A, B, D, E)
- To seek professional help for the learner? “Extremely useful” (Participant’s A, B, D, E)
- To increase the number of support personnel visiting your class? “Extremely useful” (Participant’s A, B, C, D, E)
- To come up with different solutions for difficult issues? “Quite useful” (Participant’s A, B, D, E).
- To discuss the situation with specialist personnel e.g. the school/educational advisors “Quite useful” (Participant’s A, B, C, D, E).
- To enlist support of the learners? “Quite useful”(Participant’s A, B, D, E)
- To discuss the situation with your colleagues? “Somewhat useful” (Participant’s A, B, C, D, E)

4.4 DISCUSSION

4.4.1 Stress

The analysis of the research was undertaken to understand the individual’s reconstruction of reality. This reality might be in line with the norm or might differ, but what is important is how each individual views his or her own situation in contrast to others. The study has viewed the participants as individuals, each within in his or her own reality and constructing his or her own views and

opinions within that reality. It is against this background that the discussion of the findings will be dealt with.

The question regarding qualifications during the pre-service period of the educator evoked a stressful response from all the participants in the study. Findings by Eloff, Swart and Engelbrecht (2002:95) emphasise the concern that these participants showed regarding the necessity for qualifications in order to educate learners with physical disabilities. Engelbrecht *et al.* (2000:5), found similar results in an analysis of educators who had learners with Down's Syndrome in their classroom. This finding could lead to the premise that educators who have to educate learners with physical disabilities need to have received some sort of relevant qualification before being equipped to educate learners with a physical disability.

Another major stress experienced by the educator is caused by the fact that the educator does not know how far to sustain, let alone challenge an active learning environment, because of lack of experience and relevant in-service training relating to the learner with a physical disability. Similar findings on the lack of in-service training and implementation of inclusive education were found by Engelbrecht *et al.* (2000:6), although their research covered learners with Down's Syndrome. Engelbrecht *et al.* (2000:6) also found a causal effect of historically separate general and special education programmes on teacher training and development in supporting diversity. There is thus clearly a need for improved pre-service training that equips him or her for the diverse needs that the educator has to face. Furthermore, the existing educators need in-service training that will further equip them to face the challenge that currently exists in mainstream education.

The nature of the disability and its severity influences the attitudes of the educators in inclusive practice. It has been reported that educators of learners with cognitive disability report more stress than educators of learners with physical disabilities (Engelbrecht *et al.*, 2001:11; Opdal *et al.*, 2001:145). This does not mean that educators of learners with physical disabilities do not

experience stress. Those who experienced, and those that did not experience, stress with learners with physical disabilities both mentioned the fact that their lack of understanding of the disability and how to handle the specific educational needs of that learner had an influence on their levels of stress. The educators indicated that it was the fact that there was a learner with a physical disability in their class together with a large number of other learners that was stressful. Although four of the educators knew how to adapt the curriculum for the learner with a physical disability, they made no or few adaptations to the curriculum in order to support the learner with a disability. Similar trends are noted by O'Donoghue and Chalmers (2000:893) in their reference to the concept of "selective adaptation", which means that educators tend not to make radical changes to their classroom organization, teaching methods or curriculum content when managing an inclusive classroom.

Breakdown in communication and support leads to a breakdown in the understanding of the message, which has to be understood in order for a less stressful environment to be created. Once the message is understood, it then needs to be interpreted correctly to ensure smooth implementation. It is necessary sometimes for a sounding board or signpost to give the impetus and create the continuity in the process. Communicational support can be subdivided into communication and support.

The absence of communication or rather the lack of information about the learner from the parent and other parties involved caused stress amongst the participants. Similar findings of educators experiencing stress resulting from the lack of and non-dissemination of communication can be seen in Eloff *et al.* (2002:94). This stress can be alleviated by putting in place proper admissions, referral and information processes. The stress experienced by the majority of the educators was due to lack of support: they needed some sort of training concerning learners with physical disabilities. The study showed that these educators received very little or no support from the EMDC's, special needs schools, principals and educators. This lack of support, combined with the fact that the educator held a lack of belief in his or her own efficacy, created an

insurmountable stress factor in the educator. According to Engelbrecht *et al.* (2001:11), there is a need for support structures for mainstream educators in order to foster their belief in their efficacy and so to ensure their success in incorporating the learner with a barrier to learning.

Attention is something every learner needs, but how much depends on the perception of the need for attention. The theme of learner attention can be divided up into four sections, namely: attention needed, behaviour, safety, and lack of stress.

Learner attention and learner behaviour are stress related factors, depending on the perception of the educator as to how much attention the learner needs from the educator. In a study done by Engelbrecht *et al.* (2002:96), learner attention emerged as a factor causing perceived educator stress. According to Engelbrecht *et al.* (2001:11), learner behaviour was a stress factor that had a major effect on certain educators.

An important area of concern was the fact that there was a lack of stress amongst some educators. The lack of stress could result from the perception that having a learner with a physical disability was not stressful. It has been reported that educators of learners with cognitive disability report more stress than educators of learners with physical disabilities (Engelbrecht *et al.*, 2001:11; Opdal *et al.*, 2001:145). The latter experience could be due to a lack of understanding of the disability or the lack of qualifications and experience. The lack of stress could also be due to a misplaced confidence in perceiving that what was done was the correct way of educating a learner with a physical disability. However, given the correct atmosphere and conditions, inclusion of learners with barriers to learning can succeed.

4.4.2 Coping

The fundamental feature of stress is appraisal. Appraisal is the process whereby

a situation is analysed and perceived to be a threat. Central to appraisal is the fact that it is personal in nature. Once the situation has been appraised, the educator can use certain strategies to cope. These strategies are individual and fall into two main groups. Firstly, there are the direct-action techniques, which refer to things that a teacher can do to eliminate the source of stress. Direct-action techniques can be divided into four different forms: fighting the stressor, display of aggression, fleeing, and ignoring or tolerating the demand. In some situations direct-action techniques do not work effectively, and then indirect or palliative techniques are used. Palliative techniques do not deal with the sources of stress themselves, but rather at lessening the stress. One type deals with mental strategies and the other deals with physical strategies (Kutame, 1997:43-51; Kyriacou, 1998: 9). The study set out to identify the key coping methods among the participants. This theme can be divided into broad sub-categories, namely: self-esteem and collaboration.

Educators identified that improving their self-esteem was one of the key coping methods in dealing with stress. What was seen as effective for one educator might not be as effective for another therefore, to generalise about a specific method used to boost an individual educator can be seen as superficial and hasty. Each educator is an individual, with individual needs, situated in an environment that interacts with each others. Depending on his or her perceived appraisal of a situation, the educator will react differently.

Educators need some form of support or co-operation to know they are on the right path or in order to progress in the right direction. Moreover, educators have perceived that working collaboratively can help them cope with a situation and appraise the situation more positively. Thus, this positiveness ensures success and success breeds' success in coping with stress.

4.5 CONCLUSION

This chapter dealt with data and the formulation of findings derived from the data.

These findings were analysed and then formulated into sub-themes, from which narrower themes were derived. The discussion examined these themes and sub-themes for the meaning that could be derived from them. A definite link can be seen between stress and the types of coping methods used. The link stems from how the educator perceives or appraises the stress. Based on the appraisal, the educator will use a particular method to cope. Furthermore, the coping methods used may vary from educator to educator.

CHAPTER 5

FINDINGS AND RECOMMENDATIONS

51 INTRODUCTION

Although research has been conducted in the field of stress experienced by educators in inclusive education in South Africa, not much research has been done on how they cope with stress especially when a learner with a physical disability is included in a mainstream class. It is against this background that the following research questions were asked: What levels of various types of stress were being experienced by educators who have a learner with a physical disability in their classrooms, and which coping methods were being used by these educators?

5.2 BRIEF SUMMARY OF CHAPTERS 1 – 4

In **Chapter 1** the research problem was contextualised and terminology to be used was defined. This chapter also spelt out how the thesis will unfold. **Chapter 2** clearly pointed out that traditional educational roles are not going to be applicable in an inclusive model. There is thus a need to change to new instruction and assessment methods that promotes approaches of support within an inclusive education ethos. This chapter dealt with the challenges facing educators in the face of change. It referred to different types of stress models and the symptoms and sources of stress. The chapter also looked at the sources of coping and the coping methods used. This broad literature review provided a wealth of information for use in the research analysis process that followed. **Chapter 3** looked at the research design and methodology behind the research process. The data collection methods, data analysis, data consolidation, and

data verification were also discussed. Methods of coding were also explained in detail. Trustworthiness was discussed under the headings: credibility, transferability, dependability and confirmability. In **Chapter 4**, data were presented and findings derived from the data were formulated. These findings were analysed and then formulated into a sub-themes and then themes. This chapter also discussed the findings.

5.3 CONCLUSION

It is clear that various types of stress were experienced by educators which was related to the educators needs, the classroom as well as personal factors. Coping methods included self-esteem and collaboration which were reflected in the level of self-efficiency educators were experienced.

To quote Bandura (1999:1),

“People strive to exercise control over events that affect their lives. By exerting influence in spheres over which they can command some control, they are better able to realize desired futures and to forestall undesired ones. The striving for control over life circumstances permeates almost everything people do because it can secure them innumerable personal and social benefits. The ability to affect outcomes makes them predictable. Predictability fosters adoptive preparedness. Inability to exert influence over things that adversely affect one’s life breeds apprehension, apathy, or despair”.

The above quote explains why certain situations were perceived as stressful or not and how educators went about coping with stressful situations. An example of this is that most of the educators interviewed said that they felt that they did not have the necessary qualifications or experience to educate a learner with a physical disability. This deficiency created in some the sense of an inability,

which had an affect on how they handled their stress. The inability to handle stress clearly then becomes prevalent due to their perceptions of stress.

5.4 RECOMMENDATIONS

Recommendations, founded on this research, its findings which are as follows:

- ➔ An appropriate pre-service and in-service training for educators is needed. This training should address the huge backlog that the disparities in the educational system of the past have created. This training should address the need for accepting and embracing diversity in an educational system that in turn will support it. The training should spell out clearly the roles and responsibilities of educators towards learners with barriers to learning. The training should be based on best practices within a mainstream classroom that includes a learner with a physical disability.
- ➔ There should be support for educators who have learners with a physical disability and this should be managed practically. This could take the form of an appropriate model of implementation. The use of special schools in the model of support is vital not only for saving on resources, but also for the establishing and sharing a wealth of expertise. There should also be support networks that not only provide the opportunities to build on strengths, but that also provide access to resources. Recommendations for further study include research on how more in-service training and support could improve the feelings and belief of self-efficacy in educators of learners with physical disabilities.
- ➔ Proper admissions, referral and information processes and procedures should be put in place. Such procedure or process should aim at speeding up the flow of communication between those who have information about the learner and those who need information about the learner. The use of information communication technology has made our world much smaller

and this should be an option where available. Where not available, the use of learner portfolios and profiles are also useful in this regard.

- ➔ The use of more collaborative approaches should be implemented amongst all educators within the metropolises. Awareness campaigns, which raise awareness of what collaboration is and how it works, could provide effective coping methods amongst widely scattered educators.
- ➔ There are three important points that could be useful in building self-efficacy in people. The first is social persuasion, which is the process whereby educators are persuaded to believe that they have the abilities to do the task at hand. The second is the mastery of experiences, which is the process by which, through perseverance and commitment, educators can master experiences and develop the ability to master the ever-changing situations in which they might find themselves. The third point is that of vicarious experiences, by which the educator experiences how other educators have also persevered and been able to achieve the task at hand (Bandura, 1999:1-3).

5.5 LIMITATIONS OF STUDY

The limitations of the study can be clearly seen in the smallness of the sample size. This smallness of the size should not be viewed as representing the broader population of the Western Cape or as providing an ultimate sample. Although being small, the sample represents a valid body of research that could be used in future studies.

5.6 FINAL COMMENTS

Against the background of the research problem, the levels of various types of stress caused by inclusive education were identified. Furthermore, the coping

methods used were shown. Education of learners experiencing barriers to learning in South Africa and even more so education of learners with physical disabilities in South Africa has a long way to go before achieving the 20-year framework goal set out by the White Paper on Inclusive Education. Research of this nature can add to a better understanding of the process and attempt to address the pitfalls being experienced by educators in the mainstream. The vary nature of changing towards inclusive practices has been shown to create stress amongst educators with learners with a physical disability. The educator's efficacy and environmental context plays an important role in appraising the stress, which in turn leads to the creation of coping methods by educators. It is also imperative, not to sound reductionalistic, that many of these stressors be alleviated by an effective implementation strategy that is conducive to the supportive nature of the educator.

REFERENCES

- Adams, E. (1999). Vocational teacher stress and internal characteristics. **Journal of Vocational and Technical Education**, 16(1):1–10.
- Askew, S. and Carnell, E. (1998). **Transforming learning : individual and global change**. London : Casell.
- Association for Spina Bifida and Hydrocephalus. 2000. "What is Spina Bifida". January. [[http : //www.asbah.org/whtaissb.html](http://www.asbah.org/whtaissb.html)]. 1 July 2002.
- Association for Spina Bifida and Hydrocephalus of Western Cape, Western Cape. n.d. Spina Bifida Information Brochure. Brochure.
- Babbie, E. and Mouton, J. (2001). **The practice of social research**. Cape Town : Oxford University Press.
- Bagwandeen, D. (1994). Teacher education in a changing society. **South African Journal of Higher Education**, 8(2):15–19.
- Bandura, A. (1977). Self-efficacy : Toward a unifying theory of behavioural change. **Psychological Review**, 84:191–215.
- Bandura, A. (1978). The self system in reciprocal determinism. **American Psychologist**, 33:344–358.
- Bandura, A. (1989). Human agency in cognitive theory. **American Psychologist**, 44:1175–1184.
- Bandura, A. (1990). Some reflections on reflections. **Psychological Inquiry**, 1:101–105.

- Bascia, N. and Hargreaves, A. (2000). **The Sharp Edge of Educational Change : Teaching, leading and the realities of reform**. New York : outledgeFalmer.
- Bauwens, J. and Hourcade, J.J. (1997). Cooperative teaching : pictures of possibilities. **Intervention in School and Clinic**, 2(2):81–89.
- Berg, B.L. (1998). **Qualitative Research Methods for the Social Sciences**. Third edn. Boston : Allyn and Bacon.
- Berkow, R. (1987). **The Merck Manual of Diagnosis and Therapy**. Fifteenth edn. New Jersey : Merck Sharp and Dohme Research Laboratories.
- Bigge, J.L. and Stump, C. S. (1999). **Curriculum, Assessment, and Instruction**. United States : Wadsworth Publishing Company.
- Bless, C. and Higson-Smith, C. (1995). **Fundamentals of Social Research Methods : An African Perspective**. Second edn. Kenwyn : Juta and Co.
- Bowle, F. (2000). **Physical, Sensory and Health Disabilities : An introduction**. Pretoria : J.L. van Schaick.
- Boyle, G.J., Borg, M.G., Falzon, J.M. and Baglioni, A.J. (1995). A structural model of the dimensions of teacher stress. **British Journal of Educational Psychology**, 65:49–67.
- Brittle Bone Society. "Factsheet 5 : Education". [[http : //www.brittlebon.org/website_text/html/help/help_menu_education.html](http://www.brittlebon.org/website_text/html/help/help_menu_education.html)]. 01 July 2003.
- Brynard, P.A. and Hanekom, S.X. (1997). **Introduction to research in Public Administration**. Pnew Jersey : Prentice-Hall.

- Buell, J.M., Hallam, R., Gamel-McCormick, M. and Scheer, S. (1999). A Survey of General and Special Education Teachers' perception and Inservice Ceeds Concerning Inclusion. **International Journal of Disability, Development and Education**, 46(2):143–156.
- Carrington, S. (1999). Inclusion needs a different school culture. **International Journal of Inclusive Education**, 3(3):257–268.
- Chambers Dictionary. (1999). Chambers Harrap Publ Ltd.
- Chambers 21st Century Dictionary. (1999). Chambers Harrap Publ Ltd.
- Chan, D.W. (1998). Stress, coping strategies, and psychological distress among secondary school educators in Hong Kong. **Teacher Stress and Coping**, 35(1):145–163.
- Charlton, T. (1998). Enhancing school effectiveness through using peer support strategieies with pupils and teachers. **Support for Learning**, 13(2):50–53.
- Choate, J.S. (1997). **Successful Inclusive Teaching**. Boston : Allyn and Bacon.
- Claasens A.J.M., Dalbock P.R., Schroeder W.A. and Khadaroo G. (1985). **Biology Stanadard 8**. Cape Town : Juta & Co, Ltd.
- Claasens A.J.M., Dalbock P.R., Schroeder W.A., Khadaroo G. and Wessels H.J. (1988). **Biology Stanadard 10**. Cape Town : Juta & Co, Ltd.
- Coffey, A. and Atkinson, P. (1996). **Making sense of qualitative data : Complimentary research strategies**. California : Sage Publications.

Concise Oxford English Dictionary. (1999). 3rd edn. New York : Oxford University Press.

Cornwall, J. (1996). **Choice, Opportunity and Learning : Educating children and young people who are physically disabled**. London : David Fulton Publishers.

Corbett, J. (2001). Teaching approaches which support inclusive education : a connective pedagogy. **British Journal of Special Education**, 28(2):55–59.

Cox, T. and Mackay, C. (1981). **A transactional approach to occupational stress** in Corlett E.N. and Ritchardson, J. (ed.), Stress Work Design and Productivity. New York : Wiley and Sons.

Cunningham, W.G. (1983). Teacher Burnout – solutions for the 1980's : A review of the literature. **Urban Review**, 15:37–51.

Daane, C.J., Beirne-Smith, M. and Latham, D. (2001). Administrator's and teacher's perceptions of the collaborative efforts of inclusion in the elementary grades. **Education**, 121(2):331–338.

Denzin, N.K. and Lincoln, Y.S. (1994). **Handbook of Qualitative Research**. London : Sage Publications.

Department of National Education. (1997). **Quality Education for All : Overcoming barriers to learning and development**. State Press.

Department of National Education (1999) **Consultative Paper No. 1 on Special Education : Building an Inclusive Education and Training System, First Steps**. State Press.

Department of National Education (2001). **Education White Paper 6 Special Needs Education : Building an Inclusive Education and Training System**. State Press.

Department of National Education (2002a). **Education Statistics in South Africa at a glance in 2000**. State Press.

Department of National Education (2002b). **Draft Guidelines for the implementation of Inclusive Education (Second Draft)**. State Press.

Dewe, P., Cox, T. and Ferguson, E. (1993). Individual strategies for coping with stress at work : a review. **Work & Stress**, 7(1): 5 - 15.

Donald D., Lazarus, S. and Lolwana, P. (1997). **Educational Psychology in Social Context**, Cape Town : Oxford University Press.

Downing, J.E. and Eichinger, J. (2003). Creating learning opportunities with severe disabilities in inclusive classrooms. **Teaching Exceptional Children**, 36(1):26–31.

Du Toit, P.S. (1996). An Introduction to Specialised Education. In Engelbrecht, P., Kriegler, S.M. and Booysen, M.I. **Perspectives on learning difficulties : International Concerns and South African Realities**. Pretoria : J L van Schaik Publishers.

Eloff, I., Swart, E. and Engelbrecht, P. (2002). Including a learner with physical disabilities : stressful for teachers? **Koers**, 67(1):77–99.

Engelbrecht, P. (1997). **Mainstream Education 114**. Unpublished, University of Stellenbosch.

- Engelbrecht, P. and Green, L. (2001). **Promoting Learner Development : Preventing and working with barriers to learning.** Pretoria : J L van Schaik Publishers.
- Engelbrecht, P., Green, L., Naicker, S. and Engelbrecht, L. (1999). **Inclusive Education in action in South Africa.** Pretoria : J L van Schaik Publishers.
- Engelbrecht, P., Swart, E., Eloff, I. and Newmark, R. (2000). **Stress and coping skills of teachers with a learner with Down syndrome in inclusive classrooms.** Paper presented at the 7th World Down syndrome Congress, 23–26 March 2000, Sydney, Australia.
- Engelbrecht, P., Swart, E., Eloff, I. and Forlin, C. (2001). **Identifying Stressors for South African Teachers in the implementation of Inclusive Education.** Paper presented at the International Conference in Special Education 2001, 24–27 June 2001, Antalya, Turkey.
- Farber, B.A. (1991). **Crises in Education : Stress and Burnout in the American Teacher.** Sanfrancisco : Jossey-Bass Publishers.
- Farrel, P. (2000). **The role of Learning support assistants in developing Inclusive practices in the classroom.** Paper presented at the National Conference of Learner Support and Development, 26–29 September 2000, Cape Town.
- Feldman, D., Gordan, P.A. and Snyman, H. (2001). Educational needs related to physical disabilities and other impairments. In Engelbrecht, P., Green, L. **Promoting Learner Development : Preventing and working with barriers to learning.** Pretoria : J L van Schaik Publishers.

- Friend, M. and Bursack, W.D. (1999). **Including Students with Special Needs : A Practical guide for classroom teachers**. Boston : Allyn and Bacon.
- Forlin, C. "Coping with Stress in the Special Education..."
[www.geocities.com/Wellesley/9641/sped.html]. (5 January. 2000).
- Forlin, C., Hattie, J. and Douglas, G. (1996a). Inclusion : Is it stressful for teachers? **Journal of Intellectual and Developmental Disability**, **21**(3):199–217.
- Forlin, C., Douglas, G. and Hattie, J. (1996b). Inclusive Practices : How Accepting are Teachers? **International Journal of Disability, Development and Education**, **43**(2):119–133.
- Fullan, M.G. (1991). **The New Meaning of Educational Change**. Cassell.
- Giangreco, M.F. (1997). Key Lessons learnt about Inclusive Education : summary of the 1996 Schonell Memorial Lecture. **International Journal of Disability, Development and Education**, **44**(3):193–206.
- Gray, H.L. and Freeman, A. (1987). **Teaching without stress**. London : David Fulton Publishers.
- Gross, J. (2002). **Special educational needs in primary school : A practical guide**. Third edn. Buckingham : Open University Press.
- Hall, R. (1998). **Die Rol van Spesiale Skole in Inklusiewe Onderwys**.
Unpublished Med thesis, University of Stellenbosch, Stellenbosch.
- Hargreaves, A. (1994). **Changing Teachers, Changing Times**. Cassell.

- Heller, K.W., Alberto, P.A., Forney, P.E. and Schwartzman, M.N. (1996). **Understanding Physical, Sensory, and Health Impairments : Characteristics and Educational Implications**. United States of America : Brookes/Cole Publishing Company.
- Hewitt-Taylor, J. (2001). Use of constant comparative analysis in qualitative analysis. **Nursing Standard**, 15(42):39–42.
- Huysamen, G. K. (1994). **Methodology for the Social and Behavioural Sciences**. Johannesburg : International Thomson Publishers.
- Idol, L. (1997) Key questions related to building collaborative and inclusive schools. **Intervention in School and Clinic**, 27(2):70–78.
- Idol, L. and West, J.F. (1991) Educational collaboration : a catalyst for effective schooling. **Journal of Learning Disabilities**, 30(4):384–394.
- Jacobs, P. (2000). **Teachers' Stress and Depression**. Paper presented at the National Conference of Learner Support and Development, 26-29 September 2000, Cape Town.
- Jowsey, S.E. (1992). **Can I play too? Physical education for physically disabled children in mainstream schools**. London : David Fulton Publishers.
- Kariacou, C. and Sutcliffe, J. 1978, Teacher stress : prevalence, sources and symptoms. **British Journal of Educational Psychology**, 48:159–167.
- Kelly, A.L. and Berthelsen, D.C. (1995) Preschool Teachers Experiences of Stress. **Teacher & Teacher Education**, 11(4):345–357.

- Krefting, L. (1991). Rigor in qualitative research : the assessment of trustworthiness. **The American Journal of Occupational Therapy**, 45(3)March:214–222.
- Kutame, A.P. (1997). **An investigation into sources of teacher stress in rural secondary schools**. Unpublished Med thesis, University of Cape Town, Cape Town.
- Kugelmass, J.W. (2001). Collaboration and compromise in creating and sustaining an inclusive school. **International Journal of Inclusive Education**, 5(1):47–65.
- Kyriacou, C. (1998) Teacher Stress : Past and Present. In Dunham, J. and Varna, V. **Stress in Teachers : Past Present and Future**. London : Whurr Publishers LTD.
- Lacey, P. (2001). **Support Partnerships : Collaboration in action**. London : David Fulton Publishers.
- Lewis, R.B. and Doorlag, D.H. (1999). **Teaching special students in general education classroom**. Fifth edn. New Jersey : Prentice-Hall Incorporated.
- Litt, M.D. and Turk, D.C. (1985). Sources of stress and dissatisfaction in experienced high school teachers. **Journal of Educational Research**, 78(3):178–185.
- Lomofsky, L., Roberts, R. and Mvambi, N. (1999). The inclusive classroom. In Engelbrecht, P., Green, L., Naicker, S. and Engelbrecht, L. (1999). **Inclusive Education in action in South Africa**. Pretoria : J L van Schaik Publishers.

Maddux, J.E. (1995). **Self-efficacy, Adaptation, and Adjustment : Theory, Research, and Application**. New York : Plenum Press.

Marshall, J. and Cooper, C.L. (1979). **Executives under pressure**. New York : The Macmillan press LTD.

Marshall, C. and Rossman, G.B. (1995). **Designing qualitative research**. London : Sage Publications.

Mastropieri, M.A. and Scruggs, T.E. (2000). **The Inclusive Classroom : Strategies for Effective Instruction**. New Jersey : Prentice-Hall.

Merriam, S. B. (1998). **Qualitative research and case study application**. Second edn. California : Jossey-Bass Publishers.

National Information Center for Children and Youth with Disabilities. 2000. "General information about cerebral palsy". May. [[http : //www. Ninchy.org/pubs/factshe/fs2txt.html](http://www.Ninchy.org/pubs/factshe/fs2txt.html)]. 01 July 2002.

Nkomo, M. (1990). **Pedagogy of Domination**. African World Press.

O'Donohue, T.A. and Chalmers, R. (2000). How educators manage their work in inclusive classrooms. **Teaching and Teacher Education**. **16**(2000):889–904.

Opdal, L.R., Wormnæs, S. and Habayeb, A. (2001). Teachers' opinions about inclusion : a pilot study in a Palestinian context. **International Journal of Disability, development and education**, **48**(2):143–162.

Orthopedic Impairment. "Orthopedic Impairment". [[http : //216.239.57.104/ search?q=cahe|IWJIEXTMDxGJ|www.coe.unt.edu/pemberton/EDSP_5540/5540Fall01/5540ExceptionalityPresentation](http://216.239.57.104/search?q=cahe|IWJIEXTMDxGJ|www.coe.unt.edu/pemberton/EDSP_5540/5540Fall01/5540ExceptionalityPresentation)]. 01 July 2003.

- Osteogenesis Imperfecta Foundation. "Fast Facts on Osteogenesis Imperfecta".
[[http : //www.oif.org/](http://www.oif.org/)]. 01 July 2002.
- Petty, H. & Sadler, J. (1996). The Integration of children with Down syndrome in mainstream primary schools : teacher knowledge, needs, attitudes and expectations. **The University of Portsmouth, Down syndrome : Research and practice**, 4(1):15–24.
- Pithers, R.T. and Fogerty, G.J. (1995). Symposium of Teacher Stress : Occupational stress among vocational teachers. **British Journal of Educational Psychology**, 65:3–14.
- Pithers, R.T. and Soden, R. (1998). Person-environment fit and teacher stress. **Educational Research**, 42(1):269–279.
- Pithers, R.T. and Soden, R. (1998). Scottish and Australian teacher stress and strain : a comparative study. **British Journal of Educational Psychology**, 68:269–279.
- Reece, F. 1989, **Teacher Stress : An Exploratory Study**, Paul H Brookes Publishing Co.
- Roets, H.E. & Lewis, A. (2002). Notes on adolescent stress for parents, teachers and educational psychologists. **Educare**, 21(7):389–400.
- Salend, S.J. (1990). **Effective mainstreaming**. New York : Macmillan.
- Shell, D.F., Horn, C.A. and Severs, M.K. (1989). Computer-Based compensatory technology for physically disabled, visually impaired, and speech impaired students. **Journal of Special Education Technology**, 10(1):29–43.

- Shepherd, R.B. (1980). **Physiotherapy in Paediatrics**. Second edn. London : William Heinemann Medical Books limited.
- Silverman, D. (1993). **Interpreting qualitative data : Methods for analysing talk, text and interaction**. London : Sage Publications.
- Silverman, D. (2000). **Doing Qualitative Research : A practical handbook**. London : Sage Publications.
- Smith, T.E.C., Polloway, E.A., Patton, J.R., and Dowdy, C.A. (1998). **Teaching Students with Special needs in Inclusive Settings**. Boston : Allyn and Bacon.
- Smith, D.D. (1998). **Introduction to Special Education : Teaching in an Age of Challenge**. New York : Macmillan.
- Soodack, L.C., Podel D.M. and Lehman, L.R. (1998). Teacher, Student, and School attributes as Predictors of Teachers Responses to Inclusion. **The Journal of Special Education**, **31**(4):480–497.
- Stanovich, P. J. (1995). Collaboration : the key to successful instruction in today's inclusive schools. **Intervention in School and Clinic**, **32**(1),39–42.
- Stanovich, P. J. and Jordan, A. (1998). Canadian teachers and principals beliefs about inclusive education as predictors of effective teaching in heterogeneous classrooms. **The Elementary School journal**, **98**(3):221–238.
- Statistics South Africa. 1996. "Census in Brief; Introduction". 24 May. [[http : //www.statssa.gov.za/census96/HTML/CIB/Population.html](http://www.statssa.gov.za/census96/HTML/CIB/Population.html)]. 15 July 1999.

- Stoddard, K., Hewitt, M., O'Connor, D., Beckner, J., Elder, M., Laporta, C. and Poth, J. (1996). Inclusive practices through teacher research. **Remedial and Special Education**, 17(4):237–244.
- Tatar, M. and Yahav, V. (1999). Secondary school pupil perceptions of burnout among teachers. **British Journal of Educational Psychology**, 69:457–468.
- Tilstone, C., Florian, L. and Rose, R. (1998). **Promoting Inclusive Practice**. London : Routledge.
- Van der Horst, H. and McDonald, R. (1997). **Outcome-Based Education**. Pretoria : Kagiso Publishers.
- Van Dick, R. and Wagner, U. (2001). Stress and strain in teaching : A structural equation approach. **British Journal of Educational Psychology**, 71:243–259.
- Van Zyl, E. and Pietersen, C. (1999). An Investigation into work stress experienced by a group of secondary school teachers. **South African Journal of Education**, 19(1):74–78.
- Vaughn, S., Gersten, R. and Chard, D.J. (2000). The underlying message in Id intervention research : findings from research synthesis. **Exceptional Children**, 67(1):99–114.
- Verhoef, S.M. (2001). **Tegnologie en Gestremdheid : Filosofies-etiese Perspectief**. Unpublished Med thesis, University of Stellenbosch, Stellenbosch.
- Vlachou, A. (1993). Attitudes and the experience of integration. **Down's Syndrome : Research and practise**, 1(2):75–79.

- Voltz, D.L., Brazil, N. and Ford, A. (2001). What matters most in inclusive education : a practical guide for moving forward. **Intervention in School and Clinic**, 37(1):23–30.
- Weikle, B. and Hadadian, A. (2003). Can assistive technology help us to not leave any child behind? **Preventing School Failure**, Summer 2003, 47(4):181–186.
- Western Cape Education Department (n.d.) **Directorate Special Education Needs : Information Brochure**. State Press.
- Western Cape Education Department (2001). **Orientation Programme : Multi-Functional Teams (MFTs)**. State Press.
- Wishart, J.G. and Manning, G. (1996). Trainee teachers' attitudes to inclusive education for children with Down's syndrome. **Journal of Intellectual Disability Research**, 40(1):56–65.
- Wood, M. (1998). Whose Job is It Anyway? Educational role in Inclusion. **Exceptional Children**, 64(2):181–195.

APPENDIX A

**INCLUSIVE EDUCATION:
TEACHER STRESS AND COPING
QUESTIONNAIRE**

**INCLUSIVE EDUCATION
TEACHER STRESS & COPING
QUESTIONNAIRE**

To be completed by
Regular Class Teachers
who have a learner with a
physical impairment
in their classroom

UNIVERSITY OF STELLENBOSCH

UNIVERSITY OF PRETORIA

RAND AFRIKAANS UNIVERSITY

Inclusive Education

Teacher Stress & Coping

Questionnaire

To be completed by Regular Class Teachers

Please read and complete the following PRIOR to commencing the questionnaire.

The following questions all pertain to the inclusion in your regular classroom of a learner with a **physical impairment**:

If you have more than one learner in this category in your current classroom please complete the questionnaire with reference to **one nominated learner** who requires support.

Please provide the following information for the learner you are nominating. You are requested to complete the questionnaire in reference to this nominated learner.

Learner's gender: male ☐ female ☐

Chronological Age: _____ Grade level _____

Please describe in your own words the nature and severity of this learner's impairment.

PART A GENERAL INFORMATION

Please respond to each question by indicating the appropriate response with a **cross** unless otherwise indicated.

1. Your age ≤ 25 ☐ 1 26-35 ☐ 2 36-45 ☐ 3 40-55 ☐ 4 ≥ 56 ☐ 5
(In complete years)
2. Your gender Male ☐ 1 Female ☐ 2
3. Total number of years teaching experience
4. Suburb / region / district in which your school is located _____
5. Location of school relative to nearest Special School or Special Education Support Facility

Within 5 km	<input type="checkbox"/> 1
5 km - 50 km	<input type="checkbox"/> 2
51 km - 150 km	<input type="checkbox"/> 3
More than 150 km	<input type="checkbox"/> 4
Do not know	<input type="checkbox"/> 5
6. Your class structure (please specify year levels)

Multi-age	<input type="checkbox"/> 1
Single grade	<input type="checkbox"/> 2

 From age _____ to age _____
 Grade _____
7. Your position

Class teacher	<input type="checkbox"/> 1
Teaching principal	<input type="checkbox"/> 2
Teaching deputy principal	<input type="checkbox"/> 3
Other (please specify)	<input type="checkbox"/> 4
8. What is the highest qualification that you hold?

Teacher's diploma	<input type="checkbox"/> 1
Bachelor's degree	<input type="checkbox"/> 2
Bachelor's degree + Teacher's diploma (eg. BA.Ed, BA & HDE)	<input type="checkbox"/> 3
B.Ed.	<input type="checkbox"/> 4
M.Ed.	<input type="checkbox"/> 5
Other (please specify)	<input type="checkbox"/> 6
9. Number of learners in your class
10. Number of learners with any impairment in your class
11. Number of learners in the school
12. Mark all the ethnic groups that are represented in your class (please specify numbers)

Black	<input type="checkbox"/> 1
Coloured	<input type="checkbox"/> 2
White	<input type="checkbox"/> 3
Asian/Indian	<input type="checkbox"/> 4
13. Number of years teaching experience you have where learners with any impairment were present in your mainstream class

14. What formal training (if any) have you undertaken for teaching learners with special needs?
(Please specify eg. certificate, diploma)

PART B

INFORMATION ABOUT LEARNERS IN YOUR CLASS

1. For each of the following types of impairment, please specify the **number** of learners who are *slightly*, *moderately* or *severely* impaired. Please ensure that each learner is placed in only **one** main category.

Type of impairment	Slight	Moderate	Severe
Special need related to cognitive functioning			
Down syndrome			
Physical impairment			
Vision impairment			
Hearing impairment			
Speech/language impairment			
Autistic Spectrum impairment			
Multiple impairments			
Learning impairment			
Other (<i>please specify</i>)			

2. Please list the support personnel, if any, for learners in your class with a special need related to cognitive functioning. Please indicate the number of hours (per week / per month / per year) this person is available.

Type of support personnel	Hours per week	Hours per month	Hours per year

3. In your opinion, how many learners in your class may be experiencing difficulties because of circumstances other than those listed above?
Please list the *other types of difficulties* represented in your class.

--	--

PART C**POTENTIAL STRESSORS ASSOCIATED WITH INCLUSIVE EDUCATION**

The following questions all pertain to the inclusion in your regular classroom of a learner who needs support for a physical impairment. The following categories will receive attention: administrative issues, support, health, safety and hygiene, learner behaviour, the classroom, parents, professional competency and personal competency.

C1. ADMINISTRATIVE ISSUES

Please indicate to what extent each of the following administrative issues is **stressful** for you in relation to the **nominated learner with a physical impairment** in your class. **Circle** the most relevant number, for example if you feel that an issue is not stressful to you, then circle 1.

If an issue **does not apply** to you then please circle 5 (does not apply)

	not stressful	somewhat stressful	quite stressful	extremely stressful	does not apply
1. Obtaining relevant information about the learner	1	2	3	4	5
2. Record keeping	1	2	3	4	5
3. Adapting the curriculum to meet the learner's needs	1	2	3	4	5
4. Adjusting unit plans	1	2	3	4	5
5. Obtaining funding	1	2	3	4	5
6. Obtaining physical adaptations e.g. paths, handrails or gate locks	1	2	3	4	5
7. Taking full responsibility for the learner's welfare	1	2	3	4	5
8. Being held accountable for the learner's educational outcomes	1	2	3	4	5
9. Co-ordination of support personnel	1	2	3	4	5
10. Change in schedule of support personnel at short notice e.g. absence of teacher aide	1	2	3	4	5
11. Other (please specify)	1	2	3	4	5

C2. SUPPORT

Please indicate to what extent each of the following support issues is **stressful** for you in relation to the nominated learner with a **physical impairment** in your class. **Circle** the most relevant response.

If an issue **does not apply** to you then please circle 5 (does not apply)

	not stressful	somewhat stressful	quite stressful	extremely stressful	does not apply
12. Locating age-appropriate educational resources for the learner's ability level	1	2	3	4	5
13. Securing suitable resources for the classroom	1	2	3	4	5
14. Accessing occupational therapy	1	2	3	4	5
15. Accessing physiotherapy	1	2	3	4	5
16. Accessing speech therapy	1	2	3	4	5
17. Obtaining advice from support (remedial) teacher	1	2	3	4	5
18. Involvement of support (remedial) teacher	1	2	3	4	5
19. Allocation of teacher aide time	1	2	3	4	5
20. Employing a teacher aide	1	2	3	4	5
21. Obtaining a replacement aide during sick leave	1	2	3	4	5
22. Other (<i>please specify</i>)	1	2	3	4	5

C3. HEALTH, SAFETY AND HYGIENE

Please indicate to what extent each of the following health, safety, and hygiene issues is **stressful** for you in relation to the **nominated learner with a physical impairment** in your class. **Circle** the most relevant response.

If an issue **does not apply** to you then please circle 5 (does not apply)

	not stressful	somewhat stressful	quite stressful	extremely stressful	does not apply
23. Toileting or cleaning the learner or changing the learner's nappy	1	2	3	4	5
24. Feeding the learner	1	2	3	4	5

25.	Lifting or moving the learner	1	2	3	4	5
26.	Giving emergency care e.g. during an epileptic seizure	1	2	3	4	5
27.	Administering medication	1	2	3	4	5
28.	Training an aide about toileting procedures	1	2	3	4	5
29.	Constantly monitoring the child	1	2	3	4	5
30.	Other (<i>please specify</i>)	1	2	3	4	5

C4. LEARNER BEHAVIOUR

Please indicate to what extent each of the following learner behaviours is **stressful** for you in relation to the **nominated learner with a physical impairment** in your class. **Circle** the most relevant response.

If an issue **does not apply** to you then please circle 5 (does not apply)

	not stressful	somewhat stressful	quite stressful	extremely stressful	does not apply
31. Has a short attention span	1	2	3	4	5
32. Displays inappropriate social behaviour	1	2	3	4	5
33. Has limited speech	1	2	3	4	5
34. Has poor communication	1	2	3	4	5
35. Is attention seeking	1	2	3	4	5
36. Is hyperactive	1	2	3	4	5
37. Is withdrawn	1	2	3	4	5
38. Dominates classmates	1	2	3	4	5
39. Is manipulative	1	2	3	4	5
40. Is over-loving	1	2	3	4	5
41. Appears unaware of danger e.g. plays with power points	1	2	3	4	5
42. Has poor mobility	1	2	3	4	5
43. Disturbs others	1	2	3	4	5
44. Throws tantrums	1	2	3	4	5
45. Physically attacks others e.g hits,	1	2	3	4	5

bites

46.	Is verbally rude to others	1	2	3	4	5
47.	Has unpredictable reactions	1	2	3	4	5
48.	Runs away	1	2	3	4	5
49.	Displays behaviour problems in the playground	1	2	3	4	5
50.	Other (<i>please specify</i>)	1	2	3	4	5

C5. THE CLASSROOM

Please indicate to what extent each of the following classroom issues is **stressful** for you in relation to the **nominated learner with a physical impairment** in your class. **Circle** the most relevant response.

If an issue **does not apply** to you then please circle 5 (does not apply)

	not stressful	somewhat stressful	quite stressful	extremely stressful	does not apply
51. Management of peers' responses to distressing health or hygiene issues	1	2	3	4	5
52. Management of learner's relationships with other learners	1	2	3	4	5
53. Management of attractions between peers	1	2	3	4	5
54. Time available for other learners	1	2	3	4	5
55. Difficulty in monitoring other learners when attending to the learner	1	2	3	4	5
56. Whole class teaching is disrupted by the learner	1	2	3	4	5
57. Other (<i>please specify</i>)	1	2	3	4	5

C6. PARENTS

Please indicate to what extent the following parental issues are **stressful** for you in relation to the **nominated learner with a physical impairment** in your class. **Circle** the most relevant response.

If an issue **does not apply** to you then please circle 5 (does not apply)

not stressful	somewhat stressful	quite stressful	extremely stressful	does not apply
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58.	Limited contact with parent(s)	1	2	3	4	5
59.	Excessive meetings with parent(s)	1	2	3	4	5
60.	Parent(s) in the classroom	1	2	3	4	5
61.	Lack of understanding of the learner's capabilities by the parent(s)	1	2	3	4	5
62.	Lack of understanding of the long term prognosis for the learner by the parent(s)	1	2	3	4	5
63.	Inability of the parent(s) to come to terms with the a physical impairment	1	2	3	4	5
64.	Parent/teacher tension	1	2	3	4	5
65.	Socio-economic disadvantage of the family	1	2	3	4	5
66.	Other (<i>please specify</i>)	1	2	3	4	5

C7. PROFESSIONAL COMPETENCY

Please indicate to what extent each of the following professional competency issues is **stressful** for you in relation to the **nominated learner with a physical impairment** in your class. **Circle** the most relevant response.

If an issue **does not apply** to you then please circle 5 (does not apply)

		not stressful	somewhat stressful,	quite stressful	extremely stressful	does not apply
67.	Insufficient pre-service training	1	2	3	4	5
68.	Inadequate in-service training regarding the learner's specific impairment	1	2	3	4	5
69.	Inadequate in-service training in meeting the educational needs of the learner	1	2	3	4	5
70.	Sustaining an active learning environment for the learner	1	2	3	4	5
71.	Determining the learner's capabilities	1	2	3	4	5

72.	Determining how much to challenge the learner	1	2	3	4	5
73.	Confusing laziness with learner's inability	1	2	3	4	5
74.	Reduced ability to teach other learners as effectively as you would like	1	2	3	4	5
75.	Other (please specify)	1	2	3	4	5

C8. PERSONAL COMPETENCY

Please indicate to what extent the following personal competency issues are **stressful** for you in relation to the **nominated learner with a physical impairment** in your class. **Circle** the most relevant response.

If an issue **does not apply** to you then please circle 5 (does not apply)

	not stressful	somewhat stressful	quite stressful	extremely stressful	does not apply
76. Meeting the learner's needs	1	2	3	4	5
77. Undertaking tasks associated with the learner's condition e.g. toileting	1	2	3	4	5
78. Empathising with parent(s)	1	2	3	4	5
79. Responding to the learner's personality	1	2	3	4	5
80. Maintaining the learner's safety	1	2	3	4	5
81. Maintaining the safety of the other learners	1	2	3	4	5
82. Meeting the expectations of parent(s)	1	2	3	4	5
83. Other (please specify)	1	2	3	4	5

PART D**THE USEFULNESS OF COPING STRATEGIES EMPLOYED DURING INCLUSIVE EDUCATION**

Please continue to refer to the same learner you nominated in the first part of this questionnaire. Indicate how useful the following strategies are for you in **cop**ing with the inclusion of a learner who needs support for a **physical impairment** in your regular classroom.

Respond by **circling** the number which best represents your opinion of the listed strategies.

If a strategy **does not apply** to you then please circle 5 (*I do not use*)

		not useful	somewhat useful	quite useful	extremely useful	I do not use
1.	To discuss the situation with your principal	1	2	3	4	5
2.	To try to look on the bright side of things	1	2	3	4	5
3.	To take some form of physical exercise e.g. aerobics or sport	1	2	3	4	5
4.	To discuss the situation with the learner's parent(s)	1	2	3	4	5
5.	To seek help and resources from other teachers	1	2	3	4	5
6.	To write down your feelings	1	2	3	4	5
7.	To seek professional help for the learner	1	2	3	4	5
8.	To seek professional help for yourself	1	2	3	4	5
9.	To ask a relative or friend for advice	1	2	3	4	5
10.	To develop other interests outside school	1	2	3	4	5
11.	To seek a transfer to another school	1	2	3	4	5
12.	To think about how a person you know would handle the situation	1	2	3	4	5
13.	To concentrate on what has to be done next	1	2	3	4	5
14.	To reduce the number of support personnel visiting your class	1	2	3	4	5

		not useful	somewhat useful	quite useful	extremely useful	I do not use
15.	To increase the number of support personnel visiting your class	1	2	3	4	5
16.	To leave the learner to work independently for extended periods	1	2	3	4	5
17.	To assure yourself that things will get better	1	2	3	4	5
18.	To keep others from knowing how bad things really are	1	2	3	4	5
19.	To come up with different solutions for difficult issues	1	2	3	4	5
20.	To not think too much about it	1	2	3	4	5
21.	To discuss the situation with specialist personnel e.g. the school/educational psychologist	1	2	3	4	5
22.	To maintain a sense of humour	1	2	3	4	5
23.	To make a plan of action and follow it	1	2	3	4	5
24.	To try to get the learner moved to a special school or class	1	2	3	4	5
25.	To share your feelings with the learners in your class	1	2	3	4	5
26.	To enlist support of the other learners	1	2	3	4	5
27.	To use alcohol or medication	1	2	3	4	5
28.	To discuss the situation with colleagues	1	2	3	4	5
29.	To try to keep your feelings to yourself	1	2	3	4	5
30.	To practise meditation	1	2	3	4	5
31.	To seek spiritual / religious support	1	2	3	4	5
32.	To draw on past experiences	1	2	3	4	5
33.	To hope that the situation will go away or somehow be over with	1	2	3	4	5
34.	To apply for sick or stress- leave	1	2	3	4	5

	not useful	somewhat useful	quite useful	extremely useful	I do not use
35. To resign from teaching	1	2	3	4	5
36. Other (please specify)	1	2	3	4	5

Please **circle** ONE of the following points on the continuum that you feel best describes your control over the placement of this learner with the **physical impairment** in your classroom.

have to
accept the
situation

could change
the situation

6

IF YOU WOULD LIKE TO ADD ANY FURTHER COMMENTS REGARDING ANY ASPECT OF INCLUSIVE EDUCATION PLEASE USE THE FOLLOWING SPACE TO DO SO.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slightly textured appearance and some minor blemishes or dust specks. The edges of the paper are slightly irregular.

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE. YOU WILL BE INFORMED OF THE RESULTS AS SOON AS POSSIBLE.

APPENDIX B

INTERVIEW SCHEDULE 2

INTERVIEW SCHEDULE 2

1. Would you say that if you had more training that it would make your task with the learner less stressful? Elaborate.
2. What do you consider to be the less stressful situation in order to educate a learner with this sort of disability?
3. Would you say that if you had more support that it would make your task with the learner less stressful? Elaborate.
4. What do you consider the best coping method during the stressful situation?
5. Out of all the stressors mentioned what do consider to be the most stressful and why?

APPENDIX C

INTERVIEW SCHEDULE FOR PRINCIPALS

INTERVIEW SCHEDULE FOR PRINCIPALS

1. Would you say that if the teacher had the support from the EMDC and from teacher maybe you could help her that she would have experienced less stress.
2. Would you say that if the teacher had the resources that she would have experienced less stress.